

Desimination of Technology for Utilizing Online Learning Media during the Covid-19 Pandemic at SD Muhammadiyah Mlangi

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ABSTRACT

The COVID-19 pandemic has had a significant impact on the life of the world community, including in Indonesia. In addition to health impacts, the pandemic also has economic, educational and social impacts. In the field of education, the Government through the Minister of Education and Culture of the Republic of Indonesia issued Circular Letter Number 4 of 2020 concerning the Implementation of Education Policies in the Emergency Period for the Spread of COVID 19. Responding to this, teachers in schools must be creative in preparing interesting learning methods according to learning needs. One of these interesting learning methods can be prepared by utilizing digital media. SD Muhammadiyah Mlangi is one of the educational institutions of Muhammadiyah Charity (AUM) which currently needs to increase the capacity of human resources to deal with the dynamics of the environment that is currently happening. The aspect of developing the capacity of human resources related to the ability in online learning will also increase the achievement of the material to be conveyed by educators. The PKM implementation method that will be carried out is divided into three major stages, namely preparation, socialization activities, training activities/workshops towards the target. In this training, teachers practice using a number of applications that have never been used before, such as quiziz, bitmoji and kahoot. These applications will still be useful for creative and innovative learning processes even though they are no longer in online learning. This is related to the target of education today is the digital native generation.

KEYWORDS

Online Learning Media;
Covid 19;
Native Digital



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1. Introduction

The COVID-19 pandemic has had an impact on the learning process of school children. If before the pandemic, children were able to carry out learning outside the network (offline) at school or elsewhere according to their learning needs, then during the pandemic, school children were learning online. This is in accordance with the direction of the Minister of Education and Culture of the Republic of Indonesia as outlined in Circular Letter Number 4 of 2020 concerning the Implementation of Educational Policies in the Emergency Period for the Spread of COVID 19. The circular letter was issued on March 24, 2020. The Circular Letter explains that the learning process is carried out in home through online/distance learning is implemented to provide a meaningful learning experience for students. Learning from home can be focused on life skills education, including regarding the COVID-19 Pandemic. Learning activities and assignments for learning from home can vary between students, according to their respective interests and conditions, including considering the gap in access/learning facilities at home. Evidence or products of learning activities from home are provided with qualitative and useful feedback for teachers, without being required to give quantitative scores/values. Responding to this, teachers in schools must be creative in preparing interesting learning methods according to learning needs. One of these interesting learning methods can be prepared by utilizing digital media. Online learning which a reference in community service is has been studied by previous researchers. Presence of learning within the framework of the Community of Inquiry: An alternative measurement survey for the four-factor model was investigated by

Wertz [1]. Effects of a newly established online learning management system: the perspective of Thai medical students in public medical schools was investigated by Thepwongsa [2]. The student self-learning profile (SRL) dataset measured during the Covid-19 mitigation in Yogyakarta, Indonesia was studied by Sulisworo [3]. Dynamic Predictive Modeling of Solder Paste Volume with Real Time Memory Update in a Stencil Printing Process researched by Lu [4]. Different Restructuring of Neural Connectome Using Evolutionary Neurodynamic Algorithm for Improved M2M Online Learning was investigated by Rai [5].

HomeStyles-2: A randomized controlled trial protocol for a web-based obesity prevention program for families with children in childhood is being studied by Byrd-Bredbenner [6]. The COVID-19 Outbreak: Resilience and its predictors among parents of schoolchildren carrying out online learning in Indonesia was investigated by Nasir [7]. Distance education during the COVID-19 outbreak: A cross-sectional study among medical students in Northern Jordan was investigated by Sindiani [8]. Characterization of Instructional Leader Interaction in Social Learning Management System using Social Network Analysis researched by Llantos [9]. Online Learning Lobe Diagram of Stability in Milling was researched by Friedrich Friedrich [10]. Studying behavioral data in programming education: Community analysis and prediction of outcomes with cleaned data was investigated by Mai [11]. The transition to online learning during the COVID-19 pandemic was investigated by Lemay [12]. Understanding the essence of satisfaction from E-learning in higher education: A multi-generational cohort perspective researched by Yawson [13]. The design of a computational model for social and analytic learning support was investigated by Yen [14]. Online learning versus mixed clinical supervision skills learning with pre-enrollment nursing students: A randomized controlled trial studied by McCutcheon [15].

