

Online Platforms in Mobile Learning as Online Learning Media during the COVID-19 PandemicFella Farikhatus Sholikhah¹, Triana Rejekiningsih², Leo Agung Sutimin³fella@student.uns.ac.id¹, triana_rizq@staff.uns.ac.id², leo.agung56@yahoo.co.id³

Abstract: *This paper aims to describe platforms in mobile learning during the pandemic. This writing was motivated by an uncontrolled pandemic that made several aspects uncontrollable, including education, so learning activities were forced to change. Therefore, there is a need to update learning through learning media with several platforms available for mobile learning. This online platform in mobile learning is a medium that can solve students' problems during a pandemic that helps the learning process run. The method used in this paper was to use a literature study that examined several sources of articles from research results published to be analyzed and draw conclusions. This paper indicated that platforms such as Google Classroom, Zoom, and Microsoft Teams could solve problems during the pandemic. The average result was more than 60% based on the data presented. This figure is considered to have reached the effective criteria. Learning using online platforms, such as Google Classroom, Zoom, and Microsoft Teams, can be an alternative and help activate students when offline learning cannot be carried out, even mobile-based learning media.*

Keywords: *Mobile Learning, online learning, pandemic, learning media*

Abstrak: *Tujuan penulisan ini yaitu untuk mendeskripsikan penggunaan platform dalam mobile learning pada masa pandemi. Penulisan ini dilatarbelakangi oleh adanya pandemi yang tidak terkendali yang membuat beberapa aspek tidak terkendali termasuk pada dunia pendidikan, sehingga kegiatan pembelajaran terpaksa mengalami perubahan. Oleh sebab itu, perlu adanya pembaruan dalam pembelajaran yaitu melalui penggunaan media pembelajaran dengan beberapa platform yang tersedia mobile learning. Platform online dalam mobile learning ini sebagai media yang mampu memecahkan masalah pada siswa pada masa pandemi yang membantu terlaksananya proses pembelajaran. Metode yang digunakan dalam penulisan ini yaitu menggunakan studi kepustakaan yang mengkaji beberapa sumber artikel dari hasil penelitian yang telah dipublikasikan untuk dianalisis dan ditarik kesimpulan. Hasil dari penulisan ini menunjukkan bahwa platform seperti Google Classroom, Zoom, dan Microsoft Teams mampu menjadi solusi dari permasalahan pada masa pandemi berlangsung. Berdasarkan data yang dipaparkan menunjukkan hasil rata-rata lebih dari 60%, angka tersebut dinilai mencapai kriteria yang efektif. Pembelajaran menggunakan platform online yaitu Google Classroom, Zoom, dan Microsoft Teams dapat menjadi alternatif dan membantu mengaktifkan siswa ketika pembelajaran secara offline tidak dapat dilaksanakan, walaupun melalui media pembelajaran yang berbasis mobile.*

Kata Kunci: *Mobile Learning, pembelajaran online, pandemi, media pembelajaran*

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INTRODUCTION

COVID-19 pandemic has resulted in limited face-to-face activities and social interactions. It was estimated that in early March 2020, the outbreak would enter Indonesia. Until now, the government has made various efforts by issuing various policies to reduce the number of deaths from the virus (Wahidah et al., 2020). However, these efforts have not been maximized because many people still ignore the government's appeal. Due to the COVID-19 outbreak, various problems have begun to appear in several sectors of life, including education (Wahyuni & Kusumawati, 2021). When learning is usually done face-to-face, not online (Ratu et al., 2020) and certainly a novelty in education, especially in Indonesia, now, teachers must develop strategies so that learning can run well.

To reduce the spread of the Coronavirus, the government implemented a policy of closing face-to-face activities in class and implementing home learning strategies (Amalia & Sa'adah, 2020). The government regulated this in SE No. 4 in 2020 about Educational Policies in the Emergency Period the Spread of COVID-19, stating that the learning process is carried out from home through online (network) or distance learning to provide students with a meaningful learning experience because COVID-19 cases have not shown a significant decline. According to the latest data from Covid19.go.id (2021), as of July 30, 2021, Indonesia's COVID-19 distribution map showed 3,372,374 confirmed cases, 2,730,720 cured cases, and so far, 92,311 death cases. Based on this data, the addition of confirmed cases was 41,168 cases, and there were still 16.3% or 5,141 patients with COVID-19. Therefore, learning activities still have to be done online.

