

Development Media Learning Education Physical Android Based Sports and Health for Improving Students Understanding Class VIII School Medium First on Freshness Matter Physical



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ABSTRACT: This research aims to: (1) Develop educational learning media physical exercise and health android-based physical fitness material to improve understanding participant educate class VIII School Intermediate First (2) Know eligibility media learning education physical sport and health material freshness physical based android (3) Know effectiveness media learning education physical sport and health Android-based physical fitness material. This research is research and development (R&D) with the ASSURE model (Analyse learners, State Standards and Objectives, Select Strategies Media and Materials, Utilize Material, Requirements Learner participation, Evaluate and Revise). Validation study done by media experts and material experts. The test subjects in this research were teachers and students. Test the trials carried out include small-scale trials, large-scale trials. Collection instrument data use questionnaire. Data which obtained are analyzed use test Paired Samples T-Test and Scale test Likert. The results of this research show (1) Development of educational learning media physical fitness and sports material based on Android through six stages namely Analyze learners, State Standards and Objectives, Select Strategies Media and Materials, Utilize Material, Requirements Learner participation, Evaluate and Revise. (2) Eligibility media assessed based on: a) Material expert assessment obtained an average score of 4.45 with a percentage of 89% included in the very feasible category, b) The media expert's assessment obtained an average score of 4.44 with participant 8.9% enter in category very worthy, c) Test try scale big participant educate obtained average niali 4.61 with percentage 93.40% enter in category very worthy, d) Test try scale Most teachers obtained an average score of 4.70 with a percentage of 93.80% in the very category worthy. (3) Based on test Paired Samples T-Test obtained mark mean posttest 67.50 > mean pretest 53.83 which means there is an average increase of 25%. This increase is said to be significant Because mark sig (2-tailed) 0,000 < 0.05. With so can concluded that media learning education physical sport and health material freshness physical based android worth using.

KEYWORDS: Android, Development, Freshness Physical, Media Learning

I. INTRODUCTION

Education is business aware for create participant educate active in process learning And can develop potential himself For own ability spiritual religion, personality, intelligence, morals glorious, as well as skills Which needed in life social, public, nation And country. Along with the development of the times, education hold role important in competition between developing country.

One of them is competition in develop all field, specifically in field education. Matter This was explained by (Pambudi et al., 2019) Which say that in process education happen interaction Which involve Teacher with participant educate so it is hoped that students can form character Which special, skilled in world education and capable change life become more Good through education. World education teaches educational science including natural sciences, technology, social, cultural, including them education physical.

Education physical is eye lesson Which must followed participant educate as means for participant educate to be able to develop potential himself through various activity physical. Three aspects contained in education physical that is psychomotor, attitude, and intelligence (Jeong & So, 2020). On in essence freshness physicality is related to the components of the human body and constitute base ability somebody for do activity daily with Good. Physical fitness is capacity And ability For Work in a way efficient without feel fatigue which meaning (Hariyono, 2016). In activities Study level freshness physical plays an important role, if freshness physical participant educates not enough Good so impact on activity learn it Which on Finally influential on

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results learn it. Through physical activity or exercise you can prevent symptom psychological as well as can protect mental health among people students (Tanir & Ozmaden, 2018). Physical fitness is beneficial for children school in increase knowledge and intelligence. In children who have level freshness Which Good, oxygen can have supplied to all muscles and tissues can utilized by organs body so that child No easy tired when have to study longer.

From results observation and interview on participant educate to material freshness physical Still difficult understood Because participant educate only Study use book text as instructional Media. Material delivered with lectures or demonstrations from Teacher. Part big participant educate said that learning with using worksheet books and demonstrations Teacher not enough interesting so that process learning PJO material freshness physical not enough optimal. Matter this can prove from method process learning Which implemented Teacher is conventional methods and lectures as well lack of utilization of existing media so that impact on level understanding and enthusiastic participant educate in learning process.

