



Original Article

Video-based learning media for physical education

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ABSTRACT

The use of video is only one tool that can enhance students' learning experience in the field of physical education. From the explanation above, it can be concluded that the integration of learning media in the learning process itself cannot be released, so efforts are needed to produce varied learning media and can be used to support the learning process. The integration of learning media in the physical education learning process cannot be ignored, so efforts are needed to produce varied learning media and can be used to support the learning process. This study aims to produce physical education learning videos using the ADDIE model starting from analyze, design, development, implementation, and evaluation. The data were analyzed by qualitative descriptive and quantitative descriptive techniques. The results showed that the assessment by material experts received a 90% rating (very good), then media experts got 83% (good) and user responses got 85% (good). Furthermore, the calculation of the influence of video on learning outcomes has an effect size of 1.09 which is included in the high-influence category.. The use of video as support should still pay attention to direct interaction between teachers and students, as well as opportunities to practice and participate actively. The integration of learning media in the learning process cannot be ignored, with the integration proven to have a positive impact on learning outcomes.

Key words: Video-based learning, physical education, learning media.

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INTRODUCTION

Learning in the 21st century era in the world of education emphasizes the need for a good combination of online or digital-based learning systems with face-to-face learning in transforming learning, designing learning using technological

pedagogical content knowledge (TPACK), applying learning using 21st century climbing, conducting assessments formatively and summatively sustainable, as well as with a variety of assessment methods, technology adaptation in conducting assessments, transforming themselves into good educators by always paying attention to dynamic changes in the field of education. The development of learning is also carried out from teacher-centered to student center learning, an approach or learning paradigm that puts students at the center of the learning process (the center of the learning process). To implement this, the right strategies and methods, interesting learning media, a conducive learning atmosphere or a healthy learning climate so that motivating students is always maintained and in the end learning outcomes are achieved (Juhrodin, 2016). In today's digital era, there is a very rapid transformation in the world of education, so educators must strive to develop innovative and effective learning systems so that they can be used and support education in Indonesia (Putry, 'Adila, Sholeha, & Hilmi, 2020).

One of the rapid transformations in the world of education is the application of technology in learning, the implementation of e-learning programs or in accordance with the policy direction of the directorate of higher education learning is to combine face-to-face learning with digital or online-based learning. Learning with the TPACK approach can be easily implemented in learning media. Almost every learning process requires learning media so that the material delivered can be received by students easily, be it offline or online learning. Learning media evolves from time to time in accordance with the needs of education. Starting from simple media to complex media that requires special skills to make it. As well as interactive multimedia that can be used as a learning medium that attracts the attention of students, to motivate students to learn happily which has an impact on achieving learning goals.

The role of learning media is so that the material delivered by the teacher can be received by students easily. The implementation of learning media in the form of multimedia or video can easily provide a specific picture related to the material delivered by the teacher. In addition to video as a learning medium, it is an effort made to maintain the motivation and enthusiasm of students during learning with the variety of media used (Maulani, Nuraisyah, Zarina, Velinda, & Aeni,

2022). Learning with multimedia in this case is video can be used as a learning supplement. In physical education, making learning videos must be interesting, good and if what is displayed is motion material, it must be with precise and specific motion analysis, so that the hope is that it can replace the teacher in modeling complicated specific movements. This is certainly very helpful for teachers. Taking into account the study above, utilizing multimedia with an attractive display and critical information should be done.

