Development of Learning Media for Running Game Variations Packaged in Articulate Storyline

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ABSTRACT
Learning conditions in elementary schools at the time of the Covid-19 virus pandemic resulted in students studying at home with an online system, for PJOK subjects, interesting and precise learning media were needed, and the variety of existing games would make students enthusiastic about learning PJOK. The purpose of this research is to develop a learning media product of variations of locomotor running motion games packaged in the Articulate Storyline for the fourth-grade elementary school KKG PJOK in Sukun District, Malang City. The development method used is the Research and Development (R&D) approach with a development research model. The results of the evaluation of learning experts were obtained at 73%, the results of the evaluation of media experts were obtained at 96%, the results of the expert game analysis were obtained at 95%, and the results of the analysis of PJOK experts were obtained 75%, the results of the analysis of athletic experts were obtained large group trials obtained 90%. Based on these results, it is concluded that the products produced are stated to have accuracy, attractiveness, suitability, ease, clarity, and effectiveness for use.

Keywords: Learning Media; Game; Run.

INTRODUCTION

Education is very important for society because education is very important in the process of life, with education, one's knowledge will increase, and will be useful for living a better life. Education in schools both in Elementary School (SD), Junior High School (SMP), High School (SMA), and Vocational High School (SMK) there are several fields of study taught, one of which is physical education, sports and health. For this reason, physical education is an integral part of the overall education system, to develop aspects of physical fitness, health, critical thinking skills, emotional stability, and others (Endang and Maulida 2018). It can be concluded that physical education is an activity that is used to improve movement skills, thinking skills, and emotional stability and can develop one's physical fitness.

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Learning activities in schools also include physical education. Learning is defined as a process of increasing knowledge and increasing insight through a series of activities/activities carried out consciously by a person which results in changes in his personality (which are positive) and ultimately gaining new skills, knowledge, and skills (Saefuddin and Berdiati, 2015). It can be interpreted that learning is increasing knowledge, and skills, changing attitudes and mindsets, in this case involving interactions between educators/teachers and students.

In a learning activity, it is very important to have learning media to support or facilitate the ongoing learning process. Learning media are all things that can convey messages that can stimulate the feelings, thoughts, and willingness of students so that they can help form the learning process in students (Ekayani, 2017). Another opinion says that learning media is a tool used by educators to teach/provide knowledge and as a means of delivering messages from learning sources to recipients of learning messages (Falahudin, 2014). In other words, learning media are tools used by teachers to teach so that they can provide material to students in the learning process. These tools are used to create a more real experience, motivate learning, and strengthen students' learning absorption.

The learning media used by the researcher is an application, namely the Articulate Storyline. The articulate storyline is classified as multimedia which can contain anything in the form of writing, graphics, images, visuals, video, audio, or animation, besides that software can be used to create quizzes, record sound and can import data in the form of PowerPoint, flash, videos and others (Janah 2015). So the articulate storyline is more interesting to use as a learning medium because there are already various types in the desired form such as images, text, video, audio and so on, with this application it is very possible that students will be more interested and increase absorption during the learning process.

There have been several materials on PJOK subjects taught in grade IV SD, such as one of them, locomotor motion. Locomotor motion is a motion that is identical to movement throughout the body, namely moving from one place to another (Riyanto and 2017). In locomotor motion there are several materials, one of which is used by researchers, namely running material. Running is the movement of moving our bodies from one point to another while changing footsteps, the body is in a position to float in the air (Hanief and Sugito 2015). Running material is generally during the learning process students are less interested in running material taught by educators, so students get bored quickly because

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of monotonous learning. This can trigger students not to receive learning well. At this stage, most students prefer the learning process that contains more elements of the game. Games are playing activities carried out to find satisfaction and pleasure, but also found in the search for wins and losses (Setiawan and Triyanto 2014). Games are designed to develop one's ability to make the learning process interesting so that students learn easily and have fun.

