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Innovative Physical Education Learning: A Collaborative Teamwork Model with Video Support

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ABSTRAK

Permasalahan yang dialami siswa dalam pembelajaran pendidikan jasmani tidak hanya terbatas pada permasalahan pada aspek pengetahuan saja, namun juga pada aspek sikap dan keterampilan. Tujuan penelitian ini adalah mengembangkan model pembelajaran pendidikan jasmani berbasis pembelajaran kerjasama tim kolaboratif berbantuan video pembelajaran. Jenis penelitian ini yaitu penelitian pengembangan dengan menggunakan model pengembangan ADDIE. Subyek penelitian terdiri dari empat kelompok yaitu subjek uji validitas ahli, subjek uji coba kelompok kecil, subjek uji praktikalitas. Metode pengumpulan data yang digunakan dalam penelitian ini adalah observasi, wawancara, angket, dan dokumentasi. Instrumen pengumpulan data berupa lembar kuesioner. Teknik analisis data penelitian ini menggunakan analisis deskriptif kualitatif dan kuantitatif. Hasil penelitian ini menghasilkan model pembelajaran pendidikan jasmani materi pendidikan kesehatan berbasis pembelajaran kolaborasi tim berbantuan video pembelajaran yang memenuhi 5 kriteria. Penilaian uji ahli secara keseluruhan berada dalam kriteria valid. Berdasarkan hasil analisis data praktikalitas dinyatakan praktis diterapkan pada siswa dalam proses pembelajaran. Implikasi penelitian ini adalah model pembelajaran pendidikan jasmani berbasis pembelajaran kerjasama tim kolaboratif dengan bantuan video pembelajaran efektif digunakan dalam proses pembelajaran, mengatasi permasalahan pada aspek pengetahuan, sikap, dan keterampilan siswa. Dapat disimpulkan bahwa model pembelajaran pendidikan jasmani materi pendidikan kesehatan berbasis pembelajaran kolaborasi tim berbantuan video pembelajaran dapat digunakan dalam pembelajaran.

ABSTRACT

The problems experienced by students in physical education learning are not only limited to problems in aspects of knowledge, but also in aspects of attitudes and skills. The purpose of this study is to develop a physical education learning model based on collaborative teamwork learning assisted by learning videos. This type of research is development research using the ADDIE development model. The research subjects consisted of four groups, namely expert validity test subjects, small group test subjects, practicality test subjects. The data collection methods used in this study were observation, interviews, questionnaires, and documentation. The data collection instrument is in the form of a questionnaire sheet. This research data analysis technique uses qualitative and quantitative descriptive analysis. The results of this study resulted in a physical education learning model of health education materials based on team collaboration assisted by learning videos that met 5 criteria. The overall expert test assessment falls within the valid criteria. Based on the results of data analysis, practicality is stated to be practically applied to students in the learning process. The implication of this research is that the physical education learning model based on collaborative teamwork learning with the help of learning videos is effectively used in the learning process, overcoming problems in aspects of student knowledge, attitudes, and skills. It can be concluded that the physical education learning model of learning-based team collaboration learning-based health education materials assisted by learning videos can be used in learning.

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1. INTRODUCTION

Increasing the relevance of education is intended to produce graduates who meet the demands of needs based on the potential of Indonesia's natural resources and human resources. Physical education can form people who are physically healthy and have a high level of discipline and sportsmanship and will ultimately form quality people. Health education is an integral part of physical education. Physical education also includes interrelated material, namely health. The aim of physical education is to develop aspects of physical fitness, movement skills, critical thinking skills, social skills, reasoning, emotional stability, moral actions and aspects of a healthy lifestyle (Marheni et al., 2019; Setiawan et al., 2020). Health education is one of the physical education materials that students of the STAHN Mpu Kuturan Singaraja PGSD Study Program must take, because they are prospective elementary school teachers who will later apply this material to their students. This is an attraction for researchers to take physical education courses which do not only teach movement skills in one particular sport. Health education material is used as research material because health education is directed at how to develop students to have healthy lifestyle attitudes and behavior, maintain safety by preventing injuries during physical activity or exercise, and simply handle injuries during physical activity or exercise (Li & Lu, 2020; Mudzakir, 2020). The most important thing is that students not only know the concept of health education but especially how they apply their knowledge to real life (Dharmadi & Agustini, 2019; Rohmawati et al., 2020; Yuliani et al., 2020). Synergy in the fields of health and education is very much needed to achieve the ultimate goal of education, namely intelligent and healthy humans, both physically and spiritually.

