

## ASSISTANCE IN THE USE OF MULTIMEDIA IN LEARNING AS AN EFFORT TO IMPROVE THE SKILLS AND SKILLS OF ELEMENTARY SCHOOL TEACHERS

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**Abstract.** Increasing competitiveness in the field of education, especially basic education, must continue to be carried out and. The challenges of education in the educational era 4.0 are very big, especially in increasing the nation's competitiveness. Teachers generally have a universal educational background. This service activity was carried out in the form of Assistance in the Use of Multimedia in Learning at Nurul Iman Islamic Elementary School. This activity aims to provide solutions to partner schools as a learning medium. In this activity, the participants consisted of 20 teachers. This service activity also aims to increase teacher competence in strengthening technology. This activity is very useful for teachers to support their professionalism in their work. Teachers need to be trained and guided so that they have skills in technological resources, which are based on education and teaching. The benefits obtained by teachers are improving the quality of research-based learning and increasing skills in mastering technology in learning. The implementation of this activity was carried out in two stages, namely training and guidance on learning media-based technology. The results are expected to show that teachers at Nurul Iman Islamic Elementary School, Parung District will understand how to utilize technology in learning media to improve the quality of learning and share information and experiences.

**Keywords:** multimedia; elementary school; learning media

### I. INTRODUCTION

In general, elementary school teachers have a universal educational background. Elementary school teachers in science learning tend to carry out the learning process individually, resulting in unequal student achievement. Teachers must make efforts to improve students' skills, understanding and interest in science learning. Teachers must have good understanding and creative thinking skills, especially in solving various learning problems, especially science. In this way, students who have less academic ability can learn independently and thereby improve their academic ability. Thinking skills and scientific processes must be developed through science learning with certain models and media to develop teachers' ability to think creatively, innovatively and productively. The use of multimedia media is a very effective medium for learning science, it will help students to find answers with their own efforts based on their abilities and creative thinking skills. The benefits of multimedia media in learning are that it makes the learning process more interesting, more interactive, the quality of learning can be improved, and the teaching and learning process can be carried out anywhere and at any time, and students' learning attitudes can be improved. The aim of this partnership activity is to improve teachers' understanding abilities and creative thinking skills in the learning process.

The subjects of the activity were the class teachers at Nurul Iman Islamic Elementary School, Bogor Regency. The results of the activity will be published in the National Scientific Journal, Journal of Humanities and Social Studies. The researcher will compile a book of teaching materials relating to the results of the research and the resulting multimedia will be registered as one of the Intellectual Property Rights as a result of the research output. For the Technology Readiness Level, it is stated that the relevant facts and basic arguments are ready to support the need for it to be carried out. this research. The hypothesis, initial support, R&D design to be carried out have been explored, then the methodology, procedures and stages to be carried out have been explored.

With this partnership activity, learning will become more meaningful. Students can easily grasp the material taught. Teachers at schools, to carry out digital literacy activities in the habit of accessing, searching, and utilizing information intelligently, carefully and intelligently. Teachers must have a sufficient level of digital literacy, so they can differentiate between correct and incorrect information to convey to students. At school, teachers teach how to sort out the truth of information and instill character in students in using multi-media, so that students can avoid the negative impacts that can be had if they are not wise in using the internet. In developing teachers' creative thinking skills

processes, multimedia models can be developed. Some problems that can be studied are whether the use of digital literacy can develop teachers' creative thinking skills?, what are teachers' process skills?, teachers' understanding evaluated after the development of multimedia models.

