

Innovation of Using Hybrid Modules in Muhammadiyah Elementary School in Sleman as Alternative Distance Learning Solutions in the Covid-19 Pandemic

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ABSTRACT

The pandemic has turned the education and learning process into distance learning and learning from home. These changes do not necessarily run smoothly. However, there are many obstacles and problems. These include internet network access, the absence of quotas and the process of changing without being conditioned before. Not to mention the complaints from parents who usually leave it entirely to the school, but with the pandemic, parents seem to be "forced" to be involved in the distance learning process. One of the innovations developed by the Muhammadiyah School in Sleman at the elementary and junior high school levels is using a hybrid module. This research is a descriptive qualitative research on the application and effectiveness of the hybrid module among students of SD Muhammadiyah SMP in Sleman Regency. The number of respondents who were given a questionnaire on the implementation and effectiveness of the module was selected to represent all sub-districts in Sleman Regency, totalling 17 sub-districts. So that the number of research targets consists of 34 principals, students, and parents of students from all Muhammadiyah elementary schools throughout Sleman Regency, totalling 98 respondents. The results of the study reveal the innovation of the Hybrid module at Muhammadiyah Middle School in Sleman as an alternative to Distance Learning solutions during the Covid-19 pandemic in Sleman Regency. All 15,407 Muhammadiyah elementary school students and 9,063 Muhammadiyah junior high school students use the module as a learning resource for teachers, students and parents and guardians of students. The effectiveness of the innovation of using Hybrid Modules at Muhammadiyah Middle School in Sleman as an Alternative to Distance Learning Solutions During the Covid-19 Pandemic, there were many benefits. The benefits of hybrid modules are also discussed in this article.

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Introduction

Covid-19 has had many impacts on various lines and sectors of life. In the context of education, one of them (Bhavya Bhasin et al., 2021; UNESCO, 2020a). The changes and impacts of this global epidemic and pandemic are very much felt. In addition to learning patterns that usually take place face-to-face, coming to school, gathering with other student friends, accompanied by teachers and employees, this global pandemic was changing the education process to stay at home, work from home, and study from home or in terms of the Ministry of Education and Culture "Learning from Home (LFH) (Novianti E et al., 2020). Anggi Afriansyah, a Researcher in the Sociology of Education at the LIPI Population Research Center, revealed that UNICEF, WHO, and IFRC in the COVID-19 Prevention and Control in Schools stated that the situation of the virus spreads faster, schools must be closed (Afriansyah, 2020). The education process must continue through activities. UNESCO data mentions 1.5 billion students and 63 million teachers at the primary to secondary school levels in 191 countries affected by the Covid-19 pandemic, which has never happened before (Setiabudhi et al., 2020; UNESCO, 2020b). The world of education was then 'forced' to turn around to change the face-to-face-based learning method into online learning. This forced digital transformation is the safest way to stop the spread of the coronavirus outbreak. This is because the right of students to get an education remains a priority without neglecting their mental health and safety. With the COVID-19, there were four changes in the education process (Luthra & Mackenzie, 2020). First, educational processes around the world are increasingly interconnected. They are second, redefining the role of educators. Third, give meaning to the importance of life skills in the future. Furthermore, fourth is the broader opening of the role of technology in supporting education. Covid-19 has accelerated the forced education transformation. The world is changing the conventional face-to-face-based learning pattern in schools into distance learning (DL) that relies heavily on technology.

The same thing that the coronavirus pandemic caused three fundamental changes in global education (Gloria Tam, 2020). First, changing the way people are educated. Second, new solutions for education that make innovation much needed. The third is the existence of a digital divide that results in a new shift in educational approaches that causes a widening gap. Muhammadiyah schools in Sleman Regency, Muhammadiyah elementary, and junior high schools try to respond to learning carried out during the pandemic using hybrid modules. This name reflects the four advantages of the module compared to modules in general, namely (1) there is transmission between online platforms, offline and learning resource environments, (2) allows the interconnection of media and learning resources, (3) learning activities reflect the integration of learning strategies, and (4) bridging the growth of good values in everyday

