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The Effectiveness of Telegram as an Online Learning Media

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Article Information:	ABSTRACT
	Learning media is the main supporting factor that is needed to support the learning process, especially at this time which requires educators to design learning media as an innovation using online media. This study aims to determine the effectiveness of telegram as an online learning media and how important the telegram application is as an online learning media tool. Therefore, the teaching and learning process at this time really needs learning media in order to achieve good learning objectives and for the birth of a new generation that is more innovative and creative. Learning media at this time is very much including the telegram application, this telegram application is a technology application in the form of a chat feature that can be used as a learning media in online learning that can be used either via smartphone or desktop. This type of research is descriptive qualitative research with a literature approach related to the topic discussed. The results of this study explain how the effectiveness of the telegram application as an online learning media. **Keywords**: *Learning Media, Online Learning, Telegram App*

INTRODUCTION

Before we know the education system in Indonesia as we know it today from elementary school to college or university level, the beginning of education in Indonesia was in the Buddhist and Hindu era (Djalante et al., 2020) where education at that time was based on religious and ancestral values. Primary school education was introduced to the country by the Dutch (van Essen & Amsing, 2010) when the Dutch colonised Indonesia (Likitwongkajon, 2019). Before that, the only people who could get an education were those with high social status such as the nobles or Europeans themselves. Conrad Theodor van Deventer was the first Dutchman to bring

opportunities for natives to get or experience education, by formulating policies in 1870 by opening schools such as "Sekolah Rakjat" which is the forerunner of elementary schools in Indonesia today. Until 1930 there was an increase in the number of schools, both public and private for indigenous Indonesians with a total of 3,108 with additional library facilities of around 3000, but due to the economic crisis at that time caused a drastic decrease in spending on the school budget. As we know in history lessons, during the Dutch colonial period in Indonesia there were regulations, especially at the education level which required the indigenous people to master the Dutch language, which was the main requirement for those who wanted to enrol in lectures or universities. It can be said that education in Indonesia experienced development during the Dutch colonial period (Suharno et al., 2020).

According to Wahono (2018) The goal of the education process is to educate the nation. Because with the educational process, personal figures will emerge who will become human resources who are expected to play a major role in the process of nation and state development. Meanwhile, the purpose of education based on Law No. 20 of 2003 is to develop the potential of students so that they can become people who have faith and devotion to God Almighty, have noble character, are healthy, knowledgeable, capable, creative, independent, and become a democratic and responsible society (Sholihah & Maulida, 2020). Education is the main key to producing quality human resources (Le & Nguyen, 2020), then it can be said that education is very important (Lau, 2020). In order to improve the quality or quality of human resources, it is very necessary to have an education, because education can direct, develop and guide towards a better life for oneself and for others. According to Huynh's opinion (Huynh, 2020) Education is a necessity for humans. Education is always changing (Haas, 2020), development, and improvement in accordance with developments in all fields of life. The changes and improvements include various components involved in the implementation of education in the field (teacher competence and the quality of teaching staff), the quality of education, curriculum tools, educational facilities and infrastructure and the quality of education management including changes in more innovative learning methods and tactics.

Indonesia's education system in the new normal era (Kochuvilayil, 2021) development, and improvement in accordance with developments in all fields of life. The changes and improvements include various components involved in the implementation of education in the field (teacher competence and the quality of teaching staff), the quality of education, curriculum tools, educational facilities and infrastructure and the quality of education management including changes in more innovative learning methods and tactics.

Indonesia's education system in the new normal era (Chandra, 2021) and implement a social distancing system (Davies, 2021) with the aim of preventing the transmission of the coronavirus due to potential crowds. In Indonesia today, educational problems are emerging due to changes that occur, and it is hoped that these problems will not affect the quality of education in Indonesia. Among these problems is learning

loss, which means that there is a possibility of decreasing student competence(Abramova, 2021) as a result of the implementation of the teaching and learning process from home. Although sometimes many assignments are given, educators still have to make sure whether the grades achieved really reflect the competence of students, do not let students follow the teaching and learning process, but do not really study. So this is where the role of teachers and parents is very important, teachers are required to be more creative and innovative (Yang et al., 2018) and able to manage the class well (Anido et al., 2002), and parents must be able to provide maximum assistance to children. Another problem is that learning from home must of course utilise technology to support the teaching and learning process, and of course the teacher must be smart in operating the technology then with learning like this are parents and students ready?, because technological problems also include the economy.

