Hybrid Learning Management in Elementary School

Enik Chairul Umah[✉], Ali Imron, Syamsul Hadi, and Henry Praherdhiono

Universitas Negeri Malang, Malang, Indonesia
`enik.chairul.2121039@student.um.ac.id`

Abstract. Implementing Community Activity Restrictions (PPKM) levels 1–3 in Sidoarjo Regency is a challenge for schools to establish learning model policies that prioritize student safety and meet student learning needs and parents' expectations for education his child. They are allowing limited face-to-face learning for schools in the area. This research aims to explain the hybrid learning management applied in Muhammadiyah 1 Elementary School Taman during the limited face-to-face learning period. The research method uses descriptive qualitative methods by describing, analyzing, and discussing data directly sourced from school principals, teachers, and students during learning activities equipped with hybrid learning program documents. The results showed that Sidoarjo Regency enforced a limited face-to-face learning policy for schools in levels 1–3. Muhammadiyah 1 Elementary School Taman did the planning, implementation, and evaluation of hybrid learning. Hybrid learning is carried out by utilizing Mumtaz Smart e-learning and combining online and offline learning. The advantages of hybrid learning lie in the effectiveness of learning which is indicated by the achievement of student learning outcomes above the KKM value and learning efficiency as indicated by the implementation of student-teacher communication, students and students, and teachers and guardians of students. The weakness is the increase in financing experiencedby parents and schools.

Keywords: Management · Hybrid learning · Elementary school

1 Introduction

The issuance of a Joint Decree of the Minister of Education and Culture, the Minister of Religion, the Minister of Health, and the Minister of Home Affairs of the Republic of Indonesia (SKB 4 Ministers) concerning Guidelines for the Implementation of Learning during the 2019 Corona virus Diseases (Covid-19) Pandemic provides an opportunity for schools to resume face-to-face learning. The Covid-19 pandemic conditions the student learning process to no longer is carried out in schools. Limited advances in schools with a maximum student attendance of 50% of the total number of students [1]. It is a new challenge for schools to find learning model solutions that meet the learning needs of students and the expectations of their parents.

In order to address these challenge, incorporating technology in educational process become essential. One of many way to do this is through the implementation of

hybrid learning model. Hybrid learning is an instructional approach that combines face-to-face interaction with computer-mediated interaction [2]. *Hybrid learning is an educational model that blends innovation and technological advancements by incorporating online learning system alongside the interaction and engagement that could be found in traditional learning models* [3].

Significant aspect of the effectiveness of hybrid learning system is the ability to modify or manipulate time, space and location in order to enhance the teaching and learning process. Synchronous and asynchronous learning possess distinct properties that can be leveraged for alternative pedagogic purposes [4]. It shows that *Hybrid Learning* combines conventional and *online learning, which facilitates students to learn simultaneously and in different places and* direct interaction between students and teachers or between students. Hybrid *virtual* classrooms have flexibility in education because they provide students with a choice of locations for understanding; this is also a new challenge in the distance learning and teaching process [5].

2   Literature Review

The issuance of Circular Letter of the Regent of Sidoarjo Number 440/7935/438.1.1.3/2021 concerning the Implementation of Restrictions on Community Activities Level 3 Covid-19 in the Sidoarjo Regency Region imposed the implementation of limited face-to-face learning (PTMT) and distance education become a reference for schools to carry out little face-to-face learning [6] The reopening of schools with limited face-to-face meetings received mixed responses from the guardians of Muhammadiyah 1 Elementary School Taman. From the poll results conducted by schools, not all parents wanted their children to attend school, but there were still parents who chose to study *online.* Muhammadiyah 1 Elementary School Taman decided to apply a hybrid learning model in limited face-to-face learning in response to this. This learning model is done to meet the learning needs of students who want to study at school or choose to study from home.

