

Training on Development of Edutainment-Based Innovative Learning Media for Teacher Professional Development

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Abstract: This paper aims to describe the teacher's training activities in partnership program activities, especially for elementary school teachers in Malang. The subject of this training were 20 elementary teachers in Malang. The implementation methods in this training include demonstration activities, questions and answers, lectures, and discussions. The results of this training contribute to the development of edutainment-based media that can be used to increase the professional development of sustainable teachers. Furthermore, five were compiled edutainment-based learning videos that can be accessed by all users' YouTube site, especially for students. Based on training activities in developing this media, it is known that teachers have excellent skills in making innovative learning media in the form of various videos.

Keywords: edutainment, innovative learning media, elementary school teacher, continuing professional development, teacher professional development

1. INTRODUCTION

The arrival of the industrial revolution era (ERI) 4.0 brought changes in world education globally and in Indonesia in particular. One of these is a change in aspects of learning outcomes into three elements: knowledge, skills, and attitude. This is in line with demands 21st-century learning corresponds to the P21 Century Skills, where the emphasis lies in education and innovative skills [1]–[4]. Preparation of students in the future is focused on creativity, critical thinking, communication, and collaboration, known as 4C's [5], [6].

National Educational Technology Standards for Students (NETS-S) suggests six important skills that teachers must possess and instill in students to achieve success in school and career in the future [7]. The teacher needs to know these student skills in order to adapt to student needs with the rapid development of technology as it is today. Creativity and innovation indicated that students could demonstrate thinking behavior creatively, build knowledge, and develop innovative products and processes using technology. Students use digital media and the environment to communicate and work collaboratively (including remotely) to support individual learning and contribute to others' learning included in the description of students developing communication and collaboration [8]. Other skills that are no less important include research and smooth innovation, critical thinking,

problem-solving, decision-making, digital citizenship, and operating technologies and concepts.

All these skills become a demand in the process of 21st-century learning. Therefore, teachers are required to have 21st-century competence to be able to support these demands. 21st-century learning is a must to integrate information and communication technology, as well as management student-centered learning. In developing 21's century learning, teachers must change conventional teacher-centered learning to become student-centered because abundant learning resources are not only sourced from teachers. Hence, the teachers' role becomes a facilitator, mediator, motivator, and leader in the learning process. Conventional learning patterns can be understood as learning where teachers give a lot of lectures (transfer of knowledge) while students are more listen a lot, take notes, and memorize. Pedagogical skills with conventional patterns are deemed inappropriate for the current era.

There are four phases of the process of adoption and adaptation of teachers in 21st-century learning, including (1) dabbling, (2) doing old things in a way old (old things in old ways), (3) doing old things in new ways (old things in new ways) and (4) doing new things in new ways (doing new things in new ways) [9]. In order to realize a relevant learning model and conducive to preparing students to become citizens of a global literate society, information,

and knowledge of the 21st century, a learning strategy is needed. One of them is the use of technology [10].

The use of technology is directed at helping students in developing technological skills as part of competence 21st century. Utilization of technology in product and process dimensions directed to increase student involvement in the learning process and increased achievement. Technology allows individuals to obtain access to information (real-time data), provide a simulation about an object as it is (real world), and get the opportunity to connect with various learning objects according to interest. Technology can assist in assessing the development of student performance, as well as facilitate the communication and collaboration process.

One of the efforts that can be made in developing capabilities for students is by combining education (education) and entertainment, known as edutainment [11]–[13]. Educational games provide a competitive environment where students follow defined rules as they strive to achieve goals that challenge and present students with a clear understanding of what might be an answer right [14]. The series game asks students to solve skills problems in finding solutions or demonstrate content mastery specifics that demand high levels of accuracy and efficiency. Integration of methods with technology is some games using educational purposes, like a puzzle and Sudoku games.