Along with the development of the times and increasingly modern technology, technology can be used as a tool for daily activities, even for the learning process, especially online as it is today. To support the games to be more interesting in the learning process, the game variations are packaged in an application called Articulate Storyline which has been explained by the researcher. With the existence of learning media in the form of this application, it will help teachers in the online learning process, besides that students will also be interested when running material is taught because in the application also presented pictures, videos, and music that will make students enthusiastic about participating in and accepting running material learning.

Researchers used the subject of KKG PJOK SD Sukun District to research to complete the requirements of the thesis course. With the number of subjects as many as 25 elementary school PJOK teachers, a needs analysis was carried out by distributing questionnaires on June 10, 2020, via google forms, the results obtained that 100% of teachers provided material about running locomotor motion. As many as 100% of students are enthusiastic when learning locomotor motion in running material is taught through games. As many as 56% of teachers have never used the application in the learning process of locomotor running. As many as 88% of teachers have never used the Articulate Storyline in the learning process, and only 12% of teachers have ever used the Articulate Storyline in the learning process. As many as 100% of teachers answered that the application in the learning process of running locomotor motion can make it easier for teachers to provide learning materials. As many as 100% of teachers agree that research on the Development of Learning Media Applications About Variations in Locomotor Running Movement Games for KKG PJOK Elementary School Class IV in Sukun District, Malang City is carried out. While the results of interviews conducted with the head of the KKG PJOK SD Sukun District, it was found that while online learning was only done via Whatsapp, and it was deemed less effective, therefore teachers needed appropriate and interesting learning media, besides that students were also enthusiastic if given running material through

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games, of course, new games will also make students interested and enthusiastic in receiving the material, because sometimes common and often played games make them less enthusiastic, and sometimes when running students are invited to a field open to the public, then students freed to run because the variations of the new game are felt to be lacking.

Several previous studies and developments were similar, namely research (Setyantoko, 2017) entitled "Development of Mobile Learning Based Android in Athletic Learning for Class VII Junior High School Students", his research discusses the development of an application called Athletic Smart Apps which is used for athletic learning. , so that students can learn wherever and whenever it is with the application. However, the application developed in this study is the Athletic Smart Apps application, in the research that will be studied by the author using the Articulate Storyline. Then, the developed application only contains material, there are no game variations in athletic learning. In the research that will be carried out by the author, variations of the locomotor movement game will also be developed. A similar study is also a thesis (Kumalasari, 2018) entitled "Development of Variations in Running Locomotor Movement Materials in PJOK Learning for Grade IV Students at SDN Mulyorejo 3 Malang", his thesis states that variations and appropriate media are needed in learning locomotor motion in running materials. . However, the research that the researcher will do is to develop learning media in the form of applications, in contrast to the above thesis which uses books as the medium. The author argues that the book is considered less attractive to students in learning PJOK, students are more interested in the presence of images, videos, text, and audio, which are combined into one part, namely the application.

With the problems that already exist and have been discussed previously, the researcher solved the problem by developing an application learning media about variations of the running locomotor motion game for KKG PJOK elementary school grade IV in Sukun District, Malang City. There are 5 variations of this game that are designed and focused on locomotor motion material, namely running which is packaged in an application that can be used for learning, especially when online. Based on the background, the researcher is interested in conducting research and development entitled "Development of Learning Media Applications About Variations in Locomotor Running Movement Games for KKG PJOK Elementary School Class IV in Sukun District, Malang City".

The purpose of this research is to develop a product in the form of an application

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that can be used as a learning medium that contains variations of the locomotor running motion game to overcome several problems in learning PJOK, especially during online learning due to the covid-19.

METHOD

This development research uses a development research model according to Lee and Owens (2004:93) with the following steps: (1) Analysis, namely collecting data called needs analysis by distributing questionnaires and interviews, (2) Design is the product planning stage namely collecting the materials needed which will later be developed, (3) Development, namely the stage of developing learning media products for variations of running games by taking videos, recording audio, input material, editing and so on. To review the validation of application development products regarding variations in running locomotor motion games will be carried out by learning experts, media experts, game experts, PJOK experts and athletic experts to be able to correct product deficiencies, (4) Implementation, namely the trial phase and (5) Evaluation is used To find out how appropriate the product developed by the researcher is.

