Hybrid Learning Model for Elementary School in Pandemic

Inayatulloh
Information Systems Department
School of Information System
Bina Nusantara University
Jakarta, Indonesia 11480
Inay@binus.ac.id

Rofiq Noorman Haryadi
Sekolah Tinggi Ekonomi Bisnis Islam Syariah Bina Mandiri
Bogor, Indonesia 11480
rofiq@binamandiri.ac.id

Siti Elda Hiererra
Information Systems Department
School of Information System
Bina Nusantara University
Jakarta, Indonesia 11480
elda.siti@binus.ac.id

Sugeng Riyanto,
STIE Pertiwi
Bekasi, Indonesia
sr7752413@gmail.com

Destiana Kumala
Sekolah Tinggi Ekonomi Bisnis Islam Syariah Bina Mandiri
Bogor, Indonesia 11480
destiana.kumala@binamandiri.ac.id

Rivaldhy N. Muhammad
Study Program of Law, Faculty of Law, Social and Political Sciences
Open University, Indonesia
valdhymuhammad1@gmail.com

Abstract

The COVID-19 pandemic has had a broad impact on school learning activities, including for elementary school students. But the pandemic is not a reason to stop the learning process at school, meaning that the learning process can be carried out, one of which is by using e-learning. However, some limitations of elementary school students cause the implementation of e-learning for elementary school students is not optimal, so hybrid e-learning is a solution for elementary school students using e-learning during a pandemic. The purpose of this research is to build a hybrid e-learning model for elementary school students with a qualitative approach method through observation of learning activities and interviews with experts. the result of this research is a hybrid e-learning model for elementary school students.

Keywords
E-Learning, Hybrid Model, Elementary School

1. Introduction

E-learning is an innovative learning process using information technology. The advantages of E-learning have caused almost all educational institutions to use e-learning and a lot of research has shown an increase in the effectiveness and efficiency of the learning process due to using e-learning (Soni 2020). Rapid technological developments continue to make the education system in Indonesia better and more advanced following other countries (Shaturaev 2021). The education system continues to develop from using only conventional systems to switching to an all-digital system. Initially the teaching and learning process only took place in the classroom, but now the teaching and learning process is not bound by space and time. (Inayatulloh 2020)

The pandemic condition causes students to not be allowed to do face-to-face learning, which has an impact on the high use of e-learning and increases awareness of the importance of e-learning (Ana et al. 2020).However, an effective e-learning implementation requires several requirements that must be available from e-learning users including teachers and school students. The limitations of elementary school students are one of the obstacles that hinder the implementation of e-learning in elementary schools, but e-learning must continue to be implemented because the pandemic still exists (Inayatulloh 2021). Hybrid learning is a combination of online learning with offline learning with direct interaction between students and teachers. Hybrid learning is a solution for elementary school students and teachers by offering a combination of online and offline learning where the limited knowledge of students and teachers in using e-learning can be solved with a hybrid e-learning model. The research method uses a qualitative approach by observing the learning process in elementary schools and interviews with experts. The purpose of this research is to build a hybrid e-learning model for school students

2. Literature Review

E-Learning

E-learning is defined for our purpose here as the use of any of the new technologies or applications in the service of learning or learner support(Kumar 2018). It is important because e-learning can make a significant difference: to how learners learn, how quickly they master a skill, how easy it is to study; and, equally important, how much they enjoy learning (Yaniawati et al. 2020). Such a complex set of technologies will make different kinds of impact on the experience of learning:

First cultural – students are comfortable with e-learning methods, as they are similar to the forms of information search and communications methods they use in other parts of their lives. second, intellectual – interactive technology offers a new mode of engagement with ideas via both material and social interactivity online. The next one, social - the reduction in social difference afforded by online networking fits with the idea that students should take greater responsibility for their own learning. The last one, practical – e-learning offers the ability to manage quality at scale, and share resources across networks; its greater flexibility of provision in time and place makes it good for widening participation

There is also a financial impact. Networks and access to online materials offer an alternative to place-based education which reduces the requirement for expensive buildings, and the costs of delivery of distance learning materials. However, learners still need people support, so the expected financial gains are usually overwhelmed by the investment costs of a new system and the cost of learning how to do it. We cannot yet build the case for e-learning on cost reduction arguments – we are better placed to argue for investment to improve value than to save costs.