life while studying at home. The module, compiled by Muhammadiyah teachers in the Sleman area and designed for learning during the Covid-19 period, refers to the applicable curriculum standards (essential competencies). It is hoped that this module will serve as a companion book for studying at home for one semester. This module also includes exercises and tasks that can be done and serve as learning evaluation materials. For students, this module acts as a source of learning apart from textbooks through online or offline learning to maintain the spirit of independent learning with synergistic parental support. Through this hybrid module, the teacher's role is as the program's architect and the learning process. He must be equipped with the ability to design a hybrid learning-based learning process. That ability is in this hybrid module. Therefore, this study reveals the innovations developed in the distance learning process during the Covid-19 pandemic at the Muhammadiyah Sleman school, which is expected to be a role model for developing learning alternatives that are sought during the pandemic. At the same time, also assess the effectiveness of the use of the module.

Method

This study used qualitative research methods. According to Sugiyono, qualitative research methods are used to examine the condition of natural objects, where the researcher is the key instrument, data collection techniques are carried out by triangulation (combined), data analysis is inductive, and qualitative research results emphasize meaning rather than generalization. In more detail, Lexy J Moleong stated that qualitative research has the following characteristics; (1) Natural setting; (2) Humans as tools (instruments); (3) Qualitative method; (4) Inductive data analysis; (5) Theory from the grounded (grounded theory); (6) Descriptive; (7) More concerned with the process than the result; (8) There is a limit determined by focus; (9) There are special criteria for data validity; (10) Temporary design; (10) Research results are discussed and discussed together (Moleong, 2008). According to Suharsimi Arikunto, for qualitative research to be truly of high quality, the data collected must be complete, namely primary data and secondary data. Primary data is data in the form of verbal or spoken words, gestures, or behavior carried out by reliable subjects, in this case, the research subjects (informants) who are pleased with the variables studied. Secondary data is data obtained from graphic documents (tables, notes, meeting minutes, SMS, etc.), photographs, films, video recordings, objects, and others that can enrich primary data (Arikunto, 2010). This type of research is an innovation developed in the distance learning process during the Covid-19 pandemic, which was carried out at the Muhammadiyah Sleman school. Sources and information from all principals, teachers, students and parents, and guardians of students randomly represented from the distribution of 17 sub-districts in Sleman Regency at the SD

and SMP Muhammadiyah levels and all parties who can provide information related to the research disclosed.

Data collection techniques include distributing questionnaires, documentation, and triangulation or combining these techniques. The data analysis technique used is analysis during the Miles and Huberman model field. According to Sugiyono, data analysis is carried out at data collection in a certain period (Sugiyono, 2013). At the time of the interview, the researcher analyzed the interviewees' answers. If the answers obtained from the questionnaire results after being analyzed are unsatisfactory, the researcher will continue the question again until a particular stage, considered credible data, is obtained. Miles and Huberman (1984) suggested that activities in qualitative data analysis were carried out interactively and continued continuously until they were completed so that the data was saturated. Activities in data analysis include data reduction, data display, and conclusion drawing/verification (Miles & Huberman, 1984).

Results and Discussion

Identity of Respondents

There are 77 Muhammadiyah schools in Sleman Regency at the elementary level, spread over 17 sub-districts in Sleman Regency. Meanwhile, for the junior high school level, there are 25 schools. Of the 77 Muhammadiyah elementary schools in Sleman Regency, 23 schools filled out questionnaires and surveys on hybrid module innovation. Middle school level 21 Schools. So the number of schools consists of 44 schools spread across all sub-districts in Sleman Regency (see table 1).

Table 1. School Data Distribution

No	School Level	Amount
1	Elementary School Muhammadiyah	23
2	Secondary School Muhammadiyah	21
	Total	41

Table 2 explain respondents who filled out the survey consisted of categories of informants, namely: teachers as many as 42 respondents (41.8 %), parents and guardians of students 32 respondents (32.7%) and students 25 respondents (25.5%).

Table 2. Respondent Category

No	Respondent Category	Prosentation	Amount
1	Teacher	41.8 %	42
2	Parent	32.7 %	32
3	Student	25.5 %	24
	Total	100 %	98

Learning Process of Media Facilities, Platforms and Applications Used

The learning process carried out during the pandemic, the majority of respondents conducted online and distance learning as many as 95 respondents (94.9%) (see table 3). Only 2 respondents (5.1%) stated that some were online, and some were offline and only 1 respondent (1%) did it offline.

