E-Learning: Succeeding Amid the Pandemic Period, Forgotten in the Post-Pandemic Era

Bintang R. Simbolon¹, Hidayat², Hartiningsih³, Cecep Wahyu Hoerudin⁴, Imran⁵, Mia Aina⁶

¹Universitas Kristen Indonesia, Indonesia; bintangsmbln@yahoo.com
²Universitas Nurtanio Bandung, Indonesia
³ Universitas Brawijaya, Malang, Indonesia
⁴UIN Sunan Gunung Djati Bandung, Indonesia
⁵Universitas Tanjungpura, Pontianak, Indonesia
⁶Universitas Jambi, Jambi, Indonesia

ARTICLE INFO

ABSTRACT

As the coronavirus emerged, a necessity in the educational sector, instructors or lecturers have been required to establish teaching methodologies. On the other hand, as the epidemic winds down, the transmission of knowledge is gradually shifting back to being carried out offline or through a mixed approach. Online education is beginning to lose popularity as a result. This study aimed to examine the practical implications of knowledge gained through e-learning. Employing qualitative research by literature study, keywords used as data are mapped based on Google Scholar and Garuda sites in the form of books and articles are ["educational institutional"] and ["e-learning"] and ["pandemic"], by having ten inclusive data of literature associated with the intended subject matter. As a result, students felt more at ease and satisfied when using online learning as a platform for voicing their opinions and concerns. In addition, using various online learning media can facilitate an increase in the learner's level of autonomy. During the COVID-19 epidemic and the implementation phase, e-learning was particularly beneficial in online learning. Then, after it ends, learning with e-learning media is still very much needed because almost all educational institutions have optimally developed e-learning media along with improvements in implementation, always up to date with technological developments, and very effective and efficient by minimizing costs.

Corresponding Author:
Bintang R. Simbolon
Universitas Kristen Indonesia; e-mail: bintangsmbln@yahoo.com

1. INTRODUCTION

Teachers must carefully prepare and construct various methods, strategies, procedures, and learning processes for each subject area to facilitate holistic learning (Setiawan, 2017). During the pandemic and the Covid-19 outbreak, teachers and students could not interact face-to-face in the classroom and carry out learning activities. Instead, they should utilize information and communication technologies to set up a framework that encourages active participation in the learning process. Learning theories, procedures, and blueprints are all impacted by Covid-19. Educators are only one of many industries Covid-19 has successfully destroyed worldwide (Putri et al., 2021). Since attending school often necessitates making substantial adjustments to one's living situation, schooling is undergoing profound changes (Andiyanto, 2021). A possible solution to the adverse effects of the Covid-19 virus on Indonesia's educational system is the implementation of online learning.

A variety of platforms can support online learning. Online writing courses, for example, have grown in popularity in schools. According to reports, pupils prefer online learning to face-to-face lectures. Online learning is an alternative to a face-to-face lecture curriculum. One of the examples is a study that has found evaluation in online learning results in significant efficacy (Setiawan & Aden, 2020). Another study shows that the lecturer's function in examining students' writing works through a peer review correction procedure was said to please the students by adopting online learning. (Darmalaksana et al., 2020). One of the alternative online learning platforms, another example offered by the government for online teaching and learning activities, is Microsoft Online 365. This application is a Microsoft tool used for online business, office, and education needs. In the field of education, in particular, this application provides many advantages with free and various features that make it easier for teachers and students in the online learning process. Another advantage is that this application also increases productivity in teaching and learning activities (Suprianto, 2018).

In recent years, however, there has been a rise in the number of students pursuing degrees online. To make up for the fact that face-to-face (offline) instruction is now seen as antiquated and outmoded, educational institutions must provide their campuses with cutting-edge technological and data-driven resources (Hikmah & Chudzaifah, 2020). For online education to work smoothly, there must be a collaboration among its many stakeholders. Modernizing the classroom is the goal of online education. Instructors and students, or lecturers and students, should view online learning as a supplementary model of education and an integral part of the educational process (Darmayanti et al., 2007).