Hybrid learning model, the teachers of Muhammadiyah 1 Elementary School Taman experienced several pedagogical and technological obstacles in managing *hybrid classes.* It is in line with the results of research conducted by Muhdi and Nurkolis that there are three categories of problems in learning during a pandemic, namely pedagogy, technology, and economics [7]. Pedagogical problems are the adaptability of teachers in learning that combines face-to-face and conventional, teacher creativity in managing online classes that are not boring, technology problems including the uneven ability of teachers to master IT, not all parents can deal with the impact of the pandemic that affects the parents' economy. Students are skilled at using IT and internet devices so that they are not able to accompany learning at home optimally; the economic problems of parents of students who are affected by layoffs, declining income, and the price of quota packages that must be allocated routinely for their children's learning requires no small amount of money [8]. This condition is necessary to investigate because not many elementary schools implement *hybrid learning* in the teaching and learning process during the Covid-19 pandemic. This research aims to describe hybrid learning management at Muhammadiyah 1 Elementary School Taman.

3 Methodology of Research

3.1 General Background of Research

This study uses a qualitative method with a case study approach. A qualitative design with a case study approach is carried out by describing, analyzing, and discussing data directly sourced from school principals, teachers, and students during learning activities equipped with *hybrid learning program documents*.

3.2 Sample of Research

This research was conducted at Muhammadiyah 1 Elementary School in Taman Sidoarjo and focused on describing hybrid learning management during the COVID-19 pandemic.

3.3 Instrument and Procedures

Researchers carried out data collection by observing the Muhammadiyah 1 Taman Sidoarjo Elementary School through the Principal and Teachers and several parents of students; along with these activities, in-depth interviews were conducted between the researcher and the principal, teachers, and several parents. The researchers carried out the procedures and stages of the research, namely; (1) The description stage is the orientation stage. At this stage, the researcher describes the results of observations and observations; (2) The data reduction stage, at the data reduction stage the researcher carried out data and information reduction activities obtained at the initial stage of data collection at the Muhammadiyah 1 Taman Sidoarjo Elementary School by focusing on the central problem; (3) The data and information selection stage, at this stage, the researcher provides more elaborate description of the established focus. To delve deeper into the research, the researcher undertake a comprehensive analysis of the problem's direction. The result of an in-depth analysis process will be obtained knowledge, hypotheses, and even a new theory.

3.4 Data Analysis

Data analysis is processed through reduction, presentation, conclusion, and verification.

4 Results of Research

4.1 Face-to-Face Learning Policy

Amidst the pandemic, learning dynamically occurs by adapting to the health and safety risks specific to each region as outlined by the Minister of Home Affairs (Inmendagri). The issuance of Inmendagri No. 30 of 2021 concerning the Implementation of PPKM Level 4, 3, and 2 Covid-19 in the Java and Bali Regions and SE Regent of Sidoarjo No. 440/6790/438.1.1.3/2021 concerning PPKM Level 3 Covid-19 in the Sidoarjo Regency which was issued on August 24, 2021, became the basis for the implementation of face-to-face learning in Sidoarjo schools.

The regent's circular explained that limited face-to-face learning (PTMT) could be carried out in educational units in the PPKM area level 1–3, with fewer students studying in schools than 50%. In response to this policy, Muhammadiyah 1 Elementary School Taman conducted a parental survey to determine the parents' readiness and wishes regarding the implementation of limited learning. The survey results show that 78% of parents want the teaching carried out hybrid. The performance of the *hybrid learning model* in the 2021/2022 academic year at Muhammadiyah 1 Elementary School Taman was decided in a school leadership meeting, taking into account central and regional policies and survey results.

4.2 Hybrid Learning Management at Muhammadiyah 1 Elementary School Taman

Learning management is all learning planning efforts related to planning, implementation, and supervision. According to Syaifulloh, learning control can be understood as managing activities which include planning to evaluating teaching and learning activities to achieve goals [9]. Hybrid learning is learning that combines face-to-face instructional methods with online learning processes [10]. Hybrid learning management at Muhammadiyah 1 Elementary School Taman is seen from planning, implementation, and supervision elements.

