

## Development and Implementation of Learning Videos in Health, Sport, and Physical Education to Improve Learning Interest and Perseverance Character of High School Students

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**Abstract: Development and Implementation of Learning Videos in Health, Sport, Physical Education to Improve Learning Interest and Perseverance Character of High School Students. Objectives:** The purpose of this study was to determine the effect of student responses on learning videos of health, sport, and physical education on interest in learning and character of perseverance. **Methods:** This type of research is development research, with the ADDIE model. The sampling technique used is random sampling. The data analysis technique is in the form of quantitative data analysis with associative and comparative types. **Findings:** the results of the regression test obtained a significance value of less than 0.05 **Conclusion:** The research can be concluded that there is an effect of student responses on learning videos of health, sport, and physical education on interest in learning and character of perseverance.

**Keywords:** learning videos, learning interest, perseverance character.

**Abstrak: Pengembangan dan Implementasi Video Pembelajaran Kesehatan, Olahraga, Pendidikan Jasmani untuk Meningkatkan Karakter Minat dan Ketekunan Belajar Siswa SMA.**

**Tujuan:** Tujuan dilakukannya penelitian ini yaitu untuk mengetahui pengaruh respon siswa pada video pembelajaran Pendidikan jasmani olahraga dan kesehatan terhadap minat belajar dan karakter ketekunan. **Metode:** Jenis penelitian ini yaitu penelitian pengembangan, dengan model ADDIE. Teknik pengambilan sampel yang digunakan berupa random sampling. Teknik analisis data berupa analisis data kuantitatif dengan jenis asosiatif dan komparatif. **Temuan:** hasil uji regresi didapatkan nilai signifikansi kurang dari 0,05 **Kesimpulan:** Penelitian dapat disimpulkan bahwasannya terdapat pengaruh respon siswa pada video pembelajaran Pendidikan jasmani olahraga dan Kesehatan terhadap minat belajar dan karakter ketekunan.

**Kata kunci:** video pembelajaran, minat belajar, karakter ketekunan.

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## ■ INTRODUCTION

In a learning process, a learning media is needed, the learning media can be in the form of audio-visual media. Video Learning is one of the audio-visual learning media that prioritizes sound and image aspects that are used in assisting the learning process to convey information from teachers to students (Luhulima, Degeng, and Ulfa 2018; Pamungkas et al. 2018; Pakpahan, 2022). Learning video media is a type of audio/visual media that presents lesson messages in the form of teaching materials in the form of images and sounds to improve students' understanding (Linggarsari 2021; Indrawati, 2021; Pratama et al. 2021). Learning videos are communicative learning media and can be repeated as needed, making it easier for students to understand the subject matter (Nurdin 2019; Yudianto 2017; Schneider and Sparfeldt 2021). That way the learning video media is often applied in the Health, Sport, and Physical Education learning process indirectly.

Health, Sport, and Physical Education emphasizes the psychomotor aspect directly, but cannot be separated from the cognitive and affective aspects. In addition to direct learning health, sport, and physical education can be carried out indirectly by using the right learning media. Learning media that can be used in health, sport, and physical education subjects are in the form of learning videos in which they are clearly and in detail (Carolyn, Astra, and Suwiwa 2020; Ketaren, Kanca, and Parta lesmana 2021; Situmorang, Nasution, and Afrinaldi 2021). Audio-visual learning media in the form of learning videos are suitable for use in indirect health, sport, and physical education learning (Fepriyanto et al. 2021; Santosa 2021; Simbolon et al. 2021). The use of the video-based health, sport, and physical education model is one of the factors that supports and becomes an alternative in the learning process in an effort to improve student learning outcomes, for example the use

of audio-visual media (Arke et al., 2021; Aryanti et al., 2021; Dewi et al., 2016).

Audio-visual media in the form of videos as learning media are suitable to be applied in gymnastic materials in health, sport, and physical education. One of the learning media for gymnastics at school is in the form of learning videos (Akmal, Sugihartono, and Ilahi 2018; Anggriawan, Januarto, and Kurniawan 2019; Titting, Hidayah, and Pramono 2016). Learning videos with the basic material of gymnastics are effectively used to be used as learning media indirectly, where from these videos students can understand the material of gymnastic movements by repeating (Dewi et al., 2016; Reza et al., 2021; Zulfahri et al., 2020). This study supports that audio-visual media, namely learning videos about gymnastics, can also facilitate and assist the learning process carried out by teachers and also make it easier for students to understand teaching materials (Darsana et al. 2021; Hasana, Sugihartono, and Raibowo 2021; Winasa 2021). In addition, learning media in the form of audio-visual media can make students interested and happy in learning indirectly.