Health education has 3 dimensions, namely: (a) changing negative behavior (sickness) to positive (in terms of health values), (b) developing positive behavior, and (c) maintaining positive behavior (Banat & Martiani, 2020; Wicaksana et al., 2020). Health education in physical education courses aims to improve students' physical and spiritual health by understanding and practicing healthy lifestyle patterns for students and maintaining safety during physical activity or when exercising. Bearing in mind the goals of health education and the realization of a healthy environment and personal safety, both schools and universities play an important role in implementing health education, including modeling and directing appropriate and responsive health education for their students (Fatmawati, 2017; Faujiah et al., 2018; Mustafa & Dwiyogo, 2021).

Based on the results of observations made by researchers, there are three problems in the implementation of physical education learning at the PGSD STAHN Mpu Kuturan Singaraja Study Program. First, the problem of students' understanding related to health education. Second, the problems experienced by students are not only limited to problems in the knowledge aspect, but also in the attitude and skills aspects. Third, the learning process is still dominated by the lecture method and is teacher-centered. One of the solutions taken by researchers to solve this problem is to develop and implement a learning model that provides more opportunities for students to build their knowledge, skills and attitudes in physical education courses on health education material. For this reason, in this research, researchers will develop a physical education learning model based on collaborative teamwork learning.

The development of a physical education learning model based on collaborative teamwork learning is based on previous research findings which state that its implementation has a positive effect on learning outcomes (R. P. Dewi et al., 2019; Sholeha et al., 2019). The application of collaborative teamwork learning has also been proven to be able to influence learning motivation, and student soft skills (Daniati et al., 2022; Jiwa et al., 2014; Primadiati & Djukri, 2017). By carrying out learning using collaborative teamwork learning, students have more opportunities to be involved in the learning process so that they become more active in building their understanding (Daniati et al., 2022; Raihanah et al., 2018). The application of collaborative learning also has various advantages compared to conventional learning models (Sajidan et al., 2022; Setiyo, 2022). Researchers developed a physical education learning model for health education material based on collaborative teamwork learning with the help of learning videos in stages (Boholano, 2017; Murillo-Zamorano et al., 2019). The use of videos has been empirically proven to have a positive influence on the learning outcomes of adult children, including students. The use of learning media in the form of videos can help improve students' understanding of the subject matter being studied (Expósito et al., 2020; Trabelsi et al., 2022). The use of learning media in the form of videos has been proven to be able to increase students' learning motivation and concentration in the learning process (Padilla et al., 2020; Van Der Meij & Dunkel, 2020). Based on this empirical evidence, the use of learning media in the form of videos is expected to help PGSD Study Program students at STAHN Mpu Kuturan Singaraja in studying health education material in physical education courses (Davis & Miller, 2016; Kanca et al., 2021).

The aim of this research is to develop a physical education learning model based on collaborative teamwork learning assisted by learning videos. This research produces a product in the form of a physical education learning model, health education material based on collaborative teamwork learning assisted by

learning videos and learning support devices. It is hoped that this product can later be used as a learning model to improve the learning outcomes of students taking physical education courses.

2. METHOD

This development research uses the ADDIE development model. The ADDIE model development research consists of 5 stages, namely: (1) analyze, (2) design, (3) development, (4) implementation, and (5) evaluation (Branch, 2021; Nichols Hess & Greer, 2016). The steps of model ADDIE development is show in Figure 1.