Learning activities during the pandemic have met several obstacles because some subjects require theoretical and practical activities. This situation certainly changes the learning process that should be done face-to-face between teachers and students (Amalia & Sa'adah, 2020). Learning before and during the pandemic showed a significant difference. Before the pandemic, teachers and students only used information and learning media as a compliment, but now they support online learning (Atsani, 2020).

Online learning uses an internet network with access, connections, and the ability to create various interactions (Firman & Rahayu, 2020). Currently, the learning process cannot be face-to-face. Therefore, one alternative that can support learning is online (in the network). Online learning is a system that can be done by not meeting face to face but using several available platforms to help the learning process even at a distance (Handarini & Wulandari, 2020). To support online learning, the government has sought several platforms that can be accessed using the internet network. They are considered capable of solving problems related to the delay of students in obtaining knowledge (Herliandry et al., 2020). In addition, online learning supports the development of technology that is currently developing, from which teachers as educators can design media or teaching materials according to their needs.

The government has provided students with internet quota subsidies and made other efforts to facilitate the online learning process by providing free access to certain learning sites, direct cash assistance (BLT) and other economic assistance (Bramastia & Purnama, 2021). Barriers experienced by teachers can be overcome by maximizing assistance from various available online platforms. Mobile learning is one media used as learning during the pandemic. There are various online platforms, and the most frequently used are Google Classroom, Zoom, and Microsoft Teams.

Regarding several online platforms used during the pandemic to support the learning process, one of the components that cannot be separated from online learning is mobile learning. Mobile learning, a mobile computing device, is generally considered a fairly compact device, capable of

working alone, can be easily carried anywhere and anywhere, and supports learning (Samsinar, 2020). Mobile learning has become an innovation where teachers must apply it, especially during a pandemic (Wijayanto et al., 2020). In addition, teachers and students help the learning process through handheld devices such as cell phones, tablets, and gadgets, without being limited to place and time, so that learning can occur effectively and efficiently.

Educational technology is defined as an application of technology that helps in learning activities to improve and enhance the human learning process (Switri, 2019). Educational technology is one of the scientific clusters in which learning is related to designing strategies in learning. The strategy begins with designing learning objectives. Therefore, the first step is to conduct an analysis. The development of methods or media begins with a problem. The analysis helps to find out and clarify the problems faced, then find solutions by designing learning tools that can solve problems (Sari, 2017). The next step is to develop new learning methods or media. However, given the current condition, these steps are difficult to do. Various obstacles have emerged from this new system and become a challenge for teachers to hone their skills in using technology during the development of the digital era and changing conditions at any time.

Technological developments are rapid and inevitable (Maharani et al., 2019). Various applications make it easier for users and can be used as learning resources, seen from many practitioners and academics who use existing media mobile learning (Kusmawan, 2016). Mobile learning using various platforms during a pandemic is considered to help teachers and students in the learning process under certain conditions (Wijayanto et al., 2020). Online learning is a new step for teachers and students. Improvements to the online learning system continue to improve so that the learning process can occur well. The problems related to online learning are currently still a challenge for the government, teachers, students, and parents. However, it is possible that the online learning process is going well and supports learning objectives.

The results of Samsinar research (2020), related to online or online learning, showed that "learning using mobile learning has a good opportunity to be used like during a pandemic, because learning is done virtually, as an alternative to face-to-face meetings". This result is reinforced by Assidiqi & Sumarni (2020) "online learning provides opportunities for students to have flexibility in time and place when learning takes place". The research results above showed that distance learning could be an alternative during the current epidemic. Even distance learning can run well if it gets support from related parties. The success of distance learning is not only determined by teachers and students, but it is necessary to involve parents by providing facilities and controlling children so that the distance learning process can be carried out as well as possible. Based on what has been described, it is necessary to conduct a literature review to examine the online platform in mobile learning as a learning medium.

