

The Utilisation of Synchronous and Asynchronous Online Learning Media in Distance Learning in Madrasah Aliyah

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ABSTRACT

This study aims to analyse the use of online media in distance learning in Madrasah Aliyah in terms of media utilisation, namely, the aspect of determining media and the aspect of media implementation. This research used descriptive qualitative methods in Madrasah Aliyah Negeri in Ponorogo. Data collection techniques consist of interviews, observation and documentation. The data is analysed using the Miles Huberman model of data reduction, display, and verification. The results of this study are as follows. First, the determination of synchronous and asynchronous online media in the implementation of distance learning in Madrasah Aliyah is carried out through three main points sequentially, namely setting criteria, determining alternative media, and performance in the classroom. Second, the implementation of synchronous and asynchronous online media in the implementation of distance learning in Madrasah Aliyah is carried out in two forms, individually and in combination. Synchronous online media is implemented in virtual face-to-face activities and material deepening. In contrast, asynchronous online media is implemented in practical exercises and assignments. As for presentations, discussions and exams of synchronous and asynchronous online media are implemented combatively.

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INTRODUCTION

The development of internet-based information and communication technology runs so fast and rapidly.¹ This condition, then directly or indirectly, has made it easier for humans to carry out daily activities, access various information and interact with the global community without any limits of space and time. The development of internet technology today has also impacted the transformation of the learning process from a face-to-face learning model to learning that can be carried out remotely, which is identical to digital technology.² The existence of this learning transformation, in the end, requires educational institutions to be adaptive and innovative in the use of learning media based on internet technology so that learning activities carried out, including distance learning, can run optimally.³ Not only public educational institutions but Islamic-based educational institutions (Madrasah) also carry out a series of adaptation innovations in utilising information technology, especially the internet, as one of the main elements in supporting the implementation of the distance learning process.⁴

Modern internet-based technology has been widely used from elementary to tertiary education.⁵ Learning activities no longer require meetings between educators and students, where they are limited to one classroom. Still, the learning process slowly leads to a more flexible direction without being limited by space and time. Learning activities with the help of internet technology can be carried out in various forms: complete online learning, blended learning or hybrid learning.⁶ The use of online learning-based learning media innovations is undoubtedly expected to impact the learning process positively; in addition to being effective and efficient, students will likely be educated more creatively, innovatively and enjoyably so that learning materials can be received optimally.⁷ The use of this technology is not only for the implementation of online learning but, more importantly, for how students can survive and adapt to the global society in the 21st century.⁸

Online learning-based distance learning media can be classified into synchronous and asynchronous.⁹ Synchronous is a pattern of interaction in the learning process where

¹ Zakaria Siregar and Typhoon Bilardo Marpaung, "Utilization of Information and Communication Technology (ICT) in Learning in Schools" *BEST Journal: Jaournal Of Biology Education, Science & Technology* 3, no. 1 (2020): 61.

² Ishartiwi et al., "Alternative Teaching Materials for Distance Learning for Student with Special Needs," *Jurnal Kependidikan Penelitian Inovasi Pembelajaran* 6, no. 2 (November 6, 2022): 215–28.

³ Bakhoh Jatmiko, "Training on Optimization of Online Learning Media to Support Synchronous and Asynchronous Learning System," *International Journal of Community Service Learning* 6, no. 1 (March 21, 2022): 20.

⁴ Sarwa, *Distance Learning: Concepts, Problems and Solutions* (Jakarta: CV Adanu Abimata, 2021), 2.

⁵ Susanto et al., "Trends of Educational Technology (EdTech): Students' Perceptions of Technology to Improve the Quality of Islamic Higher Education in Indonesia," *International Journal of Learning, Teaching and Educational Research* 21, no. 6 (2022): 227.

⁶ Jitendra Singh, Keely Steele, and Lovely Singh, "Combining the Best of Online and Face-to-Face Learning: Hybrid and Blended Learning Approach for COVID-19, Post Vaccine, & Post-Pandemic World," *Journal of Educational Technology Systems* 50, no. 2 (December 2021): 140–71.

⁷ Muhammad Mushfi El Iq Bali et al., "Innovative Learning Media Based on E-Learning in the New Normal Era," in *IEOM Society International*, vol. 11 (the 11th Annual International Conference on Industrial Engineering and Operations Management Singapore, Singapore: IEOM Society International, 2021), 6988.

⁸ Haryanto et al., "The Correlation between Digital Literacy and Parents' Roles towards Elementary School Students' Critical Thinking," *Cypriot Journal of Educational Sciences* 17, no. 3 (March 31, 2022): 829.

