

Improving the Quality of Learning Content for Teachers of SMK Windusari Magelang

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ABSTRACT

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Background: The need to increase the mastery of Information and Computer Technology (ICT) in teaching and learning activities is essential and urgent, especially during the COVID-19 pandemic. The PowerPoint application is a popular application for creating learning content, but most teachers are only at the level of "powerpointers". SMK Negeri Windusari, as a vocational high school, requires an increase in the level of its educators, namely those who can increase learning outcomes, one of which is by developing multimedia content based on PowerPoint. This training was in collaboration with UNIMMA Informatics Engineering. It was attended by twenty-four teachers starting with a pre-test and ending with a post-test to measure the level of success.

Contribution: Improving the quality of content to support learning outcomes.

Method: The training on the use of ICT for learning begins with observation through a pre-test and ends with a presentation of the training results, and then measures progress using a post-test.

Results: The results of the training showed that most of the participants showed improvement.

Conclusion: This training is expected to be sustainable as a form of support for improving the quality of learning content.

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INTRODUCTION

The rapid development of information and communication technology and all its excesses have led to several changes in all areas of life. This period is known as the era of disruption 4.0, which according to The Great Indonesian Dictionary (KBBI), denotes evacuated from its roots.

Clayton Christensen popularized the term disruption in the context of determining the right strategies to organize a competition. Based on a day-to-day perspective, it is defined as a fundamental change rather than a challenge triggered by a technological revolution that targets all gaps in human endeavors. One of the main factors that cause disruption is digitalization. It converts various information from analog to digital format, making it easier to use.

In the field of communication, technological changes give birth to new forms of media that are entirely different from the conventional type. This includes internet-based media, technologies that provide convergence, digital networks, global reach, interactivity, and many-to-many communication, comprising producers and consumers [1]. New media refers to broad changes in media production, distribution, and usage, identified by digital, interactive, hypertextual, virtual, and simulation networks [2].

The impact of technological developments, including the essential new media, is the dependence of humans on the technology they created. Marshall McLuhan, a communication figure who initiated the theory of Technological Determinism, described technology as an extension or expansion of man. Its functions replaced that of the human limbs, which eventually led to the dependence on technology. Humans created games for convenience and to make life more accessible [3].

The existence of communication technology is increasingly relevant and aids in creating dependence during emergencies such as the current Covid-19 pandemic. It played an essential role in sustaining community activities during the implementation of the Large-Scale Social Restrictions (PSBB). This includes Work and School From Home and information for medical purposes [4]. Communication technology played a significant role in the educational sector during the Covid-19 pandemic. It acts as a medium of interaction between educators and students in the implementation of online learning, including Distance Education (PJJ). Additionally, technology also facilitates the delivery of learning materials to ensure academic activities continue even though it is not conducted face-to-face. [5], [6]. There was also a tendency to increase online games as a form of entertainment and relaxation during the pandemic [7].

Online games are a form of communication technology that boosts dependence and is widely favored by various circles. This type of computer game utilizes an internet network, which is currently associated with the use of modems and cable connections. Online games are among the numerous internet contents, electronic publications, entertainment (podcasts), portals, and data search engines. It is also a form of entertainment, although these are highly interactive and bind many users together [8].

There are several types and forms of online games that children, teenagers, adults, and even parents love. The popular ones often played by many Indonesians are Mobile Legends, Bang Bang, Wormszone.io, PUBG Mobile, Among US, Hago, Free Fire, Call of Duty: Mobile, Minecraft Pocket Edition, Clash of Clans, and Candy Crush Saga [9]. However, several others are being played by various groups, but it has a negative impact in general, namely addiction. These online games have an addictive effect where the players spend many hours a day [8], [10]. One of the factors that cause it to be loved by numerous people is its "enjoyment" as an entertainment medium [11].

Online game addiction also impacts other aspects, such as failure at school, causes problems in families and relationships with friends [12], and the potential to spend money on internet cafes [13]. It also affects the health, psychological, academic, social, and financial aspects [14]. Therefore, to prevent the effects of addiction and other subsequent impacts, efforts are needed to anticipate them from the start, one of which is literacy in using these online games. It is

essential to create awareness and an understanding of its impact. This is because initially, most users are either not aware or do not realize that online games can be addictive. Literacy is associated with a person's ability to read and write [15]. It is also related to acquiring skills and knowledge to recite, interpret, and compose certain types of texts and artifacts and acquire relevant tools and intellectual capacity to participate in societal culture [16].

Additionally, a Community Partnership Program (PKM) activity was carried out in the form of online game literacy training for Raudlatul Hikmah Islamic Junior High School (SMP) students, Pamulang, South Tangerang City. Based on the results of the interview held with the Principal of the Raudlatul Hikmah Islamic Junior High School, Mardhani Akbar, the majority of the problems faced are (1) a decrease in the learning achievement of some students because they spend too much time playing online games, (2) lack of caring behavior towards other students, teachers, and the environment because they are usually focused on these games, and (3) verbal violence and bullying behavior from some students who follow or imitate these games.