The use of video as a learning medium in physical education has several significant benefits and has been tested significantly as research has been conducted (Cahyaningtias & Ridwan, 2021) Produce that learning supported by interactive learning media makes a positive contribution to learning, besides that its effectiveness is also measurable from low production costs and does not take a long time. Videos can be used as an effective learning medium in the field of physical education, as: (1) Demonstration of Movements and Techniques: Videos allow instructors or teachers to record demonstrations of movements and sports techniques clearly and in detail. Students can observe carefully how movements should be performed correctly and proper technique. (2) Self-Paced Learning: Videos give students the opportunity to learn independently. They can access video lessons anytime and anywhere, allowing them to practice moves or exercises outside of lesson time. (3) Material Enrichment: Videos may be used to provide additional material enrichment. For example, showing a professional athlete or player perform complex movements can give students additional insight into more advanced techniques. (4) Performance Analysis: Teachers can record students while practicing and participating in physical activities. Then, these videos can be analyzed together to provide more in-depth feedback on progress and improvements that need to be made. (5) Problem Solving: In sports, videos can be used to analyze and resolve problems that may arise during practice or matches. Students can look back at scenes that need fixing and identify appropriate solutions. (6) Theory Teaching: In addition to sports techniques, videos can also be used to teach important theories and concepts in physical education, such as game rules, strategies, and the importance of physical fitness. (7) Motivating and Increasing Interest: Interesting and inspiring videos about sports and physical activity can

motivate students to actively participate in physical activities and increase their interest in this field (Cahyono, Resita, & Hidayat, 2021). The level of learning motivation is a very important factor for students so it needs to be controlled, maintained and increased if it is still low (Mudzakir, 2020). However, it is important to remember that the use of video in physical education must be accompanied by a holistic approach, including direct interaction between teachers and students, as well as opportunities to practice and participate actively. The use of video is only one tool that can enhance students' learning experience in the field of physical education. From the explanation above, it can be concluded that the integration of learning media in the learning process itself cannot be released, so efforts are needed to produce varied learning media and can be used to support the learning process. So this study aims to produce physical education learning videos, especially in athletic subjects.

METHOD

Adjusting the research objectives, the research method used is the development of ADDIE by Robert Maribe Brach. The ADDIE development model consists of Analysis, Design, Development, Implementation and Evaluation (Sugiyono, 2016). Data analysis is used, namely qualitative and quantitative data analysis. Qualitative data in the form of suggestions and improvements provided by media experts, material experts related to multimedia products made. Quantitative data analysis uses descriptive analysis in the form of statements, less, enough, good, very good which is then displayed in the form of a Likert scale with a scale of 4, namely a score of 1 to a range of scores 4.

RESULTS AND DISCUSSION

Results

Analysis and Design

The learning video is generated by two validators, namely material experts and media experts. Validators assess and provide input on the learning videos made, as for the results as follows. Material expert assessment of five indicators, namely (1) the suitability of the material delivered received a score of 4 or entered the

criteria very well; (2) the depth of the material presented gets a score of 3 or enters the criteria well; (3) the use of easy-to-understand language gets a score of 3 or enters the good criteria; (4) the suitability of the display of images and writing material gets a score of 4 or very good criteria; (5) The correct suitability of the material stages gets a score of 4 or very good criteria. So that the average assessment gets a score of 3.6 or enters the criteria very good. The following assessment results are presented in table 1

Table 1. Assessment of learning videos by material expert validators

No	Indicator	Score	Criterion
1	Suitability of the material presented	4	Excellent
2	Depth of material delivered	3	Good
3	Use of language that is easy to understand	3	Good
4	Suitability of the display of images and writing of the material	4	Excellent
5	Correct suitability or stages of material	4	Excellent
Average Score		3.6 (90%)	Excellent

Furthermore, the assessment of learning videos conducted by media experts. There are five indicators, namely (1) lighting quality gets a score of 3 or enters good criteria; (2) the suitability of the layout and visuals of objects in the media gets a score of 3 or enters the criteria well; (3) the suitability of the video angle gets a score of 4 or enters the criteria of very good; (4) the color quality gets a score of 4 or excellent criteria; (5) the image quality gets a score of 3 or good criteria; (6) audio quality gets a score of 3 or good criteria So that the average assessment gets a score of 3.33 or enters the good criteria. The following are the assessment results in table 2.