⁹ Jackson Pasini Mairing et al., "Synchronous and Asynchronous Online Learning of Advanced

educators and students are involved together at the same time through video conferences or chats. While asynchronous is a learning process where educators first prepare learning materials and activities, the interaction model can be carried out flexibly and does not have to be done simultaneously. For example, it can be carried out through online discussion forums, independent learning through the web, assignments, etc.¹⁰ The implementation of synchronous or asynchronous-based distance learning is strongly influenced by the active role of various elements of the madrasah, ranging from educators, students, and parents to support facilities and infrastructure such as laptops, smartphones, computers, and good internet networks.¹¹ Educators are required not only to master learning materials well but also to have the ability to design effective, innovative and fun learning based on information and communication technology.¹² Students must also have a strong spirit accompanied by discipline in time management. On the other side, parents must also synergise to help supervise and facilitate the needs of students in supporting the implementation of the distance learning process.

Madrasah Aliyah, as one of the educational institutions, has tried to implement the learning process by utilising information and communication technology as a form of innovation and creativity in carrying out the learning process. Madrasah is responsible for introducing internet technology to teachers and students to meet the needs of adaptation to the times, especially in internet technology.¹³ Madrasah makes various efforts to ensure that students get an optimal learning experience, both face-to-face and distance learning experiences, by utilising online media. On the other hand, to support the use of internet technology in learning, especially for distance learning, the Ministry of Religious Affairs, through the Directorate General of Islamic Education (Dirjen Pendis), issued a decree of the Director General of Pendis number 2791 of 2020 concerning curriculum guidelines for distance learning systems in Madrasahs, so that the decree can be used as a reference to organise the distance learning process.¹⁴

Efforts to improve the quality of learning in madrasahs by utilising internet technology have been carried out in the last few years. The Ministry of Religious Affairs recently launched a madrasah digital transformation program as part of the government's efforts to support madrasahs in implementing distance learning from home.¹⁵ The use of online media in distance learning in Madrasah Aliyah has been implemented with various

Statistics during Covid-19 Pandemic,” *JRAMathEdu (Journal of Research and Advances in Mathematics Education)* 6, no. 3 (June 29, 2021): 193.

¹⁰ Fajar Arianto, Bachtiar S. Bachri, and Andi Mariono, “Asynchronous Dan Synchronous Learning Pada Pendidikan Tinggi: Studi Komparasi,” *Jurnal Ilmiah Mandala Education (JIME)* 8, no. 4 (2022): 3008.

¹¹ Maman et al., “Google Classroom as a Distance Learning Tool during a Pandemic,” *Journal of Physics: Conference Series* 1899, no. 1 (2021): 2.

¹² Hasan Baharun, “Learning Effectiveness Improvement Through Mobile Learning,” *TOJQI: Turkish Online Journal of Qualitative Inquiry* 12, no. 4 (2021): 1662.

¹³ Interview with Nasta'in, the Headmaster of Madrasah Aliyah Negeri 2 Ponorogo, on February 16, 2022.

¹⁴ Asmuni, “Problematika Pembelajaran Daring Di Masa Pandemi Covid-19 Dan Solusi Pemecahannya,” *Jurnal Paedagogy* 7, no. 4 (October 1, 2020): 281–88.

¹⁵ Abi Abdul Jabar, “Kemenag Luncurkan Program Transformasi Digital Pendidikan Madrasah,” *Madani* (blog), September 22, 2020, <https://www.madaninews.id/12531/kemenag-luncurkan-program-transformasi-digital-pendidikan-madrasah.html>.

types of devices and media owned. Although some still face obstacles, distance learning activities can generally run smoothly. Madrasah and teachers continuously improve to find the most effective ways and media tools to be used in learning.¹⁶ Related to implementing education using online learning media, both synchronous and asynchronous, in formal educational institutions has shown a positive impact. As the results of Ali Sadikin's research, the finding is that online learning makes students feel more comfortable in expressing ideas and questions. Students that usually experience psychological pressure from peers in face-to-face learning do not experience it anymore in online education, so from another point of view, online learning also makes students feel less awkward when expressing ideas.¹⁷

Based on what has been described, this study explores information about the use of synchronous and asynchronous online media in the implementation of distance learning in Madrasah Aliyah. This study aims to analyse synchronous and asynchronous online learning media in distance learning in Madrasah Aliyah to obtain complete and transparent information. The data and information obtained will be beneficial for improving and developing educational and learning activities in Madrasah Aliyah, especially in the use of internet technology in implementing classroom learning. The problems posed in this study include two formulations: how to determine synchronous and asynchronous online learning media in distance learning in Madrasah Aliyah and how to implement synchronous and asynchronous online learning media in the distance learning in Madrasah Aliyah.