Based on observation results in some School Intermediate First in Klaten Regency there are several school Which No convey or teach material freshness physical, so that students are less able understand material them. Lots material which need given and mastered by teachers, which often gives rise to problem in process learning. A number of matter the often time ignored because limitations mastery material, especially physical fitness material. Still minimal development media learning which support process learning in class Also in push by lack of teachers to utilize technology.

Researchers are also trying confirm with interview to Teacher PJO in some School Intermediate First in regency Klaten, from results the interview obtained that on process learning Teacher No use media learning. Reason Teacher the that is No use media learning Because prefer to demonstrate directly direct.

This problem resulting in fewer students obtain information objective and benefit lesson which given by Teacher, specifically material freshness physical. Participant educate not enough add knowledge in a way independent, lack use and utilization media learning in process learning. Reach objective education need effort. Which done Teacher, start from pay attention to the process learning which held, evaluation which done, material which delivered, and media which used for in process learning.

The role of media in learning said very important, because media learning can clarify presentation message information, so that can expedite process Study and increase results Study. Media learning can help Teacher and students in achieving goals learning and increasing motivation Study participant educate (Literature et al., 2021).

Developing technology on era 4.0 this give influence for world education, specifically in media learning which used in learning process. Technology advances increase use device electronic for various needs like education and process learning (Palmer 2015).

In field education introducing Technological Pedagogical Content Knowledge (TPACK) to understand knowledge Teacher in merger technology in the learning process. Technological Pedagogical and Content Knowledge (TPACK) is A Construction Which Dynamic Which describe A knowledge Which required educators when designing learning, apply curriculum, teaching by guiding students in learning with digital technology.

Wrong One progress technology what is developing at this time is the telephone smart (smartphone). Smartphones with Internet, on turn provide access to platforms media social. Cell phone smart or smartphone and social media mobile devices are considered to be tool learning comfortable which provide access all material learning different which available (Saraubon, 2019). Smartphones or cell phone Smart has various operating systems which support the way device them. System operation Which very popular moment This is system operation android.

Newzoo in (Databoks, 2022) disclose that use smartphones in Indonesia in 2022 has reach 192.15 million users. Indonesia is an active user country smartphones number four in world along with China, India and America. Wrong One user active smartphones is middle school students. This matter open opportunity smartphones for used as media learning which effective. Like Which shown in image 2 below, a smartphone Which Lots used in Indonesia is android. Matter this because android own license open source. All company and individual can developing applications for operating Android system easily. So that operating system android develop faster and more widely used for smartphone device.

Android is development technology with specification media Which can load various type need among them needs based on visual, audio, visual, art chart, text, And soft files. Android Lots interested user smartphones Because the situation Which open source create developers within the application feel interested for develop Android operating system based application. System android mentioned own a number of excess and lack. Excess from android between other complete (complete platforms), open (open source), free (free platforms). Android's shortcomings are almost all application connected with Internet, the presence of advertising, and drains faster Power battery telephone clever. Although thus, excess from android more dominant compared the drawback so that can have used in learning. Now this there is there are lots of applications that can be downloaded by user android through service app store which are called Google Play Store.

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Selection of media development learning based android felt according to participants' learning needs educate as well as support utilization smartphones as means Study so that students are more focused in use smartphones moment activity Study. Existence technology information and communication This capable handle limitations room and time, by Because That's a learning process that can be done Where just And When just, but interaction between Teacher And participant educate can taking place. Wrong One example utilises technology information and communication in the teaching and learning process that is with use media learning interactive with use android. Use media learning based android can support progress and development science and technology (Salsabila, et al., 2020).