Table 3. Learning Process in Pandemic Period

No	Learning Model	Prosentation	Amount
1	Daring/Online	94.9 %	95
2	Partially Online & Offline	5.1 %	2
3	Offline	1 %	1
	Total	100 %	98

Figure 1 explain the facilities used in the learning process during the pandemic period were the majority of respondents using mobile phones (95.9%), package books (85.7%), student worksheets (78.6%), laptops (34.7%) and PC computers (13.3%). Respondents may answer the means used by more than 1 media facility.

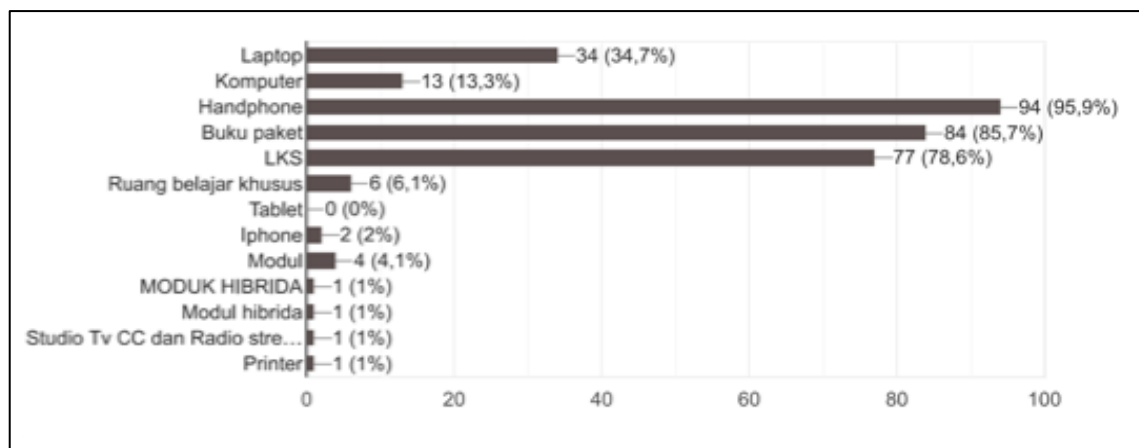


Fig 1. Learning Media Facilities used in the Pandemic Period

The learning platforms used in the learning process during the pandemic, most respondents used Whatsapp (96.5%), Google Classroom (71.4%), Youtube (64.3%), Zoom (59.2%) and E-mail (9.2%). Respondents may answer the means used by more than 1 media facility (figure 2).