In the product testing phase, there are (1) trial design, (2) test subjects, (3) data types, (4) data collection instruments, and (5) data analysis techniques. The trial design contained expert evaluations by 5 experts, namely learning experts, media experts, game experts, PJOK experts and athletic experts. Then small-group trials, and large-group trials. The test subjects for the small group were 8 KKG PJOK teachers at the Sukun District Elementary School, Malang City, while the large group trial subjects were 17 KKG PJOK teachers at the SD Sukun District, Malang City, the subject of the expert evaluation was 1 learning expert, 1 media expert, 1 game experts, 1 PJOK expert and 1 athletic expert.

In this study, the data was obtained in the form of qualitative and quantitative data. Qualitative data were obtained from the results of the evaluation of experts and interviews with the head of the KKG PJOK, Sukun District, Malang City in the form of suggestions and explanations, then quantitative data was obtained from the results of small group trials and the results of large group trials in the form of numbers.

The instruments used in this development research are initial observations for needs analysis in the form of questionnaires via google forms, questionnaires for small group trials and large group trials, and questionnaires for experts, namely learning experts, media experts, game experts, PJOK experts and athletic experts.

Data analysis techniques in research and development of application learning

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media about variations in running locomotor motion games for KKG PJOK grade IV elementary schools in Sukun District, Malang City use descriptive statistics. Then the technique used for data collection uses a Likert scale. The answer to Likert has a category from very positive to very negative, for the answer will be given a score of (4) which means strongly agree, (3) agree, (2) undecided and (1) disagree (Sugiyono, 2013: 134-135). To assist and facilitate the process of inferring the data from the analysis results in the form of percentages, it can be classified according to the percentages that have been obtained. According to Akbar & Sriwiyana (2011:207), the percentage classification is as follows:

Table 1.
Product Quality

Criteria	Description	Meaning
75.01%-100.00%	Very Valid	Used without revision
50.01%-75.00%	Quite Valid	Used with minor revision
25.01%-50.00%	Invalid	Cannot be used
00.00%-25.00%	Very Invalid	Forbidden to use

(Source: Akbar & Sriwiyana, 2011:207).

RESULTS AND DISCUSSION

RESULTS

The results of data collection start from needs analysis, evaluation of experts carried out by 5 experts, small group trials and large group trials, namely data from expert evaluations which include advice from learning experts, media experts, game experts, CHD specialists and athletic experts. The data from small group trials and large group trials are the answers in the questionnaire instrument by KKG PJOK SD Sukun District, Malang City as research subjects.

Table 2.
Results of Data Analysis of Learning Experts

No.	Aspect	Feasibility	Category
1	Conformity	75%	Sufficiently Valid
2	Clarity	69%	Sufficiently Valid
3	Ease	71 %	Sufficiently Valid
4.	Accuracy	75%	Sufficiently Valid
5.	Effectiveness	75%	Sufficiently Valid
	Average	**73 %**	**Sufficiently Valid**

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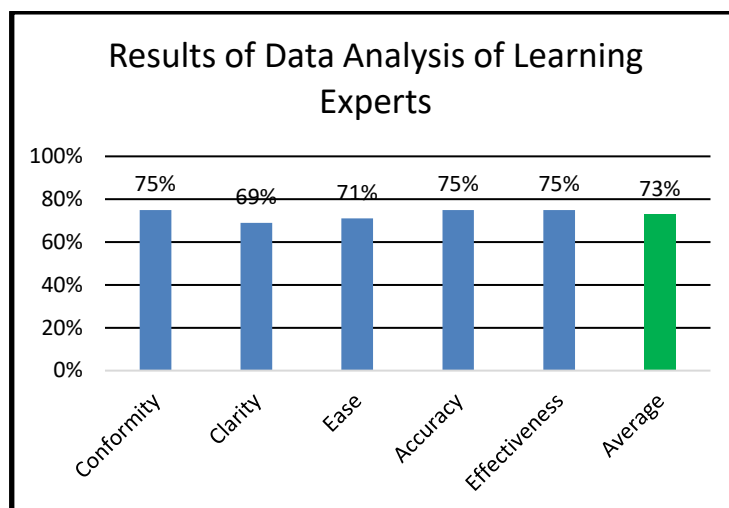ari.wibowo.fik@um.ac.id

Figure 1.
Percentage Diagram of Learning Expert Assessment on Learning Media Development
Products of Running Game Variations Packaged in Articulate Storyline

Based on the aspects of suitability, clarity, convenience, accuracy and effectiveness, it can be concluded that this learning media development product has a percentage of 73% and is said to be quite valid.