Pay close attention problem which stated above, the emergence of an idea or idea writer for develop media learning on material freshness physical based android. Media learning based android material freshness physical can help process learning, where in in media learning based android Already there is material form theory, picture and form can show, audio, videos learning, And Which most important exists test competence Which in the form of questions as an evaluation to get see how much Far ability participant students in the learning process. Media created later can provide learning to related student's material lesson freshness physical. Besides the media developed is expected capable give learning and open A little outlook in developing learning media meaningful for teachers, especially in developing media through smartphones so that more practical done in where just and when just.

II. MATERIAL AND METHOD

Study This use method study R&D with use model development ASSURE, through stages the following 1) Analyse Learner, 2) State Objective, 3) Select media, technology, and materials, 4) Utilize media and materials, 5) Require learner participation, 6) Evaluate and revise.

The research was carried out at SMP N 3 Klaten, SMP N 4 Klaten, and SMP N 6 Klaten. Research subjects in research development this consists from 1 expert media, 1 material expert, 30 students on the test try on a small scale and on a scale trial The class consists of 90 students VIII Secondary School First.

With Teacher guardian eye lesson PJOK a student to obtain data regarding needs in research and development. Questionnaires are used for obtain data evaluation quality eligibility media Which developed according to media experts, material experts and students on test try scale small and test try scale big.

Technique analysis data which the first is the aim of content validity know the extent of the level of validity developed learning media. Furthermore, test reliability used for now consistency or regularity results measurement the instrument is used again as a measuring tool for an object or respondent. Test reliability instrument done with the aim is to determine the consistency of instrument as tool measuring so that results a measurement can have trusted (Muhidin & Abdurahman, 2017: 37).

Analysis eligibility media, data which has obtained based on stage test eligibility analyzed with use descriptive statistical method. Assessment results from validation expert material, expert media, participant educate, And Teacher Then converted become data quantitative scale 5 use reference conversion Sukarjo (2006: 52) on following table This:

Table 1. Category

No	Category	Score
1.	Very Good	5
2.	Good	4
3.	Fair	3
4.	Less Good	2
5.	Very Less Good	1

Data collection technique which used in study this that is with observation, interviews and questionnaires. Observation done moment will have implemented it study for obtain data as A base implemented it study and development. Interview implemented

Furthermore, look for average score on the instrument into a form of data qualitative using conversion reference Sukarjo (2006: 52) on table following:

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Table 2. Intervals Score

No	Intervals Score	Category
1.	$X > X_i + 1.8 SB$	SL
2.	$X_i + 0.6 SB \leq X < X_i + 1.8 SB$	L
3.	$X_i - 0.6 S_{bi} < X \leq X_i + 0.6 SB$	CL
4.	$X_i - 1.8 SB < X \leq X_i - 0.6 SB$	KL
5.	$X \leq X_i - 1.8 S_{bi}$	SKL

Information:

X : Actual score (achieved score) Average score ideal

X_i : Average score ideal = $1/2$ (score maximum ideal + score minimum ideal)

S_{bi} : Deviation standard ideal = $1/6$ (Score maximum ideal - minimum score ideal)

SL : Very Worth It

L : Worthy

CL : Decent enough

KL : Not enough Worthy

SKL : Very Not Enough Worthy

Next, convert the actual score become category qualitative served in table the following:

Table 3. Category Qualitative

No	Intervals Score	Category
1.	$X > 4.2$	SL
2.	$3.4 < X \leq 4.2$	L
3.	$2.6 < X \leq 3.4$	CL
4.	$1.8 < X \leq 2.6$	KL
5.	$X \leq 1.8$	SKL

Information:

X : Score actual

X_i : Average score ideal = $1/2$ (score maximum ideal + score ideal minimum) = $1/2$ (5+1) = 3

S_{bi} : Deviation standard ideal = $1/6$ (Score maximum ideal - minimum score ideal) = $1/6$ (5-1) = 0.67

Analysis of media effectiveness, at analysis data effectiveness media use results Study participant educate. Which done as much two-time test that is pre-test and post-test learning outcomes. Learning outcomes obtained in every stage the that is results from pretest during learning without given implementation or media Android- based learning and results posttest, namely the results of learning after given treatment with use media learning based android. Data results Study participant educate that is pretest and posttest, analyzed with use test prerequisite, test normality, test homogeneity and paired samples t-test.