Genuinely, to avoid pupils becoming bored and disinterested in the learning process, instructors leading learning activities need to be able to communicate the subject being taught in a variety of ways (Astaman et al., 2018). In creating an environment that is either conducive to learning or ideal for it, teachers need to pay attention to each of their pupils and ensure that none of them makes any errors while they are learning, and pupils need to be able to follow any instructions or guidelines that are presented to them while they are learning (Nugraha et al., 2019). It is also the responsibility of teachers to maximize the effectiveness of students' study time and schedule it in such a way that no time is lost. If teachers spend too much time on any one learning activity, pupils will get disinterested in the activities that follow. Because teachers anticipate that they will be able to impart the content according to the plan within the allotted time, and pupils will follow it to the maximum extent, an educator must establish an environment that is both effective and efficient for learning online (Sutarno & Mukhidin, 2013).

Therefore, online learning is an internet-based app to overcome other learning barriers, such as time efficiency, study space, learning situations, and surroundings (Elyas, 2018). It also functions as a learning tool and an absorber to provide subject matter to achieve learning objectives to the greatest extent possible so that students can learn and follow attitudes and skills in subjects (Syahfitri et al., 2020). This potential will improve school quality (Rasidi et al., 2021). In brief, online learning has the potential to build digital learning environments in which students can access information from

several sources regardless of their location or time constraints to reach students' potential in an online learning context maximally.

However, on the other hand, many students are disinterested in e-learning due to insufficient essential online learning aid and supervision (Ramadhan et al., 2021). E-learning may be more enjoyable than in-person learning. Recent research by Padma and Sukanesh (Kristina et al., 2020) indicated that e-learning students could communicate their goals and views less. According to Padma and Sukanesh, online learning is uninteresting and lowers students' passion and interest in learning since students do not take an active role in learning. Modifying the students' behaviour through contact with their surroundings is familiarly known and understood as learning (Pane & Dasopang, 2017). In other words, partly, online learning negatively impacts its implementation, including the students' behaviour.

Since the beginning of online learning implementation in March 2020, every student has formed online learning habits, and there has been a change in student behaviour due to the deployment of online learning. Face-to-face learning resumed after the four ministries issued a Joint Decree outlining Guidelines for Implementing Learning During the Covid-19 Pandemic. After a long period of implementing online learning, the learning process will surely change, and students' new habits will need to be adjusted (Tanuwijaya & Tambunan, 2021).

On account of this dynamic phenomenon, further study is required regarding the changes in the learning process after online learning in school to find out more precisely what and how the issues and impacts that educational institution faces in implementing post-online learning are. A significant effort can be carried out in the form of research on a review of E-learning: succeeded during and forgotten after the COVID-19 pandemic era.

2. METHODS

The search for the literature underlying this review is an approach of qualitative research (Creswell, 2013). This study serves the aim of identifying books and papers that can contribute to answering the question of this research: what and how are the issues and impacts faced by educational institutions in implementing online post-pandemic era? Therefore, the main search keyword used as data are mapped based on Google Scholar and Garuda sites in the form of books and articles are ["educational institutional"] AND ["e-learning"] AND ["pandemic"], by exclusively 22 data of literature after generating 32 data of literature. It means that this study used 10 of data literature associated with the intended subject matter. Thus, this review draws on a total of 10 data of literature and addresses several specific matters such as the following: e-learning media subjects in schools, e-learning media use during the pandemic, and e-learning media use after the pandemic.

3. FINDINGS AND DISCUSSION

3.1 E-Learning Media Subjects in Schools

In part of this review, the authors initially look into the classroom context that takes instructional media's role as an intermediary, a technology that enhances the quality of teacher-student relationships by encouraging more open lines of communication and interaction. The term "learning media" refers to a variety of resources that educators can use to disseminate knowledge and, in turn, can arouse students' interest and motivate them to learn. It is clear from this description as asserted by Tafonao, (2018), that teachers can use learning media to successfully communicate information to their students, which students will then take as knowledge.