Educational technology became a concern in the environment of education experts starting in the 1960s, where initially educational technology was a continuation of the development of studies on the use of Audiovisual, and learning programmes in the implementation of education. Since 1963, the term educational technology has been used and formalised by the Association of Educational and Communication Technology (AECT) in 1977, although there is sometimes an overlap in the use of the term with learning technology. These studies are essentially an attempt to solve problems in learning by using appropriate approaches and enabling the use of learning resources. The development of educational technology studies resulted in various educational concepts and practices that utilise media as learning resources (George & Lal, 2019). So often educational technology is equated with media, even though the media serves to facilitate the delivery of information or learning materials (Anido et al., 2002; Manca, 2020). In terms of the education system, educational technology serves to strengthen curriculum development, especially in its design and development, as well as its implementation, and assessment of programmes and learning outcomes.

The development of technology and information at this time in the field of education is growing rapidly and advanced, due to the increasing number of applications used for the teaching and learning process. so many people or companies are competing to make sophisticated applications for learning so that many use the application. An example of the development that we feel today is the teaching and learning process carried out online or e-learning (Wu et al., 2020) which is a distance education method (Alwiyah & Sayyida, 2020) Where teaching activities are carried out separately from learning activities, online learning is carried out through internet and web networks which means that the implementation of online learning involves technology as a tool and internet network as a system. Online learning is useful in providing access to learning within the scope of the classroom, even online learning is seen as something that is effective to use, especially in universities, but of course not all learning can be carried out by means of online learning, online learning is one of the government's ways so that the Indonesian education system does not stop due to the corona virus that is endemic almost all over the world. With online learning, we do not

need to leave the house or go to school to learn, because as long as there are gadgets and the internet, the teaching and learning process can be done anywhere and anytime.

Online learning also reduces costs in education (Kozakowski, 2019) In addition to the cost of building or maintaining a place to study, we can already attend all classes at a cost according to what we get. Online learning also adds to our experience such as knowing more about the process of teaching and learning online, because with online methods we get many sources and variations of how to learn with online methods. Online learning can also train or improve our creativity by utilising learning using ebooks, journals, or online discussion forums that are not obtained from face-to-face learning systems. For the sake of the teaching and learning process carried out online, it is necessary to have a learning media, where the function of the media itself is as an intermediary or distributor of information from educators to students. In learning, media is generally defined as a teaching aid, both electronic and non-electronic, that can convey learning information to students so that it causes stimulation to learn (Rahmadhani & Efronia, 2021). There are many media to support online learning including: whatsapp, telegram, google classroom, zoom, google meet and others.

In this study, researchers will discuss telegram media as a learning medium in the teaching and learning process, this telegram application is a technology application in the form of a chat feature (Widiyono, 2021) which is utilised as one of the learning media in online learning that can be used both through smartphones and desktop systems (Wang, 2021). This research will also discuss how the effectiveness of telegram media in learning. This application was created by two brothers, Nikolai and Pavel Durov (Husni & Hasibuan, 2018) In which they shared tasks, Nikolai was in charge of app development and Pavel Durov was in charge of funding and infrastructure. Telegram's first debut was on 14 August 2013 on iOS devices, and on 20 October 2013 on Android devices (Rumini & Astrid, 2019), and is currently based in Dubai. So this telegram application is approximately nine years old and this application continues to develop the features in it from year to year. Users of the telegram application on a global scale from year to year continue to increase, and it was recorded in the last year, namely in 2021, telegram users numbered five hundred million users. This number increased by twenty-five per cent from the previous year.