4.3 Planning

Learning planning includes many things, including students, teachers, administrative staff, materials, methods and procedures that must be compiled systematically. [11]. Hybrid learning planning at Muhammadiyah 1 Elementary School Taman carried out at the beginning of the 2021/2022 academic year includes,

1) Teachers, deputy heads of curriculum, and school principals carry out the preparation of the PTMT period adaptation curriculum, which refers to the covid emergency curriculum published by Balitbang, practice of learning tools consisting of lesson plans (RPP), syllabus, annual programs, and programs semester. The RPP prepared by the teacher uses an independent learning RPP which refers to a single sheet RPP.
2) The activity of strengthening and reviewing the use of *Mumtaz Smart* for students and guardians is carried out by the homeroom teacher online. *Mumtaz Smart* is an e-learning application developed by the IT team at Muhammadiyah 1 Elementary School Taman, which can be accessed via the web or android.
3) Provision of *hybrid learning* facilities and infrastructure consisting of the *Mumtaz Smart* e-learning platform and hybrid facilities in classrooms. These infrastructure facilities are prepared by the field of school facilities and facilities under the responsibility of the deputy head of facilities affairs. Completing *Mumtaz Smart*, an e-learning application developed by the school's IT team, allows students and parents to access it via the web or android. The facilities provided in each classroom include LCD projectors, computers, cameras, sound mixers, portable microphones, and LAN cable networks. All devices are connected and ensured to function properly by the school facilities team (Figs. 1 and 2).
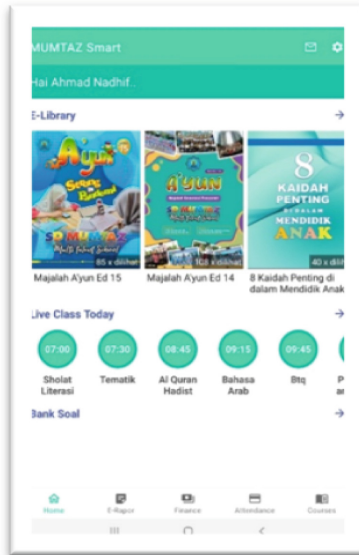
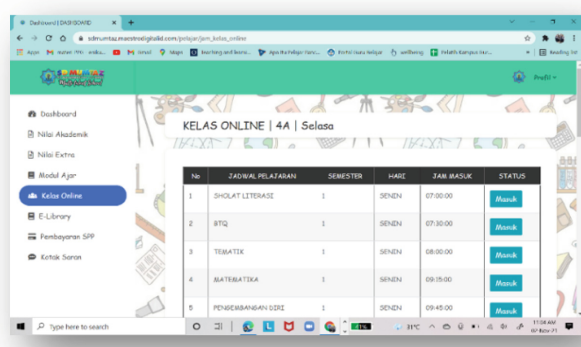**Fig. 1.** Mumtaz Smart Display on Android

Fig. 2. Mumtaz Smart Display on the Web

4) The hybrid learning method applied in Muhammadiyah 1 Elementary School Taman is determined by the school leadership, representatives of student guardians, and the leadership of the foundation in a joint meeting. The policy for implementing hybrid learning is determined by considering the central and regional policies regarding PPKM levels 1–3 and paying attention to the input and suggestions of parents who are collected through a limited learning readiness survey and efforts to meet student learning needs.

4.4 Implementation

Hybrid learning is an approach that combines face-to-face (F2F) learning online [12]. E-learning is a form of computer-mediated education; [13] proposes that e-learning system can be utilized in asynchronus, contextually appropriate and occasional synchronous modes. This instructional approach offers multiple benefits to maximized the potential of learning technology such as smartphone, computers, and others.

