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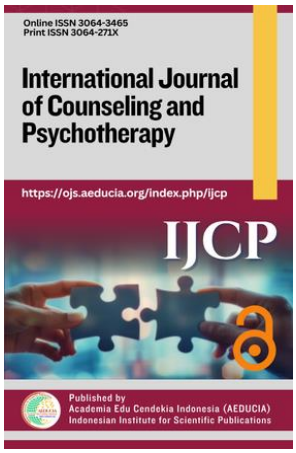

The Effect of Animated Video Media Therapy on Enhancing University Students' Learning Motivation

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The Effect of Animated Video Media Therapy on Enhancing University Students' Learning Motivation

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CONTENT

ABSTRACT

Background: The use of animated media in education has gained popularity due to its potential to engage university students and simplify complex concepts. However, its impact on learning motivation remains underexplored, particularly in higher education contexts. **Objective:** This study aims to examine the effect of animated media on student learning motivation, specifically investigating how its use influences motivation in an academic setting. **Method:** The research involved 79 university students from the Educational Technology program at Universitas Sebelas Maret, selected through random sampling. Two variables were tested: the use of animated media (independent variable) and learning motivation (dependent variable). A questionnaire was used as the research instrument, and its validity, reliability, and normality were tested. **Results:** The analysis revealed that all instrument items were valid (r calculated > r table) and reliable (Cronbach's alpha > 0.6), with the data showing a normal distribution (p = 0.194 > 0.05). Regression analysis revealed that animated media had a significant influence on learning motivation, accounting for 78.2% of the variation (R-squared = 0.782). The F-value of 120.960 and significance of 0.000 (< 0.05) confirmed the reliability of the model. **Conclusion:** Animated media significantly enhances learning motivation, particularly in explaining abstract concepts. However, challenges related to animation creation skills and access to technology need to be addressed. **Contribution:** This study offers educators valuable insights on how to incorporate animated media to enhance learning motivation effectively.

KEYWORDS

Animated video media therapy; University students; Learning motivation

1. INTRODUCTION

Learning media play an essential role in creating a compelling, engaging, and meaningful learning process. With the development of technology, the use of digital learning media has become increasingly widespread at various levels of education (Lacka et al., 2021; Mhlongo et al., 2023). One form of digital learning media that is widely used is animation. Animation not only serves as a visual aid but also presents concepts and information in a more concrete, engaging, and easy-to-understand manner for university students (Kassa et al., 2024). The use of animation in learning is expected to help university students understand abstract material and increase their engagement in the learning process (Hung & Chen, 2018).

Learning motivation is an internal factor that significantly influences student learning success. University students with high learning motivation tend to be more active in their learning, exhibit great curiosity, and show enthusiasm for achieving optimal academic outcomes (Oudeyer et al., 2016). However, in practice, many university stu-

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dents still experience a decline in learning motivation, especially when the learning material is considered difficult, monotonous, or uninteresting. According to Zulherman & Hapsari (2021) stated that learning media are essential to increase and stimulate interest and new desires in the learning process. Therefore, innovation in the use of learning media that can increase student learning motivation is needed.

Several studies have investigated the effectiveness of using animated media in learning, yielding positive results. Research by Friskila & Triadi (2022) shows that the success of animated media is influenced by the teacher's ability to design concepts and create engaging animations that align with learning objectives. Animated media, as an audiovisual tool, present information both visually and auditorily, making the learning experience more engaging and easier to understand (Ingka Tonge et al., 2023). Utami (2011) emphasizes that animation can capture the attention of university students and aid in their understanding of learning materials. Furthermore, animated media has been found to simplify complex concepts, making them more accessible and relatable to university students. Studies by Andriani & Wulandari (2019) also highlight that animated media boosts student motivation by creating a dynamic and interactive learning environment, fostering greater enthusiasm and participation.

Additionally, learning motivation plays a crucial role in encouraging university students to engage in continuous learning. Magdelina states that motivation in learning activities serves to en-courage someone to be genuinely interested in learning, thereby fostering the desire to continue learning (Irawan et al., 2021). In his theory of Multimedia Learning, emphasizes that the use of visual media combined with text can enhance university students' understandding and learning motivation because information is presented in a more engaging manner and in accordance with university students' cognitive processes. However, technological advances also bring their own challenges, such as the uncontrolled use of gadgets, which can reduce university students' interest in learning if not appropriately managed (Mhlongo et al., 2023). Therefore, the use of technology in learning needs to be directed appropriately so that it has a positive impact on learning motivation.

Although various studies have discussed the use of animated media and its impact on learning motivation, a research gap remains. Most previous studies have emphasized the use of animated media in general, without conducting an in-depth comparison of the effectiveness of animation-based learning with conventional learning, as well as the characteristics of animation that are most effective in increasing learning motivation. Additionally, there is still limited research that systematically examines how animation design can be tailored to specific learning objectives to enhance student motivation optimally.