Multiple researchers have conducted various studies on online learning media as a distance learning medium. For example, research from Imam Ja'far Shodik and Husniyatus Salamah entitled *The Use of E-learning Media Using WhatsApp as A Solution during the Covid-19 Outbreak in MI Nurul Huda Jelu in 2020*. The study stated that the use of learning media through WhatsApp as a distance learning medium in the era of the covid-19 pandemic is very appropriate because of two main factors, namely because the application is so simple that it is easy to operate and because it has features that are complete enough to support learning activities.¹⁸ Another study by Diah Tauhidah et al. titled *Utilisation of E-learning Platforms by Lecturers during the Covid-19 Pandemic in Indonesia*. The results of this study stated that there are various online learning media used as learning media, where WhatsApp, Google Classroom, and Zoom are platforms that are widely used due to easily accessible, affordable and convenient to use.¹⁹ Furthermore, research by Yuli Yulianti and Yani Kusmani with the title *Synchronous vs Asynchronous Online History Learning: A Correlational Study at SMA Kota Bandung* describes that there is a positive, significant and moderate relationship in the use of teaching media by using Google Classroom as a representative of the synchronous media platform and Zoom Cloud as a representative of

¹⁶ Hasanah, the teacher of Madrasah Aliyah Negeri 2 Ponorogo, the interview was conducted on February 17, 2022.

¹⁷ Ali Sadikin and Afreni Hamidah, "Pembelajaran Daring Di Tengah Wabah Covid-19," *BIODIK: Jurnal Ilmiah Pendidikan Biologi* 6, no. 2 (2020).

¹⁸ Imam Ja'far Shodiq and Husniyatus Salamah Zainiyati, "Pemanfaatan Media Pembelajaran E-Learning Menggunakan Whatsapps Sebagai Solusi Ditengah Penyebaran Covid-19 Di MI Nurul Huda Jelu," *Al-Insiyrob: Jurnal Studi Keislaman* 6, no. 2 (September 7, 2020): 144.

¹⁹ Dian Tauhidah et al., "Utilization of E-Learning Platforms by Lecturers during the COVID-19 Pandemic in Indonesia," *JPBI (Jurnal Pendidikan Biologi Indonesia)* 7, no. 3 (2021): 198.

learning media-based asynchronous.²⁰

As mentioned above, various studies generally focus on three things: the multiple types of platforms implemented as online learning media, the advantages and disadvantages of each existing platform, and an effectiveness comparison level of the learning media used. This research has a fundamental difference compared to similar studies as mentioned above. This research will focus on synchronous and asynchronous online media use at the implementation level in Madrasah. The study considers two aspects of media utilisation: determining the online media users and online media implementation activities in the classroom learning processes.

RESEARCH METHOD

This research employed a qualitative approach with field research. Bogdan and Taylor define a qualitative approach as a research procedure using descriptive data in written or spoken words about people and their behaviour observed.²¹ Meanwhile, Denzin and Lincoln state that qualitative research uses a scientific setting to interpret occurring phenomena using various existing methods. Data in this study was obtained from multiple sources of interviews, observations or documentation. Because of its describing nature and verbal data, this type of research was descriptive-qualitative. The process was that researchers conducted a dialogue with the object under study to obtain information in the form of oral and written data and carried out a complete recording of the feedback received. Then, the data was narrated descriptively.²²

This research took place at MAN 1 Ponorogo and MAN 2 Ponorogo. There are two reasons for choosing these schools. First, the two State Aliyah Madrasahs are formal secondary Islamic characteristics education institutions with many academic and non-academic achievements and have become references for several other madrasahs in Ponorogo. Second, both are State Aliyah Madrasahs located in the centre of Ponorogo, which strategically have easy access to public facilities, especially internet networks, so there are vast opportunities to utilise online learning media in every learning activity.

Informants in this study were taken using purposive sampling techniques, which means taking informants randomly due to specific considerations. The informants in this study were teachers, students, principals, and vice principals for curriculum. The data collection techniques consisted of observation, interview and documentation.²³ The study applied observation techniques to collect data related to the use of online media in learning activities. In contrast, interview techniques were used to extract information from the chosen informants to be associated with implementing online learning media. Furthermore, documentation techniques were used for data collection through documents or files related to online learning media. The data analysis technique in this research used the Miles and

²⁰ Yuli Yulianti and Yani Kusmarni, "Sinkronus Vs Asinkronus Pembelajaran Sejarah Daring: Studi Korelasional Di SMA Kota Bandung," *FACTUM: Jurnal Sejarah Dan Pendidikan Sejarah* 10, no. 2 (October 30, 2021): 136.