From this study, it can be concluded that the goal to be achieved in this activity is strengthening teachers' abilities in using multimedia as an innovation for elementary school teachers. Another aim is to determine the ability of elementary school teachers to use technology in their role as educators. Based on direct observations and discussions with Nurul Iman Islamic Elementary School partners, several problems were found. Determining problem priorities was carried out by the team by holding 2 in-depth discussions involving directly related parties, namely the Nurul Iman Islamic Elementary School, the Elementary School Supervisor who manages the Nurul Iman Islamic Elementary School and 20 teachers from representatives of the Nurul Iman Islamic Elementary School. The results of observations and interviews identified several problem factors including: 1. Teachers' difficulties in developing teachers' pedagogical abilities to improve creative skills in implementing science lesson themes in the 2013 Curriculum. As a result, many teachers can only understand but are not yet skilled in applying them in the student environment, causing student confusion. 2. Teachers in elementary schools in the Nurul Iman Islamic Elementary School Group do not receive enough training on innovative science learning approaches. This will cause teachers to lack understanding of certain themes. 3. Teachers have difficulty creating creative and innovative learning media that takes creative learning sources on science lesson themes. Training and assistance is needed in the process of preparing creative multimedia-based learning models in accordance with today's learning. 4. Students as students in the learning process, especially in matters relating to creative and innovative skills, feel bored following a learning process that is not varied/diverse, thereby affecting learning completeness. 5. So far, students have only been given material without being directed to its application in the student environment. This will give rise to shallow basic concepts for students.

Based on the problems faced by the partners, the solution offered by the proposer is through the Community Partnership Program based on the priority problems agreed upon by the team proposing the Community Partnership Program with Nurul Iman Islamic Elementary School and the Elementary School that the solution to maintain the sustainability of increasing the competency of teachers who are highly competitive will be carried out through strategy to increase teachers' pedagogical abilities with training, workshops and mentoring regarding strengthening multimedia technology abilities for Nurul Iman Islamic Elementary School teachers. The aim of the service is that 90% of teachers understand and are creatively skilled in developing digital literacy-based learning media, the importance of learning media preparation activities for learning themes, the importance of increasing the quality and quantity of learning activities in elementary schools. while achievement indicators are for the purpose of providing teachers with the ability to

develop themselves in learning process activities. The community targeted for implementing Community Service is the Nurul Iman Islamic Elementary School teachers, Bogor Regency. The number involved was 25 teachers. This activity is also in collaboration with the Bogor Regency Education Office

## II. RESEARCH METHOD

The problem is that Nurul Iman Islamic Elementary School teachers still do not understand the activities or processes of creative skills in implementing multimedia learning media, as well as the importance of increasing the quality and quantity of learning generated by these activities. It was attempted to be resolved using the workshop method with training techniques and workshops on teacher pedagogical development work materials through multimedia training followed by discussions, while the problem of the ability to implement multimedia for elementary school teachers in the implementation process was resolved by providing assistance. This activity is packaged in the form of workshops and mentoring.

Step 1: Training participants are given material regarding implementing multimedia for learning themes and its importance in improving teacher professionalism.

Step 2: Participants are given the opportunity to discuss the material that has been given. The opportunity for questions and answers is given to clarify matters that are still in doubt.

Step 3: Participants practice in workshops to develop implementation of implementing multimedia, and jointly create technology products.

Step 4: Participants in the process are accompanied by staff as collaborators in practicing implementing multimedia for themes in the learning process

Step 5: The results of the work on developing the implementation of teacher technology products for the themes are analyzed to provide input and further improvements.

Step 6: The results of technological work for learning themes are submitted to the media publication application

## III. RESULT AND DISCUSSION

In simple terms, media can be said to be an intermediary or connecting tool. And learning is a condition that makes individuals carry out learning activities. Thus, it can be said that learning media is a vehicle for connecting messages or information so that individuals can learn. The learning process is essentially a communication process, namely the delivery of messages from the source of the message to the recipient of the message. The message conveyed can be in the form of learning material that is in accordance with what is written in the curriculum. There are times when the message delivery process is not well received by the recipient of the message. The background to the message not being well received is partly due to psychological factors, cultural barriers and environmental barriers. Because of these obstacles, the learning process does not run

effectively. These obstacles can be overcome by using and utilizing learning media. Learning media is a learning resource that can convey messages and reduce obstacles in the learning process (communication). Learning is a communication process, so it can be said that the media has an important role in facilitating the learning process. In the learning process the role of media is very necessary. Media is a tool used to convey something. With the help of media, it is hoped that the learning process will be effective and can be accepted and processed by students. Learning media is a message carrier technology that can be used for learning purposes; Learning media is a physical means for conveying lesson material. Learning media is a means of communication in the form of print and hearing, including hardware technology. From this statement, it is very clear that learning media is a tool for conveying material, this media can be visual or audio, where this is also influenced by technological developments. The aim of teaching activities carried out by educators is none other than to transfer knowledge to students using various learning media. It is not uncommon that when the teaching and learning process takes place the message that you want to convey to students does not arrive, because inappropriate media is used. The use of media must be appropriate, because it relates to the message the educator wants to convey to students. Apart from that, it can also provide added value to the effectiveness and efficiency of the learning process.