Since e-learning refers to any educational resource that can be accessed online and is delivered by any form of electronic media, participating in e-learning, students need only have access to a

computer network in their homes rather than traditional classrooms. Electronic classrooms represent a paradigm shift in education (Horton, 2011). Creating a masterpiece with online education,e—learning media allows students to instantly access any lecture from any professor, regardless of where they happen to be. E-learning media not only helps students save money on lesson plans, but it also frees up more time for them to study. Nevertheless, several authorities define e-learning media from their unique vantage points. First, some of them are defined. E-learning media uses an approach to education that makes use of the internet and/or other forms of computer networks to disseminate educational content to students. Second, electronic learning (or E-learning) by using media is a strategy that utilizes digital resources like the web and computers to bolster conventional pedagogical techniques. Third, through E-learning media use, students can study whenever and wherever they like using their personal computers as opposed to physically attending a school or lecture hall. Fourth, E-learning media is typically considered an internet-based educational platform by using media. Fifth, online education, or E-learning by using media, is a form of distance learning made possible via various computing and networking technologies (Maudiarti, 2018).

Therefore, what is meant by "e-learning media" is all content that can be accessed via an internet connection. Nevertheless, traditionally, the term "e-learning" has been used to refer to learning at a distance through computers or other electronic devices; however, this definition has evolved significantly over time. Social media platforms such as WA (WhatsApp), YouTube, Facebook, and Zoom are all used extensively in e-learning today (Sukanto, 2020). E-learning by using media, on the other hand, requires expensive hardware. As a result, many educational institutions, including schools and colleges, still need to develop an e-learning framework. Teachers now use a comparable instrument (in this example, social media) as a distance learning tool to prepare students for this gap. It still serves its intended purpose of fulfilling educational requirements. The drawback is that social media has limitations in documenting, assessing, and collecting student work.

To sum up, despite the practicality and the efficiency that e-learning media offers, it still depicts its downsides in terms of its use, which possibly may cause other disadvantages for the users. This intractable problem to deal with is another issue to rethink and solve so that e-learning media can be fully beneficial.

3.2 Learning Media Use during the Pandemic

In this part of this next review, the authors continue to focus on using e-learning as a learning medium during the pandemic. Hybrid approaches that are used to teach and learn different subjects in the classroom by having e-learning media play a central role in the majority of students' daily educational experiences; can be used in situations like the COVID-19 epidemic as well. This is similar to the idea proposed by Chusna (2019), which states that there are multiple methods in which e-learning can be implemented: first, the learning process is regular (more face-to-face meetings) via the internet or graphic interactive media for interactive computer learning. Second, you may use a hybrid method, where most of the teaching and learning occurs online but in-person gatherings are still necessary for teaching and discussing the content. Third, there is no in-person instruction available; all training must be done remotely.

Based on the aforementioned approaches, it is clear that in the Covid-19 era, e-learning material is not meant to replace more conventional ways of education but rather to supplement them. The instructor's role is that of a guide rather than a source in this kind of education. By pooling their already-available resources, students are better able to discuss and learn from the instructor's courses. It is in line with Fahmi (2020), who asserts that due to the nature of the COVID-19 epidemic, online learning via e-learning proved to be particularly useful during the deployment phase.

Additionally, teachers incorporate e-learning technologies into their lessons wherever possible. Teacher-created teaching resources, such as WA groups, Google Classroom, YouTube video links, or student-discovered resources, are made available to students first by having them open their Android

phones or computers and download them. Depending on the subject's size, these tasks can be completed in a group setting or by an individual.

As a consequence, the instructor has to provide and prepare several readings and exercises. Text, video, and animated GIFs can all be used for information provision to entice e-learning formats. Following this way of thinking, the required classroom resources for teachers can take the form of Multimedia Based Content which is equivalent to interactive multimedia that can be accessed via an Android smartphone or computer. Text-based content, or media that mostly consists of text could also be used as educational resources.

Teachers, accordingly, can give their students access to online learning resources by either sharing a Google Classroom link with them or directing them to relevant websites themselves. Depending on the resources at hand and the complexity of the activities at hand, they can be broken down into smaller chunks or completed separately. Within this context, educators create and mix instructional resources. E-learning is the basis for the listed content, which can be provided in the form of text, video, or graphics. This is in keeping with the idea that multimedia, especially interactive multimedia using computer devices, can be used in classroom materials. By "text-based content," we mean any media that is mostly textual, such as electronic textbooks (e-books) that may be accessed via the internet.