²¹ Robert C. Bogdan and S.J. Taylor, *Introduction to Qualitative Research Methods* (New York: John Wiley, 1975).

²² Lexy J. Moleong, *Qualitative Research Methodology*, Revised Edition; Thirty-eighth printing (Bandung: PT Remaja Rosdakarya, 2018), 4.

²³ Robert E. Stake, *Qualitative Research: Studying How Things Work* (New York: Guilford Press, 2010), 20.

Huberman model, which consisted of data reduction, display, and verification.²⁴ Data reduction is selecting and retrieving data relevant to the research objectives set. In contrast, data display is a systematic data preparation activity related to synchronous and asynchronous online media in Madrasah Aliyah in the narrative text or graphics so that it is easy to understand, while data verification is an activity to ensure that the data presented is correct by the source.

RESULT AND DISCUSSION

Determination of Synchronous and Asynchronous Online Learning Media in Distance Learning in Madrasah Aliyah

According to Djamarah and Zain, media can be interpreted as a communication tool to bring information from one source to the recipient.²⁵ Generally, the media are classified into two: electronic and non-electronic.²⁶ In the context of learning activities, media means an intermediary tool of knowledge from teachers to students. Determination of the use of media in learning activities must be done with careful consideration, as well as the determination of online media for distance learning. Based on the data obtained, determining online media to be used in distance learning activities in Madrasah Aliyah is carried out by deliberation and considering the conditions of teachers, students, and supporting facilities and infrastructures. Muhadi said that the online learning media used to implement distance learning in madrasahs was decided together through deliberation between the principal and vice principal of the madrasah, the IT team, and teachers, especially during pandemic.²⁷ Then Asfihani also said that decision-making in madrasahs is carried out by deliberation, including determining the media used for learning. It is so that the decisions taken can be maximised with full consideration in terms of conditions and existing rules.²⁸

Online media's determination to implement distance learning in Madrasah Aliyah seems to pay attention to essential aspects surrounding it. It is necessary for the principle of efficient use of online media to be implemented.²⁹ Deliberation activities in determining the use of online media are an excellent first step the institution takes to optimise the quality of learning. The existence of this deliberation shows that there is maturity and mutual respect in this Madrasah Aliyah institution. As Mubarak said, deliberation will teach us maturity in thinking and learn to respect the opinions of others.³⁰

²⁴ Matthew B. Miles and A.S. Michael Huberman, *Analisis Data Kualitatif*, Trans. Tjetjep Rohendi Rohidi (Jakarta: UI Press, 1992), 12.

²⁵ Hani Subakti et al., *Inovasi Pembelajaran*, 1st ed. (Medan: Yayasan Kita Menulis, 2021), 55.

²⁶ Suparmi Suparmi, Siti Partini Suardiman, and C. Asri Budiningsih, "The Pupil's Creativity Is Inspired by Experience through Electronic Media: Empirical Study in Yogyakarta," *International Journal of Instruction* 13, no. 2 (April 1, 2020): 637.

²⁷ Muhadi, Deputy Head of Curriculum for Madrasah Aliyah Negeri 1 Ponorogo, the interview was conducted on April 18, 2022.

²⁸ Asfihani, the teacher of Madrasah Aliyah Negeri 2 Ponorogo, the interview was conducted on April 22, 2022.

²⁹ Munir, *Pembelajaran Jarak Jauh Berbasis Teknologi Informasi Dan Komunikasi* (Bandung: Alfabeta, 2012), 22–23.

³⁰ Ahmad Agis Mubarak, "Musyawarah Dalam Perspektif Al-Quran," *MAGHZA: Jurnal Ilmu Al-Qur'an Dan Tafsir* 4, no. 2 (December 23, 2019): 149.

