Utilization of NON B3 Waste as Learning Media in Online Class during the Pandemic

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Abstract. Covid-19 pandemic had a significant impact on many aspects of life, including in the world of education. Pandemic conditions make the learning process adapt to new conditions, one of which is changing the form of face-to-face learning into online learning. The online learning process for teachers at Special School (SLB) faces challenges in delivering learning materials to students with special needs, especially in using appropriate learning media. This article discusses the training provided to special school teachers in Yogyakarta to make learning media utilizing non-B-3 waste as a support for the online learning process for children with special needs. The method used is a qualitative method with data collection techniques using interviews, observation, and performance evaluation. The results of this study indicate that the training in making learning media based on non-B-3 waste is significant in helping teachers solve online classroom learning problems for children with special needs. The reason for choosing non-B-3 waste for learning media are easy to get, and teachers can make media according to students abilities and learning objectives.

I. Introduction

A professional teacher is both a demand and an expectation of society. Because professional teachers are one of the components in the education system that play a strategic role in running the education system to produce optimal educational output according to goals and expectations [1]. In theory, professional teachers are teachers who have the competencies required to carry out educational and teaching tasks. In other words, a professional teacher is a person who has special abilities and expertise in the field of teacher training so that he can carry out his duties and functions as a teacher with the maximum ability[2][3]. Besides, professional teachers are people who are well educated and trained and have rich experience in their fields[4], [5]. For this reason, it is not surprising that all the power and efforts have been made by the education community, especially education policymakers, from the central to regional levels to form professional teachers in all educational institutions, including early childhood, primary and secondary education[3].

Juridically, in Law No. 14 of 2005 on Teachers and Lecturers Article 20 and Article 6 of the Minister of PAN & RB Regulation No. 16 of 2009 concerning Functional Teachers, it is clearly stated that in carrying out professional duties, teachers are obliged to improve and develop academic qualifications and competencies on an ongoing basis. In line with science, technology and art. Thus it can be explained that in addition to carrying out the routine of carrying out daily learning, a professional teacher is also required to develop his academic
qualifications through educational activities and develop his competence on an ongoing basis in various matters that support his profession as a teacher[6].

The end of 2019 to 2020, the world was troubled by the Covid-19 Pandemic, which changed all areas of life. The field of education is one that is affected so that it makes us have to be able to adjust to the current conditions. The learning process, which is usually very common face-to-face in schools, immediately has to adapt to non-face-to-face forms. This is in line with health protocols to protect yourself and others from exposure to Covid-19 and to break the chain of transmission of Covid-19[7][8].

During the pandemic, both students, teachers and parents must adapt together in the learning process with new situations and conditions suddenly. The challenges faced are: availability and ability to access technology, changes in patterns and processes of delivery of learning materials, absorption of learning materials, evaluation of learning, adjustment of forms and types of learning media, teacher readiness in developing learning strategies [9][10][11].

Learning innovation is needed to answer these challenges. Learning media innovation is a development of appropriate learning media, which is new and/or has novelty, and can solve learning problems to achieve learning objectives[12]. Not all teachers understand how to make media that suits the needs and conditions of children, as well as safe and friendly media for children with special needs.

Based on the description above, it is necessary to research the use of non-hazardous waste as a learning medium which is packaged in training activities for making learning media that are friendly and safe for children with special needs to support the achievement of learning objectives during a pandemic with economical materials. This study aims to determine the effectiveness of these training activities in improving the ability of teachers to manage non-hazardous waste as a learning medium during the pandemic.

2. Method
This study uses a qualitative research approach with descriptive methods. With observation, interviews and documentation as a source of research data collection [13], [14]. The research was carried out on 1-18 July 2020 by carrying out observations, interviews before the implementation of training activities and after the implementation of training activities. Observations and interviews were conducted virtually using the APK Zoom meeting.

Research subjects are the target of observations or informants to be addressed by the researcher. The subjects in this study were 6 teachers who participated as training participants from different special schools in Yogyakarta.

Data collection techniques used in this study were observation, interview or interview and documentation. Observation is carried out by observing the media exposure process that has been made after participating in the training[14]. At the same time, the interviews are conducted at different times, namely before the research subjects participating in the training, the interviews are carried out by following the interview guidelines that have been prepared in the guideline containing the problems faced in the online learning process, as well as the expectations to be obtained after participating in the training activities that will be carried out, documentation is carried out by collecting results or media videos that have been made by participants, and evaluation by interviewing after participating in training activities on the use of non-hazardous waste as a mass learning medium COVID-19 pandemic to special school teachers in Yogyakarta.

3. Results and discussion
Analysis of Learning Problems Online / Online. Problem analysis was carried out to find out the problems of special school teachers in carrying out online learning during the COVID 19 pandemic, from this analysis it can be seen that the problems faced are either from the teacher as an educator or from students with special needs as students. The problems faced include:
1. Availability and ability to access technology
2. Changes in the pattern and process of delivering learning material
3. Absorption of learning materials
4. Learning evaluation
5. Adjustment of forms and types of learning media
6. Teacher readiness in developing learning strategies

The teacher’s ability to transfer practical activities in virtual form cannot be implemented, even though in special schools vocational activities are prioritized. Almost all students did not respond well if they were given material in written and oral form. Limited ability to use gadgets. Most of the student guardians cannot guide learning activities at home. Teachers have difficulty controlling student behaviour virtually.

Training on Non-B3 Waste Utilization as Learning Media. Training on the use of non-hazardous waste as a learning medium is an activity that tries to answer the problems faced by special school teachers in implementing online learning [15]. This training aims to provide provisions for special school teachers in making learning media that is easy, efficient, safe and can be made or adapted to the learning objectives to be achieved, the use of non-hazardous waste can help reduce plastic waste on earth and can save the earth from accumulated waste. Not controlled by doing recycling. The use of non-hazardous waste as a basic material for making media can also increase human awareness about the dangers of waste that cannot be destroyed by natural processes.

Effectiveness of Training on Non-B3 Waste Utilization as Learning Media during the COVID Pandemic 19. From the interview data that has been obtained, it is found that the training participants get innovations that are easy and efficient in carrying out learning for students with special needs, these innovations include:

Utilizing household waste to be used as a basis for making learning media for students with special needs that can be tailored to the learning objectives and needs of children. Teachers can make learning videos using media that have been made using non-hazardous waste which has been adjusted to the learning objectives so that students with special needs are interested in the videos that have been displayed by the teacher.

Making media made from non-hazardous waste is considered efficient to be used periodically based on different learning materials and objectives so that the teacher does not object to the eye. Non-hazardous waste is safe to use both during direct and online learning for students with special needs. Teachers can be creative according to their wishes in making media made from non-hazardous waste.

4. Conclusion
Utilization of NON-B3 Waste as Online Learning Media During the Pandemic Period which was packaged in the training activities carried out can be said to be effective in solving one of the problems faced by SLB teachers in carrying out online learning during the COVID 19 pandemic. Teacher training activities have innovations in making learning media that can be used regularly in the learning process.

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