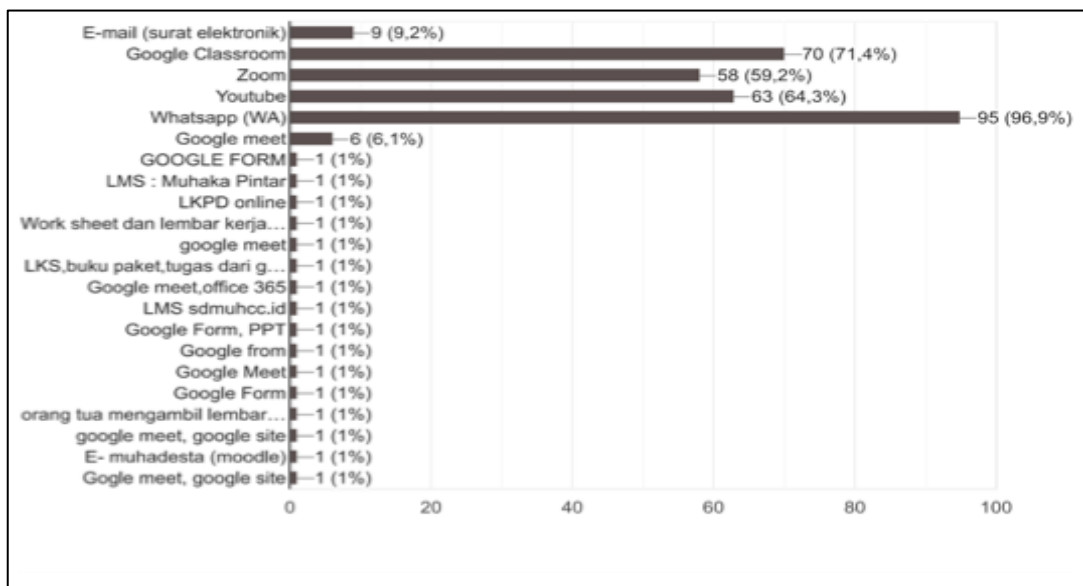


Fig 2. Learning Media Platform used in the Pandemic Period

Figure 3 explain learning applications used in the learning process during the pandemic, the majority of respondents used Rumah Belajar (41.5%), Pembelajaran at TVRI (24.4 %), Ruang Guru (15.9 %), Edumu (6.1 %) and Tvmu (4.9 %). Respondents may answer the means used by more than 1 learning application. As figure 3.

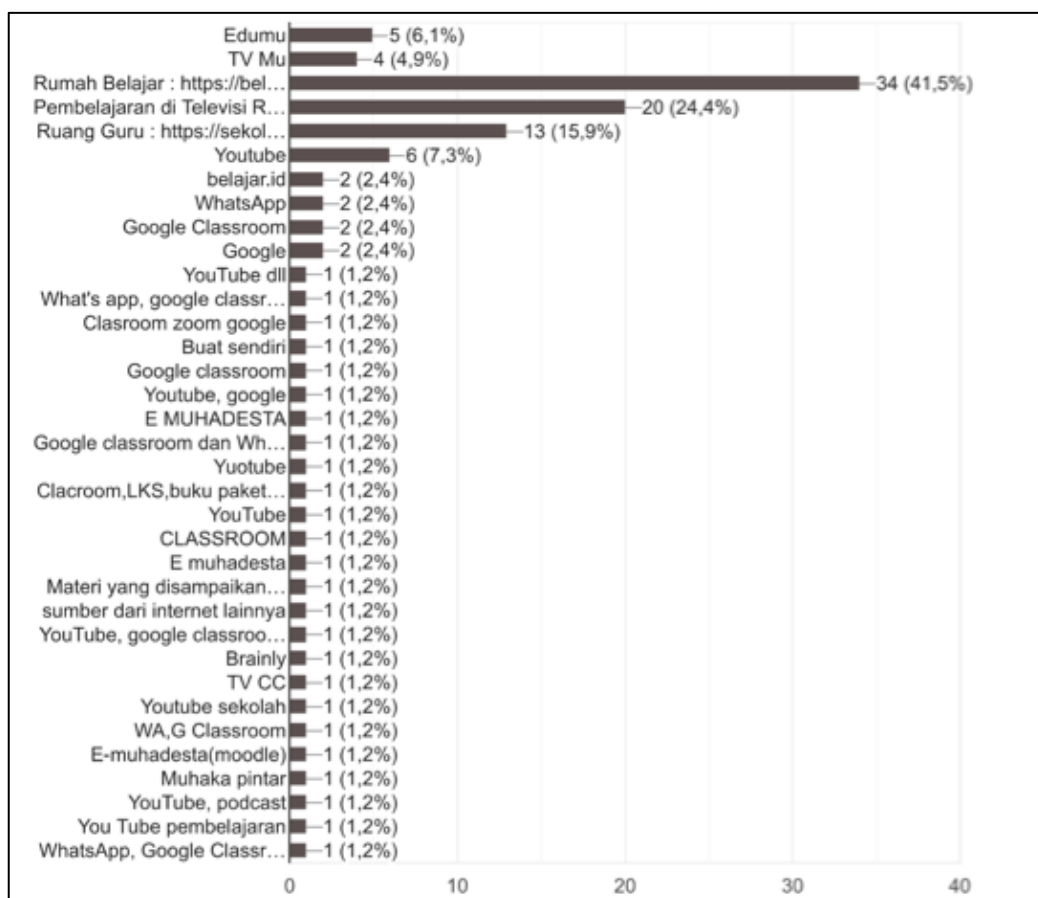


Fig 3. Learning Media Applications used

Parental Support

Learning during a pandemic has changed the learning process. So far, the learning process relies heavily on the learning process in the classroom. In fact, the real concept of education as known as the Three Education Centers is not only in schools, but also includes the community and family. The pandemic has changed the view that so far it has not run in a balanced manner and in accordance with the real conception of education and learning. Support must also be comprehensive. The pandemic has brought back the authentic learning process. Including in terms of support for the learning process. Parental support plays a significant role in the learning process during the pandemic. Respondents stated that parents accompany students during the learning process during the pandemic (88.7%), children learn independently (76.3%) and help from teachers (56.7%) (see figure 4).