Hybrid e-learning

Blended Learning is basically a combination of the advantages of learning that is carried out face-to-face and virtually. Blended learning is also a combination of face-to-face teaching and online teaching, but more than that as an element of social interaction (Dakhi et al. 2020), (Inayatulloh 2021). Hybrid learning is learning that combines various approaches to learning, namely face-to-face learning, computer-based learning and online-based learning (internet and mobile learning). Blended learning and hybrid learning are methods that can be an alternative in Indonesia facing the digital era. Given that now, almost in various countries have used it to improve the quality of

education and make it easier for trainees and instructors in the process of providing training materials. (Amhag et al. 2019).

This research resulted in a hybrid e-learning model to explain in more detail the outcomes and concepts offered. The model is also widely used to explain e-learning, blockchain, DSS, KMS to make it easier to understand the resulting concepts.

3. Research Methods

Figure 1 describes the research stages, where this research begins with identifying the learning problems of elementary school students during a pandemic were based on observation, face-to-face learning is replaced by online learning through social media. There are many obstacles that students face when using social media as an online learning tool. The next step is to analyze alternative solutions for elementary school students by designing a combination of online learning, face-to-face learning and learning via the internet. The final stage of this research is designing a hybrid e-learning model for elementary school students.
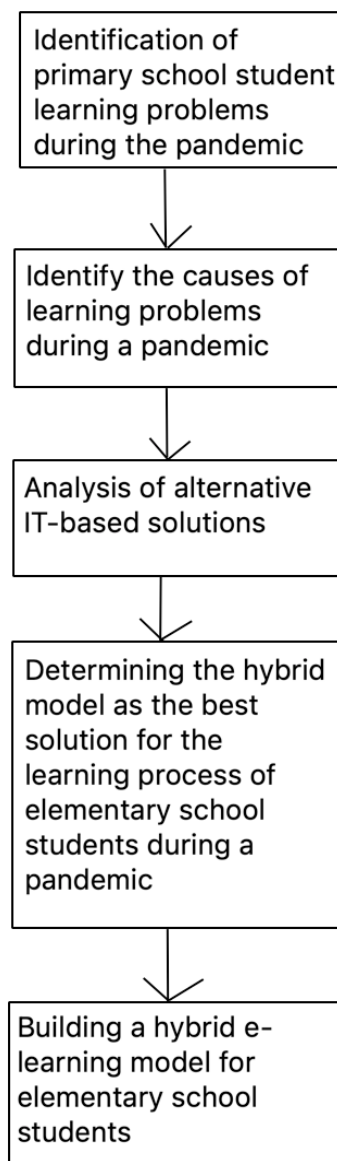