Based on this research gap, the research program in this study focuses on examining animation-based learning media as an effort to increase student learning motivation through a more structured and targeted approach. This study aims to analyze the effectiveness of animation media in comparison to conventional learning, as well as to identify the most effective animation characteristics that support the learning process.

This study aims to investigate the impact of using animated video media on enhancing student learning motivation. Specifically, this study aims to investigate how animation media, as a learning tool, can impact the level of student learning motivation, particularly in the Educational Technology Study Program at Sebelas Maret University. Using a quantitative approach and a sample of 79 university students selected through random sampling, this study will examine the relationship between the use of animated media as an independent variable and learning motivation as a dependent variable. This study also aims to identify the extent to which animated media contributes to explainning abstract concepts that can increase student learning motivation.

2. METHOD

2.1 Research Design

This study employed random sampling, a method of selecting respondents at random from a predetermined population. This method ensures that each individual has an equal chance of being selected as a respondent, thereby allowing the study's results to be interpreted as representtative of the entire population. This study employs two variables. The dependent variable is learning motivation, and the independent variable is the use of animated media.

2.2 Research Object

This research was conducted in 2025. The population used in this study consisted of university students from the Educational Technology Study Program at Sebelas Maret University, with a total of 79 respondents. The relationship between the variables is illustrated in the following Table 1.

2.3 Data Collection

Data was collected through a questionnaire instrument using a Likert scale. This Likert scale has the following intervals: 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, and 4 = Strongly Agree. The questionnaire instrument consisted of 28 items, with 13 items for the animation media variable (X) and 15 items for the learning motivation variable (Y). Data collection was carried out using Google Forms to facilitate the distribution of questionnaires.

2.4 Data Analysis

The data analysis techniques employed to assess the validity and reliability of the research instruments, encompassing both animated media and learning motivation variables, included validity tests, reliability tests, and normality tests. This analysis process aimed to ensure that the instruments used could measure the variables properly and that the data obtained met the statistical assumptions required for further analysis.

3. RESULT AND DISCUSSION

3.1 Result

Data on the number of respondents and gender can be observed in the following table:

Table 1. Description of Subjects Based on Gender

No	Respondents	Male	Female
1	79 university students	22	57

Before regression analysis, classical analysis tests are required. The classical analyses performed are validity tests, reliability tests, and normality tests.

a) Validity Test

In the first stage, a validity test is conducted to assess the extent to which each item in the questionnaire accurately measures the intended variable. For the independent variable, namely the influence of animated media, validity is assessed by comparing the calculated r value with the corresponding table value. Based on the calculation results, it is known that the calculated r value of the items in this variable is greater than the specified table r value, namely 0.239 > 0.195, so it can be concluded that all items in this variable are valid. This validity shows that the instrument used to measure the influence of animated media on student learning motivation is reliable and relevant.

Furthermore, a validity test was also conducted for the dependent variable, namely student learning motivation. Using the same procedure, namely comparing the calculated r with the table r, it was found that all items in this variable were also valid, because the lowest calculated r value was 0.238, which was greater than the table r of 0.195. Therefore, all items in the learning motivation variable were also valid and suitable for use in this study. The high validity of these two variables provides confidence that the instruments used in this study can accurately measure the two variables being studied.

b) Reliability test

Table 2. Reliability Test Results for X Variable

Reliability Statistics	
Cronbach's Alpha	N of Item
.853	13

The test results indicate that variable X = 0.853, 13 items from the variable related to increasing student learning motivation can be considered reliable.

Table 3. Reliability Test Results for Y Variable

Reliability Statistics	
Cronbach's Alpha	N of Item
.828	15

The test results show that variable Y = 0.828, meaning that 15 items from the variable that increase student learning motivation can be considered reliable.

c) Normality Test

The Kolmogorov-Smirnov normality test is used to assess whether the residuals of a dataset follow a normal distribution. According to the test, if the significance value (p-value) is greater than 0.05, the residuals are considered to be normally distributed. Based on the data from the table, the significance value is 0.194, which is greater than 0.05. This indicates that the residuals of the data follow a normal distribution. Therefore, the assumption of normality is satisfied for this dataset.

To determine the effect of animated media on student learning motivation, an ANOVA regression equation analysis was conducted, which produced the following results:

Table 3. Regression Equation Analysis Test

ANOVA[a]						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1805,514	1	1805,514	120,960	.000[b]
	Residual	1149,347	77	14,927		
	Total	2954,861	78			

a. Dependent Variable: Agresivitas
b. Predictors: (Constant), Realigitas

From the output, it is evident that F calculated = 120.960, with a significance level of 0.000 < 0.05. Therefore, the regression model can be used to predict the effect of the Animation Media variable (X) on the Student Learning Motivation variable (Y). The correlation contribution based on the table above is the correlation/relationship R,

which is 0.782. From the output, the coefficient of determination (R-squared) is 0.782, which means that the effect of the independent variable, animation media, on the dependent variable, student learning motivation, is 78.2%. Based on the results of validity, reliability, and normality testing, it was found that animation media have a positive and significant effect on student learning motivation.

