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Implementation of Online Learning Media in the Covid-19 Pandemic

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Article Info	Abstract
	This qualitative research aims to obtain an overview of the implementation of online learning in the Covid-19 Pandemic. In general, the implementation of online learning during the Covid-19 pandemic positively impacts the continuity of education in Indonesia. This research method is obtained from online observations and Scoping reviews. Literature is obtained from various databases such as Google Scholar, Scopus, Web of Science, Crossref Search. Furthermore, the literature was mapped in several parts so that 40 appropriate literature was obtained and could be used regarding teaching and learning activities in schools and the higher education environment. The study results show that online learning is currently considered adequate to replace conventional learning, but several factors related to the implementation of learning must be considered.
	Abstrak
	Penelitian ini merupakan penelitian kualitatif yang bertujuan memperoleh gambaran pelaksanaan pembelajaran online di Era Pandemi Covid 19.Secara Umum pelaksanaan pembelajaran online di masa pandemic covid 19 berdampak positif bagi kelangsungan Pendidikan di Indonesia. Metode Penelitian ini didapat hasil dari observasi online dan Scoping review, literature didapat dari berbagai basis data seperti Google Scholar, Scopus , Web of Science, Crossef Search. Selanjutnya literature dilakukan pemetaan dalam beberapa bagian sehingga didapatlah 40 literature yang sesuai dan dapat digunakan perihal kegiatan belajar mengajar disekolah dan dilingkungan pendidikan tinggi. Hasil penelitian menunjukkan bahwa pembelajaran daring saat ini dinilai efektif untuk menggantikan pembelajaran secara konvensional, namun beberapa faktor terkait penyelenggaraan pembelajaran harus tetap diperhatikan.

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INTRODUCTION

The pandemic of Covid-19 has impacted every industry, including education. It has been more than a year since the Covid-19 outbreak began spreading (Ratu, Uswatun, and Pramudibyanto 2020). Since Covid-19 first entered Indonesia in March 2020, educational institutions (elementary, junior high, high school, vocational, and higher education) have been closed. Socialization has developed into a new habit, with schools and campuses implementing a 3M health routine (wearing a mask, maintaining a safe distance, and handwashing with soap).

For the sake of combating the spread of Covid-19 in the educational arena, the teaching and learning process has been shifted to the internet (Aisa and Lisvita 2020; Buran 2020; Deli and Candra 2021; Ratu et al. 2020; Sari and Haryono 2021). Laptops/computers connected to the internet are used by teachers who normally teach students during epidemics. The internet is used to deliver educational content and assignments. Learning via online media is a viable alternative to face-to-face or in-person learning in the face of limitations (Fitriani 2020; Haniaturizqia and Rifa 2021; No et al. 2020; Ummah and Ariwibowo 2021). This policy, which was previously implemented face-to-face, has been converted to online learning (online/online) by the Ministry of Education in accordance with the letter. Higher Education Directorate Circular No. 1, 2020, from the Ministry of Education and Culture (Education, Culture, and Indonesia 2013).

According to the government's policy, learning in primary and secondary schools, as well as higher education, must be implemented online in order to halt the spread of the covid 19 virus pandemic. It is becoming more widespread, and it is being practised on a global scale. Online learning undoubtedly impacts learning that was previously accomplished by roofing the face with all available facilities must now be accomplished via the device. Information technology, or e-learning, is a term that refers to the process of learning through electronic media (Asrul and Afil 2020; Buran 2020; Deli and Candra 2021; No et al. 2020; Nursobah et al. 2020; Sari and Haryono 2021). With the advancement of information technology, the learning media used has also advanced, although differently. It is analogous to online educational media (Yaumi 2018). When information technology or online learning takes over the previously reserved role for teachers, students can now take an active role. Nonetheless, learning technology here can be a means of assisting humans in terms of work, particularly in the field of education, and especially in light of the pandemic that we are currently experiencing. Numerous studies on the use of information technology during the covid 19 period have been conducted previously, which included a review of media learning during the covid 19 period. The study, titled Analysis of Students' Online Learning Activities During the Covid-19 Pandemic, was conducted by Ann Hasanah. The study demonstrated that students' use of online media and activities conducted at home during the emergency response period covid-19 felt adequate in the face of all challenges and obstacles, and it is anticipated that in the future, there will be an evaluation and experience for both students and teachers (Hasanah et al. 2020).