Table 2. Assessment of learning videos by media expert validators

No	Indicator	Score	Criterion
1	Video lighting quality	3	Good
2	Suitability of the layout and visuals of objects in the medium	3	Good
3	Video angle suitability	4	Good
4	Color quality	4	Excellent
5	Image quality	3	Good
6	Audio quality	3	Good
Average Score		3.33 (83%)	Good

After the video is assessed by experts and declared feasible, the video is tested on students to find out the response of users. The response seen is a sense of pleasure (the video is not boring), curiosity (the video provides knowledge), interest (the video has an interesting appearance), attention (the video can provide new

information), ease of understanding the material. This response was measured using questionnaires after students viewed videos for athletic learning. The results of the questionnaire of student responses to learning videos can be seen as follows.

Development & Implementation

Table 3. User response to learning videos

No	Indicator	Average Respondent Score	Category
1	Sense of Fun (Videos Not Boring)	4	Excellent
2	Curiosities (Videos Provide Knowledge)	3	Good
3	Interest (the video has an attractive look)	3	Good
4	Interest (the video has an attractive look)	4	Excellent
5	Ease of Understanding the Material	3	Good
Skor rata-rata		3.4 (85%)	Good

Overall, students responded "Good" to the learning video after the trial

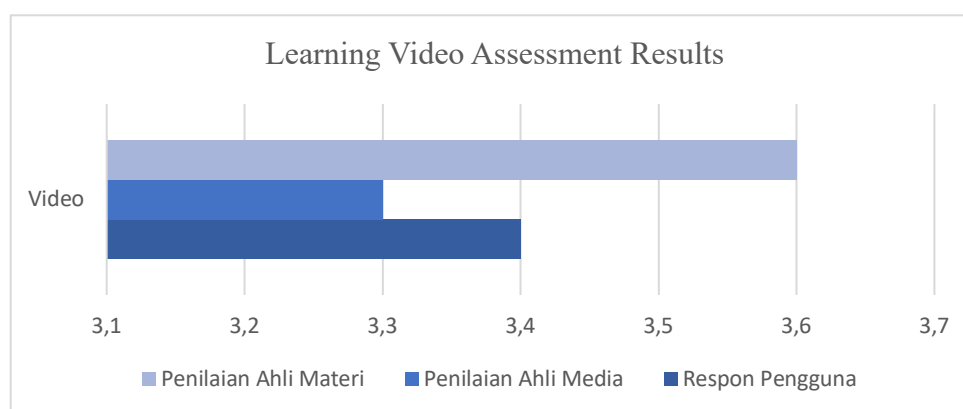


Figure 1. Graph of assessment of learning videos

Furthermore, to determine the effect of learning videos on knowledge or learning outcomes, an effect test or effect size calculation is carried out. Based on calculations, an *effect size* value of 1.09 or the influence of learning videos on knowledge is large.

Discussion

Today's technological developments have entered aspects of life in various sectors. The use of technology greatly affects performance to achieve goals. In learning technology, multimedia can be used as an appearance in providing information consisting of audio, video, text, and images. The use of multimedia in this study is athletic learning videos. Videos in learning can improve the quality of learning and learning outcomes (Ardhianti, 2022; Salutri & Rokhmawan, Mohamad Agung, Rahmawan, 2022; Siska, Selviana, & Herianto, 2020). The use of videos in learning is effectively used for the learning process en masse, individually and in

groups, videos also help understand the material more easily and quickly, besides that student interest also increases so that learning does not become bored, videos provide new and interesting learning experiences (Agustini & Ngarti, 2020; Nurwahidah, Zaharah, & Sina, 2021; Parlindungan, Mahardika, & Yulinar, 2020). In this study, students can get interesting learning or as an implementation of video technology as a learning aid. The videos made can provide an overview of athletics material for short distance running (*Sprint*), ABC running, long jump, javelin throw, shot put as learning. The technical videos displayed in the learning are devoted to increasing student understanding and making it easier to be able to access all visualization movements displayed during video viewing.