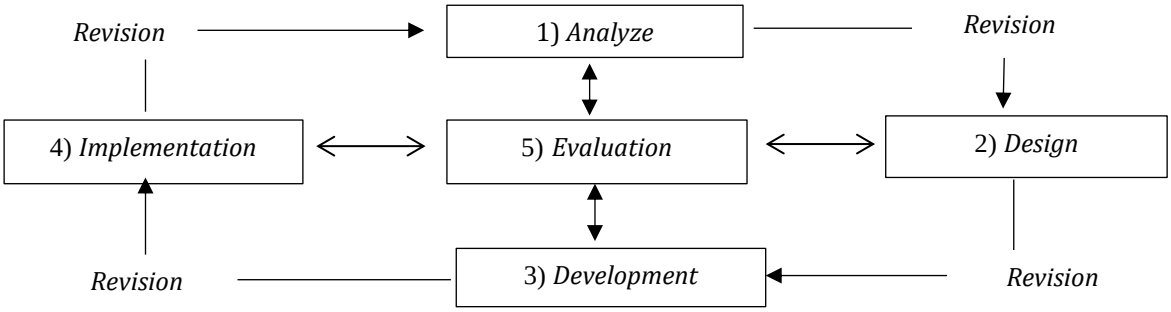

Figure 1. Development Steps with the ADDIE Model

The research subjects for the development of physical education learning models for health education materials based on Collaborative Teamwork Learning assisted by learning videos are 3 groups of research subjects which will be used in accordance with the stages carried out in the research, including: (1) subjects with expert validity, totaling 8 experts. (2) Subjects in small group trials involving 15 students. (3) subjects in the practicality test were carried out by 10 lecturers and 20 students. The data collection techniques used in this research are observation, interviews, questionnaires, documentation and learning outcomes tests. Data collection instruments used in this research include instruments to assess product quality which include aspects of validity, and practicality. Then the instrument used in this research was a validation questionnaire instrument assessment and its practicality was reviewed based on 6 criteria, namely: clarity, accuracy of content, relevance, content validity, no bias, and accuracy of language. The instrument grid used in this research is shown in Table 1, Table 2, Table 3, Table 4, and Table 5.

Table 1. Learning Model Expert Validation Instrument Grid

No.	Aspect	Number of Statements
1	Syntax	5 Items
2	Social Systems	4 Items
3	Reaction Principles	3 Items
4	Support System	3 Items
5	Instructional Impact and Accompanying Impact	3 Items
	Total Statement	**18** Items

Table 2. Learning Material Expert Validation Instrument Grid

No.	Aspect	Number of Statements
1	Introductory Aspects	4 Items
2	Content Aspect	7 Items
3	Evaluation Aspect	5 Items
4	Closing Aspect	2 Items
	Total Statement	**18 Items**

Table 3. Learning Video Media Expert Validation Instrument Grid

No.	Aspect	Number of Statements
1	Video Display Aspects	8 Items
2	Video Content Aspects	10 Items
	Total Statement	**18 Items**

Table 4. Linguist Expert Validation Instrument Grid

No.	Aspect	Number of Statements
1	Readability Aspects	10 Items
2	Conformity with Good and Correct Indonesian Language Rules	8 Items
	Total Statement	**18 Items**

Table 5. Practicality Test Instrument Grid

No.	Aspect	Number of Statements
1	Effective	2 Items
2	Interactive	4 Items
3	Efficient	2 Items
4	Creative	2 Items
	Total Statement	**18 Items**

The rubric used for the expert validation assessment instrument and the practicality of lecturers and students in developing physical education learning models for health education material based on collaborative teamwork learning assisted by learning videos is shown in Table 6.