III. RESULT AND DICUSSION

Products produced in research this is a media learning based android on material freshness physical education physical education subjects for participants educate School Intermediate First. Researcher expect product which generated can used as means for improve the learning process more effective and to develop as well as do innovation learning. Media learning based android material freshness physical on eye lesson PJOK for participant educate School Intermediate First This in development using methods ASSURE, which includes 6 steps, namely analyze learner, state standards and objectives, select methods media or material, utilize media and material, require learner participation, evaluate and raise. These stages are explained as following:

Analyze Learner stage at stage This is done in the analysis stage, in stage This researcher do a number of analysis covers characteristics participant education, preliminary study of the material learning and knowing ability beginning participant educate, analyze ability beginning participant students or students' initial knowledge to material freshness physical. Furthermore, know style Study students, such as audio, visual, or kinesthetic which must get attention different in every use media or method learning.

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Standards and Objectives stage, on stage this done determine objective learning. Media which developed for facilitate students so they can learn and repeat return material so that can be easily understood. According to Wahyudi & Amry (2022) Wrong One factor supporter achievement objective learning is use media during process learning. Objective learning formulated with refers on channel objective learning material freshness physical class VIII in accordance curriculum independent that is activity physical And activity freshness For maintenance purchases And improvement health: Analyzing concepts, principles, And procedure as well as capable practice physical activity in accordance with guidelines need motion in exercise improvement degrees freshness physical as well as measurement the result And promote through media Which in accordance.

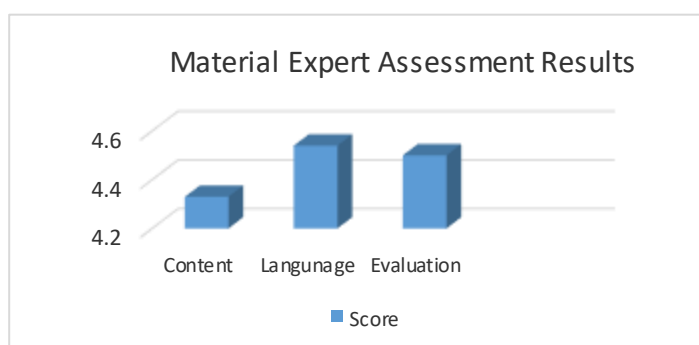
Select methods, media and stage materials on stage This Stage This done with with examine accuracy media based on objective learning which has formulated, support material learning, ease of obtaining and using media, conformity with characteristics participant educate and environment. On stage this utilize media and previously selected teaching materials, before being tested on students. Media which made through test validation expert. Expert validation consists of expert validation material, media expert validation. Validation test the expert is used to find out eligibility and quality media which developed. Media which appropriate used based on with characteristics participant educate as well as objective from development, namely learning media based android. On stage this done planning media which covers material, storyboards, and flowcharts.

Stage Utilize Media and The material at this stage is the test stage try media that has passed validity tests (product feasibility) from media experts and expert material after revised. Stage implementation this divided become two that is small scale trial stage and test stage try large scale.

Stage Requirements Leaner Participation, at this stage a test is carried out effectiveness which done in JUNIOR HIGH SCHOOL N 6 Klaten with a sample size of 30 participants educate. A pretest was carried out with 20 questions material freshness physical. After done pretest, furthermore given media learning education physical Android- based sports and health physical fitness material to participant educate, and given time 3 day for learn material freshness physical from application which has in give. Furthermore, done posttest for see results from understanding participant educate to material freshness physical.

Evaluate and Revise Stage, on this stage: At this stage, data is obtained data evaluation media which has tested Try to use it as evaluation material and repair media in the future. Evaluation from revision is stages final important for develop learning media products. At stage this see return results data evaluation which collected. If from results data evaluation show there is weakness on component certain, return on part and revised.

