

# Analysis of Video Animation Media Development Requirements from a Constructivism Perspective

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INFO ARTIKEL	ABSTRAK
<p><b>Riwayat Artikel:</b> Diterima: 02-08-2022 Disetujui: 11-09-2022</p>	<p><b>Abstract:</b> This study aims to see the needs related to developing animated video media. This qualitative descriptive research was conducted using a survey method between May and July 2022. Questionnaires were used to collect data in this study. The research subjects were 90 undergraduate students of Educational Technology at Surabaya State University. The research concluded that animated video media based on the constructivism approach is needed in learning media courses. Students need learning media that can accommodate their learning needs and be used anywhere and anytime. Animated videos are necessary because students feel that these learning media can increase their motivation to learn. Students can form their knowledge using a constructivist approach using animated video learning media.</p>
<p><b>Kata kunci:</b> Needs analysis Animation Videos Constructivism</p>	<p><b>Abstrak:</b> Penelitian ini bertujuan untuk melihat kebutuhan di lapangan terkait pengembangan media video animasi. Penelitian deskriptif kualitatif ini dilakukan dengan menggunakan metode survei antara Mei sampai Juli 2022. Kuesioner digunakan untuk mengumpulkan data pada penelitian ini. Subjek penelitian adalah mahasiswa S1 Teknologi Pendidikan Universitas Negeri Surabaya yang berjumlah 90 mahasiswa. Kesimpulan dari penelitian yang dilakukan, bahwa media video animasi berbasis pendekatan konstruktivisme sangat dibutuhkan dalam pembelajaran pada mata kuliah media pembelajaran. Mahasiswa membutuhkan media pembelajaran yang biasa mengakomodir kebutuhan belajar mereka serta bisa digunakan dimanapun dan kapanpun. Video animasi diperlukan karena mahasiswa merasa bahwa media pembelajaran tersebut bisa meningkatkan motivasi mereka dalam belajar. Dengan pendekatan konstruktivisme, mahasiswa dapat membentuk pengetahuan mereka sendiri dengan menggunakan media pembelajaran video animasi.</p>
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## INTRODUCTION

Upgrades and innovations are essential in the present progression of time and technology. Similarly, in the field of education, where teaching and learning processes occur, learning requires constant updating to support and enhance the quality of teaching and learning in terms of developing media, curriculum, and the education system. And learning is a complex process that occurs throughout an individual's lifetime. The learning process can occur when an individual interacts with his environment (Febriani, 2021; Martiarini & Lestari, 2018). Therefore, learning can occur at any time and place (Dito & Pujiastuti, 2021; Rusliadi, 2020). A change

in conduct indicates that someone has learned (Safaruddin, 2012, 2020). Alterations occur in knowledge, abilities, and attitudes (Karyani et al., 2021; TASIA & NURHASANAH, 2019). Therefore, education is crucial and intrinsically linked to the lives of all individuals. With this in mind, innovation is needed to facilitate education by creating learning media based on animation to further education in the present day. Media for learning is a tool for the teaching and learning process (Budiyanto & Wahab, 2019; Mulyaniapi, 2021). Learning media can stimulate students' thoughts, emotions, attention, and abilities or skills to promote their learning.

In the current digital era, the evolution of the field of education has advanced since it is now possible to facilitate student learning whenever and wherever it is most practical. The availability of various alternative learning media, including animated video, can be used successfully and efficiently to meet learning goals (Astuti et al., 2019; Astutik et al., 2021). According to multiple research, animated videos substantially affect student learning results (Nurmaningsih, 2013; Siahaan et al., 2020). Animation is a moving image that can readily convey things so that a learning objective may be attained; animation can be utilized as a learning medium because it can capture students' attention so that learning is enjoyable and not tedious (Afifah, 2021; Sriwinar, 2021). Additionally, animation can boost student learning motivation (Hapsari & Zulherman, 2021; Widiyasanti & Ayriza, 2018) so that they have the motivation and resolve to accomplish the required learning results. Creative and appropriate animation may significantly impact student learning outcomes, as motivation will increase due to the teacher's ingenuity in creating instructional media (Furoidah, 2020; Johari et al., 2016). Animation is a medium for education that enhances the transmission of messages from professors to pupils. For animation to be effective in aiding the provision of visuals or illustrations to students, it must be developed by learning objectives. The animation must be well-made because it is a teaching tool whose effectiveness depends on its use; therefore, it is created according to students' learning demands. A good animation can aid students in forming a mental image of the processes involved, but it still demands learning effort to enhance students' cognitive thinking skills.