Therefore, this program aims to provide literacy training, such as (1) the development, characteristics, and forms of online games, (2) regulations, ethics, and impacts, including (3) overcoming the effects of online gaming. This study is expected to create awareness regarding the development, characteristics, and forms of online games, understanding its regulations, ethics, and impacts, especially addiction, and overcoming the effects and using it responsibly.

Previous studies related to efforts to overcome the impact of online games have been conducted. First, Eryzal Novrialdy carried out research on Online Game Addiction in Adolescents: Its Impact and Prevention. This study focused on the effects of online gaming, especially its impact and preventative efforts. This literature review concluded that online game addiction impacted adolescents' health, psychological, academic, social, and financial aspects [14]. Second, Arianto and Tuti Bahfiarti carried out research regarding Understanding the Impact of Online Games on Fishermen's Children in Makassar City. The results of this study indicate that online games can cause addiction, lack of focus in school, and the potential of students to spend lots of money in internet cafes [13]. Third, Abdu Zikrillah and friends studied the Perspective of Islamic Communication on Verbal Violence Behavior in Online Games, a Case Study of Mobile Legends Game: Bang Bang. It was further reported that verbal violence was often witnessed during this activity in the form of accusing and blaming, undermining, discounting, and name-calling [17].

Fourth, Said Romadlan and Dini Wahdiyati analyzed Preventive Efforts on Online Game Addiction in Early Childhood. The study results showed that parents understood the negative implication of these games on their children. They were also aware of specific tips for preventing and overcoming children's addiction to online games [18]. Fifth, Sri Wahyuni Adiningtiyas carried out a study on the Role of Teachers in Overcoming Online Game Addiction. It was reported that teachers' guidance and counseling overcame the adverse effects of online. This offers special treatment for students addicted to online games, including preventive, understanding, alleviation, and supervisory (advocacy) functions [19].

The difference between this research and previous ones lies in the objectives of the program and the methods adopted. The target is Raudlatul Hikmah Islamic Junior High School students. Previous studies were targeted at teenagers, fishermen's children, early childhood, and the general public. Additionally, an online game literacy training program has never been carried out in this school. Furthermore, this research combined a series of methods, namely Focus Group Discussion (FGD) and questionnaires. On the other hand, previous studies employed literature and case studies.

First, this study focuses on the impact of an online game literacy program for Raudlatul Hikmah Islamic Junior High School students. Second, it aims to determine the tips for overcoming these effects. The aim is to create an awareness of online game literacy and provide an understanding of tips for overcoming its impacts on Raudlatul Hikmah Islamic Junior High School students.

METHOD

This skill improvement in PKM is carried out for two days with a duration of 8 hours per day carried out on 12 and 13 January 2022, located at SMKN Windusari, Magelang Regency. The method used in this PKM is the general presentation of the material, the division of training classes and assignments. Here is a chart explaining the method:

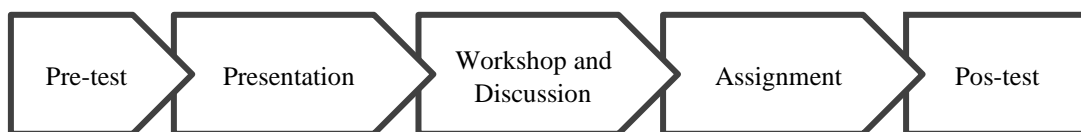


Figure 1. Method

The first stage: The pre-test is an initial activity to collect data and initial abilities from participants on the material to be taught. Of all the pre-test material, the measurement focuses on understanding the digitization of learning content [12][13].

Second Stage: Submission of material which is the presentation of ICT material in the world of education in general [14][15], as well as the development of e-learning during the pandemic [13] and the need to improve the quality of digital content [4].

The third stage: Workshop and discussion containing review activities on available learning materials and presentation of quality improvement materials [16] as well as discussions on developing the quality of learning materials [17][18].

Fourth stage: Assignment, which is an independent activity to develop learning materials into digital content, projected into e-learning system content [19]. In addition, it is also directed at improving the quality of content [6].

The last stage is a post-test which aims to measure the response and progress of the training participants, including measuring the level of change in abilities and skills.

RESULTS AND DISCUSSION

The method above illustrates the implementation of PKM activities from UNIMMA Informatics Engineering lecturers in training at SMKN Windusari Magelang. The training was held for two days where every day was, starting at 08.00 until 16.00, was divided into three sessions. This training is also equipped with independent assignments.

The following is a picture of the initial activity, namely when delivering material on ICT in education in general, with a speaker from UNIMMA, namely Dr Uky Yudatama S.Si, M.Kom and Purwono Hendradi, M.Kom.



Figure 2. Speaker present the ICT in Education

The following is a sample slide of the material presented in figure 3.