RESEARCH METHODS

The research articles reviewed and discussed are scientific articles originating from indexed national and international journals relating to online platforms in mobile learning, especially Google Classroom, Zoom, and Microsoft Teams. This study used descriptive analytical techniques using library research. Analytical descriptive method is a method that provides a description or description of the object under study through data or samples collected previously, without analysis and making conclusions that apply in general (Sugiyono, 2012: 29). A literature review is carried out to integrate what has been done and said by other researchers, criticize several previous scientific works, build

bridges with fields related to the topic, identify the center of the study problem (Cooper, 1998). The literature studied is in the form of several published research articles.

RESULTS AND DISCUSSION

The government's policies during the pandemic are taken to restore various sectors of life. Education is one sector that is also affected. The government pursues this policy by implementing learning in a network or online. Therefore, both teachers and students must make the best use of digital learning resources and media to support these policies. Several research results that have applied online learning and using mobile learning as a learning medium show different results. The use of several online platforms in available mobile applications makes it easier for teachers and students to use. These platforms include Google Classroom, Zoom, and Microsoft Teams.

The use of Google Classroom as a Learning Media

The research results of Atikah et al. (2021) stated that "the use of learning using Google Classroom has a positive impact, this can be seen from student learning outcomes which are increasing every day through assignments and quizzes given by the teacher. Students enjoy using Google Classroom because it is easy to access and flexible. Teachers prepare classes and invite students through Google Classroom. The classwork feature is a page for sharing information, assignments, questions, and materials. Based on this research, Google Classroom can provide students with convenience and new learning experiences. Sabran & Sabara (2019) stated that "the implementation of learning using Google Classroom as a learning medium is included in the criteria of being quite effective with a tendency rate of 77.27%".

Suhada et al. (2020) stated that "52.93% of students stated that they did not agree that the Google Classroom provided convenience when accessed, 62.63% of students agreed that Google Classroom helped understand learning materials, 60.42% of students agreed to use the platform. Google Classroom showed effectiveness when learning, and 46.74% of students agreed regarding using the Google Classroom in Biology practicum. It only needed to be combined with other online platforms to clarify the learning materials".

Furthermore, Medha & Upadhyaya (2020) stated that Google Classroom acted as a motivator that arouses student interest and increases conceptual understanding. Besides, the quality of learning was better. More than 86% of students agreed that Google Classroom helped students interact with friends and teachers to ask questions about lessons. This study found that students who used Google Classroom had better motivation when learning and were easier conceptual understanding, answering questions more easily both in theory and practice, and learning lessons. Zahrah & Pujiastuti (2021) collected data through questionnaires given online to students. Based on several indicators described, conclusions were obtained regarding using Google Classroom during online learning at the high school level, with an average acquisition of 44.23% included in the effective category.

Based on the study results, Google Classroom as a learning medium is considered quite effective, shown from the responses obtained from students. Eligibility from Google Classroom showed good validation results as one of the appropriate learning media besides it needs help from other online platforms to make it more optimal.

Zoom as a Learning Media

Setiani (2020) revealed that using Zoom during a pandemic is considered ineffective due to several factors, including spending a lot of internet quota, students' economic conditions, and

differences in network coverage in each region. Haqien & Rahman (2020) found that 70% of respondents thought online learning using Zoom Meeting was effective because it had been used before social distancing. Students and educators have widely used it. Then, Zoom is considered a solution during the COVID-19 outbreak. According to research, Zahrah & Pujiastuti (2021) used data collection techniques with interviews and WhatsApp. The results showed that Zoom-assisted online learning is not yet fully effective, considering the current outbreak. Zoom platform is a relevant choice to support learning.