Teacher professional development from pedagogical and professional competence needs to be improved with various strategies and forms of activity. Strategy and forms of activities that can be done to improve this professional ability are seminars, workshops, and training organized by professional teacher institutions, teacher forums (KKG), consortiums, universities, the private sector, and the government, in this case, the education office [15], [16]. However, the efforts to increase the profession are still not fully implemented by the teacher. The preliminary survey results in April 2019 through an online survey show that during the last two years, only 40% of respondents have stated that he participated in activities related to increasing professionalism in order development of innovative learning media, specifically e-learning learning.

In the confirmation of the open questionnaire, it turned out that the teachers who wanted to innovate were busy in administrative activities, and there were few opportunities available. Another problem that arises is related to teacher constraints operation of ICT even though the teachers are consciously aware of the need to keep up with the current millennial generation's speed. The teacher realizes that it is highly demanded to be a creative teacher in the current era to make students actively involved in learning and not feel bored. In particular, based on the results of a survey conducted by teachers felt the need to improve in media development innovative learning in their classes where as many as 72% of respondents requires media training and

the development of innovative learning strategies and 86.4% of respondents said they would attend the training if provided opportunity. Following the existing situation, this community partnership program is aimed at non-productive communities, namely elementary school teachers in the city of Malang, where teachers need a professional development scheme for educators through the development of edutainment-based learning media.

2. METHOD

1.1. Activity Stage

The stages of carrying out community service activities include three sessions. The first session (in) is implementing training with a development mode edutainment-based learning media that is tailored to the implementation learning in their respective classes. Things are carried out at the technical guidance stage, namely by carrying out face-to-face activities in the context of media analysis learning needed in learning and developing media learning according to need. The resulting learning media includes printed learning media, electronic book-based learning media, interactive multimedia, game-based learning, and online learning media platforms.

In the second session, the teacher implements the media in the classroom by including proof of implementation (on). The third session is implementing presentations and Reporting the results, including the final development of instructional media-generated (in).

1.2. Implementation Method

The subject of this training were 20 elementary teachers in Malang. The implementation methods in this training include demonstration activities, questions and answers, lectures, and discussions. Demonstration and questions, as well as direct work, can be used to make learning media. Lecture to explain the analysis and the stage of the media creation technique. Discussion to evaluate and receive feedback about the process and results of community service activities. The training was presented in 5 meetings with the on-in-on concept. The division of the meeting was conceptualized with material and practical activities and presentations of the resulting product. This also means that there is an immediate outcome tried out on students.

1.3. Evaluation Stage

The types of evaluation used in this program are of two types: process evaluation and result evaluation. Process evaluation is carried out to provide intervention in the training process by giving a survey after the program. The evaluation of the results is carried out by implementing the pre-test and post-test on the level of innovation of elementary school teachers and innovative media based on

edutainment, assessment the final product, namely the resulting learning media and its devices include originality, content suitability, degree of innovation, and creativity.

3. RESULT AND DISCUSSION

Edutainment-based innovative learning media development training for elementary school teachers in Malang City was carried out according to the planning date for four days in October 2019. Delivery of material regarding related materials edutainment and several supporting applications were carried out at the first meeting. Then proceed with the preparation of the instructional media design edutainment at the second meeting. The third meeting was filled with material and practice video editing, along with making thumbnails. Then end with the material and practice of uploading videos at the fourth meeting. Following are the details of the training activities development of innovative learning media based on edutainment.

The first meeting of media development training activities was held on Saturday, 19 October 2019, in room B17. 203 PP2 FIP State University Malang (2nd Floor). The meeting began with an opening consisting of a series of remarks and introductions of activity implementers. In this speech, the executor explains the background and importance of this training activity.

After the opening, the activity was continued with the delivery of the first material. In the 21st Century Learning material, participants gain knowledge about skills that must be possessed by every individual in order to be able to follow the times as presented in Figure 1. The skills referred to here is the scope of the 21st century. At the beginning of the material presented, participants were invited to think about what things will happen in the future. So that by realizing some of the urgency, participants realize its importance of changing views to achieve learning goals, especially in elementary schools. Furthermore, participants will be shown data regarding the role of technology in education and the quality of education in various parts of the world. Incognito The first material closes with several solutions offered in dealing with 21st-century learning.