3.2. Discussion

The results of this study offer profound insights into the role of animated media in enhancing student engagement in the learning process. Animated media not only serve as a visual aid, but also as an effective means of clarifying and simplifying material that is often abstract and complex. This is particularly important, given that the main challenge in higher education is often related to university students' difficulty in understanding complex concepts. Animated media helps university students visualize these concepts in a more concrete and digestible form, enabling them to understand the material more effectively visually and interactively. Ultimately, this can contribute to increasing their motivation to learn, as they feel more connected to and understand the material being presented.

One of the notable findings in this study is the ability of animated media to attract university students' attention, thereby triggering their curiosity. When learning is presented in an engaging and dynamic form, university students tend to participate more actively and engage more deeply with the material being taught (Rodriguez et al., 2018). The learning theory, which posits that learning that involves multiple senses, such as visual and auditory, can enhance university students' understanding and engagement, is highly relevant in this context (Reese et al., 2016). Animated media not only make the learning process more enjoyable and entertaining but also strengthen university students' memory of the material being taught (Chang et al., 2017). Animations that convey information in a more lively and engaging way can make the learning experience more meaningful for university students.

However, even though animated media have great potential, the challenges associated with their application cannot be ignored. One of the main obstacles found in this study is the technical skills needed to design compelling animations (Wei et al., 2015). Not all educators possess the technical skills necessary to create animations that effectively support learning objectives. Therefore, educational institutions need to provide teachers with training so that they can effectively utilize animated media in the learning process. Without adequate skills, animation can become merely a form of entertainment that is ineffective in increasing student motivation to learn, ultimately limiting the potential of this medium in education (Potkonjak et al., 2016).

Additionally, the issue of access to adequate technology is a significant concern. Not all university students have the necessary devices or internet connections to access animated media properly (Hanif, 2020). Therefore, adequate technological infrastructure must be part of the strategy for implementing animated media in learning (Abdulrahaman et al., 2020). Adequate facilities and fair access for all university students will ensure that the use of animated media is enjoyed equally by all students, regardless of their socioeconomic background. Without adequate access, even though animated media has the potential to increase learning motivation, its effectiveness will be limited.

The success of animated media in increasing learning motivation also greatly depends on the quality of the animation design itself. Well-designed animations must be able to convey information clearly, attractively, and in accordance with learning objectives (Stolz & Megerle, 2022). Strong visual and audio elements can reinforce the understanding of the material and make the learning experience more engaging and interactive. Student engagement in the learning process becomes more meaningful because they not only receive information passively, but also interact with the material presented through the elements in the animation (Teplá et al., 2022). Appropriate animation design can increase the effectiveness of this media in stimulating student interest and motivation.

Along with technological developments, another challenge that has emerged is how this animated media can be used sustainably and remain relevant to the ever-evolving world of education. In an increasingly digital world, it is important to ensure that the animations used remain up-to-date, engaging, and relevant to the increasingly diverse needs of university students (Vagg et al., 2020). Further research is needed to explore how animated media can continue to adapt to evolving learning needs. Thus, the use of animated media in learning can remain relevant and effective in increasing student motivation in the future.

In the context of higher education, this research makes a significant contribution to understanding how technology, particularly animated media, can be leveraged to enhance student motivation. Animated media, when used effectively, can have a profound impact on creating a more enjoyable and meaningful learning experience. However, to optimize this potential, it is essential to overcome existing challenges, such as developing animation skills, accessing technology, and continually refining animation designs that align with learning objectives. Thus, animated media can be a very effective tool in increasing student motivation and creating a more engaging and interactive learning environment.

This study provides significant novelty in the field of education, particularly in the application of animated video-based media therapy to increase university students' motivation to learn. By utilizing animation technology, which is known to attract attention and clarify abstract concepts, this study offers a new approach to motivating

students to become more engaged in the learning process. The use of animated videos as therapeutic media not only conveys material in an enjoyable way but also serves as a tool that can stimulate students' interest and creativity, which in turn can increase their level of learning motivation.

Practically, the findings of this study provide important insights for the development of more interactive and effective teaching methods. Through the use of engaging digital media, such as animated videos, this study offers an approach that can be implemented in various educational institutions to improve the learning experience of students. It also opens up opportunities for further research exploring how various types of digital media, including animation, can influence other aspects of learning, such as students' understanding of the material and their emotional engagement in the learning process.