Tabel 6. Rubrik Instrumen Validasi dan Kepraktisan Model Pembelajaran

Assessment criteria	Score
Very Appropriate	5
Appropriate	4
Normal	3
Inappropriate	2
Very Inappropriate	1

Data analysis was carried out in stages, in accordance with the problem formulation and research objectives which include: (1) design of a physical education learning model for health education materials based on collaborative teamwork learning assisted by learning videos, (2) validation of content analyzed using the content validity ratio (CVR) approach and content validity index (CVI) from Lawshe, (3) testing the practicality of the physical education learning model based on collaborative teamwork learning assisted by learning videos analyzed using the Benchmark Assessment (PAP).

3. RESULT AND DISCUSSION

Result

The procedures for the physical education learning model for health education materials based on collaborative teamwork learning assisted by learning videos have met the 5 operational criteria for a learning model, namely; (1) syntax, (2) social system, (3) reaction principle, (4) support system, and (5) instructional impact and accompanying impact. Then the learning videos that are developed adapt to the health education material in physical education learning. The physical education learning model for health education material based on collaborative teamwork learning assisted by video learning has met the requirements for validity, practicality and effectiveness. The validation test results from material experts, learning model experts, media experts and language experts are shown in Table 7. Based on the results of data analysis in Table 7, content validity can be sought using the CVI formula. Based on the results of the data calculations above, it can be stated that the expert validation of the learning material was obtained at 0.94 in the valid category. Beside of that it found that the expert validation of the learning model was obtained at 0.89 in the valid category. Moreover, the expert validation of learning video media was obtained at 0.94 in the valid category. And the last linguist validation was obtained at 0.89 with the valid category. The result of group trials based on the responses of STAHN Mpu Kuturan Singaraja is show in Table 8.

Table 7. Validity Test Results

No.	Subject	CVI Value	Qualification
1	Learning Materials Expert	0.94	Valid
2	Learning Model Expert	0.89	Valid
3	Learning Media Expert	0.94	Valid
4	Learning Linguist	0.89	Valid

Table 8. Results of Small Group Trial Test

No.	Aspect/Indicator	R	%	Category
1	Usefulness	4.24	84.8	Suitable
2	Convenience	4.09	81.88	Suitable
3	Satisfaction	4.27	85.4	Suitable

Based on the results of small group trials in Table 8, it can be seen that the physical education learning model for health education materials based on collaborative teamwork learning assisted by learning videos developed by researchers received positive responses from students. Overall, the score from small group trials on the usefulness aspect was 4.25 with a percentage of 84.8%, the convenience aspect was 4.09 with a percentage of 81.88%, and the satisfaction aspect was 4.27 with a percentage of 84.8 %, with these three aspects belonging to the appropriate category. Practicality data based on responses from STAHN Mpu Kuturan Singaraja lecturers and students are show in Table 9. Based on Table 9, it shows that each indicator is qualified as appropriate (above 80%). The highest percentage is the interactive aspect of indicator d and the creative aspect of creative indicator in 89%.

Table 9. Results of Learning Model Practicality Analysis

No.	Aspect/Indicator	R	%	Category
1	Effective	4.35	87	Suitable
2	Interactive	4.4	88	Suitable
3	Efficient	4.4	88	Suitable
4	Creative	4.45	89	Suitable

Discussion

In developing learning models in physical education, learning videos can be used to provide visual examples of the movements, techniques or concepts being taught. In accordance with what previous research has stated, learning videos can also increase student motivation, provide variety in learning, and facilitate understanding of difficult concepts (Melati et al., 2023; Nurdin et al., 2019). Likewise the opinion expressed by other researchers, the application of this learning video media is very effective in various learning materials, especially materials that require more concrete and in-depth explanations, such as practices that are discussed with the help of pictures or videos in the presentation (Abdul Latip, 2020; Hernawati, 2018). The use of learning video media should be applied appropriately and varied to overcome students' passive attitudes and attractive appearance with the aim of overcoming student boredom in the learning process.