The activity continued with the delivery of the second material, namely media material innovative learning. This material is related to the first material, namely 21st Century Learning. The delivery of the third material was continued with the inner Edutainment material Learning. The last material is closed with Learning Media Support Application material Edutainment [11]. In this material, participants gain insight into several applications that can be used to create edutainment-based learning [5].

The second meeting in the media development training was held on Sunday, 20 October 2019. This meeting focused on Compilation activities Edutainment Learning

Media Design. Participants are asked to make a design of making edutainment learning media in the form of a visualization concept. In preparing the edutainment instructional media design, participants formed into five groups consisting of 4-5 people. Group formation is done by counting techniques 1 to 5, then the participants in groups according to the numbers spelled out. After forming groups, participants started to determine the material to be delivered in the instructional media design.

Determination of material is followed by delivery in the forum not to happen the homogeneity of matter between groups. Next, the participants sit in a circle accordingly with the group to discuss. At the end of the meeting, each group was asked to collect the discussion results regarding the design of edutainment learning media to the implementation team in the form of a soft file. The collection is carried out by address email that has been given to participants. This is done to monitor the progress of each group, as presented in Figure 2 below



Figure 1 Material Delivery by the Speaker with the Title 21st Century Learning



Figure 2 Implementation of Group Activities and Classical Guidance by the Trainer

The third meeting in this media development training activity was held on Saturday, 26 October 2019, in room B17. 203 PP2 FIP State University of Malang (2nd Floor). In the first session, participants received information about video editing techniques and thumbnails filled out

by professional instructors. Furthermore, in the second session, participants were invited to interact directly with video editing applications and making thumbnails. Material regarding video editing techniques is needed by participants in perfecting the making of edutainment-based learning media [12], [17]. One of the reasons for this material's need is learning media in the form of video uploaded on the network. Video editing techniques can encourage creative participants to deliver material in various views that are not monotonous. This matter is essential so that students or users do not feel bored while watching videos. The video editing application studied in this media training is Windows Movie Maker.



Figure 3 Group Representative of YouTube Upload Result

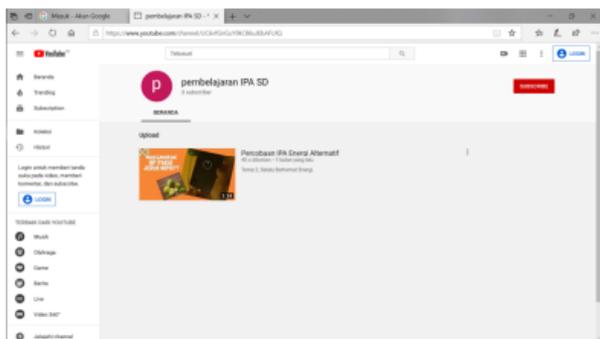


Figure 4 Group Representative YouTube Upload Results

The fourth meeting in the media development training was held on Sunday, 27 October 2019. At this meeting, participants received materials regarding video uploading techniques and practices. In the learning video publication, this edutainment-based website is used by the YouTube website. YouTube has become a site trend in various circles of society, ranging from students to homemakers. Because of the large number of YouTube users, the spread of learning videos is widespread edutainment-based also take advantage of this opportunity [17]–[19].

After participants get the video upload material, participants are asked to upload the video via a YouTube account created by the implementation team. All

participants can access this account to upload their videos. So that all videos can be collected under one account. The process of uploading this video is used to manage the final results, which will later be used as material evaluation [18]. Hopefully, participants can add content to this YouTube account with other edutainment-based learning video products. The results of the video upload depicted in Figures 3 and 4.

4. CONCLUSION

Edutainment-based innovative learning media development training for elementary school teachers in Malang is one of the State University of Malang's community service activities community held in October 2019. This activity aims to provide insight and skills training edutainment-based learning design for elementary school teachers in Malang to face the era of the industrial revolution 4.0 and meet the needs of 21st-century advances for students. From the results of this activity, five were compiled edutainment-based learning videos that all Youtube sites can access, especially for students. Based on training activities in developing this media, it is known that teachers have excellent skills in making innovative learning media in the form of videos.

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