Table 3.
Results of Media Expert Data Analysis

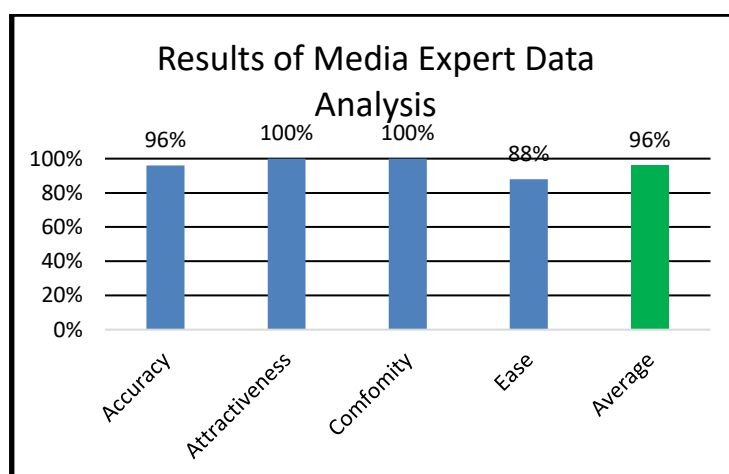| No.	Aspect	Feasibility	Category
1	Accuracy	96%	Very Valid
2	Attractiveness	100%	Very Valid
3	Conformity	100%	Very Valid
4.	Ease	88%	Very Valid
Average		**96%**	**Very Valid**

Figure 2.
Percentage Diagram of Media Expert Assessment on Learning Media Development
Products Game Variation Runs Packaged in an Articulate Storyline

Based on the aspects of accuracy, attractiveness, suitability, and convenience, it can

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be concluded that this learning media development product has a percentage of 96% and is said to be very valid.

Table 4.
Results of Game Expert Data Analysis

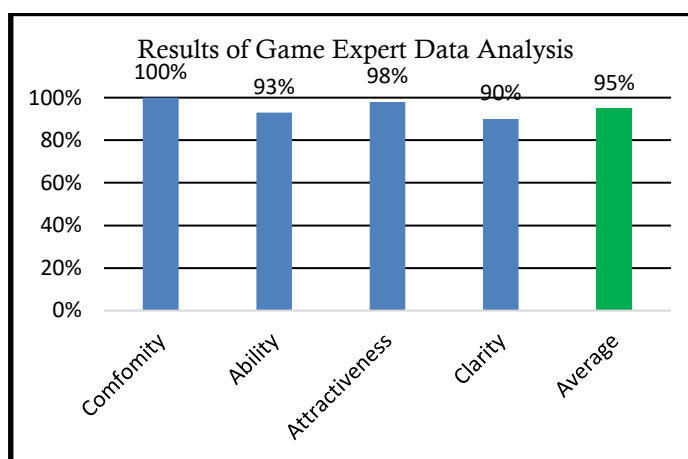| No.	Aspect	Feasibility	Category
1	Conformity	100 %	Very Valid
2	Ability	93 %	Very Valid
3	Attractiveness	98 %	Very Valid
4.	Clarity	90 %	Very Valid
Average		**95 %**	**Very Valid**

Figure 3.
Percentage Diagram of Game Expert Assessment on Product Development Learning Media Game Variations Runs Packed in Articulate Storyline

Based on the aspects of suitability, ability, attractiveness and clarity, it can be concluded that this learning media development product has a 95% percentage and is said to be very valid.