Figure 1. Research Method

4. Results and Discussion

The hybrid model combines online classes with an LMS or Learning Management System with internet learning sources and onsite classes. Learning management system is a customized system made to support online learning. So LMS is a major part of the hybrid learning model because all online learning needs such as information about class organization, exams, materials, schedules, students, teachers and others are already available in the LMS. Internet source learning is used for students who cannot use LMS with some obstacles, so students can still follow the learning process. While the onsite class is a part that complements the previous two approaches where if the delivery of knowledge is not optimal, students and teachers can do onsite classes.
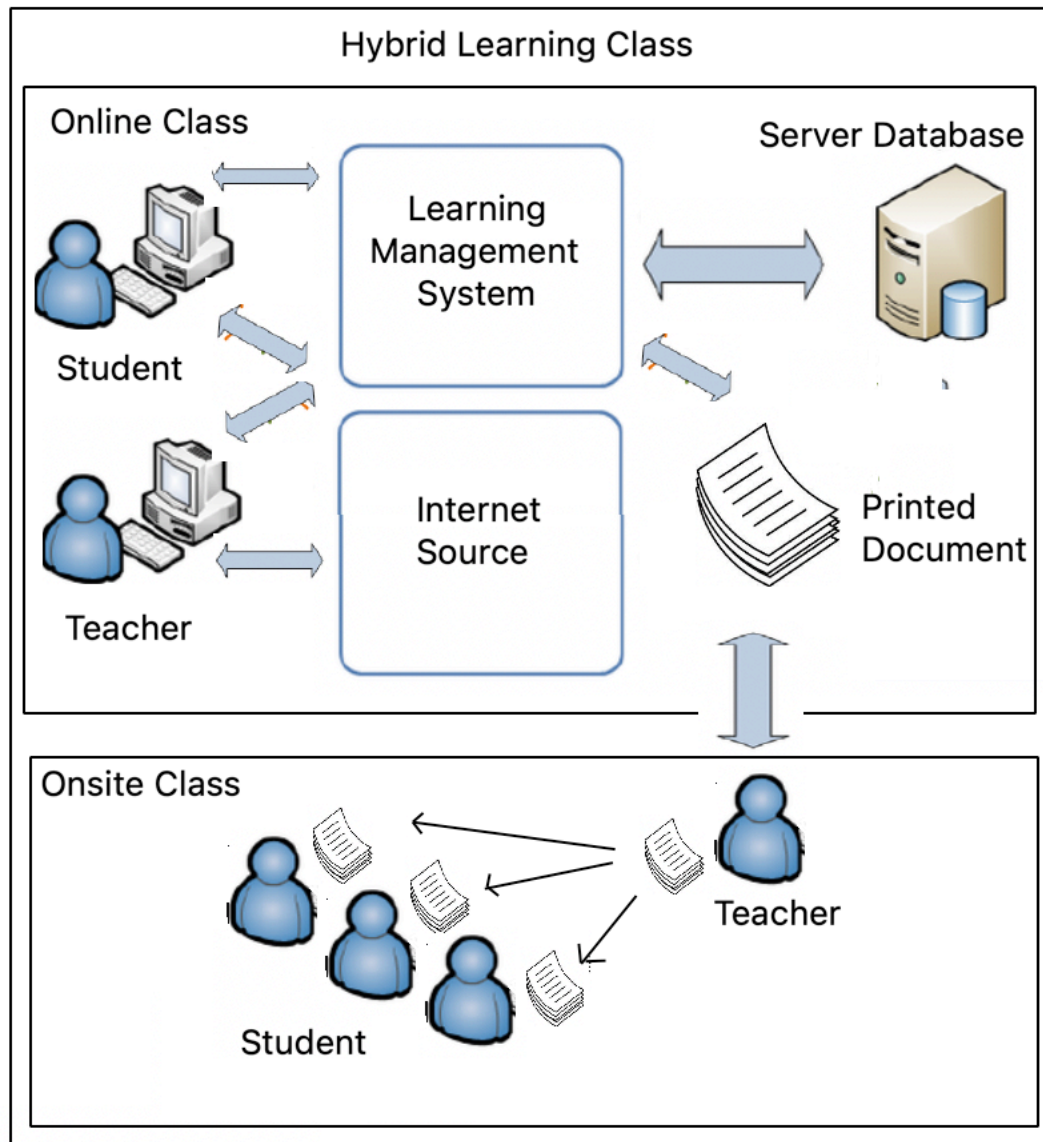

Figure 2. Hybrid Learning model

5. Conclusion

The hybrid learning model for elementary school students can help students to take maximum lessons with some existing limitations such as limited knowledge of using LMS, limited internet network, limited costs and others. If students experience problems using the LMS, students can use social media via the internet to take lessons. If students experience internet problems to join online classes, students can join onsite classes that are part of this

model. The significant difference between online classes and onsite classes is the medium for distributing knowledge where the onsite class distributes knowledge with digital content while the onsite class uses printed documents.

References

Ana, A., Minghat, A. D., Purnawarman, P., Saripudin, S., Muktiarni, M., Dwiyanti, V., & Mustakim, S. S. (2020). Students' Perceptions of the Twists and Turns of E-learning in the Midst of the Covid 19 Outbreak. *Romanian Journal for Multidimensional Education/Revista Romaneasca pentru Educatie Multidimensionala*, *12*

Amhag, L., Hellström, L., & Stigmar, M. (2019). Teacher educators' use of digital tools and needs for digital competence in higher education. *Journal of Digital Learning in Teacher Education*, *35*(4), 203-220.