Interest in learning in health, sport, and physical education needs to be increased so that it is easier for each student to accept the subject matter. Students' interest in learning is shown in interest in participating in learning and high concentration on the learning process (Kamid et al., 2021; Kamid et al., 2021; Aryanti et al., 2021; Prasetyo et al., 2021). In the learning process, interest is one of the motivations from within students as a starting point for students to learn which can be used to achieve the desired goals (Hendrawijaya 2022; Kamid et al., 2021; Kamid et al., 2021). Interest in learning is defined if someone who is interested in a lesson will have a feeling of interest in the lesson (Ernawati et al., 2021; Kamid et al., 2021; Syafridi et al., 2021; Choi et al., 2020). Students' learning interest will make students have a diligent character.

Diligent character is a form of consistency from each individual in achieving a result he wants to achieve. Encourage students to act towards the goals to be achieved by selecting useful actions to achieve certain goals, not giving up in learning, so that perseverance in learning will occur, where perseverance is a factor that affects student learning outcomes (Sokip et al. 2019; Ayu and Yunarta 2021; Setiawan, Muhyi, and Wiyarno 2021). Improving the learning outcomes of health, sport, and physical education in students is supported by learning strategies used by teachers such as audio-visual media that can increase students' seriousness and persistence in participating in learning (Mustopa, 2021; Splyanawati et al., 2021; Sukanto et al., 2021). In addition, encouragement from outside in the form of important motivation for students. With motivation students can develop activation and initiative can direct and maintain perseverance in carrying out learning activities in order to achieve the goals to be achieved (Azhuri, Purbangkara, and Nasution 2021; Santoso, Sudadio, and Fathurrohman 2017; Widigda and Hartati 2020).

The difference between this study and previous research is that this research produces learning video products which are then applied in the learning process to measure student responses, student interest in learning, and student persistence character. the results of learning video products about gymnastics in health, sport, and physical education later so that they can be applied or used in the learning process in order to make it easier for teachers to teach and can make it easier for students to understand teaching materials.

The purpose of this research is to find out how students respond to Health, sport, and physical education learning videos, to find out how students' interest in learning and the character of students' persistence in health, sport, and

physical education are, and to find out the effect of student responses on health, sport, and physical education learning videos on learning interest and perseverance character. From these objectives, the following research questions can be written:

1. How do students respond to health, sport, and physical education videos?
2. How are the students' interest in learning and the character of students' perseverance in health, sport, and physical education?
3. How is the effect of student responses on health, sport, and physical education videos on learning interest and perseverance character?

## ■ METHODS

### Types of research

This type of research is development research, with the ADDIE model. Research and development or Research and Development (R&D) is a strategy or research method that is powerful enough to improve learning practices (Tegeh and Kirna 2013; Bulkani et al. 2022). The development model used in this development is the ADDIE Model which is one of the systematic learning design models (Tegeh, Jampel, and Pudjawan 2015). According to (Astuti et al. 2017; Trust and Pektas 2018) the ADDIE development model, which is a development model consisting of five stages consisting of Analysis (analysis), Design (design), Development (development), Implementation (implementation) and Evaluating (evaluation). For the analysis, design and development stages, the researchers produced a product in the form of a high school material gymnastics learning video, while at the implementation and evaluation stage, the researcher conducted a group test.

### Population and sample

The population in this study were high school students in the city of Jambi. While the

research sample is class X students and class XI students at SMAN 12 Jambi City. Where class X consists of 40 students and class XI consists of 40 students, so the total sample size is 80 students. The sampling technique used is random sampling (Dewi and Verawati 2022; Amin et al. 2021).