Animation facilitates the process of memorization. Animation is a diverse and inventive medium, so students' learning process is not dull and tedious (Ardiyan et al., 2020; Sundari & Riyadi, 2019). Text, audio, and visual learning content can be delivered through animated videos by scripting the content to create an emotional connection between students and the content they are studying. In addition, animated videos contribute to a more engaging and memorable educational environment by providing more precise and appealing visuals. Flexible animated movies make it easier for users because they can be viewed anywhere and at any time, depending on the demands of the students (Hidayatun et al., 2018; Natsir et al., 2021). The constructivist learning methodology is suited for producing animated videos as learning media. This combination allows students to construct knowledge through cognitive and logical processes while remaining appropriate for the studied content. Animation has several advantages for education, making it a suitable medium for teaching theoretical and practical concepts to students of all ages because it is adaptable and can compete in the digital age.

A series of images that move constitutes animation. The advantage of animated media over other forms, such as static images or plain text, is that it can demonstrate the passage of time. The advancement of technology in education has facilitated the teaching and learning process (Andrianto Pangondian et al., 2019; Mulyani & Haliza, 2021). The progress of time, science, and technology can alter one's perspective. Animated media in education as a facility and infrastructure innovation in good instruction. They are adapting the use of Animation media in education to students' peculiarities, resources, and supporting infrastructure. The use of animated media in education is suitable, and learning objectives are cognitive, psychomotor, and simple for educators to attain. In the current era, many educators require the use of animated media so that learning objectives can be achieved fast. It is because, in the present age, many educators are familiar with technology and can learn to utilize it quickly, allowing for easy access to school and online learning by the instructor's directions.

The evolution of technology cannot be divorced from the structure of human existence, including education. Existing technical advancements enable the implementation of education to an increasing degree. More media are employed to promote the deployment of education and learning systems as technology advances. An illustration of such media is animation. Animation media in learning is an audio-visual medium containing a collection of moving images and sound, displaying learning content via electronic media to promote active and enjoyable learning. Animation is frequently utilized for educational purposes. The use of

animation in the application of knowledge can produce effects that vary by education level. Implementing animated media usage in learning necessitates applying appropriate strategies and procedures to fulfill learning objectives to their fullest extent. Animation that is not correctly created is ineffective for educational purposes. In addition, animations containing excessive information will cause students to appear to comprehend the material despite their inability to explain the exact contents of the animation. Good animation media enable students to form mental and cognitive images of the processes that occur. And demands learning effort. Memory processing abilities, students' prior knowledge, students' spatial abilities, and animation-making processes are some of the factors that must be considered while using animation media in education. There are three animation formats used in creating animation media: animation without a control system, animation with a control system, and direct manipulation animation. Suppose animation media is used effectively in the application of learning. In that case, it can assist students in transferring knowledge to new settings, enhance student motivation, and provide additional knowledge, skills, and talents.

Education is essential means of shaping the lives of the nation's youth (Abbas, 2020; Wahyudi & Syah, 2018). With time, the Indonesian government must continue to innovate the present education system. It is anticipated that education will be able to form individual character, impart skills, knowledge, and personality, and establish excellent ancestral cultural values. The educational process might be conducted by national education goals (Mohamad N et al., 2016; Suharyanto, 2019). The objective is for pupils to comprehend what the teacher conveys when providing the content thoroughly.

Nonetheless, it is relatively uncommon for pupils to be unsure about the subject the teacher is presenting (Priyambudi et al., 2021; Supriatna & Lusa, 2020). Therefore, for pupils to be able to compete in the 5.0 era, additional learning materials that engage students' attention and focus are required. The objective is for students to absorb the material to generate the best graduates effectively. The usage of animated media assists teachers in assuming an active role as facilitators of the teaching and learning process. In addition, animated media makes it easier for students and teachers to give material, as animation has a vast array of colors and prevents pupils from becoming bored fast. What is the primary issue facing elementary school education? Because they do not comprehend the significance of learning and understanding the information. In teaching, the instructor creates the atmosphere in the classroom in the sense that they determine whether the mood is happy, anxious, or calm.

For this reason, the animation is one of the solutions to numerous educator issues. Furthermore, the teacher no longer dominates the knowledge transfer process in the classroom; instead, the teacher becomes a facilitator for one-class discussion material. Nevertheless, despite animation's many benefits, it must be weak in some areas. The first issue is a lack of cash, as animation production requires substantial money. In addition, creating animation is not easy because learning animations need specific parts. Not to mention when the instructors are senior citizens. Even younger teachers will have difficulty creating animations without direction because animation is complex.

## METHOD

This survey-based quantitative descriptive research will be conducted from May to July 2022. Interviews, observation, and documentation are methods for gathering data. The equipment for data gathering utilizes an observation sheet. Observation sheets are used to collect course-related data in postsecondary institutions. The research data were descriptively and qualitatively examined.

The participants in this study were 90 students from the Educational Technology Study Program who were enrolled in the Learning Media course. Surveys utilizing Google form questionnaires and structured interviews served as the data collection methods. Included with the instrument is a preliminary study questionnaire. Descriptive qualitative data analysis is employed by analyzing and summarizing the obtained data to provide an overview of the settings and scenarios that occur in the field.