Dakhi, O., Jama, J., & Irfan, D. (2020). Blended Learning: A 21st Century Learning Model At College. *International Journal Of Multi Science*, *1*(08), 50-65.

Inayatulloh, Inayatulloh, and Hendra Alianto. "E-learning Community Model for SMEs." *2021 International Conference on Information Management and Technology (ICIMTech)*. Vol. 1. IEEE, 2021.

Inayatulloh "E-Learning Model for Disabiliies "*Proceedings of the International Conference on Industrial Engineering and Operations Managemen*t, Rome, August 2021

Inayatulloh "Open-Source E-Learning Model Base on Cloud Computing Technology "*Proceedings of the International Conference on Industrial Engineering and Operations Management,* Brazil, April 2021

Inayatulloh "E-Learning Hybrid Model "*Proceedings of the International Conference on Industrial Engineering and Operations Management*, Brazil, April 2021

Inayatulloh "Problem for Teacher in School "*Proceedings of the International Conference on Industrial Engineering and Operations Management,* Brazil, April 2021

Kumar Basak, S., Wotto, M., & Belanger, P. (2018). E-learning, M-learning and D-learning: Conceptual definition and comparative analysis. *E-learning and Digital Media*, *15*(4), 191-216.

Shaturaev, J. (2021). Indonesia: Superior Policies And Management For Better Education (Community development through Education). *Архив научных исследований*, *1*(1).

Soni, V. D. (2020). Global Impact of E-learning during COVID 19. *Available at SSRN 3630073*.

Yaniawati, P., Kariadinata, R., Sari, N., Pramiarsih, E., & Mariani, M. (2020). Integration of e-learning for mathematics on resource-based learning: Increasing mathematical creative thinking and self-confidence. *International Journal of Emerging Technologies in Learning (iJET)*, *15*(6), 60-78.

Biographies

Inayatulloh SE. MMSI, CDMS.CSCA is a lecturer at Bina Nusantara University, School of Information System Jakarta Indonesia and also a doctoral candidate of computer science, experienced in managing systems in the retail, automotive, convection and education industries. research domain in e-learning, e-business, e-commerce, cloud computing, IoT and block chain technology.

Rofiq Noorman Haryadi, he was born in Bandung, November 30, 1983. After graduated from Indraprasta PGRI University in 2016, he continued to study to get Magister Education in 2018 in the same university. Recently, as a lecturer in STEBIS Bina Mandiri Cileungsi, Indonesia at Management Business Sharia Program study with a focus on a course of English Education.

Sugeng Riyanto, found that my passion was to become an educator. I decided to take a master's degree at the university of IPB by taking a concentration in Small and Medium Industry Management (MPI). It was a big decision in my life that would change everything. I am currently a lecturer at the College of Economics (STIE) PERTIWI Bekasi, I have started the teaching profession since 2014 until now. Apart from being a lecturer, I am also the deputy principal of the industrial relations field at a private vocational school in Bogor district. I have a responsibility to establish relationships and cooperation between schools and the industrial world, agencies, and other institutions, both government and private institutions

Destiana Kumala, S.kom, M.M., C. HR. Adm. Completed Bachelor of Information Systems Education (2009) and Master of Management with a concentration on Human Resources (2012), besides that the author has also completed training in Human Resources Administration (2021). Currently active as a permanent lecturer at STEBIS Bina Mandiri Cileungsi in the sharia business management study program and focuses on the field of management

science. Apart from being the vice chairman of the academic field, the author is also a researcher in the fields of economics, management and computers

Rivaldhy N. Muhammad is a Lecturer at the Open University which is one of the State Universities in Indonesia. holds a Bachelor of Laws degree at Khairun University Ternate and a Master's degree at Janabadra University Yogyakarta. Since becoming a Lecturer in 2018, he has been assigned to Jayapura Papua Open University as a Lecturer in the field of Legal Studies who always provides teaching and guidance to students who need good knowledge. Before becoming a lecturer, Rivaldhy N. Muhammad was a lawyer who always helped people who needed legal aid services.