Table 5.
Results of PJOK Expert Data Analysis

No.	Aspect	Feasibility	Category
1	Conformity	75 %	Sufficiently Valid
2	Clarity	75 %	Sufficiently Valid
3	Ease	75 %	Sufficiently Valid
4.	Accuracy	75 %	Sufficiently Valid
5.	Effectiveness	75 %	Sufficiently Valid
Average		**75%**	**Sufficiently Valid**

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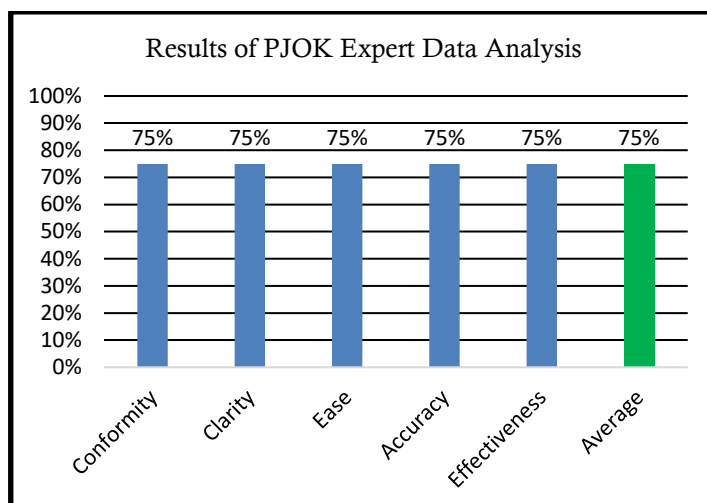ari.wibowo.fik@um.ac.id

Figure 4.
Percentage Diagram of PJOK Expert Assessment on Learning Media Development
Products of Running Game Variations Packaged in Articulate Storylines

Based on the aspects of suitability, clarity, ease and accuracy, it can be concluded that this learning media development product obtained a percentage of 75% and was said to be quite valid.

Table 6.
Results of Data Analysis of Athletic Experts

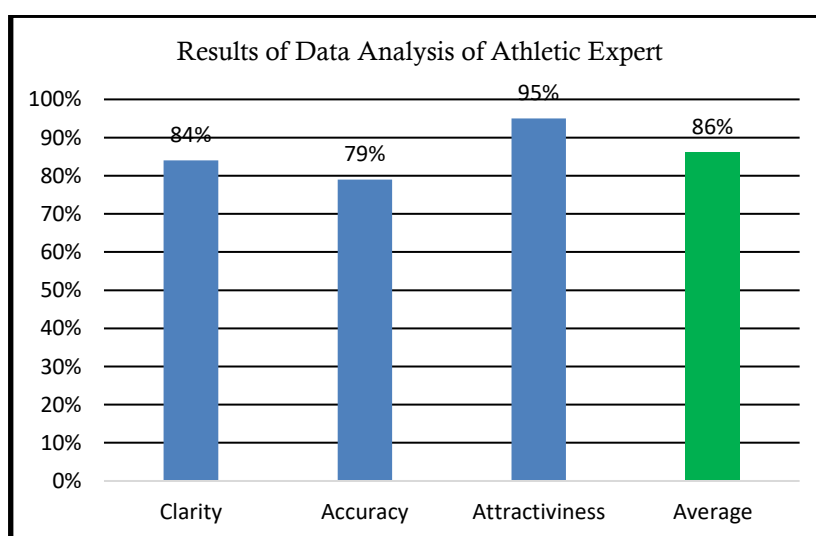| No.	Aspect	Feasibility	Category
1	Clarity	84 %	Very Valid
2	Accuracy	79 %	Very Valid
3	Attractiveness	95 %	Very Valid
Average		**86 %**	**Very Valid**

Figure 5.
Percentage Diagram of Athletic Expert Assessment on Product Development of Learning
Media Variations of Running Games Packaged in Articulate Storyline

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Based on the aspects of clarity, accuracy and attractiveness, it can be concluded that this learning media development product has a percentage of 86% and is said to be very valid.