[14], in his research, suggests that the application of blended learning in elementary schools can begin. By paying attention to the preferences of some students who are already accustomed to accessing the internet, either through an internet-connected computer, Ipad, Android-based devices, and other communication tools, blended learning should be used as a learning approach. Composite learning presentations are not complicated, so every teacher can use them.

There are two models of blended learning development. [15] states that blended learning can be applied to two learning models, one of which is a mixed model (*hybrid learning*).

This model combines face-to-face learning in class with online knowledge-line or directly related to the internet (online).

Implementation of *hybrid learning* at Muhammadiyah 1 Elementary School Taman during the face-to-face learning period is limited to applying several things, namely,

1) Socialization of *hybrid learning model* in learning to teachers, education staff, students, and guardians of students.
2) Teacher training on hybrid classroom management, which includes optimizing the zoom meeting feature and operating hybrid equipment including cameras, sound mixers, and computers in hybrid learning, is carried out by the school's IT team and held in the first week of July before the start of the school year.
3) The implementation of hybrid learning is regulated according to PPKM policy levels 1–3, where 50% of students study offline by attending school, and 50% take online learning from home at the same time. Students who attend school alternately every day based on odd-even absent numbers.
4) Teachers in the learning process use the hybrid learning tools in the classroom by focusing on meaningful learning and facilitating student learning in the school and at home. Students in class can take part in direct education. In contrast, students at home can participate in synchronous learning online by utilizing zoom meetings that can be done using a computer or cellphone.

   The skills of teachers to manage and provide attention and learning services for students at school and at home greatly determine the meaning of student learning. On average, early grade students do not have their own devices and still use other people's devices. Synchronous online learning in early grades (1, 2, 3) requires parental assistance/adults to help students operate online learning tools and supervise the learning process. This can run optimally if it is supported by good cooperation between parents and the school through good communication by the homeroom teacher to parents/adults who accompany the early grade students' learning.

   The hybrid learning method is carried out following a lesson schedule adjusted to the PTMT policy. Namely, the duration of synchronous learning time is a maximum of 2 h. The rest of the students' independent learning is done through the

Mumtaz Smart application, an e-learning application developed by Muhammadiyah 1 Elementary School Taman. This application provides learning materials in written, PPT, or videos created and uploaded by teachers, student activity sheets, and online evaluation features. Students who cannot participate in synchronous activities can access the material taught independently according to the time of students and parents. Homeroom teachers also use WA groups to monitor students' independent learning activities and provide consultation for students or guardians who need it.

4.5   Learning Evaluation

Learning evaluation considers the meaning and value of a level of achievement or learning achievement. According to Brinkerhoff, evaluation is a procedure that assesses degree to which educational objectives are accomplished.

The evaluation of hybrid learning at SD Muhamadiyah 1 Taman is a daily assessment (PH) carried out every two weeks after the two sub-themes have been studied, and a mid-semester assessment (PTS) carried out at the end of the semester. This is because research data collection is carried out in semester 1 of the 2021/2022 academic year.

The implementation of PH and PTS at Muhammadiyah 1 Elementary School Taman is carried out online through Mumtaz Smart; the work time is carried out according to the PH and PTS schedule, with the collection deadline at 23.00. Students who have difficulty accessing Mumtaz Smart can communicate with their homeroom teacher through the WA class group. The average results of PH and PTS in class 5A are shown in Table 1.

Student learning outcomes during PTMT by applying the hybrid learning model showed achievements above the KKM value; this indicates that learning can be followed well by students of Muhammadiyah 1 Elementary School Taman and is effective.

Much of the power in hybrid learning is in modifying the place and time to boost teaching and learning. Synchronous and asynchronous learning possess distinct properties that can be leveraged for alternative pedagogic purposes. Hybrid Learning is a learning model that can make teachers more interactive and innovative in meeting existing demands [16]. The weakness of hybrid learning is that not all students have online

Table 1. Average PH and PTS scores in semester 1 of the 2021/2022 academic year

No	Lesson Content	Average PH	PTS Everage	KKM
1	Religious Education	93	96	85
2	PPKn	92	90	78
3	Indonesian	89	90	76
4	Mathematics	81	80	75
5	Science	82	80	75
6	Social Study	80	81	75
7	Art	93	94	78
8	Physical Study	96	94	78

learning tools, the problem of quota fees that parents must pay, and parents who do not have time to supervise their children during online learning sessions.