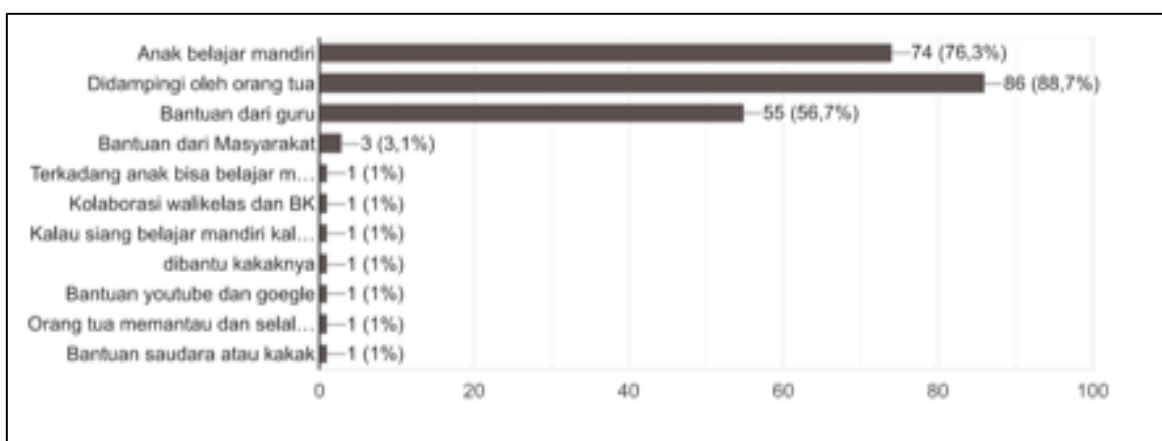


Fig 4. Parental Support

Barriers to the Learning Process

The learning process during the pandemic has changed the face-to-face learning model to online or online. The revolutionary learning process "forces" to turn around with various problems and challenges in the learning process during the pandemic. Figure 5 explain respondents stated that there were 3 obstacles to the learning process during the pandemic. 78.4% stated the limited ability of parents to accompany students and their children during the online learning process. 74.4% stated that parents did not understand the learning materials of students and their children, and 58.8% the limited learning facilities needed during the learning process during the pandemic.