Teachers play a crucial role as guides during these lessons as well. Teachers still need to show pupils a working example of the process, so they spend class time explaining it to the class before letting them try it out for themselves. The dialogue could be in the form of questions and answers. The final step involves a collective summary, evaluation, and grading from the teacher and the students. Therefore, both oral and direct/manual methods of assessment are appropriate for this purpose. The instructors also possibly give additional work to be done online, outside of class time.

Students' interest in subjects, as well as their motivation and achievement, have grown after using e-learning to study them. Some students claim that online education is more engaging and enjoyable. In general, concisely, the advantages of e-learning during a pandemic are (1) location and time flexibility. If traditional classroom learning requires students to be present at specific times, e-learning allows students to choose when and when to receive lessons. Many costs can be saved through e-learning, (4) Flexibility in learning speed, e-learning can be adjusted to the learning speed of each student, (5) Standardization of teaching, e-learning lessons always have the same quality each time they are accessed and do not depend on the mood of the teacher, and (6) Effectiveness of teaching.

3.3 Learning Media Use in Post-Pandemic

Subsequently, the review of this part is by taking a deeper look into the use of e-learning media in the post-pandemic era. The difference in face-to-face learning carried out during the pandemic in the yellow zone showed a change carried out by the school, such as implementing health protocols and reducing study hours at school. There were several changes made to the teaching and learning process, as well as other activities at school. During the pandemic, which had been going on for almost two years, the installation of face-to-face learning was re-implemented after the epidemic had caused the deployment of online learning to be discontinued.

The readiness of education providers does not necessarily mark the resumption of face-to-face learning. At the primary and secondary education levels, the adaptation process from online to offline processes is quicker because, so far, these levels have most felt the impact of the ineffectiveness of online learning. So, when they need to go offline, they quickly adapt again. However, at the higher education level, the return to face-to-face learning was marked by many new stutters in terms of infrastructure that had to be re-prepared, as well as the problem of changing the online learning model, which has been considered "comfortable" for almost two years but must return to the face-to-face learning system offline face. It takes time and mental readiness for lecturers and students to return to the face-to-face learning model (Farah, 2020).

In this regard, according to the author's view, e-learning that has been running during the Covid-19 pandemic still needs to be done, or if it is not one hundred per cent, variations of blended learning or hybrid learning can be done. Blended learning is a learning model with a mixed pattern between online and offline with specific proportions; for example, some learning is done online, and the rest is done offline. The proportion can be determined as 60% online and 40% offline, or 70% online and 30% offline. This proportion can be determined according to the needs and considerations of existing conditions.

Additionally, hybrid learning is learning that is carried out with a combination of online and offline learning in each lesson. The practice provides flexibility for students to take lectures online or offline. The implementation of this hybrid learning is carried out with a learning system where the teacher teaches in class with students who take part offline while students who cannot be offline are at the same time present in online learning. In contrast to blended learning, implementing hybrid learning requires more complete information technology facilities in class, for example, a strong internet network in each class and supporting technology equipment such as an adequate webcam (Rusyada & Nasir, 2022).

Accordingly, there are three reasons why the implementation of e-learning learning, which was already underway during the pandemic, needs to be maintained, or at least it can become a learning option. First, most schools and colleges during the pandemic, due to the demands of online learning, have developed e-learning learning applications. In its implementation, there have been improvements. Online learning applications through e-learning media will still be used and developed if online learning policies are enforced. If there is a policy, existing online learning applications can be addressed and eventually remembered even though the application was made with the outpouring of ideas from IT experts and cost a lot of money.

Second, the demand for information technology-based educational services will never subside but will continue to grow and develop along with the development of information technology. The demand for the flexibility of learning by the community, one of which is online learning, will continue to be massive, and this needs to be responded to. Several higher education institutions abroad now even offer online learning. The Minister of Education and Culture, Nadim Makarim, even during the pandemic, stated that learning with information technology will continue to apply even though the pandemic has ended.

Finally, thirdly, the application of e-learning will reduce the burden on schools, especially on the provision of learning infrastructure in the classroom. So far, many teachers have complained about inadequate classroom learning facilities, from hot and uncomfortable classrooms due to the absence of air conditioning, broken and non-functioning LCDs, and other inappropriate facilities. The leadership reasoned the limited budget to meet that need. After this pandemic, many classroom facilities were damaged and have not been repaired. The choice of an e-learning learning system will at least reduce the burden of maintaining and providing facilities and infrastructure that educational institutions must bear.