Hybrid learning at Muhammadiyah 1 Elementary School Taman can meet the expectations of parents who want face-to-face learning or who want online learning for reasons of student health. Hybrid learning facilitates Muhammadiyah 1 Elementary School Taman students to learn the same material simultaneously during the pandemic. The learning loss of Muhammadiyah 1 Elementary School Taman students can be minimized. The use of Mumtaz Smart in hybrid learning encourages Muhammadiyah 1 Elementary School Taman teachers to create more creative and interesting learning materials and media for students and forces teachers to improve their skills in mastering IT. Student learning outcomes show an average above the KKM value set by the school.

The weakness of hybrid learning that is applied in Muhammadiyah 1 Elementary School Taman as the results of interviews with parents is that there is no time to accompany students due to working parents, as well as boredom of students participating in online learning with a study duration of 2 h, especially for grade 1 students. Documentation of the school's financial reports shows significant operational costs for renting zoom meetings and the cost of procuring.

5   Conclusion

Learning in the 2021/2022 academic year in the Sidoarjo district is conducted face-to-face, limited to areas included in levels 1–3 of the PPKM. The policy of implementing hybrid learning at Muhammadiyah 1 Taman Sidoarjo Elementary School has met the Limited Face-to-Face Meeting (PTMT) and the parents' expectations. The implementation of hybrid learning at Muhammadiyah 1 Taman Sidoarjo Elementary School utilizes Mumtaz Smart e-learning, zoom meetings, and face-to-face. Student learning outcomes in the Daily Assessment (PH) and Mid-Semester Assessment (PTS) show that student learning outcomes studied are above the Minimum Completeness Criteria (KKM).

Hybrid learning lies in the opportunity for students to learn the same material simultaneously to minimize learning loss from students. Interaction between teachers and students and communication between teachers and parents of students can be done effectively. Teachers are becoming more creative and innovative in creating online learning content and developing themselves in Information Technology (IT). In line with this, in terms of the role of parents in independent hybrid learning, parents and teachers can agree on the time of learning so they can assist hybrid learning process to the fullest. The weakness is in the increasing operational costs of parents and schools to support hybrid learning. The operating costs in question are the purchase of internet quotas which are large enough to increase the burden of household expenses. Also, there is no optimal time for parents who work all day after coming home from work and must accompany online learning, especially for early grade students. Early grade students recognize letters and numbers so that they can read well. Because parents who are tired after working all day then have to accompany students to study intensively, resulting in less than optimal online learning assistance for students.

Basic Education Doctoral Program. Lecturer Prof. Dr. Ali Imron, M.Pd, M.Si, Dr. Syamsul Hadi, M.Pd, M.Ed, Dr. Henry Praherdhiono, S.Si, M.Pd and fellow students of S3 Elementary Education, State University of Malang.

References

1. Menteri Pendidikan dan Kebudayaan, M. Agama, M. Kesehatan, and M. dalam Negeri, "SKB 4 Menteri RI Nomor 03/KB/2021, Nomor 384 Tahun 2021, Nomor HK.01.08/MENKES/4242/2021, Nomor 440-717 Tahun 2021," pp. 1–42, 2021, [Online]. Available: https://jdih.kemdikbud.go.id/arsip/SKB4MENTERIPANDUANPEMBELAJARANTATAPMUKA.pdf.

2. W. I. O'Byrne and K. E. Pytash, "Hybrid and Blended Learning: Modifying Pedagogy Across Path, Pace, Time, and Place," *J. Adolesc. Adult Lit.*, vol. 59, no. 2, pp. 137–140, 2015, doi: https://doi.org/10.1002/jaal.463.