An evolving framework for dynamic system fault diagnosis was investigated by Santos [16]. University student profiles on online learning and its relation to online metacognitive regulation and internet-specific epistemic justifications were investigated by Binali [17]. Assessment of sustainability science education criteria in online learning through fuzzy-operational and multi-decision analysis and a professional survey was investigated by Jeong [18]. The view of regulatory authorities on standards for ensuring quality in online nursing education was investigated by Delva [19]. Pharmacy students' perceptions of online learning at the Saudi Pharmacy School were investigated by Almaghaslah [20]. Developing the collaborative and metacognitive skills of peer mentors with a technology-enhanced peer learning program was researched by Carvalho [21]. Online learning for undergraduate health professional education during COVID-19: attitudes and perceptions of Jordanian medical students researched by Muflih [22]. Online learning without scale-invariant constraints was investigated by Kotłowski [23]. When it comes to MOOCs, where you come from makes a difference researched by Gameel [24]. A fast and adaptive online learning detection system was researched by Prasad [25]. Stimulating curiosity and engagement through online curriculum was researched by Karcher [26]. Estimating students' online learning satisfaction during COVID-19: Discriminant analysis researched by Al-Nasa'h [27]. No Filipino student is left behind: Anticipating health risks and solutions from online learning researched by Dagwasi [28]. AndroDet: Adaptive Android confusion detector researched by Mirzaei [29]. Exploring four decades of research in Computers & Education researched by Zawacki-Richter [30].

An innovative interactive presentation for an oral clinical-pathological conference was researched by Yu [31]. Cognitive Presence in Online Learning: A Systematic Review of Empirical Research from 2000 to 2019 researched by Sadaf [32]. Investigating the effectiveness of online learning tools for the preparation of energy performance certificates was investigated by Lage-Cal [33]. Collect Pokemon or receive gifts? How people function with badges in a gamified online learning environment in the wild was investigated by van Roy [34]. Research and Development of Intelligent Learning Assisted Software was researched by Chen [35]. Value-expectancy assessment and achievement emotions in an online learning environment: Relationships within and between people were studied by Berweger [36]. Teachers' attitudes towards the use of social media (SM) in online learning in the midst of the COVID-19 pandemic: the effect of using

social media by teachers and scholars during physical distancing was studied by Jogezei [37]. Data on student perceptions of online learning with a heutagogical approach at the Faculty of Mathematics and Natural Sciences, Makassar State University, Indonesia was studied by Rusli [38]. The effectiveness of online learning with facilitation method was researched by Zulfikar [39]. Research Methods for Detecting and Correcting Text Errors Based on Community-Based Online Learning was researched by Song [40].

How instructional contexts can affect learning with educational technology: Lessons from studies with digital learning games researched by McLaren [41]. The effect of online learning for dental education in Asia during the COVID-19 pandemic was investigated by Chang [42]. Student use and acceptance of emergency online learning due to COVID-19 was investigated by Patricia Aguilera-Hermida [43]. Long term impact on contouring skills can be achieved with online learning. An ESTRO-FALCON-IAEA study was investigated by Eriksen [44]. Powerful Lagrangian Online Support Vector Engine against Enemy Attacks researched by Ma [45]. An online learning algorithm for playing discounted repetitive games on a wireless network was researched by Parras [46]. The WhatsApp application to support online learning during the COVID-19 pandemic in Indonesia was researched by Mulyono [47]. The evaluation of the Traditional Chinese Medicine online course for Bachelor of Medicine, Bachelor of Surgery international students during the COVID-19 epidemic period was researched by Zhang [48]. Implementation of contouring guidelines can be achieved by online learning through a dummy run researched by Levy [49]. The use of an online learning module (LearnPro NHSTM) to educate and assess staff working in cystic fibrosis care was investigated by Mallinson [50]. This is in line with the goal of distance learning, namely to meet educational standards through the use of Information Technology by using computers or gadgets that are interconnected between students and teachers. Through the use of technology, learning can still be carried out properly.

SD Muhammadiyah Mlangi is one of the educational institutions of Muhammadiyah Charity (AUM) which currently needs to increase the capacity of human resources to deal with the dynamics of the environment that is currently happening. The aspect of developing the capacity of human resources related to the ability in online learning will also increase the achievement of the material to be conveyed by educators. With the condition that the number of students is quite large, the contribution of this community service is aimed at educators at SD Muhammadiyah to teach students with appropriate methods in learning so that later the achievement of the material to be conveyed can be carried out properly. The vision of Muhammadiyah education proclaimed at the 46th Muhammadiyah Congress in Yogyakarta is the formation of human learners who are devoted, have noble character, are progressive, and excel in science and technology as the embodiment of *tadjid da'wah amar ma'ruf nahi munkar*. Muhammadiyah education is a modern Islamic education that integrates religion with life and between faith and holistic progress (Lincoln Arsyad, Warta Rakornas leadership (PTM and PTA). The learning process begins and is aimed at humanizing humans.