4. IMPLICATIONS AND CONTRIBUTIONS

4.1 Research Implications

This research has significant implications for the development of learning strategies in higher education, particularly in terms of utilizing animated media to enhance student motivation and engagement. The study's results show that animated media can be an effective tool for clarifying complex concepts, particularly in theoretical and abstract courses. Therefore, educational institutions need to consider integrating animated media into their curricula to create a more interactive and engaging learning experience. However, to optimize its benefits, it is necessary to provide training for lecturers in effective animation creation and to improve the technological infrastructure so that all university students can access this media properly.

4.1 Research Contributions

This research makes a significant contribution to our understanding of the role of animated media in increasing student motivation to learn. By demonstrating that animated media has a positive impact on learning motivation, this research provides empirical evidence in support of the use of audiovisual media in education. In addition, this research also enriches the existing literature by providing new insights into the challenges faced in the application of animated media, such as animation creation skills and access to technology, which need to be considered to ensure animation can be used effectively in the context of higher education.

5. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

5.1 Research Limitations

This study has several limitations that need to be considered. First, the sample used was limited to university students in the Educational Technology Study Program at Sebelas Maret University; therefore, the results of this study cannot be generalized to student populations in other study programs or universities with different characteristics. Additionally, this study only measures the effect of animated media on learning motivation, without exami-ning its impact on learning outcomes or other skills that its use may influence. Another limitation is the impact of external factors, such as technological sophistication, which can affect the effectiveness of animated media use and was not considered in depth in this study.

5.1 Recommendation for Future Research Directions

For further research, it is recommended to involve a more diverse sample, encompassing a wider range of study programs and universities, to broaden the understanding of the influence of animated media on learning motivation in various contexts. Further research could also examine the impact of animated media on not only motivation but also student learning outcomes and skill mastery in the learning context. In addition, further research could explore in greater depth the elements of animation design that are most effective in supporting the learning process, as well as challenges related to technological infrastructure and animation production skills, which could help optimize the use of this media at various levels of education.

6. CONCLUSION

The use of animated media can significantly increase student motivation to learn. By presenting material in an attractive and easy-to-understand format, animated media can effectively clarify complex and abstract concepts. This encourages university students to be more actively involved in the learning process, as they feel more interested and motivated to understand the material being taught. Overall, the use of animated media has been proven to have a positive impact in creating a more interactive and enjoyable learning experience.

However, to maximize the effectiveness of animated media, it is essential to design the animation in accordance with the learning objectives and the characteristics of university students. Additionally, the skills of lecturers in designing and utilizing high-quality animations are also a key factor in the successful application of this medium. Without adequate skills, animation may not have an optimal impact on student motivation. Therefore, the development of lecturers' skills in animation creation needs to be part of the training programs organized by educational institutions.

Furthermore, this study also reveals the importance of adequate technological infrastructure to support the use of animated media in learning. Access to devices and a stable internet connection are key supporting factors for university students to access animated media smoothly. Therefore, improving the technological infrastructure in

the educational environment is crucial to ensure that all university students can maximize the benefits of animated media. Thus, the development of animated media in learning must be supported by adequate technological readiness and appropriate training for teachers.

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CRediT Authorship Contribution Statement

All authors have contributed equally to this article and are fully responsible for the data presented in this article. Mah'ruf Todi Prihantoro: Conceptualization; Methodology, Writing - Original Draft, Data Curation. Zarir Abiyuda Pratama: Conceptualization, Writing - Review & Editing. Suparmi: Conceptualization, Writing - Review & Editing

Declaration of GenAI Usage in Scientific Writing

The authors declare that generative AI was used solely for grammar checking, language editing, and identifying typographical errors in the manuscript titled The Effect of Animated Video Media Therapy on Enhancing University Students' Learning Motivation. AI tools were utilized to enhance the clarity, flow, and overall quality of the writing. All other aspects of the research, including data collection, analysis, and interpretation, were conducted independently by the authors. All instances of Generative AI usage in this article were conducted by the authors in accordance with the IJCP GenAI Tool Usage Policy, with the authors assuming full responsibility for the originality, accuracy, and integrity of the work."

Conflict of Interest Statement

The authors declare that they have no conflicts of interest related to this research. I have not received financial support, consulting fees, or other benefits from organizations that may influence the interpretation or conclusions of this work.

Informed Consent Statement

This study, titled "The Effect of Animated Video Media Therapy on Enhancing University Students' Learning Motivation," involved human participants. Informed consent was obtained from all participants prior to their involvement in the study. Participants were fully informed about the purpose of the research, the nature of their participation, and any potential risks associated with it. They were also made aware of their right to withdraw from the study at any time without any consequences. All participants voluntarily signed consent forms, ensuring that their participation was based on a clear understanding of the study's procedures and goals.

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