Implementation of service is carried out in three stages, where the first stage is the preparation stage. At this stage the service group conducted a preliminary survey to review conditions in the field regarding the implementation of training and workshops that had been carried out by teachers in elementary schools in the Bogor Regency area. The next stage is the stage of implementing community service activities. In this stage the servant carries out professional work development activities in the form of workshops and mentoring regarding implementing multimedia. The final stage is the evaluation stage. At this stage, an evaluation was carried out on the results achieved by the workshop participants, namely the Nurul Iman Islamic Elementary School teachers. Further input and improvements can be made at this stage. Evaluation is provided by collecting data obtained from workshop activities. Data was taken by summarizing the understanding of elementary school teachers when given instruments delivered using training and workshop methods, followed by question and answer/discussion, as well as from the results of development.

The indicator of achievement of service objectives is that 90% of teachers understand and are creatively skilled in developing activities regarding implementing multimedia, the importance of Technology Literacy activities for learning themes, the importance of increasing the quality and quantity of learning activities in elementary schools. while achievement indicators are for the purpose of providing teachers with the ability to develop themselves in learning process activities. The implementation of Community Service activities is packaged using workshops, workshops and mentoring approaches.

The first activity was carried out in collaboration with the Department of Education, providing knowledge about the Department of Education's policies regarding the duties and responsibilities of teachers as educators and tutors, providing material on the background and basic concepts of Technological Literacy as well as socializing about Multimedia learning media in 21st Century learning. Workshop activities on Quality of Education through multimedia-based learning media. Workshop activities for Preparing TPACK-based Learning Tools. Assistance activities for Review of TPACK-based Learning Tools.

Through the Community Partnership Program in Assistance Activities for the Use of Multimedia in Learning as an Effort to Improve the Skills and Skills of Elementary School Teachers, teachers can: Increase effectiveness and creative efforts in developing learning tools, especially multimedia-based learning media; Teacher professional development, helping teachers develop their abilities in understanding the process of preparing learning tools, especially multimedia-based learning media; Motivate teachers, encourage teachers to apply and develop their abilities and be responsible in carrying out their administrative duties. awaken and stimulate teachers in developing creative efforts in the learning process.

Based on the concept of media above, several definitions basically have similarities in defining media, namely as an intermediary or messenger, so it can be said that media is a tool used to convey messages or information, and this media will be very useful if used in the learning process. So that this process can improve students' abilities and motivate students to learn. The media used in learning is said to be learning media. With the existence of learning media which is one of the learning sources that can channel messages so that it helps in solving the learning process. Differences in learning styles, interests, student abilities, sensory limitations and so on, can all be helped by the use of learning media. In determining what media will be used by educators, educators should consider several principles in order to optimize learning, including; effectiveness of the media, relevance of the media, efficiency, can be used and applied in learning, and contextual. In the learning process, it is certain that communication will occur between educators and students, and in every communication a medium is always used so that the message that has been conveyed can be well received by students, this can minimize communication errors. Learning media is something that can be used to convey learning messages, this is done in order to stimulate participants' attention, interests, feelings and thoughts. Many educational studies have proven that multimedia can overcome several problems in the learning process. Below is presented some educational research that uses multimedia, where the multimedia provides positive value for the learning process

#### IV. CONCLUSIONS

The learning system does not always have to be done conventionally (lecture method), but can be done in a more modern, efficient and effective way. The development of communication and information technology has had a positive impact on the world of education. Based on the literature study that has been carried out, it can be said that the use of multimedia provides many benefits for the world of education. By knowing the important role of multimedia in a learning process, there should no longer be a problem where educators have difficulty in determining the right media when learning. The quality of an educator must continue to be improved in order to achieve qualified students. The development of ICT is not a barrier for educators in delivering learning. Multimedia must be utilized as well as possible in order to achieve learning objectives in the education.

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