Telegram is one of the messaging applications (Nobari, 2021) telegram is the most popular application that can be used to support education and learning activities between educators and students during the COVID-19 pandemic and the imposition of restrictions on community activities. There are several telegram features that can support teaching and learning activities in online or hybrid learning such as cloud-based features where this application can make it easier for educators or students to access their messages from various devices at one time, including tablets and computers, and send unlimited videos, files and photos up to two gigabytes for each file. Furthermore, there is a telegram bot feature (Barthelmäs, 2021) which telegram allows users to create bots in their groups that can assist educators in carrying out certain tasks such as for assignment collection, questions about assignments, or other activities. Telegram groups

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can also accommodate up to two hundred thousand members, this feature is also very useful for teaching and learning activities where there are many members in one class, or for holding seminars that are held online. Telegram also supports video calls or recordings that are useful for educators in explaining teaching material.

Based on the description above, the researchers conducted research on the effectiveness of the telegram application as a medium for online learning. This research is important to do because it will add to our insights related to technology that will facilitate educators and students in online learning and so that educators can develop telegram applications as needed to create active and effective learning. Researchers hope that there will be other studies that will examine similar discussions to add insight and perfect the results of this study.

RESEARCH METHODOLOGY

In this study, researchers used a library research approach, which is one type of approach that is carried out by collecting data sourced from books, journals, articles, and certain writings (Tahmidaten & Krismanto, 2020) which leads to the discussion of this research. Researchers use descriptive-qualitative research methods. Descriptive-qualitative research aims to describe, describe, explain, explain and answer in more detail the problems to be studied by studying as closely as possible an individual, a group or an event (Zellatifanny & Mudjiyanto, 2018). This is because researchers use this method because they want to explain the situation that will be observed in the field more specifically, transparently, and in depth. The series of activities in this research are related to collecting library data, reading and recording, then processing data according to what is needed in this research.

RESULT AND DISCUSSION

Effectiveness in learning is necessary (Nayak, 2021), Because with the effectiveness of learning, it will allow students to learn pleasantly, easily, and be able to achieve learning goals in accordance with the goals that have been formulated previously by educators. At this time most of the learning process is dominated by educators (Morley, 2021), so that the teaching-learning process becomes ineffective. Therefore, there is a need for a strategy in learning (Pollice, 2021) to be more effective while still adjusting to the condition of the learners. In the learning process, the condition of learners is an important thing (Korol, 2021) In order to achieve good educational results, it is necessary to have a strategy that is in accordance with the conditions of students so that learning objectives can be achieved. Educators today are more likely to apply conventional learning strategies or commonly known as the lecture method, participants only act as good listeners and are not active in learning. In a learning strategy there should be an active role of educators and students so that goals can be obtained effectively and efficiently. The effectiveness of learning can be seen through the activities of students in learning such as students' responses to learning and students' mastery of concepts. So based on the explanation above, it can be concluded

that effectiveness is an activity that can be completed by obtaining results in accordance with the objectives to be achieved.

One of the efforts that need to be done to stimulate the thoughts, feelings, and desires of students to be more active in learning is to utilise a learning media (Ng, 2021) which functions as an intermediary tool during the teaching and learning process. Another role of a medium is to create a more effective learning process (Firmansyah, 2021) especially in current online learning, because learning media makes it easier for students to understand teaching material and is also interesting because learning media tends to be interesting with audio visual, which can be seen and heard, and to make this happen educators must have innovation or creativity in using learning media by adjusting to learning objectives and student interests. The media used can also be reached and the availability of hardware for media utilisation, and the availability of learning media on the market and the ease of using them. Now learning media has become the face of learning, this can be seen with the existence of government regulations regarding the teaching-learning process carried out in their respective residences which has led to an increase in the use of media, especially in the learning process. There are several types of media in learning media such as; visual media, audio media, and audio-visual media. Visual media is media that refers to the use of human vision by conveying a message in visual form, usually using a projector as an intermediary. Audio media is media that refers to the use of human hearing by conveying a message in audio form. Audio visual media (Morgado, 2021) online learning refers to the use of human sight and hearing by conveying a message in the form of sound and images.

In practice, educators and schools face many barriers related to online learning. Many educators are not tech savvy so learning at the beginning of the pandemic is difficult and many parents complain about it. Schools also experience barriers. Schools are less able to support facilities and infrastructure to support online learning. The barriers found by educators and schools have an impact on the smooth running of online learning. Many parents feel that it is difficult to apply online learning to their children. They feel that online learning is not effective and efficient in achieving educational goals. In addition, they feel burdened by online learning that leads to increased costs such as buying cellphones that support online learning and buying internet quotas or packages. The online learning process requires learning media to support learning. Learning media are various components in the learners' environment that can stimulate the learning process, especially during the pandemic. Various types of learning media can support or assist online learning activities such as WhatsApp, Google Classroom, Quizizz, and Telegram. Learning media can also attract learners' attention during the learning process so as to make learning more meaningful. Learners are not bored quickly and are motivated to learn. One of the online learning media that can be used is Telegram.