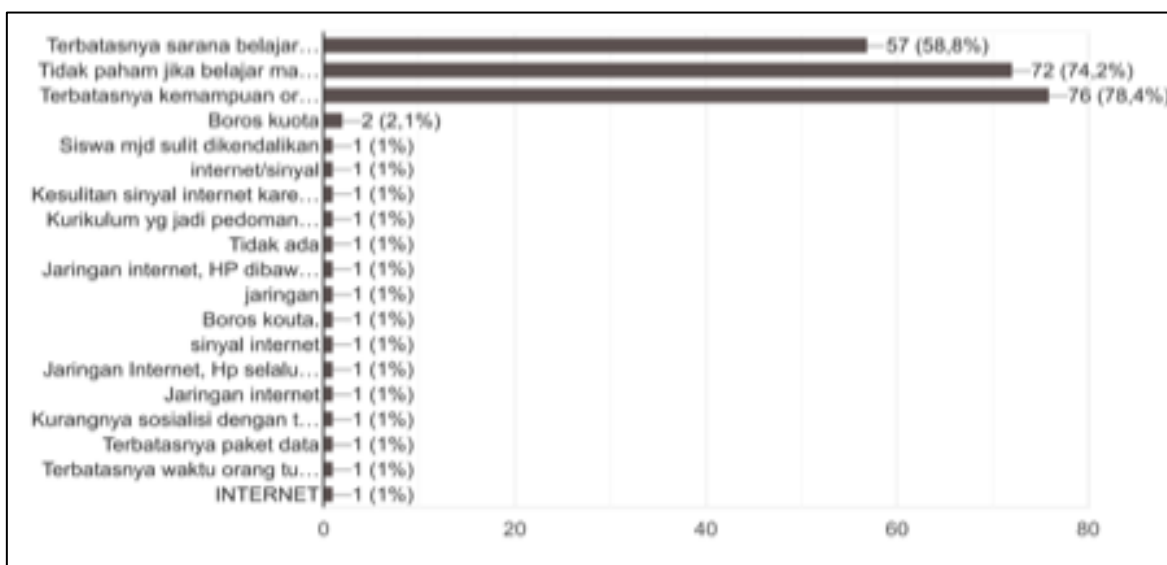


Fig 5. Learning Process Barriers

Achievement of KKM

Learning achievement during the pandemic will not achieve optimal goals and targets. A pandemic is like an emergency, such as a "disaster" or "disaster" situation, learning achievement will not reach the minimum competency criteria (KKM). Table 4 explain, a total of 65 respondents (66%) stated that it was only partially achieved. Meanwhile, 25 respondents (25.8%) stated that their KKM was achieved and 10 respondents (8.2%) had not achieved their KKM.

Table 4. Achievement KKM

No	Achievement KKM	Prosentation	Amount
1	Partially Achieved	66 %	65
2	Overall achieved	25.8 %	25
3	Not Reached KKM	8.2 %	8
	Total	100 %	98

Hybrid Module Utilization

The Covid-19 pandemic has become a vehicle for learning innovations that are carried out independently, face-to-face is limited and adapt to the virtual/online learning process. The Sleman PDM Dikdasmen Council together with a consortium of Principals or BKS SD Muhammadiyah SMP in Sleman Regency developed a hybrid module learning media. The module is used as an effort to limit facilities, quotas and the learning process continues. In this innovation effort, 91 respondents (92.8%) stated that they used the hybrid module and only 7 respondents (7.2%) did not use the hybrid module (table 5).

Table 5. Hybrid Module Utilization

No	Hybrid Module Utilization	Prosentation	Amount
1	Yes	92.8 %	91
2	No	7.2 %	7
	Total	100 %	98

Benefits of Hybrid Module

The Hybrid module developed by the Sleman PDM Dikdasmen Council which is used for all Muhammadiyah schools in Sleman Regency provides many benefits. From 98 respondents, teachers, parents, and students from 98 Muhammadiyah elementary and junior high schools stated that there were several benefits of the Hybrid module. Among them: the hybrid module refers to the applicable curriculum standards (94 respondents/95.9%), the hybrid module functions as a home study companion for one semester (84 respondents/85.6%). The hybrid module makes media and learning resources interconnect because the module provides links and references to text and media libraries (80 respondents/81.4%). The hybrid module of learning activities integrating face-to-face learning strategies is limited, independent and online (85 respondents/86.7%), the hybrid module bridges good values/characters in everyday life during learning at home (87 respondents/88.8 %). The Hybrid module is a complement to the textbook used by students (84 respondents/85.7 %). The hybrid module makes it easier for students to learn from home (79 respondents/80.6%). Affordable hybrid module (63 respondents/64.3 %). The hybrid module motivates students in learning (73 respondents/74.2%) and the language hybrid module is easy for students and parents to understand (83 respondents/84.5%) (see table 6).

Table 6. Benefits of Hybrid Module

No	Benefits of Hybrid Module	Procentation (%)		Amount		Total
		Yes	No	Yes	No	
1	Referring to Curriculum Standards	95.9	4.1	94	4	100% (98)
2	Study Companion	85.6	14.4	84	14	100% (98)
3	Media Interconnection and Learning Resources	81.4	18.6	80	10	100% (98)
4	Strategy and Learning Integration	86.7	13.3	85	13	100% (98)
5	Cultivating the Character of Everyday Life	88.8	11.2	87	11	100% (98)
6	Complementary Book Packages	85.7	14.3	85	13	100% (98)
7	Make it easy to learn from home	80.6	19.4	79	19	100% (98)
8	Affordable prices	64.3	35.7	63	35	100% (98)
9	Motivating Students to Learn	74.2	25.8	73	25	100% (98)
10	Easy to Understand Language	84.5	15.5	83	15	100% (98)

Barriers to Constraints and Inputs to the Use of Hybrid Modules

Based on what was collected from the respondents, the obstacles and inputs for the use of the hybrid module were only related to three things, namely: the material compiled in the module was still simple. Second, children still need to be accompanied by parents in the

learning process and several respondents (35.7%/35 respondents). Inputs for the use of hybrid modules include: the materials and content in the modules are added and enriched more deeply, more reference links and digital media are added, and the price of hybrid modules is more affordable for students.