In practice learning video materials can help understand the material more easily, provide new and interesting learning experiences and analyze complex and more specific movements (Pranata, Wahjoedi, & Lesmana, 2021; Rahmadri, 2021; Simbolon, Wahjoedi, & Spyawati, 2021). To maximize the understanding obtained, of course, must be side by side with direct delivery by the teacher who teaches, this is very important so that the understanding becomes more correct. The delivery expressed by teachers in athletics must support and further increase the insight of students. In current developments, technology is needed and relevant to be used and implemented in direct or offline learning or online or online learning. The goal is to support learning to make it easier and accessible anywhere and can help as distance learning because multimedia-based learning media can reach many people and allow them to observe objects simultaneously. The use of multimedia can also be a broad public learning facility, because it can be accessed anywhere and anytime, especially if this multimedia is disseminated as a learning innovation in any institution (Assidiqi & Sumarni, 2020; Handarini & Wulandari, 2020).

With learning videos, it can provide illustrations of the correct basic concepts so that learning media can provide a comprehensive experience. Learning by involving technology can stimulate and generate motivation and improve student learning outcomes. When students are motivated, then during the learning process it will be better. Basically, learning innovation is a solution to overcome learning problems for all circles. This is directly related to the sensitivity of visual sensors that exist in everyone. It is different if an individual is given another learning

method without being given learning innovation. Learning innovation using video can be the right choice solution for alternative teaching media to support learning activities. The content of the video that is packaged as interesting as possible can make participants interested in observing the video carefully. This can affect the level of understanding of the material presented.

Based on the results of the effect size calculation, an effect size value of 1.09 is obtained which is relatively large. So, it can be concluded that videos for athletic learning are quite effective. The effectiveness of this use is because it displays interesting media content to increase learning passion, so that when given *a posttest* the learning results increase. Passion for learning in this case is motivation can increase enthusiasm in learning, help understand the material better, develop critical and creative thinking skills and help in developing critical and creative thinking skills (Adan, 2023; Emda, 2017; Nurfaliza & Hindrasti, 2021). The video-based learning media developed has passed the validation stage by experts and is declared valid for trials. This trial was conducted to determine user response after the application of video-based learning media. The instrument used is a response questionnaire which has 5 indicators, consisting of a sense of pleasure (the video is not boring), curiosity (the video gives curiosity), interest (the video has an interesting appearance), attention (the video can provide new information), ease of understanding the material. The first indicator is a sense of pleasure (video is not boring) when viewed in table 3 obtained information that overall respondents gave a "Very Good" response to video-based learning media which means giving a very strong response to video-based learning media. This shows that video-based learning media provides a sense of fun. This arises because of variations in video media, namely the resulting video has a clear structure, appropriate audio and fonts, an interesting introduction, short duration, grammar, good lighting, clear learning objectives and interactive elements (Shidik, Anggraeni, & Royani, 2022; Wisada, Sudarma, & Yuda S, 2019).

The second indicator is curiosity. In table 3, information was obtained that overall students responded "Good" to video-based learning media, which means respondents responded well to video-based learning media. The use of video on learning has a positive impact on students' knowledge (Palao, Hastie, Cruz, &

Ortega, 2015). The third indicator of interest was obtained information that overall students responded "Good" to video-based learning media. By using video in learning, students will feel different interests and experiences that have an impact on improved learning outcomes (Ningthoujam, 2016). The fourth indicator of attention (video can provide new information) is obtained information that overall students respond "Very Good" to video-based learning media. In order to use learning videos optimally, it must consider cognitive load, student involvement and active learning (Brame, 2016). The fifth indicator is the ease of understanding the material, obtained information that overall students give a "Good" response to video-based learning media. (Simbolon et al., 2021) State that learning videos help students understand the material being taught, so learning becomes easier, more engaging and interactive.

CONCLUSION

Learning videos, especially on athletic materials, can provide illustrations of basic movement concepts that are correct to students so that they can provide a comprehensive experience. Video development used as a learning medium received a 90% very good assessment by material experts, then 83% good by media experts and 85% good by respondents. Furthermore, the calculation of the influence of video on learning outcomes has an effect size of 1.09 which is included in the high-influence category. Learning using video media in physical education can provide specific information about basic techniques. The use of video as support should still pay attention to direct interaction between teachers and students, as well as opportunities to practice and participate actively. The integration of learning media in the learning process cannot be ignored, with the integration proven to have a positive impact on learning outcomes.

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