The telegram application is a social media application (Adekoya, 2022) is a chat or messenger service that is used by many people, as evidenced by the data on

PlayStore that more than five hundred million people have used this application, recorded from 2013 to date. This application can be downloaded via smartphone or desktop. There are several telegram features that can support teaching and learning activities in online or hybrid learning such as cloud-based features (Gao, 2021) which this application can make it easier for educators or students to access their messages from various devices at one time, including tablets and computers, and send unlimited videos, files, and photos up to two gigabytes for each file. Furthermore, there is a telegram bot feature (Calvaresi, 2021) which telegram allows users to create bots in their groups that can assist educators in carrying out certain tasks such as for assignment collection, questions about assignments, or other activities. Telegram groups can also accommodate up to two hundred thousand members, this feature is also very useful for teaching and learning activities where there are many members in one class, or for holding seminars that are held online. Telegram also supports video calls or recordings that are useful for educators in explaining teaching material. Therefore, this application is considered to have good and good services so that it is hoped that effective learning can be realized by delivering teaching materials easily and flexibly.

Learning using this telegram application has many positive sides, because educators can provide information about learning through telegram groups, both regarding teaching materials and evaluations to students. That way the teaching-learning process will run effectively even though learning is carried out from home. The utilization of the telegram application in the learning process will also be better or more interesting if combined with the delivery of varied materials, for example, the delivery of material with videos, photos, pdf, word, power point, and others. It is the educator's job to direct students to interact with each other in the telegram group in the form of questions and answers, group discussions, or sharing opinions according to the material being taught. After that, to determine the level of understanding of students of the material that has been taught, the teacher can provide an evaluation in the form of questions typed by the educator himself in a telegram or through a google form, or an evaluation in the form of practice by instructing students to make a video of the activity and then send it to the telegram group. To support these things, educators must understand technology and be able to direct students well in learning, especially at this time educators must ensure that students continue to learn even though learning cannot be carried out face-to-face at school.

Here are the procedures for creating a group in the telegram application: 1) open the telegram application on your phone; 2) press the new chat button in the bottom right corner; 3) then, press the new group text at the top; 4) add at least one person as a member of the group you are about to create, then press the next button at the bottom right; 5) enter the group name as you wish in the space provided; 6) if you want to add a profile photo to your group, then you can press the camera icon and then select the photo you want from your gallery to be used as the group profile photo. You can then press the check button in the bottom right corner to proceed to the next step; 7) at this point, your Telegram chat group is ready with the default settings and with as many

members as possible. Next, you need to organize and set up your group so that it can be used according to your needs. Here's how to set up your group chat that you can apply: 1) open the telegram application on your phone; 2) open the telegram chat group that you have previously created 3) tap the group name at the top to view your group profile; 4) on this page, tap the pencil icon in the top right corner to start setting up your group; 5) well, here you can set up various things related to your telegram chat group be it from group naming, profile photo, group description, group privacy status, chat history for new members, permissions for group members, creating group invitation links, adding group admins.

In addition to features that support learning, the telegram application also has very sophisticated security features that can keep our data safe. There are several security features in the telegram application, including: the first is the lock chat feature, as the name implies this feature functions so that our chat data is maintained by locking it automatically when the application is not in use, how to activate this feature is enough to enter the settings-privacy and security-passcode and touch ID-install PIN and touch ID-complete. The second feature is called the secreet chat feature as the name implies, this feature functions to send secret chats to the people we want, which is end-to-end encrypted so that no third party can see the contents of your message. The third feature is called the two-step verification feature as the name implies, this feature serves to protect our account from people who want to steal our data by requiring you to always enter your password every time you want to enter your personal telegram kun, both from old and new devices. The fourth feature is called the proxy server feature, this feature is useful for hiding your IP address by connecting your account to a special proxy server to hide your identity. The fifth feature is the delete sent messages feature, different from other applications, even if for example you have sent your message for a month or more and if you want to delete the message then it can still be done.