Apart from some of the weaknesses of online learning, which can still be improved and refined, online learning needs to be considered for implementation, or at least it can be an option for students to study online or offline. Even more critical, if this is to be implemented, an overarching regulation is needed so that it will not become a problem when higher education implements it. This thinking needs to be considered by the Ministry of Education and Culture and the Ministry of Religion as the ministry in charge of the education sector.

To conclude, the use of learning media after the pandemic should be wisely reconsidered for its efficiency and flexibility by thinking back on its use throughout the epidemic time. A more precise decision might be more possible to be drawn according to its implementation, not only solely for teachers' side but particularly for learners', both have benefited by the use of its use during the pandemic, which then surely still adjustable after the era.

4. CONCLUSION

The above research supports the conclusion that online learning provides students with a safe and comfortable space to ask questions and share thoughts. Furthermore, using e-learning learning media helps promote independence in learning. Learning through e-learning is very effective in online learning during the COVID-19 pandemic. Due to the COVID-19 pandemic, before it ultimately ended, face-to-face class meetings were impractical. However, e-learning and hybrid learning media are not time-bound, making them a better alternative. Among the advantages gained by using e-learning as a learning medium are: flexibility of place and time, independent learning, low cost, the flexibility of learning speed, standardization of teaching, and finally, the speed of distribution. From the author's point of view, the use of e-learning in the post-pandemic teaching and learning process is still very much needed because almost all educational institutions, both elementary and secondary, have developed e-learning applications and have undergone improvements in their implementation; education services based on information and communication technology will never subside, and finally, the implementation of e-learning will reduce the burden on educational institutions, especially in providing learning infrastructure.

Nevertheless, furthermore, it is highly recommended to find out the real reasons why the implementation of e-learning applications that have been implemented so far are no longer being used optimally, even though these applications have made a positive contribution to learning outcomes carried out during the pandemic. More detailed factors could be in research concerning which opportunity does e-learning platform provide to open up another further benefit or advantage for outweighing the unearthed challenges related to the integration of the technology seen in e-learning development to constantly improve and increase its effectiveness, particularly in term of its content.

REFERENCES

Andiyanto, T. (2021). *Pendidikan dimasa covid-19*. Raih Asa Sukses.

Chusna, N. L. (2019). Pembelajaran E-learning. *Prosiding Seminar Nasional Pendidikan KALUNI, 2*(1), 113–117.

Creswell, J. W., 2013. *Research design: Qualitative, quantitative, and mixed methods approach*. Thousand Oaks, California: Sage.

Darmalaksana, W., Hambali, R., Masrur, A., & Muhlas, M. (2020). Analisis pembelajaran online masa wfh pandemic covid-19 sebagai tantangan pemimpin digital abad 21. *Karya Tulis Ilmiah (KTI) Masa Work from Home (WFH) Covid-19 UIN Sunan Gunung Djati Bandung*, 1–12.

Darmayanti, T., Setiani, M. Y., & Oetojo, B. (2007). E-learning pada pendidikan jarak jauh: konsep yang mengubah metode pembelajaran di perguruan tinggi di Indonesia. *Jurnal Pendidikan Terbuka Dan Jarak Jauh, 8*(2), 99–113.

Elyas, A. H. (2018). Penggunaan model pembelajaran e-learning dalam meningkatkan kualitas pembelajaran. *Warta Dharmawangsa, 56*.

Fahmi, M. H. (2020). Komunikasi synchronous dan asynchronous dalam e-learning pada masa pandemic covid-19. *Jurnal Nomosleca, 6*(2).

Farah, B. (2020). Analisis perubahan orientasi pola hidup mahasiswa pasca berakhirnya masa pandemi covid-19. *Jurnal Noken Universitas Muhammadiyah Sorong, 5*(2).

Hikmah, A. N., & Chudzaifah, I. (2020). Blanded Learning: Solusi Model Pembelajaran Pasca Pandemi Covid-19. *Al-Fikr: Jurnal Pendidikan Islam, 6*(2), 83–94.