Covid-19 researchers have previously researched online learning in the pandemic (Chung, Subramaniam, and Dass 2020). Mobile technology adoption by university students during the covid-19 pandemic is the focus of the study. External constructs of cellular system effectiveness and cellular service effectiveness were found to have a direct impact on usability perception and ease of use perception of construction in the technology acceptance model. However, the theoretical relationship between perceived usability and perceived ease of use was found to be unsupported. In addition, students' perceptions of m-usability learning's and ease of use influence their attitudes toward mobile technology adoption. The topic of self-regulated learning in an online learning environment strategy for remote learning has also been studied by (Carter et al. 2020). For the findings of this study, it was found that students consider how they learn online, provide continuous support and monitor engagement, and assist their families. A usability study on an e-learning platform has also been conducted by (Zou, Zhao, and Siau 2020) during the covid-19 pandemic. As

a result of this research, educators and universities have some serious concerns about the unplanned change in teaching mode caused by covid-19. During the covid-19 pandemic, Mukhtar et al. (2020) conducted research on the advantages, limitations, and recommendations for online learning. The advantages of distance learning include accessibility, convenience, and convenience, while the rules have inefficiencies and difficulties in maintaining academic integrity. Teachers should be trained online and lesson plans should be developed with less cognitive load and more interactivity.

A study by (Amin and Sundari, 2020) on EFL students' preferences for digital platforms during emergency remote teaching, video conferences, LMS, or messenger applications was then conducted. Cisco WebEx Meeting, Google Classroom, and WhatsApp received high marks across the board in this research. Cisco WebEx meetings ranked highest in terms of authenticity and meaningful focus. As for Google Classroom and WhatsApp, the best results were achieved in language learning potential, significant stress, and authenticity. Furthermore, WhatsApp is the most popular choice for various reasons, including its focus on meaning, student compatibility, positive impact, and practicality. Each group participant's positive impact on each of the three digital platforms was lowest. This suggests that they prefer face-to-face learning over the online digital learning system they experienced during ERT. Five of these studies have never discussed the medium of learning in the pandemic covid-19. This is a major oversight. The application media used in the pandemic covid 19 will be examined in this study.

Various forms of online learning media can be used on different platforms and can be used in all educational institutions, both elementary and high schools. Some learning media can be used, such as Google Classroom, Moodle, Google Meet, teaching-based video YouTube, WhatsApp Group, Media Edmodo, Media Zoom, and Cisco WebEx media. All these platforms certainly have advantages when used in the learning process (Fitriani 2020; K Ismail et al. 2017; K. Ismail et al. 2017; Istanto 2015)(Ahmad et al. 2021)(Madya and Abdurahman 2021)(Ahmad et al., 2021)(Madya & Abdurahman, 2021)

METHODS

As part of the literature review, the researchers used books, journals, and online learning application modules commonly found in educational settings. As shown in Table 1, other indexed articles, such as those in Google Scholar, Crossref Search, Scopus, and Web of Science, are also used as reference sources.

Table 1: Preliminary literature search database results

Database	Total Number of Result	Peer Review Paper	Included Literature Review
Google Scholar	345	50	15
Crossref Search	220	50	10
Scopus	35	20	10
Web of Science	25	15	5
Total			40

The first search yielded 345 articles, most coming from Google Scholar, followed by Crossref Search with 220. We were only able to select 55 reports from the thousands of available articles. The articles that make it to the final stage of review are selected. According to the abstract, the final selection for the literature review is based on the following requirements: acceptable standard methodology, clear and relevant research objectives, clear article debate, article analysis using the literature review method, clearly explained research results published in accredited and reputable sources (journal). Only articles that can be read in full are included in the final evaluation process.