Learners' activities in online learning are more numerous and active when compared to offline learning, due to learners' habits in using messenger application groups such as wahtsapp. Learners' concerns in asking questions or answers can also be resolved, because when learners want to express questions or answers through writing in the group, learners can condition the writing of words first before sending them to the group conversation. And there are also reply and mention features that can minimize misunderstandings. After understanding the importance of learning media and telegram applications, here the researcher will explain the application of telegram applications in learning. In this study, researchers will divide this application into three stages, namely: first; preparation stage, second: implementation stage, third: completion stage. In the first stage, educators and students should prepare all the things needed later when the teaching-learning process takes place. First, educators must prepare a telegram chat group which this group will function to make it easier for educators and students to interact with each other. Furthermore, educators prepare learning tools such as syllabus and lesson plans that contain material, objectives, and learning instruments before starting learning, so that learning can run well. Educators must also pay attention to

students who are ready to take part in learning on that day or not by filling out the attendance list through the poll feature in the telegram application, so here students should also pay attention to all instructions from educators and be present on time. The following is an example of taking using the absent poll in the telegram application:

Figure 1. Attendance with Polls

The second stage is the implementation stage, at this stage there are several learning techniques that can be applied, for example: sharing and explaining material to students through a video that has previously been uploaded to the YouTube channel, students can click on the link provided by the educator in the telegram chat group to view and learn. The purpose of uploading teaching materials to the YouTube channel is to make it easier for students to repeat lessons at a later time. In addition to this method, educators can also send video messages directly to the group so that students can learn. In addition, there is also the next way, namely by utilizing the video call feature, namely educators can explain learning directly to students, this method is suitable if used in language learning, especially in communication skills, because with video calls educators can supervise and test students directly when the teaching and learning process is taking place. The following is an example of sending material in the form of videos and video call groups in learning on the telegram application:

Video material

The third stage is the completion stage, the completion stage contains an evaluation, which is intended to determine the level of understanding of students of the material that has been taught at the meeting, there are also several forms of evaluation including: making evaluations in the form of quiz by utilizing third applications such as google form. In learning that focuses on communication, evaluation can be carried out directly by utilizing the video call feature in the telegram application. Here is an example of an evaluation using a third application, google form:

Material Evaluation with the Help of Google Form

The implementation of online learning by utilizing the telegram application certainly has advantages and disadvantages (Quispe et al., 2021). Advantages include: 1) according to sugatri (Sugatri, 2021) dengan dilaksanakannya proses pembelajaran secara daring, maka kita tidak memerlukan ruangan atau place, because by using learning media in the form of telegrams, learning becomes more flexible which can be carried out anywhere and anytime. 2) educators and students can interact directly as well as in face-to-face learning (Ambarita, 2020). 3) educators can explain while displaying material using the share screen feature so that it can be seen by students. 4) The telegram application is also lighter with other video call media that require large bandwidth. The disadvantages include: 1) limited internet connection, especially for students who are in remote areas. 2) availability of internet quota (Anggianita et al., 2020). So with the existing problems, there must be a solution to solve these problems such as quota allowances for students, and for students who cannot afford to buy smatphones can be overcome by providing special lessons once a week at school while adhering to health protocols (Rahiem, 2021), so that students who do not have smartphones do not miss too much learning material.

CONCLUSION

Effectiveness in learning is very necessary, because with the effectiveness in learning it will allow students to learn pleasantly, easily, and be able to achieve learning goals in accordance with the goals that have been formulated. therefore there must be new innovations in learning by using learning strategies and learning media in learning in order to be more effective while still adjusting to the conditions of students. One of the media that can be used is the telegram application. The telegram application has features that are very supportive in today's online learning. By utilizing all these features, it is hoped that the teaching and learning process will be smoother, especially during the COVID-19 pandemic. Your data is also safer if you use the telegram application in learning. Learning that uses learning media is also more attractive and gets more response from students, both in understanding and interaction of students with educators and students with fellow students. It can be said that by using this telegram application the learning process can run effectively and efficiently.

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