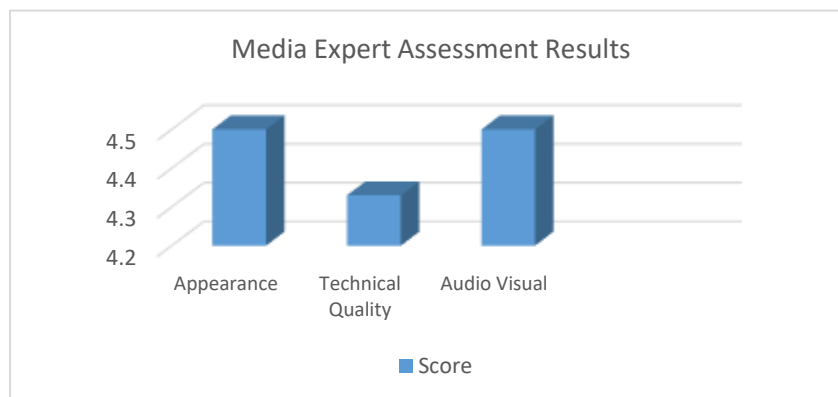
1. Results Evaluation Expert Material



Based on the data above, you can know in terms of the material/content aspect obtained mark 4.33 enter in category very worthy, the language aspect obtained a score of 4.54 falls into the very worthy category, and the evaluation aspect obtained a score of 4.50 in the very worthy category. Based on criteria evaluation test eligibility and intervals score on formula scale 1-5, material expert assessment on development media learning education physical Android- based sports and health on physical fitness material included in the very decent category, with value average 4.45.

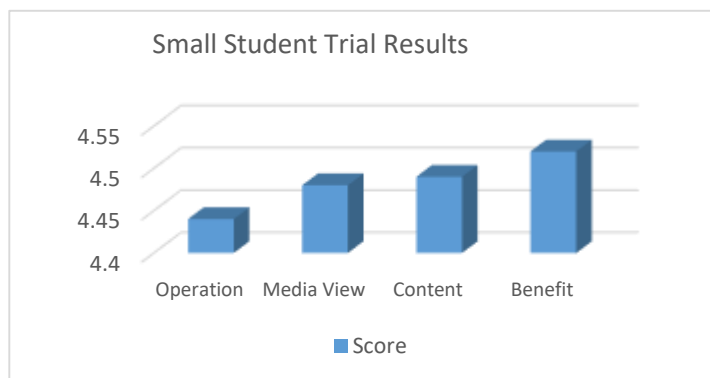
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2. Results Evaluation Expert Media



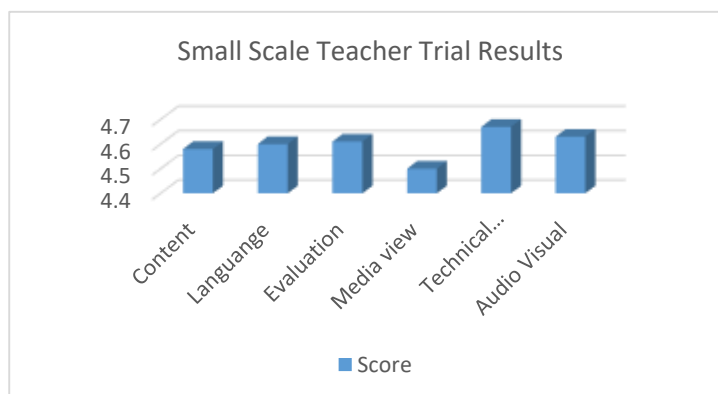
Based on data in on, can know from the aspect of the display obtained mark 4.50 enter category very worthy, aspect quality technically obtained mark 4.33 and aspect audio visual 4.5. Mark average every aspect that is 4.44. Based on criteria evaluation test eligibility and intervals score on formula scale 1-5, media expert assessment on development media learning education physical Android- based sports and health on physical fitness material included in very worthy category.