Furthermore, regarding the use of online media in Madrasah Aliyah, Hastutik Bayyinaturo Rosyidah said that online media as a learning medium in this madrasah had been carried out for a long time. This step was done as an adjustment of the madrasah to the development of technological flows. Even the Covid-19 pandemic conditions are a driving factor for accelerating the use of technology more optimally and comprehensively.³¹ Not only that but also Dian Anggara said that selecting online media for the implementation of distance learning refers to agreed criteria, namely, easily accessible on all devices, not wasteful of quota and easy to operate.³² The media used is Web-based e-learning provided by the Ministry of religious affairs. The media can be accessed through a search system. This media has features such as embedding materials, collecting assignments, and discussion forums. In addition, the implementation of learning also uses other media such as WhatsApp Group, Google Classroom, and others. What matters the most is how the implementation of education can run without burdening or making it difficult for students or teachers.³³

There are various kinds of online media used depending on the setting criteria. As with the available data, the determination of online media in the implementation of distance learning in Madrasah Aliyah is based on three criteria: easily accessible on all devices by all school residents, not wasteful of quota and easy to operate both for discussion, assignment collection and assessment. It is in line with what Iwan Falahudin said about four critical criteria or aspects that must be met in choosing a media: accessibility, cost, effectiveness in learning functions, and the ability of the media to support the interaction of educators and students.³⁴ Furthermore, regarding the variety of online media used by Madrasah Aliyah, in more detail, Evie Meiliana Sari said that the alternative online media set to be used in the implementation of distance learning are WhatsApp Group, web-based E-learning, Google Classroom, Zoom, Google Meet, Quizziz, Quipper, Digital Library, and E-PTSP (One-Stop Integrated Electronic Licensing).³⁵ The availability of alternative online media offered and established online media criteria allow teachers to choose the type of media used freely. It will make distance learning activities run smoother and more optimal. As one student said, each teacher possibly recommends using a different online media for each class based on the readiness of the class members.³⁶

Furthermore, at the classroom implementation level, the types of online media used in Madrasah Aliyah are adjusted to the learning activities. Muhadi said that the implementation in class would be handed over to each teacher by adjusting the activities

³¹ Hastutik Bayyinaturo Rosyidah, the vice headmaster of Madrasah Aliyah Negeri 2 Ponorogo, the interview was conducted on April 22, 2022.

³² Bayu Dian Anggara, the teacher of Madrasah Aliyah Negeri 1 Ponorogo, the interview was conducted on May 16, 2022.

³³ Ida Safitri, the teacher of Madrasah Aliyah Negeri 1 Ponorogo, the interview was conducted on May 23, 2022.

³⁴ Iwan Falahudin, "Pemanfaatan Media dalam Pembelajaran," *Jurnal Lingkkar Widayaiswara* 1, no. 4 (2014): 112–13.

³⁵ Evie Meiliana Sari, the vice headmaster of Madrasah Aliyah Negeri 2 Ponorogo, the interview was conducted on April 25, 2022.

³⁶ Dziki Muhammad, the student of IX-A Madrasah Aliyah Negeri 1 Ponorogo, the interview was conducted on May 23, 2022.

carried out. Virtual face-to-face activities usually use the Zoom application or Google Meet in contrast with assignment activities which use Google Classroom.³⁷ Another researcher, Asfihani, Google Classroom, YouTube, and WhatsApp groups are the media chosen in distance learning for practical exercises, assignments, and group discussions.³⁸ The study on the implementation of online media in the classroom finds that teachers are very diverse in using the type of media in implementing the learning carried out. Some use synchronous communication patterns media, such as Zoom and Google Meet, and asynchronous communication media, such as YouTube, WhatsApp Groups, and Google Classroom, for teaching activities. The finding reveals that online media with asynchronous patterns have a higher intensity of use than synchronous online media. This result is expected since asynchronous patterns have the advantage of flexibility in that learning activities are not bound by time.³⁹

According to Robin Mason and Frank Renni, the growth of electronic media-assisted learning is driven by the development of the importance of the lifelong learning movement. In this concept, three fundamental needs trends to be met are the need to constantly update knowledge and skills, to retrain because the conception of "one job for life" is no longer valid, and to preserve "money" in the face of the explosion of information on the internet.⁴⁰ In this context, determining online learning media in Madrasah Aliyah with predetermined criteria and various implementation models in the field can be underlined. Madrasah Aliyah has realised that the need for online media in learning will not be accommodated. Therefore, with the limitations, the use of online media in Madrasah Aliyah is determined with the best possible procedure so that whatever media are chosen, they can still be used to carry out distance learning. It is solely to meet the need to continue learning and the demands of the developing era. Based on the data and information described earlier, the flow of determining online learning media in the distance learning at Madrasah Aliyah can be seen in Figure 1. below.

³⁷ Dziki Muhammad, the student of class IX-A Madrasah Aliyah Negeri 1 Ponorogo, the interview was conducted on May 23, 2022.

³⁸ Asfihani, the teacher of Madrasah Aliyah Negeri 2 Ponorogo, the interview was conducted on April 22, 2022.

