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Motion Graphic Learning Videos to Improve Students' Learning Outcomes in the PPLG Subject at SMKN 2 Cimahi

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ABSTRACT

Teaching and learning processes play a crucial role in students' success, with their quality being significantly influenced by the instructional media selected by teachers. This study aims to evaluate the effectiveness of implementing motion graphic learning videos to improve students' learning outcomes in the PPLG subject at SMKN 2 Cimahi. The research adopts the Classroom Action Research (CAR) methodology developed by Kurt Lewin, consisting of four stages: planning, action, observation, and reflection. The participants of this study were 35 students from class X RPL B. Data were collected using pretests and posttests. The results reveal a significant improvement in students' learning outcomes after the use of motion graphic learning videos. The average pretest score was 56.29, while the average posttest score was 77.14. These findings indicate that motion graphic learning videos enhance students' interest and motivation, thus accelerating the learning process. It can be concluded that implementing motion graphic learning videos is effective in improving students' learning outcomes in the PPLG subject at SMKN 2 Cimahi.

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1. INTRODUCTION

Education is one of the most important aspects of human life. In recent decades, technology has played a significant role in transforming the way we learn and teach. Technological advancements support the development of media in teaching and learning processes. Media serves as a tool in the teaching and learning process, designed to help students better understand, gain knowledge, and develop skills in their respective fields of study. In the era of modern learning, conventional methods often fall short of meeting the increasingly diverse needs of students.

The development of education in Indonesia has now reached a point where various technologies have been implemented to enhance the quality of education. These technologies include modifications of existing tools as well as new innovations. Such initiatives are expected to serve as breakthroughs that improve students' understanding. In the era of globalization, the advancement of science and technology continues to progress rapidly. Various innovations have been developed through technology, including the use of animation. In the advancement of knowledge, the role of technology is crucial to making education more effective and efficient. Furthermore, to improve the quality of education, the use of technology as a learning medium is essential for delivering content in the form of animations, graphics, audio, and digital video.

In the teaching and learning process, instructional media is an indispensable component. It serves as an alternative in the development of learning processes, enabling students to independently understand the material more easily. Instructional media acts as a tool to deliver material and facilitate teaching and learning activities. This also helps address limitations in time and resources. The utilization of media in the learning process should be a primary focus. Therefore, teachers need to understand how to select and implement instructional media to enhance the effectiveness of achieving learning objectives in the teaching and learning context. Media that can be used as learning tools include visuals, audiovisuals, and animations.

Animation, derived from the English word "animate," meaning alive or animated (Prakosa, 2010), generally refers to creating something that can live or move. In the context of digital animation, it is a collection of images processed in such a way as to produce movements according to a predetermined sequence. In conveying information, several types of animation can be utilized, such as stop motion, clay animation, cut-out animation, puppet animation, and motion graphics (Sutrisman, 2022). Among these, motion graphics are commonly used in creating instructional media to deliver information. Motion graphic learning videos offer an innovative and engaging way to present information. Generally, motion graphics combine elements of visual-based design or animation, integrating cinematic language with graphic design. This is achieved by incorporating various elements such as animation, video, film, typography, illustration, and music (Saputra, 2020).

Motion graphic learning videos are a combination of illustration, typography, and videography using animation techniques. The outcomes of motion graphics can include text and video, serving as instructional media that integrates visual and audio elements to deliver information effectively and engagingly. This medium allows complex concepts to be explained in ways that are easier for students to comprehend. Instructional videos have been shown to positively influence students' learning outcomes by integrating visual and audio elements, making the learning process more engaging and interactive (Khairani, 2019). The role of animation or motion graphics in learning is to visually depict educational messages that cannot be effectively conveyed verbally or through conventional methods.

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The use of motion graphic media developed with a Problem-Based Learning (PBL) approach has also proven effective in improving students' understanding and learning outcomes. Such a combination enhances not only engagement but also critical thinking and problem-solving skills, particularly in science-based subjects (Rahmah, 2023). Similarly, the development of motion graphic-based learning videos has been shown to improve the effectiveness of delivering course material, especially in specialized subjects such as Graphic Design Fundamentals (DDG). By combining visual appeal with structured content, motion graphics provide an engaging and adaptive learning experience that addresses students' needs in vocational education contexts (Rafif, 2021).

The implementation of motion graphic media is expected to capture students' interest in the material being presented. As a result, students are likely to grasp the content more effectively and experience a more dynamic and engaging learning process. Research has shown that such media can significantly improve cognitive learning outcomes, particularly in scientific education (Nugrohadi, 2018).

This research, conducted over a single cycle, aims to evaluate the effectiveness of implementing motion graphic learning videos in improving students' learning outcomes in the PPLG subject (Software Development and Game) at SMKN 2 Cimahi. The researchers believe that the use of this media can provide a more interactive and engaging learning experience, thereby enhancing students' learning outcomes in the PPLG subject.

2. METHODS

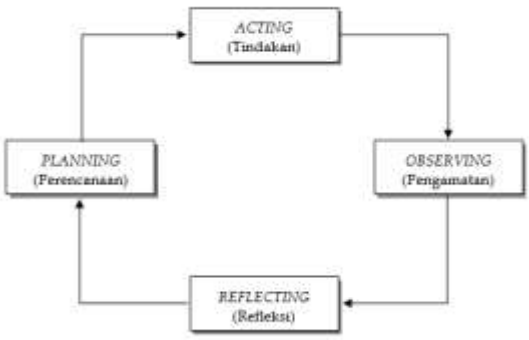

Figure 1. Kurt Lewin's Research Model.

The research method used in this study is the Classroom Action Research (CAR) method developed by Kurt Lewin. Kurt Lewin's CAR model consists of four main components, including:

2.1. Planning

At this stage, the activities to be carried out include designing the action research, such as planning the methods to be used and preparing the necessary supporting facilities.