Table 7.
Results of Small Group Trial Data Analysis by 8 KKG PJOK Elementary Schools in Sukun District, Malang City

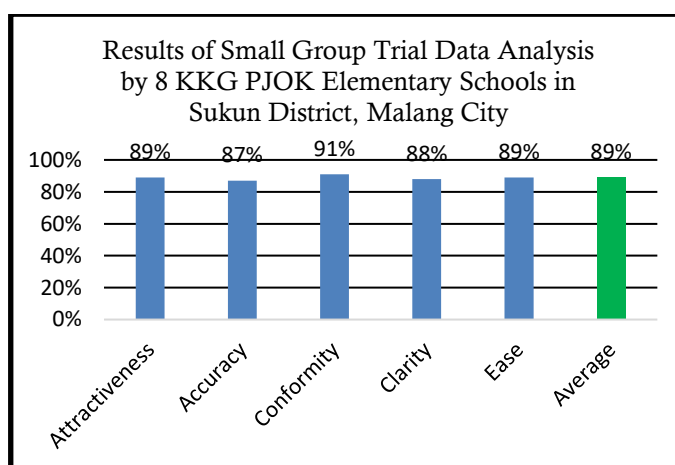| No.	Aspect	Feasibility	Category
1	Attractiveness	89 %	Very Valid
2	Accuracy	87 %	Very Valid
3	Conformity	91 %	Very Valid
4	Clarity	88 %	Very Valid
5	Ease	89%	Very Valid
Average		**89 %**	**Very Valid**

Figure 6.
Diagram of the Percentage of Group Trial Data Results Small Product of Learning Media Development of Running Game Variations Packaged in Articulate Storyline

Based on the aspects of attractiveness, accuracy, suitability, clarity and convenience, it can be concluded that this learning media development product has a percentage of 86% and is said to be very valid.

Table 8.
Results of Large Group Trial Data Analysis by 17 KKG PJOK Elementary Schools in Sukun District, Malang City

No.	Aspect	Feasibility	Category
1	Attractiveness	92 %	Very Valid
2	Accuracy	88 %	Very Valid
3	Conformity	91 %	Very Valid
4	Clarity	91 %	Very Valid
5	Ease	92 %	Very Valid
Average		**91 %**	**Very Valid**

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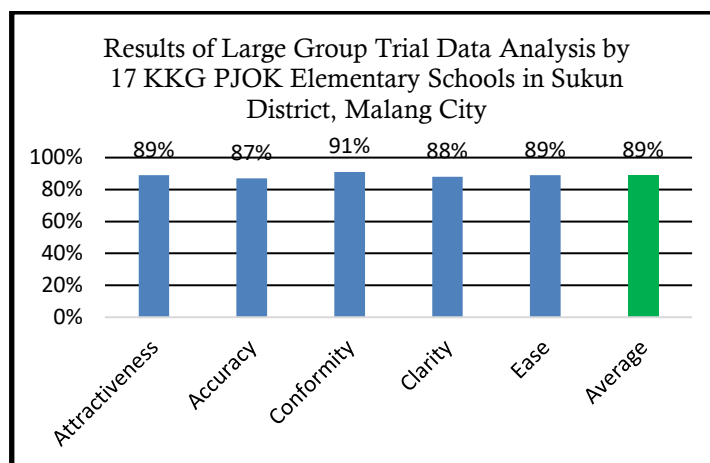ari.wibowo.fik@um.ac.id

Figure 7.
Diagram of the Percentage of Results of Group Trial Data Large Product of Learning Media Development of Running Game Variations Packaged in Articulate Storyline

Based on the aspects of attractiveness, accuracy, suitability, clarity and convenience, it can be concluded that this learning media development product has a percentage of 91% and is said to be very valid.

DISCUSSION

The final product of this research is a variety of running game learning media for elementary school grade IV in Sukun District, Malang City using an articulate storyline. The development of appropriate and interesting learning media is very much needed. Learning media are everything that is used to convey something to stimulate the feelings, attention, thoughts and desires of students so that a deliberate, purposeful, and controlled learning process can be encouraged (Suryani et al, 2018). With the existence of learning media, learning objectives will be carried out well, because students are encouraged to learn. So learning media is used as a means of distributing messages or materials. The opinion of Puspitasari, et al, (2018) says that learning media is a means or a tool used for the learning process to achieve effective and efficient learning objectives. This means that the media must be used properly to achieve the goal. Furthermore, according to (Pamungkas, IA & Dwiyogo, W. D 2020), research creates a product for developing mobile learning for physical fitness activities for SMKN 1 Batu students. With the existence of learning media, the purpose of learning will run well, because students are encouraged to learn. So learning media is very important as a driver of learning.