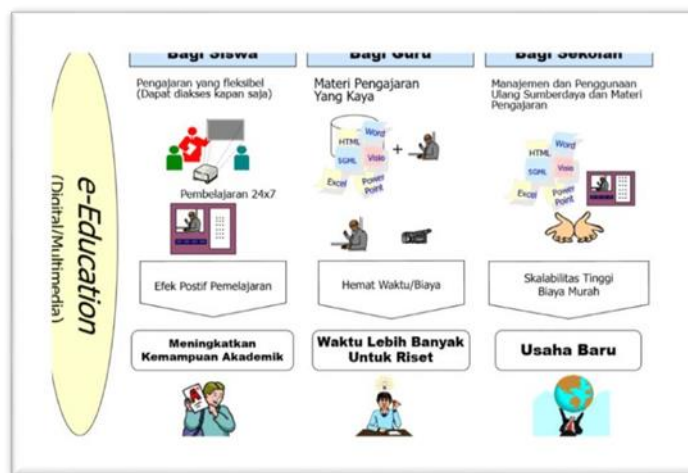


Figure 3. Sample of the presentation

From Figure 3 above, the discussion of ICT in the field of education includes three roles, namely for students, teachers and schools, and the positive effects of these three roles are also explained.

Next is training to improve the quality of learning materials, which is preceded by a review and discussion to observe the ability of the teachers in the use of ICT, especially the presentation application (Microsoft PowerPoint). The following is an example of a slide for developing learning materials see in figure 4.

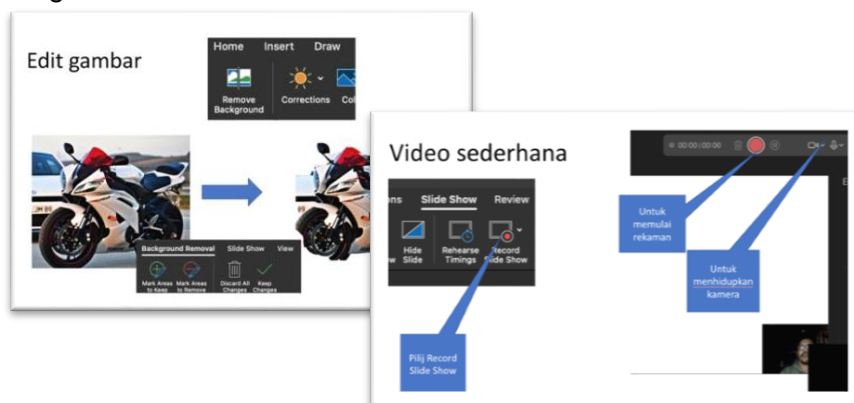


Figure 4. Sample of training material



Figure 5. Interaction between Instructor and trainer

The instructor, a UNIMMA Informatics Engineering lecturer, is assisted by students figure 5. As a continuation of the training, the trainee teachers were asked to create and develop learning materials in PowerPoint following the material taught in training. Figure 6 is an example of the assignment results to develop learning materials.



Figure 6. Sample cover of student products

The instructor, a UNIMMA Informatics Engineering lecturer, is assisted by students. As a continuation of the training, the trainee teachers were asked to create and develop learning materials in PowerPoint following the material taught in training. Figure 6 is an example of the assignment results to develop learning materials.

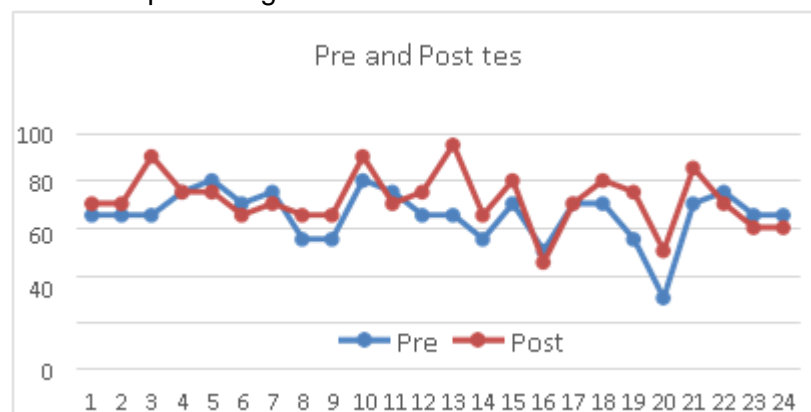


Figure 7. pre-test and post-test comparison

Figure 8 shows the level of improvement in the quality of the training results where it can be seen that there are participants who do not increase. This will be taken into consideration in the following training activities.



Figure 8. Quality Improvement

As discussed above, participants who did not experience an increase were due to not being able to participate in the full training. However, in general, the participants experienced increased incompetence. From the independent task examination results, it was seen that there was an increase in the quality of learning materials by adding animation features and material in the form of videos.

Compared to other case studies[3], there are some similarities, namely training conducted for teachers and aims to develop e-learning content that can be used as a handbook that students can access using devices owned by students. In another article, e-learning content based on the PowerPoint application is discussed but combined with the Camtasia studio application, the results can improve teachers' ability [21]. There are several notes, namely variations in teaching experience, educational background, and age, affecting skills in using computers or laptops.

CONCLUSION

As discussed above, participants who did not experience an increase were due to not being able to participate in the full training. However, in general, the participants experienced increased incompetence. From the independent task examination results, it was seen that there was an increase in the quality of learning materials by adding animation features and material in the form of videos.

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