### Research Instruments

The instrument in this study was a questionnaire consisting of a student response questionnaire to a video of sports and health physical education material, a student learning interest questionnaire, and a student persistence character questionnaire. The questionnaire previously made by this researcher consisted of several questionnaires, namely, the response

questionnaire to the learning video consisted of 14 statements, the student learning interest questionnaire consisted of 10 statements, and the persistence character questionnaire consisted of 12 statements. Before the questionnaire was used, the researcher had conducted a validation test and a reliability test. From the test, the instrument is declared valid and reliable, so the instrument can be used. The focus of this research is on interest in learning with indicators of feeling happy and curious. Then for the character of persistence, focus on indicators not delaying the completion of work and being able to solve problems. The detailed research instruments are listed in the following table:

**Table 1.** Grid of research instruments

Variables	Indicator	Number of statements
Student responses to Health, Sport, and Physical Education videos	Media use	7
	Interest in studying sports physical education and health	7
Interest to learn	Feeling happy	5
	Curiosity	5
Perseverance Character	Don't Procrastinate on Completion of Work	7
	Able to Solve Problems	5

The categories of student response instruments to health, sport, and physical education learning videos are the indicators of media use and Interest in studying health, sport, and physical education with the very not good category in the interval 7.0 – 12.6, the not good category at the interval 12.7 – 18.2, category enough at the interval 18.3 – 23.8, good category at interval 23.9 – 29.4 while very good category at interval 29.5 – 35.0. The categories for the instrument of student learning interest in health, sport, and physical education are the feeling happy and curiosity indicators with the very not good category in the 5.0 – 9.0 interval, the bad

category at the 9.1 – 13.0 category, the sufficient category at the 13.1 – 17.0 interval, good category at interval 17.1 – 21.0, while very good category at interval 21.1 – 25.0. As for the categories for the character instrument of students' persistence towards health, sport, and physical education, namely the Don't Procrastinate on Completion of Work indicator with a very bad category in the interval 7.0 – 12.6, the not good category in the interval 12.7 – 18.2, category enough at the interval 18.3 – 23.8, good category at interval 23.9 – 29.4 while very good category at interval 29.5 – 35.0. for the Able to Solve Problems indicator with the very not good

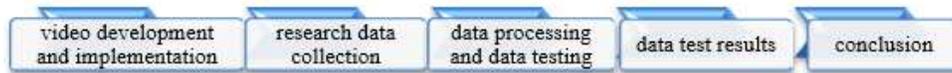
category in the interval 5.0–9.0, the bad category at the interval 9.1 – 13.0, the sufficient category at the interval 13.1 – 17.0, the good category at the interval 17.1 – 21.0, while the very good category at the interval 21.1 – 25.0.

**Data analysis technique**

The data analysis technique is in the form of quantitative data analysis with associative and comparative types (Zurweni, Kurniawan, and Azzahra 2021). Analysis of quantitative data in the form of descriptive statistics was used in this study, then continued with assumption testing and hypothesis testing. The hypothesis test in this study is a test to determine the effect of the independent variable on the dependent, namely in the form of a regression test.

**Research procedure**

This research was conducted starting from the development of learning media in the form of audio-visual media, namely learning videos. The video media is then applied in the learning process. From this application, the researchers took data to measure how students responded to the health, sport, and physical education learning video. In addition, the researchers also took data on students’ interest in learning and the character of students’ persistence towards health, sport, and physical education using a questionnaire. From the data that has been obtained, the researchers conducted tests and data processing so that the results were obtained so that conclusions could be drawn. The research flow can be seen in the following picture:



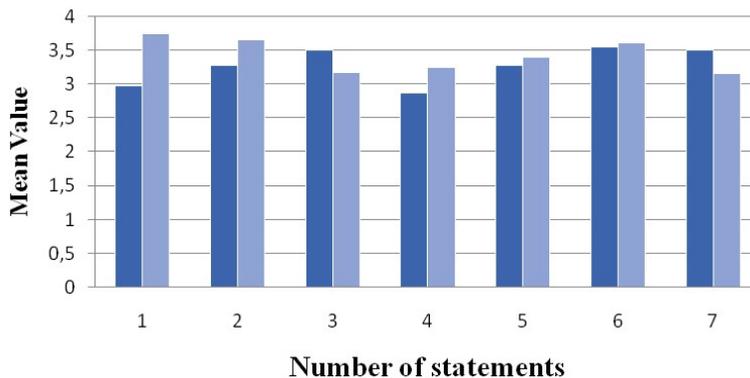
**Figure 1.** Research procedure

■ **RESULTS AND DISCUSSION**

**Descriptive statistical test results**

Student responses to health, sport, and physical education learning videos on indicators of media use can be seen in the following table:

Based on Figure 1, student responses to learning videos on indicators of media use at SMAN 12 Jambi City showed that students in class X (dark blue) were more dominant in the good category with a percentage of 60.0%. Likewise, students in class XI (light blue) are