The media developed by the researcher is in the form of an articulate storyline, which is software or software that is used as a tool to communicate or media for

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presentations by making templates / according to taste or making presentations with templates that are already available and some characters can be adapted to individual tastes. (Chotimah 2018). The advantages of this application are that Articulate Storyline is used in conveying information according to the user (Pratama, 2019). The articulate storyline itself has ease of use, therefore researchers use this application to be developed into learning media. This application can support teachers to deliver learning, especially running material, plus the current condition of learning from home. In the application, there are also pictures, videos, music, and various games. Therefore students will not feel bored and burdened by monotonous tasks such as reading books, doing questions in books and summarizing from books online, because online done through teacher orders from Whatsapp only, for that the teacher finds it difficult to give interesting learning materials and media, therefore resulting in less well-executed learning. There is an opinion that the development of interactive media made in a lesson can be one way to encourage the spirit of learning and can be a reference for additional learning resources in PJOK subjects (Rahman, Kurniawan & Heynoek, 2020).

The learning media in the form of the articulate storyline, contains 5 kinds of games, namely: (1) Fun Run, (2) Blue Red, (3) Ice Cream, (4) Flag Hunting and (5) Catch Me. And in the application, there is also an evaluation that contains 10 practice questions that can be done by students and will get the results of the value by the questions that have been done. With the right and interesting learning media, as well as the various games provided in the application, it is following the characteristics of elementary school-aged children according to (Burhaein 2017) namely children who are elementary school age happy to play, enjoy group activities, love to move, and enjoy practising. direct. Therefore, the application also contains various games so that learning is more interesting and students' enthusiasm for learning increases.

With the existence of learning media products in the form of applications that have complete elements, namely running material, various running games, as well as evaluations, even the results of working on questions and grades will be known by students. Therefore, this product will greatly facilitate teachers in learning activities for class IV PJOK learning materials. In addition, students will also become interested in learning, have high spirits and not get bored easily because of the learning media products developed by researchers.

The results of expert validation obtained several suggestions, namely suggestions

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from learning experts, namely that there should be children's songs. Suggestions from learning experts have been improved by researchers on learning media products with variations of running games for grade IV elementary schools in Sukun District, Malang City. The advice from media experts is that the colour of the writing on the KI-KD menu should be changed to yellow. Suggestions from media experts have been improved by researchers on learning media products with variations of running games for grade IV elementary schools in the Sukun sub-district, Malang City. Then the suggestion from the trial is that the questions should be adapted to the current fourth-grade elementary school book, and also the history material is replaced with basic running movements. Suggestions from group trials have also been improved by researchers on learning media products with variations of running games for grade IV elementary schools in the Sukun sub-district, Malang City.

The results of the product development of learning media variations of running games for grade IV elementary schools in the Sukun sub-district, Malang City have gone through several stages of revision and obtained the best product to be suitable for use. The development product has several advantages, namely: (1) The product is made with the Articulate Storyline that can be used offline, (2) It contains teaching materials in the form of a running game video that is packaged attractively, (3) The games contained in the application have been modified using an infrastructure that is easily available and (4) This development product can make it easier for teachers to deliver learning materials, especially during the current COVID-19 because learning is done online.

CONCLUSIONS AND SUGGESTIONS

The results of research and development concluded that learning media products which contain running material, KI-KD, games, evaluations, biodata and references are stated to have attractiveness, accuracy, suitability, clarity and convenience. Therefore, the development product is suitable for use by teachers as learning media that will be given/distributed to students.

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Storyline Untuk Meningkatkan Motivasi Belajar Siswa Pada Mata Pelajaran Pkn Kelas Xi Di SMA Srijaya Negara Palembang." Bhineka Tunggal Ika: Kajian Teori dan Praktik Pendidikan PKn 5(1): 52–65.

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