FINDINGS AND DISCUSSION

These results are based on a review of existing studies published in online learning and teaching during the Covid-19 period. While most studies reviewed for this study are aimed at educational institutions overview of Learning Implementation of pandemic era covid-19, constraints in the application of learning during the pandemic period, the table in the literature review findings is briefly illustrated below.

Table 2. Systematic Summary of Literature Analysis

Writer	Heading	Publisher	Result	Obstacles
(Muhdi et al., 2020)	The implementation of Online Learning in Early Childhood Education During the Covid-19 Pandemic	Journal of Early Childhood Education	The results showed that the formulation of online learning policies was effective. However, the implementation of online learning policies in PAUD still requires a lot of effort to prevent the decline of learning.	There are five obstacles in applying this in the field: teacher ability, parental ability, economic ability, facility constraints, and pedagogical constraints.
(As of 2021)	The implementation Of Online Learning During Covid-19 Pandemic: Student Perceptions In Areas With Minimal Internet Access	Journal of Education Technology. Vol. 4(4) PP. 502-509	The results showed that students have a diverse perception of the implementation of online lectures. These perceptions include the perception of online learning infrastructure by 57%, online learning skills by 53%, perception of the quality of academic interaction online by 69%, the benefits of online learning by 69%. 53%,	the obstacles faced by 42%, the supporting factor of online learning by 38%, and the expectation of online learning in the future by 54%. This study concludes that there are various perceptions of students in online learning during the Covid-19 pandemic ranging from infrastructure, quality of interaction, and benefits received by students.
(Utomo et al., 2020)	Implementation of online learning at MI Muhammadiyah special program wirogunan kartasura during the Covid-19 Pandemic	ACM Digital Library	The study's findings are used to show how well online learning has been harnessed to provide a learning experience for students during the Covid-19 pandemic.	To be evaluated and adjusted to local conditions, given the ability of parents to provide different online learning facilities. The key is to maximize the ability of students to learn in a pandemic like this and not take many things from students

(Ahmad et al., 2021)	Implementation of Digital Games in Advancing Students' Higher-Order Thinking Skills: A Review	IOP Conference Series	Students' capacity to conduct online learning is based on their ability to manage students' study time, learning motivation, and discipline, as well as the availability of a decent internet connection, digital literacy skills, and the ability to find learning resources. Starting with parental support, easy communication with lecturers, as well as interesting learning techniques and media, the carrying capacity of students in online learning is maximized.	The problem with online learning is that it requires a large internet bandwidth, and college assignments that are considered redundant require greater time and effort management.
(Firmansyah et al., 2021)	Educational Transformation: An Evaluation of Online Learning Due to COVID-19.	International Journal of Emerging Technologies in Learning	The results showed that the implementation of learning was welcomed by students, in their perception that online learning was considered more flexible, efficient, and effective in the use of time and cost and energy.	Interactions that have not been optimal, changes in lecture schedules and estimates, inadequate facilities, and the use of learning media have not been optimal.
(Andarini & Salim, 2021)	Implementation of Digital Literacy in Elementary School Learning During Pandemic	Journal in 2021	Digital literacy activities during the Covid-19 pandemic at UPI Serang Pilot Laboratory elementary school went quite well and smoothly despite some obstacles.	facilities and infrastructure that are less supportive both from the student side and from the side of the student The educator himself.

Overview of Learning Implementation of Covid-19 Pandemic

Three aspects of the learning process must be observed: logical decision-making, learning planning, and utilizing all of the learning's skills and resources. As a teacher, you need to keep learning as a subject fresh by repurposing a variety of existing educational resources. Students will need to be taught online or through networking if the pandemic covid-19 threatens to wipe out traditional face-to-face methods. With the Minister of Education and Culture's order of 2019 on learning, we are in agreement. Concept-based learning activities are necessary for students. Preoccupation with learning can also be a motivating factor in the need for interactive and inspiring

methods (Mulyasana et al. 2020) Because there is no interaction between teachers and students or between students and other students, the learning process is not as effective as it should be. Because of the lack of direct face-to-face contact, learning solely through online media (such as chat, movies, and conferences) is likely to have less beneficial outcomes. Evaluation of Learning Assessment is based on a specific benchmark for a specific subject (Sudjana 2010). Because evaluation is an important part of recognizing success in applying learning modes.