## RESULT

Ninety students enrolled in learning media classes provided researchers with research subjects that were analyzed. Researchers process numerous types of collected data with precision. Utilizing a questionnaire sent to pupils, researchers conducted a study. Students completed the questionnaire without interaction from the researcher. According to the data collected by researchers, the following is provided.

Most students (88.89 percent) reported that classroom instruction was not engaging. Students acquire knowledge in standard ways. In the learning process, students merely listen passively to the instructor's explanation. One-way learning can lead to monotonous learning (Adriani & Silitonga, 2017; Nafiah, 2017) and render students passive. There are simply question-and-answer exchanges between professors and students. Tolerant learning environments and repetitive speakers discourage students from actively participating in learning.

Most students (91.11 percent) reported that instructors had employed online and offline learning resources in their lectures. However, the only learning materials currently available are presentation slides. Most created learning materials do not encourage student participation in the learning process. Media may make learning more engaging (Garris Pelangi, 2020; Munasti & Suyadi, 2021). When there is an interaction between learning media and students, pupils are enthusiastic. Interesting learning tools and interactivity is one technique to prevent students from becoming bored during lectures. Engaging media for learning might help kids become more focused on education.

Students (86.67%) indicated that learning in learning media courses was still difficult to comprehend. The difficulty of the material known by students is due to the inability of the employed learning model to motivate pupils to learn and study the information actively. The selection of student-centered learning models will enhance students' comprehension of course material. By employing a constructivist approach to education, pupils will acquire knowledge that is easier to comprehend. In addition, pupils require a method of instruction that can be completed anywhere and at any time (Seituni & Akbari, 2021).

Students (86.67%) indicated they were interested in utilizing animated video learning. The results of the disseminated student questionnaires led to these conclusions. Students believe that learning using animated films will be more engaging and may be used at any time and in any location. Animated movies can enhance students' comprehension of course materials (Disman et al., 2020). It is what motivates pupils to learn freely with animated videos. It is because animated videos can facilitate student involvement with learning media.

Most pupils (88.89%) indicated a desire to learn utilizing animated films. For students to be able to participate in learning so that they are more active and optimal, they must be addicted to their education. Students desire to learn with animated videos because they are intrigued about how learning with animated movies in lectures feels. Students' curiosity gives them a strong desire to study (Md Aditya Dharma & Padmarani Sudewiputri, 2021).

Students (87.78%) reported that watching animated movies to learn made it easier for them to study at any time or place. Students will feel more at ease when looking if they can do it at any time and in any location. It is not inconceivable that learning can occur at any time and place, given today's technological advances. Studying at any time and in class can improve learning effectiveness (Cindrakasih, 2020; Patriani & Kusumaningrum, 2020).

Students (87.78%) revealed that learning using animated videos could motivate learning more. Students need learning motivation to be able to increase their enthusiasm for learning. High learning motivation can also be caused by the selection of learning methods used by lecturers. Good education is learning that can improve student learning motivation (Nopiyanto & Raibowo, 2020; Safarati, 2021).

Students (91.11%) reported that learning using animated movies enables independent study. Learning animation can genuinely enhance pupils' learning autonomy (Suryaningsih, 2017). Students must develop their learning independence, so they are not dependent on others. Good learning is learning that empowers pupils to become independent. Through individual study, students will acquire knowledge actively and permanently.

Students want to learn how to use animated videos (86.67 percent). The concept of studying through animated videos is prevalent in the modern era. It is due to the benefits instructors, and students acquire while employing animated videos to apply to learning. In the use of studying using animated films, students will receive several benefits. A benefit is that students can watch animated movies anywhere and anytime (Natsir et al., 2021). It makes educational programs more adaptable.

Students (88.89%) require animated films as an alternative to the media already accessible for education. It will make learning at the university level more relevant by combining media with a constructivist approach, and learning with animated movies will significantly impact learning (Ahnaf et al., 2021). Combining animated films with a constructivist approach will create the optimal learning environment.

## DISCUSSION

Around 88.45% of the 90 students surveyed felt they needed animated movies for teaching and learning activities in learning media classes. Students desire to learn how to use animated film, as demonstrated by the survey results. Students are more motivated to engage in learning when animated movies are incorporated. It is because animated videos with voice, images, and characters make learning more exciting. If pupils still do not comprehend the learning media material, animated videos can also be repeated. In addition, students anticipate that animated movies will be introduced to each learning media course resource to facilitate their learning activities. Students expect that future innovation and learning approaches will incorporate animated films so that they can feel delighted while participating in learning activities.

## CONCLUSION

The research concludes that constructivist-based animated video media is necessary for learning media courses. Students require learning materials that are adaptable to their individual needs and can be accessed anywhere at any time. Students require animated movies because they believe that these learning tools can boost their enthusiasm to learn. Using animated films, students can develop their knowledge using a constructivist method. Innovations in education will positively influence the development of higher education. There will be a correlation between the building of students' knowledge based on their ledge production and their successes. Animated movies based on the constructivism philosophy must be deployed in the sector for studying media courses.

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