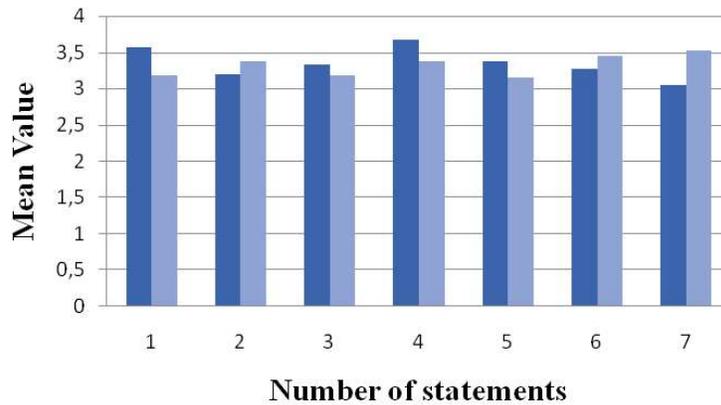
**Figure 1.** Students responses to learning videos on media use indicator

more dominant in the good category with a percentage of 55.0%. So it can be concluded that students’ responses to learning videos on

the indicators of class XI media use are higher than students’ responses to learning videos on indicators of class X’s media use. This is

indicated by the mean value of class XI students is greater than the mean value of students in class X. Student responses to health, sport, and physical education learning

videos on indicators of interest in learning health, sport, and physical education can be seen in Figure 2.

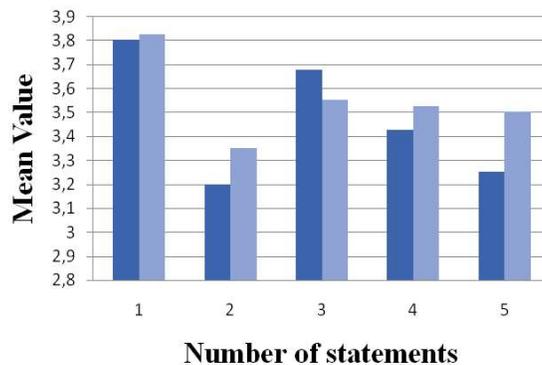


**Figure 2.** Students responses to learning videos on interest in learning sports indicator

Based on the diagram above, student responses to learning videos on the indicator of Interest in learning sports physical education and heal that SMAN 12 Jambi City showed that class X students were more dominant in the good category with a percentage of 47.5%. Likewise, class XI students are more dominant in the good category with a percentage of 45.0%. So it can be concluded that students' responses to learning videos on the Interest in learning health, sport, and physical education indicator in class XI are higher than students' responses to learning videos on the Interest in learning health, sport, and

physical education indicators in class X. This is indicated by the mean value of class XI students is greater than the mean value of students class X. Students' interest in learning can be grown and developed by familiarizing students with positive things, educators can also play a role in growing student interest in learning (Syamsuddin et al. 2021).

Student learning interest in health, sport, and physical education on indicators of feeling happy can be seen in the following table:

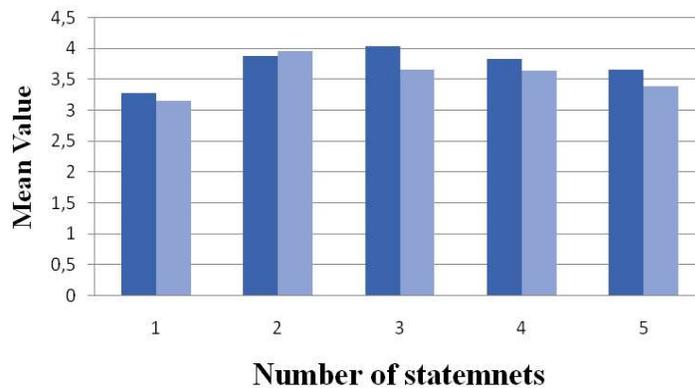


**Figure 3.** Students' learning interest on feeling happy indicator

Based on the diagram above, students' interest in learning on indicators of feeling happy at SMAN 12 Jambi City showed that class X students were more dominant in the good category with a percentage of 42.5%. Likewise, class XI students are more dominant in the good category with a percentage of 40.0%. So it can be concluded that the student's interest in learning on the indicator of feeling happy in class X is higher than the interest in learning of students on

the indicator of feeling happy in class XI. This is indicated by the mean value of class X students is greater than the mean value of class XI students. In addition to student internal factors, clear learning objectives can make students happy in participating in learning (Mitra 2020).