2.2. Action

At this stage, the researcher implements the actions formulated in the planning.

2.3 Observing

At this stage, it is necessary to observe the behavior of students participating in the learning activities. This includes monitoring group discussions or collaborative work among

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groups, as well as assessing each student's understanding of the learning material that has been designed in accordance with the action research plan CAR.

2.4. Reflecting

At this stage, the activities include recording observation results, evaluating these results, analyzing learning outcomes, and identifying weaknesses to be used as input for designing the next cycle.

This research was conducted at SMK Negeri 2 Cimahi with the research subjects being 35 students from class X RPL B. The author selected this class because, based on observations, it experienced delays in the learning process. Therefore, the author attempted to apply motion graphic media in the learning process to evaluate whether the use of motion graphic media could improve the efficiency and effectiveness of the learning process, ultimately enhancing students' learning outcomes.

3. RESULTS AND DISCUSSION

At the initial stage of the research, the author conducted observations to understand the classroom conditions and identify existing problems. These observations involved direct monitoring of the learning process in class X RPL B. The author observed various aspects during the lessons, such as the teaching methods used by the teacher, students' responses to the material, and the interaction between teachers and students. Based on these observations, the author found that the learning process was often hindered by several obstacles, such as the complexity of UI/UX concepts. These concepts, which involve interface design and user experience, require a learning approach capable of providing a clear visual representation. Conventional teaching methods often fall short in effectively conveying these abstract concepts to students.

After identifying this issue, the author formulated a research plan. This plan involved the use of motion graphic media as a teaching tool. The author hypothesized that the use of this media could increase students' interest and motivation, thereby accelerating the learning process.

Subsequently, the author began designing and developing the motion graphic media to be used in the research. The media was designed with consideration for the relevant subject matter for class X RPL B, specifically UI/UX topics.

Data collection was conducted by administering a pretest at the beginning of the cycle to assess students' initial understanding of the material. Based on the pretest results, the average score achieved by the students was 56.29, indicating that their learning outcomes were still very low. The distribution of students' scores can be seen in the figure below.

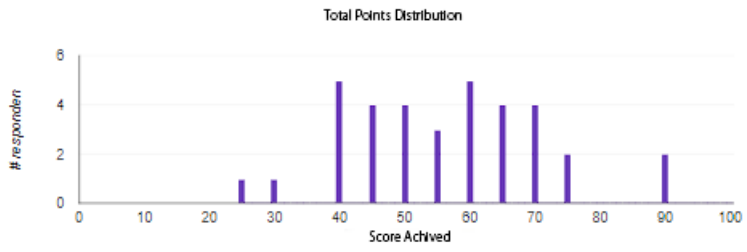

Figure 2. Class X RPL B's Pretest Results

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From the figure, it can be observed that the students' scores vary widely, ranging from 25 to 90. Out of 35 students, only 2 students, or 5.714% of the total, achieved satisfactory learning outcomes with scores above 80.

Based on this data, the author implemented motion graphic instructional media featuring UI/UX material in the PPLG subject. The material covered topics such as definitions, functions, and the steps involved in creating UI/UX. After the intervention using motion graphic materials, the author conducted a posttest to measure the effectiveness of using motion graphic media in improving learning outcomes. The results are presented in the following figure.

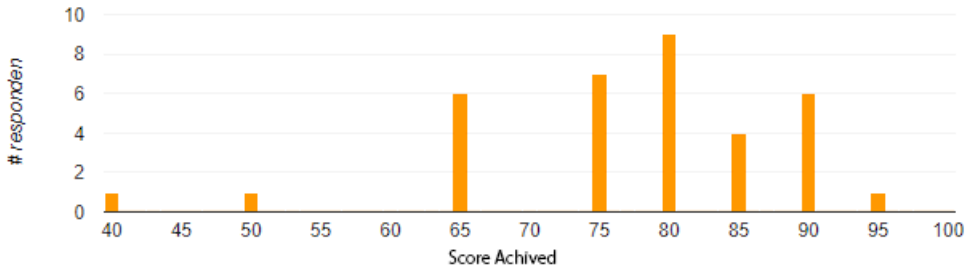

Figure 2. Class X RPL B's Pretest Results.

Students showed a significant improvement, with the average score increasing to 77.14. Additionally, 20 students, or 57.143% of the total, scored above 80.

4. CONCLUSION

The research findings indicate that the implementation of instructional media in the form of motion graphic learning videos significantly contributes to improving students' learning outcomes in the PPLG subject at SMKN 2 Cimahi. Data collected before and after the implementation of motion graphic learning videos show a positive improvement. Prior to using motion graphic learning videos, students might have faced challenges in understanding UI/UX Design concepts. However, after applying this media in the learning process, there was a noticeable positive change in students' responses to the lessons. Motion graphic learning videos provide clearer visualizations of complex concepts, making it easier for students to comprehend the material. The motion graphic animations create a more engaging enjoyable learning environment, motivating students to focus more and actively participate in each learning session. This has had a positive impact on the classroom atmosphere and increased students' involvement in learning activities. The posttest results demonstrate a significant improvement after the implementation of motion graphic learning videos. Therefore, it can be concluded that the use of motion graphic learning videos to enhance students' learning outcomes in the PPLG subject at SMKN 2 Cimahi has been successful and effective. These research findings provide a strong foundation for the continued integration of technology in the learning process to improve the quality of education at this institution. Additionally, they offer guidance for other educational institutions aiming to enhance their learning effectiveness through the use of innovative instructional media.

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6. RESEARCHERS' NOTE

The researchers declare that there is no conflict of interest regarding the publication of this article. The researchers confirmed that the paper was free of plagiarism.

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