³⁹ Edi Irawan, Arif Arif, and Arif Rahman Hakim, *Pendidikan Tinggi Di Masa Pandemi: Transformasi, Adaptasi, Dan Metamorfosis Menyongsong New Normal* (Yogyakarta: Zahir Publishing, 2020), 39–42.

⁴⁰ Robin Mason and Frank Rennie, *Elearning: Panduan Lengkap Memahami Dunia Digital Dan Internet*, trans. Teguh Wahyu Utomo (Yogyakarta: BACA, 2010), xi.

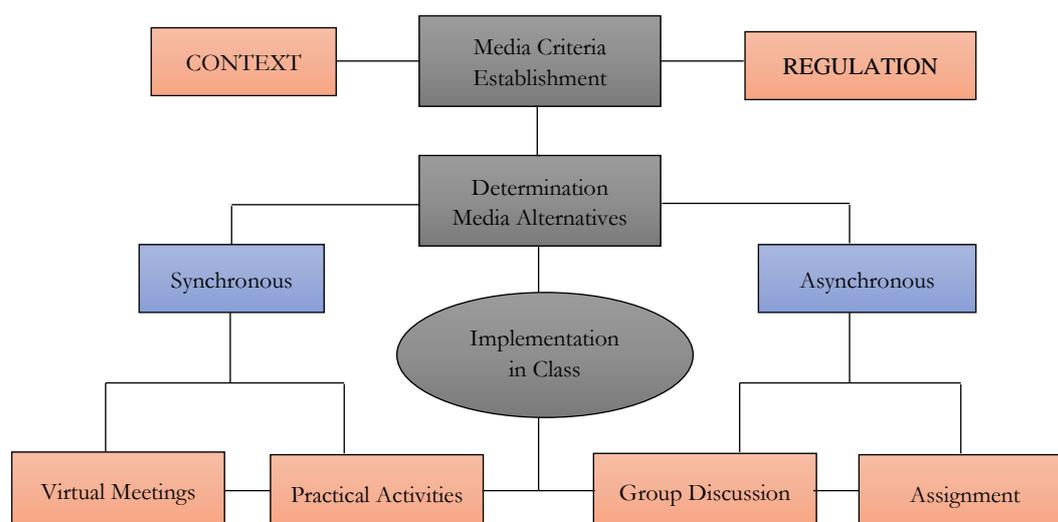


Figure 1. Workflow of Online Learning Media Implementation in Madrasah Aliyah

Figure 1. shows that determining online learning media for the implementation of distance learning in Madrasah Aliyah is carried out systematically in three steps: establishing the criteria for online media to be used, determining choices, and the use or implementation of media by teachers in each class. This process is carried out by the madrasah so that in the performance, the learning media used are effective and meet essential aspects in media use, including accessibility, cost, effectiveness in learning functions and technological capabilities to support interactivity between teachers and students.⁴¹ The development of technology must bring the maximum benefit for smooth learning activities. Technology development and innovation activities, which in this case are online learning media, are intended to be utilised as widely as possible because using innovation results in student learning is the only reason for the development activities.⁴² What can be taken from what has been done by Madrasah Aliyah in determining online media in the implementation of distance learning is that regardless of the conditions possessed by the Madrasah, with effort and happiness, and compactness, the development of internet technology can be utilised optimally and adequately to support the learning activities.

Implementation of Synchronous and Asynchronous Online Learning Media in Distance Learning in Madrasah Aliyah

Implementing online media in distance learning requires the right strategy to run smoothly and deliver the set learning goals. As previously described, in terms of interaction patterns, online media can be divided into two: synchronous and asynchronous. Synchronous is a learning process where interactions between students and teachers happen at the same time or simultaneously as online learning using Zoom or Google Meet media. Meanwhile, asynchronous is a learning process carried out at different times.

⁴¹ R. Heinich and M. Molenda, *Instructional Technology for Teaching and Learning: Designing Instruction, Integrating Computers and Using Media*, 3rd ed. (Upper Saddle River, N.J: Merrill Prentice Hall, 1996).

⁴² Udin Sa'ud Syaefudin, *Inovasi Pendidikan* (Bandung: Alfabeta, 2014), 220.