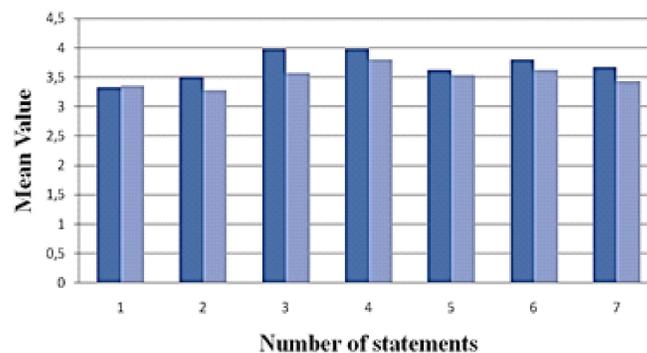
Student learning interest in health, sport, and physical education on the curiosity indicator can be seen in Figure 4.



**Figure 4.** Students' learning interest on curiosity indicator

Based on Figure 4, students' interest in learning on the curiosity indicator at SMAN 12 Jambi City shows that class X students are more dominant in the good category with a percentage of 45.0%. Likewise, class XI students are more dominant in the good category with a percentage of 52.5%. So it can be concluded that the student's interest in learning on the curiosity indicator in class XI is higher than

the interest in learning in the curiosity indicator in class X. This is indicated by the mean value of class XI students is greater than the mean value of class X students. Curiosity is a character value that must be instilled since elementary education (Herwin & Nurhayati 2021), besides that curiosity needs to be developed continuously (Suhirman, Prayogi, & Asy'ari 2021).

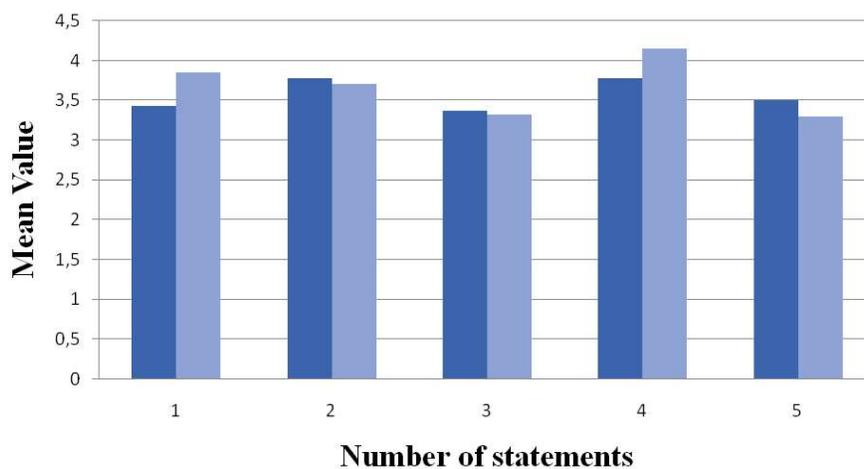


**Figure 5.** Perseverance character on indicator of not procrastinate on completion of work

The character of students' persistence towards health, sport, and physical education on the Not Procrastinating Work Completion indicator can be seen in Figure 5: Based on Figure 5, the character of students' persistence on the indicator of Not Procrastinating on Completion of Work at SMAN 12 Jambi City showed that class X students were more dominant in the good category with a percentage of 52.5%. Likewise, class XI students are more dominant in the good category with a percentage of 52.5%. So it can be concluded that the character of students'

persistence on the indicator of Not Procrastinating on Completion Time for Class X is higher than Class XI. This is indicated by the mean value of students in class X is greater than class XI. Students' persistence can be influenced by parents in daily activities at home, besides that it can also be influenced by peers and their playing environment (Kaya 2020; Li & Wong 2019).

The character of students' perseverance towards health, sport, and physical education on the able to solve problems indicator can be seen in Figure 6:



**Figure 6.** Students perseverance character on indicator of able to solve problems

Based on Figure 6, the character of student perseverance on the indicator Able to Solve Problems of students in class X SMAN 12 Jambi have a 50.0% and 52.5% for class XI. It can be concluded that the character of students' persistence on the indicator of being able to solve problems in class X is higher than class XI. This is indicated by the mean value of students in class X is greater than class XI.

