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MAKING EDUCATIONAL VIDEOS USING ANIMATION TECHNIQUES FOR ELEMENTARY SCHOOL STUDENTS

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Abstract

The use of technology in education has now become an effective method for increasing students' interest and understanding of subject matter. This research aims to develop learning materials through making educational videos using animation techniques, which are designed specifically for students. The animation method was chosen because of its unique ability to present abstract concepts more easily understood and interesting for students. This research includes the design process, content development, animation, and evaluating the effectiveness of the educational videos that have been created. The approach used in this research is development (Research and Development) which involves students as respondents to determine their level of understanding and interest in the material presented through animated educational videos. The educational videos developed cover various learning topics that are adapted to the applicable curriculum, with the hope that they can become an interesting additional learning resource and increase students' understanding. The research results show that educational videos using animation techniques are able to increase students' interest in learning and make it easier for them to understand lesson concepts that were previously considered difficult. Evaluations carried out through questionnaires and interviews showed positive responses from students towards the use of this learning media. Thus, it is hoped that making animation-based educational videos can be an effective alternative learning method and can be applied in various educational contexts.

Keywords: Educational videos, Animation techniques, Learning materials, Student understanding.

Introduction

In the current digital era, information and communication technology has played an important role in various aspects of life, including in the field of education. The use of technology in the teaching and learning process is increasingly becoming a necessity to create a more interactive and interesting learning environment for students. One method that can be used to increase the effectiveness of learning is through making educational videos using animation techniques. Animation techniques have the advantage of visualizing abstract concepts into more concrete ones, making it easier for students to understand the subject matter.

Rapid technological advances make it easier and more affordable to use animated videos as a learning tool. Previous studies have shown that the use of animation media can increase students' motivation and interest in learning and enrich their learning experience. However, the application of educational videos using animation techniques in the school environment is still limited, mainly due to a lack of resources and technical capabilities in making effective animated videos.

Researchers obtained several literatures (Prasetya, WA, et al, 2021) Animated Learning Video Media is suitable for use as a mathematics learning media. According to Ponza, PJR, et al, 2018) animated learning videos can have a significant influence on student learning outcomes. According to (Dewi, NWUR, et al, 2021) animated video media is suitable for use in the learning process in early childhood. According to Nurfadhillah, S., el al 2021The use of this media increases student motivation, students are active and enthusiastic in carrying out learning. According to (Andrasari, AN, et al, 2022) Mable to attract students' attention and make learning higher quality.

Considering the importance of developing innovative learning media, this research aims to design and develop educational videos with animation techniques that are interesting and informative for students. The main aim of this research is to explore how animated educational videos can influence concept understanding and increase students' interest in learning. This research will include the design, development and evaluation process of educational videos, as well as analysis of the influence of the use of these videos on the teaching and learning process in schools.

By considering the great potential of animation-based educational videos, this research is expected to make a significant contribution to teaching practices in schools. Through the development of creative and interesting educational videos, it is hoped that a more dynamic and interactive learning environment can be created, which can ultimately improve the quality of education and student learning outcomes.

Research Methods

The research method used in the project of making educational videos using animation techniques for students involves several main stages: research and development (R&D), video design and production, and evaluation of effectiveness. This method is designed to produce learning materials that are not only informative and educative but also interesting and motivating students to learn. The following are details of each stage of this research method:

Literature review

This stage involves reviewing the literature to identify students' learning needs, topics that are difficult to understand, and how animation can be used to facilitate that understanding. Researchers will also collect data about students' learning preferences and how educational videos can meet those needs.

Concept and Scenario Development

Based on initial research, the team will develop concepts and scenarios for educational videos. This step involves writing the script, creating a storyboard, and selecting the animation elements that will be used. These concepts and scenarios should fit the learning objectives, be interesting to students, and promote understanding of the concepts.

Design and Production

Once the concept and scenario are approved, the next stage is video design and production. This involves creating visual assets, animation, and video editing. The animation techniques used must be appropriate to the learning material and must be able to convey information clearly and interestingly.

Trial and Evaluation

The educational video was tested on a group of students. The goal of the pilot was to gather feedback on the effectiveness of the videos in conveying learning material and how well they improved students' understanding of the topic.

This research method is designed to ensure that educational videos with the developed animation techniques are not only creative and interesting but also significantly improve students' understanding of the learning material.