The results of other studies that are still related to zoom are stated by Nisa et al. (2021) stated that the e-learning model, with the help of Google Classroom and Zoom Cloud Meeting, obtained an N-Gain score of 0.59, which was in the medium category with an average value of 70.20 on student learning outcomes indicating that student responses include in the good category. Students can learn freely independently and discuss with teachers anywhere and anytime. According to Marsiding (2021), Zoom is widely chosen and used in schools. Compared to other platforms, the available features are quite complete, so it is appropriate if Zoom is used as one of the learning media used during the COVID-19 outbreak.

Several studies showed that using Zoom as an online platform in mobile learning gave different results. Zoom was used as a learning medium widely applied to schools at various levels during the COVID-19 outbreak. However, several factors influence learning to use Zoom, including the availability of internet quota, economic conditions, internet coverage of an area, experience using Zoom, and the ease of accessing Zoom.

Microsoft Teams as a Learning Media

Saputra & Saddhono (2021) stated that the percentage of students participating in online learning using Microsoft Office Teams 365 was 95.21%. This result proved that students were enthusiastic about learning through Microsoft Office Teams 365, supported by several features such as Office Word, Office Excel, Office PowerPoint, Office Forms, chat rooms, Microsoft Teams, and other features available in Microsoft Office Teams 365. Wirza et al. (2021) stated that the average obtained at the evaluation stage was 79% in the good category. They found several obstacles faced by teachers and students, namely the unstable network and consuming internet quota data. Mu'ti (2020) revealed that learning Mathematics using the Microsoft Office Teams 365 platform improved student learning outcomes effectively, with a figure of 84% indicating a good category response.

Wahyuni & Kusumawati's research (2021) found that teachers and students experienced several obstacles in using Microsoft Office Teams 365 when learning Mathematics. Starting from bad signals, down servers and inaccessible websites need a lot of internet quota fees and a lack of socialization between teachers and students. Microsoft Office Teams 365 as one online learning media is helpful, especially if it can be varied with available features such as video conferencing, online quizzes, and whiteboards. Furthermore, Nafisah & Fitriyati's (2021) research found that Microsoft Teams made it easier for educators and students to collaborate when learning online. Three indicators were measured to determine the effectiveness of using media, including ease of access, understanding of the material, and the advantages of the Microsoft Teams platform. The average of these three indicators was 78.43% which was effectively applied in learning.

Based on several studies above, Microsoft Office Teams showed effective results and improved student learning outcomes, although there are still obstacles such as unstable networks, requiring quite a lot of quota, lack of socialization related to the applications used. The advantage is that Microsoft Office Teams 365, such as Office Word, Office Excel, Office PowerPoint, Office Forms, chat rooms,

Microsoft Teams, video conferencing, online quizzes, and whiteboards, are available and help mobile-based online learning.

CONCLUSIONS AND RECOMMENDATIONS

Online learning is one of the challenges that the world of education faces during the COVID-19 pandemic. There are many platforms in mobile learning that support access to online learning today. These platforms include Google Classroom, Zoom, and Microsoft Teams. The average result was more than 60% based on the data presented. This figure is considered to have reached the effective criteria. The choice of the platform is based on features that support and are easily understood by users, provide easy access and do not spend a lot of internet quota, and make it easy for users because they can be accessed anywhere and anytime.

Based on the analysis from several results, platforms in mobile learning have not been fully effective because the available platforms have their respective advantages and disadvantages. The advantages of online learning using the available platforms are one of the learning media that is easy to carry, can be accessed wherever and whenever according to needs, provides convenience in accessing various information, follows the ongoing development of science and technology, and the available features make it easier for users. The disadvantages of online learning using the available platforms are ineffective if applied to all subjects, internet network disturbances, internet quota availability, economic and facility limitations, and lack of cooperation between teachers and parents.

Recommendations for teachers as educators are to prepare themselves to equip themselves with literacy in current technology, follow new things related to the latest technology, hone skills by participating in various kinds of training activities and seminars that can increase knowledge and insight. With good provisions, teachers can hopefully adapt to be ready to face certain conditions that can occur at any time. Stakeholders can provide support, monitor, and evaluate learning activities to give direction and input, create effective and efficient learning conditions, and achieve learning objectives.

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