Students can take other learning times from the teacher when giving material, such as online learning using Google Classroom media or WhatsApp Groups.⁴³ The implementation of synchronous and asynchronous online learning media in Madrasah Aliyah, as conveyed by Evie Meiliana Sari, at first, the implementation of online media was carried out gradually, starting from the use of media that many teachers and students already have, such as WhatsApp. Then some teachers also used Google Classroom. She further said that lately, especially during the pandemic, the use of online media has increased very high. Even now, teachers and students are accustomed to using Zoom or Google Meet for meetings in cyberspace.⁴⁴

Regarding implementing online learning media, Nuriana Yulianti stated that to avoid burdening teachers and students, media use starts with familiar media, such as WhatsApp Groups and Google Drive, and using Google Meet or Zoom for meeting activities. Furthermore, Nuriana Yulianti said that teachers and students must also use the madrasah e-learning provided by the Ministry of Religious Affairs. This e-learning is used mainly to collect assignments, download learning materials from teachers, and conduct material-deepening discussions. Moreover, teachers also use YouTube for simulation materials or tutorials.⁴⁵

From what was conveyed by Evie and Nuriana, it can be underlined that the implementation of online media in Madrasah Aliyah is carried out gradually and combines synchronous and asynchronous media according to the character of the interaction pattern. Initially, the media chosen was easy to use and familiar to teachers and students. Gradually, the media implemented varied in quality and quantity. At the practical level in the field, online media, both synchronous and asynchronous types, is implemented using various media, such as WhatsApp Groups, Google Meet, Google Classroom, Google Form, Zoom, YouTube, and web-based e-learning.⁴⁶ What Madrasah Aliyah does in implementing online media is very appropriate because the use of online media for learning activities will run effectively if adjusted to the conditions of teachers, students, materials, and the surrounding environment.⁴⁷ However, obstacles exist at the field implementation level, especially signal constraints and the condition of devices owned by teachers and students. As stated by Bayu Dian Anggara, the implementation of online media, especially during emergencies due to the Covid-19 pandemic as it is today, is indeed full of challenges, especially regarding the availability of cellphone devices and internet networks. Sometimes when using the Zoom application, it turns out that there are some students whose

⁴³ Lidia Susanti and Rira Estherina, "Pembelajaran Blending Asynchronous-Synchronous Learning Berbasis Relevan terhadap Hasil Belajar Kognitif Peserta Didik Sekolah Dasar pada Masa Pandemi," *Edcomtech: Jurnal Kajian Teknologi Pendidikan* 7, no. 1 (April 1, 2022): 80–81.

⁴⁴ Evie Meiliana Sari, the Vice Headmaster of Madrasah Aliyah Negeri 2 Ponorogo, the interview was conducted on April 25, 2022.

⁴⁵ Nuriana Yulianti, the teacher of Madrasah Aliyah Negeri 1 Ponorogo, the interview was conducted on May 23, 2022.

⁴⁶ Ida Safitri, the teacher of Madrasah Aliyah Negeri 1 Ponorogo, the interview was conducted on May 23, 2022.

⁴⁷ Sudarti et al., "The Effectiveness of Digital Literacy Training to Improve Early Childhood Education Teacher's Competence," *European Online Journal of Natural and Social Sciences* 11, no. 3 (2022): 554–55.

cellphones cannot be installed applications, and other obstacles are the unstable network and power outages.⁴⁸

In addition to utilising various media alternatives, gradually, another strategy used by madrasah for the implementation of online media in distance learning is to form an IT team whose main task is to aid and guide teachers and students who experience problems in the use of media in the learning activities carried out. As Hastutik said that in terms of facing obstacles, there is an IT team to help facilitate learning, but still, the one who controls all is the teacher or subject supervisor.⁴⁹ Regarding the use of various types of online media, Muhadi said that Zoom or Google Meet media are often used for virtual face-to-face learning activities and material deepening. In contrast, practical exercises and assignments often use Google Meet media and web-based e-learning. Zooming and e-learning are the options for presentation, discussion, and exam activities by adjusting to the learning conditions to be implemented. The selection of media to be implemented in learning activities must indeed look at the characteristics of learning to be carried out, sometimes one type of media is only used for one kind of learning activity, but at another time, it can also be one type of media used for more than one type of learning activity. The principle is efficiency, where distance learning is implemented by empowering all available resources as optimally as possible so that the learning process and achieving the set learning objectives can be performed optimally within the specified time.⁵⁰