3. M. T. Chikungwa and K. Jonsson, *The need for peri-operative supplemental oxygen*, vol. 48, no. 5–6. 2002.

4. S. M. Sotillo, "Discourse functions and syntactic complexity in synchronous and asynchronous communication," *Lang. Learn. Technol.*, vol. 4, no. 1, pp. 82–119, 2000.

5. A. Raes, P. Vanneste, M. Pieters, I. Windey, W. Van Den Noortgate, and F. Depaepe, "Learning and instruction in the hybrid virtual classroom: An investigation of students' engagement and the effect of quizzes," *Comput. Educ.*, vol. 143, no. April 2019, p. 103682, 2020, doi: https://doi.org/10.1016/j.compedu.2019.103682.

6. P. D. K. S. Bupati Sidoarjo, "Regent of Sidoarjo. 2021. Circular Letter Number: 440/7935/438.1.1.3/2021 concerning the Implementation of Level 3 Restrictions on Community Activities for Corona Virus Disease 2019 (Covid-19) in the Sidoarjo Regency.," pp. 1–12, 2021.

7. N. Nurkolis and M. Muhdi, "Keefektivan Kebijakan E-Learning berbasis Sosial Media pada PAUD di Masa Pandemi Covid-19," *J. Obs. J. Pendidik. Anak Usia Dini*, vol. 5, no. 1, p. 212, 2020, doi: https://doi.org/10.31004/obsesi.v5i1.535.

8. D. I. Susanti and J. Y. Prameswari, "Adaptasi Blended Learning di Masa Pandemi COVID-19 untuk Pembelajaran Bahasa Inggris di Sekolah Dasar," *Ling. Susastra*, vol. 1, no. 2, pp. 50–61, 2020, doi: https://doi.org/10.24036/ls.v1i2.8.

9. A. M. Saifulloh and M. Darwis, "Manajemen Pembelajaran dalam Meningkatkan Efektivitas Proses Belajar Mengajar di Masa Pandemi Covid-19," *Bidayatuna J. Pendidik. Guru Mandrasah Ibtidaiyah*, vol. 3, no. 2, p. 285, 2020, doi: https://doi.org/10.36835/bidayatuna.v3i2.638.

10. H. Hendrayati and B. Pamungkas, "Implementasi Model Hybrid Learning Pada Proses Pembelajaran Mata Kuliah Statistika Ii Di Prodi Manajemen Fpeb Upi," *J. Penelit. Pendidik.*, vol. 13, no. 2, 2016, doi: https://doi.org/10.17509/jpp.v13i2.3430.

11. P. L. Maliki and A. Erwinsyah, "Evaluasi Manajemen Pembelajaran Di Madrasah," *Adaara J. Manaj. Pendidik. Islam*, vol. 10, no. 1, pp. 24–37, 2020, doi: https://doi.org/10.35673/ajmpi.v10i1.854.

12. R. E. Ferdig and R. Freidhoff, *Lessons Learned from Blended Programs : Experiences and Recommendations from the Field*. 2012.

13. H. D. Surjono, "Pemanfaatan Teknologi E-learning Adaptif Untuk Mengatasi Keragaman Gaya Belajar," *J. Penelit. Saintek*, vol. 18, no. 1 April 2013, 2013.

14. Suhartono, "Menggagas Pendekatan Blanded Learning di Sekolah Dasar," no. November, pp. 544–555, 2016.
15. S. Semler, "Use Blended Learning to Increase Learner Engagement and Reduce Training Cost.," 2005.
16. D. Hediansah and H. Surjono, "Hybrid Learning Development to Improve Teacher Learning Management," *JKTP J. Kaji. Teknol. Pendidik.*, vol. 3, no. 1, pp. 1–9, 2020, doi: https://doi.org/10.17977/um038v3i12019p001.