The physical education learning model for health education material based on collaborative teamwork learning with the help of learning videos is adapted to the character of students, where students currently still need material examples in the form of interesting pictures and videos filled with colors, characters and based on interesting technology and appropriate language. with its development (Fenanlampir et al., 2021; Sembiring, 2021). The learning video is designed to display an opening greeting, learning objectives, the material that will be presented, the appearance of the material, including healthy lifestyle material, preventing injury during physical activity or exercise through warming up and cooling down, and simply dealing with injuries during physical activity or exercise, as well as the closing part consists of practicing questions in groups and giving motivational greetings to students. The results of the physical education learning video, health education material, will be uploaded to YouTube, then a Quick Response (QR) code will be created to make it easier for students to access and included in the teaching materials, making it easier for teaching lecturers to deliver the material (Azlan et al., 2020; Lampropoulos et al., 2019).

The increase in understanding that occurs is also caused by sharing activities carried out by students, at this stage students share the results of discussions with other friends. This activity helps activate students to solve problems, usually students will remember what their friends say better than studying alone or what the lecturer says (Murniyetti et al., 2016; Purwadi, 2022). This is supported by research which states that there is an increase in students' cognitive abilities through collaborative learning (Sunarmi, P. H. and Mubarok, 2016). Increasing students' understanding of learning material will have a big influence on improving student learning outcomes. This is also supported by research which states that there is an influence of the use of collaborative teamwork learning-based LKPD on student learning outcomes (Nurwahidah et al., 2021; Sholeha et al., 2019).

The physical education learning model for health education material based on collaborative teamwork learning assisted by learning videos is designed not only to increase students' understanding but also to develop students' collaboration skills. This is supported by research which finds that the use of collaborative teamwork learning models can improve collaboration skills and increase students' understanding of the material (F. Dewi, 2015; Murray, 2015). This model allows each student to understand all parts of the discussion, so forming a study group is not like forming a regular group, which causes only certain students to understand the material.

Collaboration is also carried out between students and lecturers, thereby creating a democratic learning atmosphere. In research conducted by other researchers, it is stated that learning with collaboration between educators and students is effective learning carried out to improve learning outcomes (Herman et al., 2022; Rahmat, 2018). A learning model based on collaborative teamwork learning can improve 3 aspects of learning outcomes. Other research also found an increase in affective aspects, psychomotor aspects and cognitive aspects (Susanti, 2023; Wulandari et al., 2015). By paying attention to student characteristics and the curriculum, the development of physical education learning models for health education materials based on collaborative teamwork learning assisted by learning videos can be designed effectively. This will help students gain a learning experience that is more suited to their needs, but still meets the learning objectives set out in the curriculum.

The physical education learning model based on collaborative teamwork learning assisted by learning videos provides significant benefits for students in developing social and cooperative skills. Apart from that, this model helps students maximize participation and activeness in learning and build a deeper understanding of the learning material. In the context of physical education, this model can be used to increase student motivation and participation in learning, and help them understand complex concepts in sports and health. The utilization of learning videos in physical education models offers several advantages, including enhanced student motivation, understanding, and collaboration skills development. However, there are also limitations to consider. Firstly, the effectiveness of learning videos may vary depending on factors such as access to technology and individual learning preferences. Additionally, while collaborative teamwork learning fosters active engagement, it may require careful management to ensure equitable participation among students. Furthermore, integrating these methods requires significant preparation and resources from educators. Despite these challenges, the implications are significant, as such models can enhance student learning experiences, promote collaboration, and deepen understanding of complex concepts in physical education and health. Ongoing refinement and adaptation are necessary to maximize the benefits of these approaches while addressing their limitations effectively.

4. CONCLUSION

Physical education learning model for health education materials based on collaborative teamwork learning assisted by learning videos have fulfilled the 5 operational criteria for a learning model. The overall assessment of the expert test obtained by researchers from the learning model developed is in the valid criteria and is suitable for application in the field with revisions. Based on the results of the practicality data analysis obtained based on the responses of lecturers and students to the physical education learning model, health education material based on collaborative teamwork learning assisted by learning videos stated that it was practically applied to students in the learning process.

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