Distance Learning Innovation in Pandemic Times

The Covid-19 pandemic has had an overall impact and change in education. This includes changes in the learning process. The learning process, if so far has been carried out with a physical face-to-face model in the classroom, has changed to a virtual world model or online and online or distance learning. Distance Education (DE) (MacKenzie et al., 1968), separates students from educators and their learning uses various learning resources through the application of technological principles. Education/learning has developed quite rapidly. Four reasons that encourage the rapid use of this distance education system. First, there is a concern for increasing equality in obtaining access to education. Second, the large number of students in the classroom studying subjects that are irrelevant or less needed encourage more individualized learning, especially in developing countries, to provide more learning resources to more students, or to make economic use of them. during at least limited learning resources.

Third, opening wider access opportunities not only for students with various backgrounds, but also opening up the teaching system for anyone who wants to see it. In addition, currently the implementation of DE is also gaining momentum with the Covid-19 Pandemic in which students are required to study from home (Hermanto et al., 2021). The United Nations Educational, Scientific, and Cultural Organization (2020) report states a number of 1,543,446,152 students or 89% of a total of students in 188 countries including Indonesia are forced to not go to school and study from home. Of course, the implementation of DE during the Covid-19 pandemic is not implementing DE in normal situations, but it is more accurately said to be an emergency or an emergency condition. The principles of implementing DE, such as the separation of students from educators, still implement DE as an alternative to the education system. Therefore, DE is an educational practice that does not only take place face to face in the teaching and learning process but can be done remotely. The implementation of DE is carried out using module devices, e-learning, or through the use of mass communication media, such as radio and television (Zulherman et al., 2021). Since the Covid-19 pandemic, the teaching process is online, namely teachers teach using information and communication technology (ICT) or digital technology. The use of digital technology in the learning process will be more effective and even more efficient (Srivastava & Dey, 2018; et al., 2013). In the era of 2045, the learning process will be able to take advantage of distance learning, either with or

without utilizing digital technology. Therefore, an effective strategy is needed with an innovative and effective online teaching and learning process.

Innovations in education can be directed at the effectiveness, efficiency and relevance of education, some examples of innovation in learning during a special condition (pandemic) can be used a distance learning system (DL/Online) with n learning modules. Among them is the Hybrid module which was compiled by the Sleman PDM Dikdasmen Council together with a consortium of Principals of SD Muhammadiyah SMP throughout the Sleman Region. There are 10 benefits of having a hybrid module. First, the hybrid module refers to the applicable curriculum standards. Second, the hybrid module functions as a home study companion for one semester. Third, the hybrid module makes media and learning resources interconnect because the module provides links and references to text and media libraries. The four hybrid modules contain integrated learning activities with limited face-to-face, independent and online learning strategies. Fifth, the hybrid module bridges good values/characters in everyday life during learning at home. Sixth, the Hybrid module complements the textbooks used by students. Seventh, the hybrid module makes it easier for students to learn from home. Eighth, affordable hybrid modules. Ninth, the hybrid module motivates students to learn, and the tenth hybrid module makes it easy for students and parents to understand.

Independent Learning

Learning carried out remotely has consequences for the independence of students in managing their learning process, and the method of delivering learning materials is also the main thing. The distance learning method used is the blended learning method (mixed learning), which is a combination of online learning delivered with conventional face-to-face learning, but if you look at the availability of access to online learning support that is not owned by all students, then the learning process distance can be done with other delivery media that makes it easier for students to learn. According to Alpha Amirrachman learning in distance education can be categorized into two types (Seameo Kemdikbud, 2020). First, independent learning is a learning process that is initiated by students within a certain period, and independent learning does not have to be self-study but can also be done in groups. Second, guided/structured learning, namely the learning process provided by the school to assist the learning process of students in the form of face-to-face activities, either directly or virtually by relying on guidance from the teacher.