Results and Discussion

In this research, we succeeded in developing a series of educational videos using animation techniques for students. These videos cover various subject topics relevant to the school curriculum. The use of animation not only makes the material more interesting, but also makes it easier for students to understand complex and abstract concepts. Through evaluation carried out, we several important results:

1. Increased Interest in Learning: Most students show increased interest in learning after using animated educational videos. They feel more motivated and involved in the learning process.
2. Retention of material: There is a significant increase in understanding of subject matter among students. This is shown by increasing scores in evaluations carried out before and after using animated educational videos.
3. Preference for Learning Media: Students show a strong preference for the use of animated educational videos as a learning medium, compared to traditional learning methods.

Discussion

The research results show that animation techniques in educational videos can be an effective tool for increasing students' interest and understanding of lesson

material. The use of attractive visuals and dynamic delivery of material through animation helps overcome challenges in understanding abstract concepts.

These findings are consistent with existing literature, which states that visual multimedia, such as animation, can enrich students' learning experiences and support cognitive processes in understanding new information. In addition, adapting narratives and visualizations to suit students' needs and preferences can further increase learning effectiveness.

However, the research also identified several areas for improvement, such as animation quality and narrative pacing. Student feedback indicates that attention to these details can enhance the overall learning experience and make understanding the material easier.

Figure 1 Educational video material

Figure 2 Educational material for the first question

Figure 3 Educational material for the second question

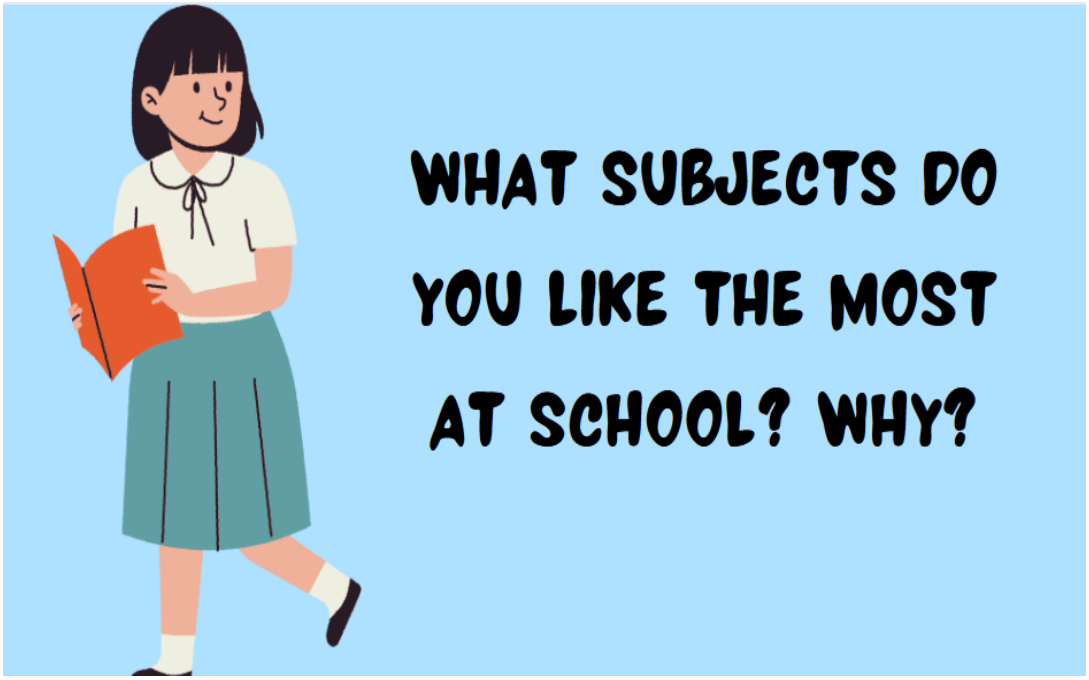

Figure 4 Educational material for the third question

Conclusion

Research on making educational videos using animation techniques for students has shown significant results in increasing interest and understanding of subject matter. From the development process to the evaluation of animated educational videos, it can be concluded that the use of animation media in learning has a positive impact on students' cognitive and affective aspects. Animation as a visual aid helps students understand abstract concepts more easily and interestingly, which in turn can increase their interest in learning and motivation in carrying out the learning process.

It is recommended for educators to consider using animated educational videos as complementary teaching materials. Integrating information technology, especially animation in learning, can not only make the teaching and learning process more interesting, but also increase teaching effectiveness. In the future, further research could be conducted to explore the use of animation techniques in various subjects and levels of education, and their impact on students' long-term learning outcomes.

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