Gymnastics learning videos on health, sport, and physical education subjects are suitable to be applied, this is marked by a good

response from students and a sense of interest and persistence of students in learning after using audio-visual media in the form of learning videos. The researcher also agrees with (Rahmadri 2021) which states that learning videos can increase student activity and learning outcomes. The researcher also agrees with (Fithriya, Hasyim, & Djasmi 2017) who argues that the use of learning videos in learning activities can run efficiently and attractively in increasing student activity, interest, self-confidence, and student courage.

### Linear regression analysis of learning videos, interest, and persistence character in health, sport, and physical education.

The results of the normality test for student responses to health, sport, and physical education learning videos, interest in learning, and character of persistence in health, sport, and physical education subjects it is obtained that the normality test with the Kolmogorov-Smirnov test has a significance value greater than 0.05, so it can be concluded that the data is normally distributed. The results of the linearity test of student responses to the health, sport, and physical education learning video, learning interest, and persistence character in health, sport, and physical education subjects are obtained with a significance value of less than 0.05, which means that there is a

significant linear relationship between student responses to health, sport, and physical education learning videos, interest in learning, and character of persistence in health, sport, and physical education subjects in both classes.

### Hypothesis test results

After testing the assumptions, the next step is to test the hypothesis. The test in question is the regression test, which is to determine the effect of the independent variable (student responses to the health, sport, and physical education learning video) on the dependent variable (learning interest and persistence character in health, sport, and physical education subjects). The detailed regression test results are presented in table 2:

**Table 2.** Description of the regression test between student responses to learning videos, learning interest, and perseverance character in health, sport, and physical education

Class	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Class X	17.034	11.391	0.653	1.320	0.119
	0.528	0.132		3.811	0.002
Class XI	18.004	12.725	0.721	1.415	0.171
	0.790	0.158		4.991	0.000

Based on the test results from table 2, namely the results of the regression test between student responses to the health, sport, and physical education learning video, learning interest, and persistence character in health, sport, and physical education subjects with a sig value.  $<0.05$ , it can be concluded that there is an influence between student responses to health, sport, and physical education learning videos on learning interest and persistence character in health, sport, and physical education subjects. Where the significance value is 0.002 for class x and 0.000 for class xi, respectively.

Many factors can influence the achievement problem, One of them is interest and motivation Student responses to learning media can describe students' interest in learning. this agrees with (Humaidi, Qohar, and Rahardjo 2021) which states that with the high interest in student learning, which is supported through learning media in the form of learning videos, it is hoped that student learning outcomes will increase because students will take the learning process seriously. In addition, learning video media is effective in increasing students' interest and learning achievement (Saman, Ma'rufi, and Tiro 2018).

In addition, (Hermawan et al. 2021) argues that the use of instructional video media can make students more motivated and interested in active learning.

One of the factors that can affect achievement problems is interest, student learning interest is measured based on two aspects, namely emotional and cognitive aspects (Mohd Isa et al. 2021; Tambunan, Sinaga, and Widada 2021). Student responses to learning videos can make students more diligent in learning. (Wuryanti and Kartowagiran 2016) stated that instructional video media was effective to increase students' motivation and hard work character which was formed through perseverance training to achieve their learning goals. (Marliani, 2021) mentions the use of video media can lead to student learning motivation, where when students are motivated they will be diligent in learning and in the end learning activities will obtain optimal student learning outcomes. So it can be said that learning media, especially video media, can make students diligent in learning because with these videos students can learn repeatedly.

The research was conducted by applying learning videos from the results of the development, then this study examined the effect of student responses on the interest and character of students' persistence in health, sport, and physical education. However, this study is inseparable from its shortcomings, the use of a relatively small trial sample, which is only comparing 2 classes in one school. It is hoped that there will be similar research on the development of learning videos which will then be carried out with research samples from more than one school so that the results obtained are more accurate.

## ■ CONCLUSIONS

Based on the results obtained, it can be concluded that the student's response to the health, sport, and physical education learning video

is in the good category. then for interest in learning and the character of students' persistence in health, sport, and physical education subjects are also included in the good category. Meanwhile, to test the hypothesis, namely the regression test, it can be concluded that there is an effect of student responses on the health, sport, and physical education learning video on learning interest and persistence character.

The results of this study can be used as study material and references to be applied by teachers, where learning videos can be used as media in the learning process. With the learning media in the form of learning videos, students are more interested in participating in learning and also students are more active and serious in learning. Therefore, student learning outcomes can increase. This research still has shortcomings in terms of testing the learning video media, which is only comparing between classes.

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