The guided learning process is not always carried out in the classroom at school but can also be done in small groups with teacher visits. In the guided learning process the teacher no longer provides teaching, but the learning process is carried out based on questions from

students, the results of student learning progress, or it can also be used as a practical/practical activity. Student participation can be done with several examples of learning methods, namely, problem solving and problem posing, experience learning (learning based on experience), presentations, and others. Implementation of distance learning requires involvement between schools and parents/guardians, preparation of teachers in designing learning, availability of learning resources that use the integration of information and communication technology, assistance to students in identifying their learning needs and learning styles, community involvement in the availability of access to facilities/infrastructure and education staff assistance. The implementation of learning in distance education can use the mode of delivery in the form of learning with Online Mode, Offline Mode, or a combination of both. So that the management of the implementing school in implementing distance learning is based on the mode of delivery, both online learning and offline learning.

The learning strategy is a method that will be chosen and used by the teacher to deliver learning material by maximizing the existing potential, so that the learning objectives that have been set can be achieved. Learning patterns in distance education can use a blended learning strategy by utilizing the flipped classroom method. Flipped classroom is a learning method in which students study material (study) outside of school/at home independently, then conduct discussions or active learning (active learning) when face to face with the teacher (Sumarni et al., 2020). In its implementation before class starts, students have studied the material to be discussed, through material provided by the teacher or other relevant learning resources, including asynchronous discussions through the learning management system (LMS). When the class starts, students can express and discuss the material they have learned before class with the teacher and classmates synchronously, both live and virtual. Class ends When the teacher has seen the specified competencies have been achieved, by giving assignments and/or tests. The teaching materials developed in distance learning are arranged systematically to achieve the specified competencies and contain the activities of students and the teaching materials they learn. Teaching materials are designed so that students can learn independently.

The shift from conventional learning to distance education, especially in a pandemic situation, of course requires the role of parents to ensure the learning and teaching process runs as it should, especially for primary and secondary education. The mode of distance learning in normal situations and in abnormal situations, especially during the pandemic, is of course different because at abnormal times almost all parties are not able to be ready to do so. This is where the important role of parents is to help ensure that the learning and teaching process runs as it should, especially for primary and secondary education. This is where the three educational centers (family, community, and school) as mandated by Ki Hajar Dewantara

find their momentum. Synergy between parents and schools is important, especially in the form of intensive and effective communication. This is important to ensure that this does not mean shifting schooling to homes, but to further increase the synergy and collaboration between the three education centers so that the teaching and learning process runs as it should. The role of parents is important not only to ensure that not only the transfer of knowledge, but also the transfer of values goes well, and the character of students develops properly.

Conclusion

The Covid-19 pandemic among Muhammadiyah elementary and junior high schools in Sleman Regency has become a means of developing distance learning innovations or online learning from home by designing the Hybrid Module. The module was initiated by the PDM Sleman Dikdasmen Council and a consortium of Muhammadiyah elementary and junior high school principals. The module was prepared by the SD and SMP Muhammadiyah Sleman teachers. Therefore, teachers also get additional references and much-needed appreciation in the pandemic era. The module is used by teachers, students, and parents during the learning process from home and is also used as a guide during the independent learning process. The hybrid module greatly helps parents, Teachers, and Students. Hybrid module innovation at Muhammadiyah Middle School in Sleman As an alternative to Distance Learning solutions during the Covid-19 pandemic in Sleman Regency. All 15,407 Muhammadiyah elementary school students and 9,063 Muhammadiyah junior high school students use the module as a learning resource for teachers, students, parents, and guardians of students. The effectiveness of the innovation of using Hybrid Modules at Muhammadiyah Middle School in Sleman as an Alternative to Distance Learning Solutions During the Covid-19 Pandemic, there were many benefits. There are ten benefits of having a hybrid module. The well-running hybrid module is an alternative to learning solutions during the epidemic among Muhammadiyah primary and junior high schools in Sleman Regency. The next step can be done digitally so that its functions and uses are more widely available in Sleman Regency and at the provincial and national levels. Content completion and development and financial affordability can be considered to improve the use and availability of novel hybrid modules.

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