3. Results Test Try Participant Educate Scale Big



Based on data in on, can KNOW on aspect operation obtained mark 4.59 enter category very worthy, aspect appearance material obtained mark 4.61 enter category very worthy, aspect material/content obtained mark 4.59 enter very feasible category, and benefit aspects obtained mark 4.61 enter category very worthy. Mark average every aspect that is 4.61. Based on guidelines interpretation mark scale 1-5, development media learning education physical Android- based sports and health on test try scale big participant educate including in very category worthy.

4. Results Test Try Teacher Scale Big

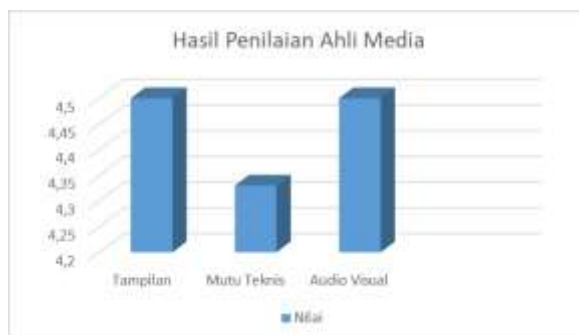


Based on data in on, can know in terms of the material/content aspect obtained mark 4.69 enter category very worthy, The language aspect obtained a score of 4.71 category very worthy, aspect evaluation obtained mark 4.65 enter category very worthy, aspect appearance media obtained mark 4.79 enter in category very feasible, the technical quality aspect obtained

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value 4.56 enter category very worthy, and aspect audio visual obtained mark 4.75 falls into the very worthy category, and aspects benefit obtained mark 4.69 enter category very worthy.

5. Results Effectiveness Media



Test effectiveness done for knowing the effectiveness of the media learning education physical Android- based sports and health to increase participants' understanding educate class VIII School Intermediate First, on physical fitness material. Measurement on improvement understanding on material freshness physical use of media learning based android measured with compare mark average pre-test and post-test. This is done with help application IBM SPSS 20. Test What is carried out is the Paired Sample test T-Test. Results measurement from test t, it was found that the calculated t value was 20,240 > t table (df 29) 1,699 And mark significance 0.000 < 0.05, then this result shows there are significant differences between pre-test and post-test. Mean pre-test score amounted to 53.83 and post-test amounted to 67.50. Results the show that there is the difference between the average values before and after use media. Mark average post-test 67.50 > average pre-test t 53.83 Which means there is improvement the value of students' initial understanding and after use media learning based android. In accordance with base taking decision on test Paired Samples T-Test so media learning based android material freshness physical effective for increase understanding participant educate on physical fitness material.

6. Product Review End

As for appearance end from product which developed as following:



IV. CONCLUSION

Based on results analysis, can concluded that product media learning education physical Android- based sports and health material freshness physical for participant educate School Intermediate First class Which developed worthy used as means for increase process more effective learning and for develop and innovate learning. Based on effectiveness tests shows that level of knowledge participant educate about material freshness physique improves after using media learning based based android

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material freshness physical. There is a positive impact that can be seen from improvement results Study participant educate that learning media This of course own excess in support activity participant learning educate.

The advantages of the media learning based android on material for physical fitness, namely (1) Media has an attractive design appearance, easy to operate, and can be used in a way independent and can used Where and When just. (2) Media learning based android load material learning form writing, Images, videos, animation and explanation material Which innovative as well as easy for students to understand. (3) Apart available material learning, also available questions as material for participant evaluation educate in accordance with material which has studied.

There is media learning based android can minimize problem Which often happen on students, some of whom do not have textbooks, books left at home, is lost or damaged, and can makes it easier.

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