From several descriptions, as previously stated, synchronous and asynchronous online learning media in the distance learning in Madrasah Aliyah is implemented in three forms adjusted to the learning activities or experiences to be achieved. Synchronous learning media is implemented in virtual meetings and material deepening. In contrast, asynchronous learning media is implemented in two other learning activities: practical and assignments. The further implementation combines synchronous and asynchronous media in presentations, discussions, and exams. Using appropriate learning resources or materials/media can make it easier for students to carry out learning activities.⁵¹ According to Merilee S. Grindle, AG Subarsono quoted four factors that affect implementation performance: environmental conditions, inter-organizational relationships, resources, and the character of implementing institutions (characteristic implementing agencies). Therefore, the implementation of two forms of online learning (synchronous and asynchronous) applied by Madrasah Aliyah is based on the conditions of the learning environment of its students, both the environment in the school and the environment in the community, both of which are essential for maximum effectiveness and optimal learning outcomes. The use of online learning types (synchronous and asynchronous) with several alternative online media prepared in distance learning is part of an effort to adjust online media to the capabilities of human resources for the effectiveness and efficiency of

⁴⁸ Bayu Dian Anggara, the teacher of Madrasah Aliyah Negeri 1 Ponorogo, the interview was conducted on May 23, 2022.

⁴⁹ Hastutik Bayyinatur Rosyidah, the Vice Headmaster of Madrasah Aliyah Negeri 2 Ponorogo, the interview was conducted on April 22, 2022.

⁵⁰ Munir, *Pembelajaran Jarak Jauh Berbasis Teknologi Informasi Dan Komunikasi*, 25.

⁵¹ Haedar Akib, "Implementasi Kebijakan: Apa, Mengapa dan Bagaimana," *Jurnal Administrasi Publik* 1, no. 1 (2010): 1.

learning. Referring to the description, to get a clearer understanding regarding the implementation of synchronous and asynchronous online learning media in the distance learning in Madrasah Aliyah can be seen in Figure 2.

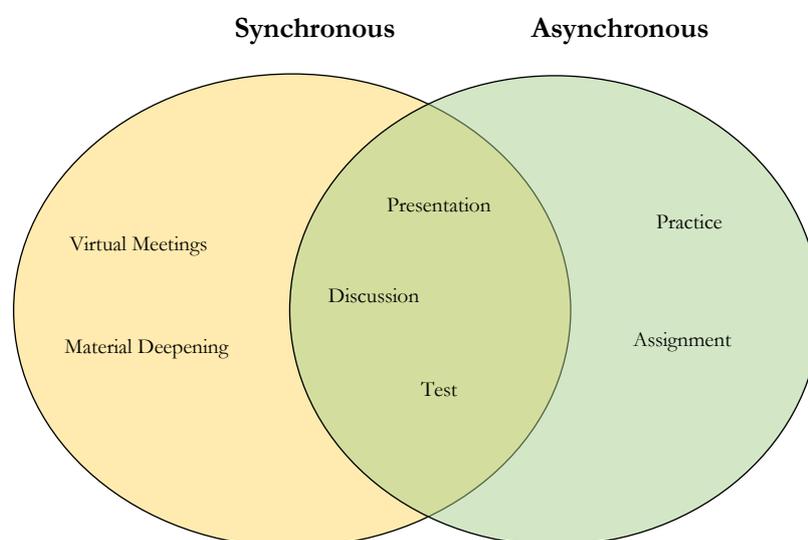


Figure 2. Online Learning Media Implementation Strategy in Madrasah Aliyah

Based on the analysis and visualisation in Figure 2, there are three main points. First, implementing synchronous and asynchronous online learning media in the distance learning in Madrasah Aliyah is carried out flexibly by adjusting the material and learning experience determined. Besides, the activity considers the conditions of students' learning environment, both school and community, necessary for maximum effectiveness and learning outcomes. Second, the implementation of synchronous and asynchronous online learning media in the distance learning in Madrasah Aliyah is carried out gradually by combining two types of online learning (synchronous and asynchronous) as a form of compromise between various elements (organisations) in the madrasah for the implementation of distance learning properly and optimally. Third, the use of online learning types (synchronous and asynchronous) with several alternative online media prepared in the distance learning in Madrasah Aliyah is part of the efforts in adjusting e-learning media to human resource capabilities for the effectiveness and efficiency of learning.

CONCLUSION

Some conclusions were obtained from the data and analysis on using synchronous and asynchronous online media in the distance learning at Madrasah Aliyah. First, the determination of synchronous and asynchronous online media in the implementation of distance learning in Madrasah Aliyah is carried out through three main points sequentially: setting criteria, determining alternative media, and implementation in the classroom. Second, the implementation of synchronous and asynchronous online media in the implementation of distance learning in Madrasah Aliyah is carried out in two forms:

individual and combination of synchronous and asynchronous. Synchronous online media is implemented in virtual face-to-face activities and material deepening, and asynchronous online media is implemented in practical exercises and assignments. As for presentations, discussions and exams, a combination of synchronous and asynchronous online media is implemented.

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