Hortono, W. (2011). *E-learning by design*. John Wiley & Sons.

Kristina, M., Sari, R. N., & Nagara, E. S. (2020). Model pelaksanaan pembelajaran daring pada masa pandemi covid 19 di Provinsi Lampung. *Idaarah, 4*(2), 200–209.

Nugraha, J., MS, Z., & Fuad, N. (2019). Peningkatan keterampilan menulis deskripsi melalui pendekatan saintifik dengan metode problem based learning di kelas iv sekolah dasar. *Prosiding*

Seminar Nasional Pendidikan KALUNI, *2*, 118–124.

Pane, A., & Dasopang, M. D. (2017). Belajar dan pembelajaran. *Fitrah: Jurnal Kajian Ilmu-Ilmu Keislaman*, *3*(2), 333–352.

Putri, A. P., Rahhayu, R. S., Suswandari, M., & Ningsih, P. A. R. (2021). Strategi pembelajaran melalui daring dan luring selama pandemi covid-19 di SD Negeri Sugihan 03 Bendosari. *Prima Magistra: Jurnal Ilmiah Kependidikan*, *2*(1), 1–8.

Ramadhan, I., Nugraha, T. J., Firmansyah, E., Alkahfy, R., & Rian, R. (2021). Perubahan Proses Pembelajaran Tatap Muka Pasca Pembelajaran Daring Pada Masa Pandemi Covid-19 Di MAN 2 Pontianak. *Jurnal Ilmiah Wahana Pendidikan*, *7*(8), 86–93.

Rasidi, M. A., Hikmatullah, N., & Sobry, M. (2021). Hambatan guru dalam pembelajaran daring: Studi kasus di kelas V MIN 2 Kota Mataram. *Jurnal Ilmiah Pendidikan Dasar*, *8*(2), 159–174.

Rohani, R. (2019). *Media pembelajaran*.

Rusyada, H., & Nasir, M. (2022). Efektivitas Penerapan Hybrid Learning Pasca Pandemi Covid-19 di Sekolah Dasar. *Jurnal Basicedu*, *6*(2), 1714–1723.

Setiawan, M. A. (2017). *Belajar dan pembelajaran*. Uwais Inspirasi Indonesia.

Setiawan, T. H., & Aden, A. (2020). Efektifitas penerapan blended learning dalam upaya meningkatkan kemampuan akademik mahasiswa melalui jejaring schoology di masa pandemi covid-19. *JPMI (Jurnal Pembelajaran Matematika Inovatif)*, *3*(5), 493–506.

Suprianto. 2018. Perancangan E-Learning Menggunakan Office 365 Dalam Proses Belajar Mengajar. Seminar Nasional Royal (SENAR) 2018. STMIK Royal –AMIK Royal, 381 -386.

Sukanto, D. (2020). Pembelajaran Jarak Jauh Dengan Media E-Learning Sebagai Solusi Pembelajaran Pada Masa Pandemi Corona Virus Disease 2019 (Covid-19). *Syntax*, *2*(11), 835.

Sutarno, E., & Mukhidin, M. (2013). Pengembangan Model Pembelajaran Berbasis Multimedia Interaktif Pengukuran untuk Meningkatkan hasil dan Kemandirian Belajar Siswa SMP di Kota Bandung. *Jurnal Pendidikan Teknologi Dan Kejuruan*, *21*(3).

Syahfitri, R., Sari, D. P., Wahyuni, A., Fatimah, S., & Setiawan, H. R. (2020). Implementasi E-Learning Pada Mata Pelajaran PAI Dimasa Pandemi Covid-19. *Al-Ulum: Jurnal Pendidikan Islam*, *1*(1), 44–54.

Tafonao, T. (2018). Peranan media pembelajaran dalam meningkatkan minat belajar mahasiswa. *Jurnal Komunikasi Pendidikan*, *2*(2), 103–114.

Tanuwijaya, N. S., & Tambunan, W. (2021). Alternatif solusi model pembelajaran untuk mengatasi resiko penurunan capaian belajar dalam pembelajaran tatap muka terbatas di masa pandemic covid 19. *Jurnal Manajemen Pendidikan*, *10*(2), 80–90.