One of the most common mistakes people make when learning something new is that there aren't yet standard methods for doing so, either in terms of learning standards or learning results. want (Choiri et al. 2021; Muslimah 2021). (Choiri et al. Teachers and participants teach to use technology by their own abilities and the need to investigate so that an unwanted situation can be avoided, including during the pandemic era covid 19. (Wahyono, Husamah, and Budi, 2020). Teachers and students alike are taken aback by the sudden implementation of new teaching methods involving electronic media and a policy of maintaining a distance. Initially, learning was done face-to-face, but now it is done entirely through electronic or online learning media.

The Pandemic Covid-19 learning plan combines face-to-face learning procedures in categories with e-learning in order to meet the mixed learning plan, which has been pioneered and must be refined to meet the needs of the new world. E-learning has been "tried" in education, so it is impossible to deny that a school can implement it. The use of digital technology by educators and students is strongly recommended. The other side of the coin is that they have to experiment with information technology and use their copyrights in novel ways to meet their obligations. It is possible to improve online learning activities and interpret teachers to build online classes using various data technology programs. Additionally, some of these include the use of Edmodo, Moodle, Google Classroom, Google Meet, Schoology, and others. Both WhatsApp and Zoom can be used to communicate. (Anggita, 2021; Faizin, 2021; Jahrir & Tahir, 2020b, 2020a; Zou et al., 2020)

The government has provided a special website with educational content regarding activities to use educational content. The survey results were conducted by APJII (Association of Indonesian internet service providers). The use of educational content provided by the government reached 52.8%. In this case, eLearning learning media is very effective in the pandemic era. Online learning, or E-learning, refers to the use of technology and data communication to allow students to practice whenever and wherever they want (Haniaturizqia & Rifa, 2021). In the current Pandemic era, teachers must use online learning to generate digital competencies because each teacher's digital form is more diverse (Subhi 2020). These subjects seek to prevent students from becoming saturated while pursuing and processing knowledge from learning modules and the saturation patterns used by some teachers. The most important since they were discovered, conventional systems throughout this must be accompanied by multimedia communication tools. Due to the internet character that can be accessed at any time, students can access the proposed learning programs on the internet if only for the duration of their fencing, allowing them to optimize their training skills.

Constraints in the Application of Pandemic Learning

Problems with learning techniques and selecting the best learning platforms reveal areas that require more attention. Although online learning is considered beneficial for theoretical learning, many student disadvantages and dissatisfactions remain in the practical application of online learning. In addition, networking or connection becomes the most significant obstacle in the application of online learning (Jahrir and Tahir 2020b, 2020a; Like 2021). Students in certain places have difficulty accessing subject content and taking online lessons due to uneven infrastructure development, so choosing a platform that is considered acceptable to schools as a medium of learning is essential. Due to high bandwidth demands but not by network availability, some regions in Indonesia can still access media or online learning assistance programs in total. Although technology acceptance varies by age, children in elementary and junior high schools are still exploratory while growing and learning. Therefore, using technology as a learning tool requires supervision from an educator or parent.

CONCLUSION

This research illustrates the extent of the implementation of online learning in various fields of science. Online learning media has a positive impact on education sustainability across the country. Since establishing covid-19 as a pandemic, online learning has become the government's main focus in organizing education. These findings reflect that online learning is currently considered effective to replace conventional learning, but several factors related to the implementation of learning must still be considered. The recommendation for further research is to conduct many studies related to how practical knowledge is applied to online learning methods so that researchers can determine whether practical learning is effective in pandemic times, especially at the elementary to the junior high school level. In addition, further research is needed related to differences in the implementation of learning in areas that are difficult to reach the internet with areas that are easily accessible by the internet to ensure education is held evenly

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