2. Method

The community service implementation program with this partner consists of a chairperson who is an active lecturer in the Public Administration Study Program with the proposing member, namely one active lecturer from the Midwifery Study Program who is the academic and curriculum coordinator so that he has mastery with learning methods. This activity also involved 2 (two) students from the Public Administration and Communication Study Program to hone soft skills and hard skills related to mastering learning media in literacy activities which are the focus of service. The targets in this community partnership program are educators or teachers at SD Muhammadiyah Mlangi who still have limited information and ability to manage online learning. The PKM implementation method that will be carried out is divided into three major stages, namely preparation, socialization activities, training activities/workshops towards the target, as shown in Table 1. The table describes the stages in order based

on the problems that must be resolved immediately and the time management of the implementation of the most possible stages.

Table 1. Overview of partner participation, program evaluation and sustainability

NO	Name of activity	Partner Participation	Evaluation and program sustainability
1	Preparation	Identify the goals and needs of the target group, then the proposal team will make guidelines according to the partner's problems	Workshop module creation
2	Socialization	Partners convey various obstacles and constraints related to the problems faced for further adjustment of solutions based on resource capabilities which are owned	Activity socialization
3	Training	Target of training activities, active and direct participation in training activities	Training activities

The outreach activity was initiated through the Whatsapp application which was then followed up with a direct meeting with the principal. During the meeting, the staff and the school discussed the problems faced by SD Muhammadiyah Mlangi regarding the use of online learning media during the pandemic.

Based on the discussion, a number of problems were identified that require a series of interventions. The problems identified were the barriers to classroom teachers in the use of technological instruments for learning. Therefore, the activities formulated to answer the problem are training activities that enrich the capacity of teachers in preparing creative and innovative learning. From the training formulation, the target groups and their needs were mapped. The target group for the training activities are classroom teachers who are in charge of learning in grades 1-6.

As for determining what materials are needed by teachers related to online learning, devotees conducted a survey through a googie form of teachers in grades 1-6. From the survey, information was obtained that so far teachers have used google classroom, googleform, canva, powerpoint, flipbook and kinemaster. Therefore, the materials that will be delivered in the training are materials related to methods of using applications in online learning that have never been used before. In training activities, teachers are designed to practice using a number of applications that have never been used before, such as quiziz, bitmoji and kahoot.

3. Results and Discussion

The training activity on the use of online learning media was attended by 25 (twenty five) teachers in grades 1-6 is shown in Fig. 1. In particular, this training is intended to enrich the ability of teachers related to the preparation of online learning media. Online learning media that have been widely used at SD Muhammadiyah Mlangi are Google Classroom, Google Form, PowerPoint, Canva, Flipbook and

Kinemaster. In order for the online learning process to be more interesting and motivate the student learning process, teachers need to always enrich learning references that use applications.

In this training, teachers practice using a number of applications that have never been used before, such as quiziz, bitmoji and kahoot are shown in Fig. 2. Technically, the training is done through lectures and practice. Servants deliver material related to learning applications and the teachers immediately put them into practice. These applications will still be useful for creative and innovative learning processes even though they are no longer in online learning. Moreover, the students being taught are digital native generations who have more interest in learning that uses technology.

Students of the digital native generation are those who were born in the era of digital technology, the activities carried out require technological equipment as auxiliary media. One of the characteristics of the digital native generation is the ability to use computer technology and mobile smartphones with ease, both for browsing information and entertainment, such as browsing, chatting, and the most popular is playing games through computers or mobile devices.



Fig. 1. Implementation of Training on the Use of Online Learning Media during the Covid-19 Pandemic at Muhammadiyah Mlangi Elementary School

Training related to increasing the capacity of teachers to be able to take advantage of advances in learning technology needs to be carried out because being a teacher for the digital native generation is not an easy thing. There are many challenges in it. So teachers need to design the right method to suit the needs of their students.



Fig. 2. Training materials for the use of online learning media during the Covid-19 pandemic at Muhammadiyah Mlangi Elementary School

From the findings of these aspirations, the team recommended a number of trainings such as training on creating a youtube account, creating a web blog, using Google Drive and so on. Implementation of the training program as recommended can be done by cooperating with lecturers of Information Technology or ICT or Multimedia study programs. This will greatly assist teachers in increasing their capacity to take advantage of technological advances for online learning.

4. Conclusion

Based on the results of the training that has been carried out as part of a series of community service activities, it is known that in the implementation of community service at SD Muhammadiyah Mlangi, the team did not experience significant obstacles due to good cooperation between the team and the training participants, coupled with the enthusiasm of the participants who were very enthusiastic. participation in this activity supports the smooth implementation of the training.

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Author Contribution

All authors contributed equally to the main contributor to this paper. All authors have read and agreed to the published version of the manuscript.

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Conflict of Interest

The authors declare no conflict of interest.

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