Kinestetik : Jurnal Ilmiah Pendidikan Jasmani 6 (2) (2022)
Kinestetik : Jurnal Ilmiah Pendidikan Jasmani
https://ejournal.unib.ac.id/index.php/kinestetik/index
DOI : 10.33369/jk.v6i2.22084

Interactive Multimedia Based Long Jump Athletic Learning During the Covid-19 Pandemic at FIK UNIMED

Suharjo[1], Imran Akhmad[2], Faridz Ravsamjani[3], Dicky Edwar Daulay[4]

[1234]Faculty of Sports Sciences, Universitas Negeri Medan, Medan, Indonesia

Article Info

Article History :

Received : June 2022

Revised : June 2022

Accepted : June 2022

Keywords:

Athletics Long Jump, Learning, Video Tutorials,

Abstract

Jump numbers are included in the classification of skill types that are acycliccombined. This means that there is a cyclic movement which is then continued with the acyclical movement so that it can take advantage of the part method (partmethod) and the whole (whole method). It provides an understanding of audio as something related to reception through sound and hearing. Visual is something related to the eye or vision, props, can be seen and witnessed. It can be said that audio visuals are "something related to reception through hearing and sight, sound and props, audible and witnessable". In this case, audio visual media is used to record the initial ability of students by analyzing movements using kinovea applications so that specific movement hasis are obtained. The use of audio visual media to evaluate the series of long jump movements can be one alternative in determining learning variations that are in accordance with the ability of students. The methods used in this study use development research. Research in this learning model uses quantitative approaches as well as using the Research & Development (R&D) development model of Borg and Gall. The product development procedure can be described as follows: a) Determination of ideas, b) Model making, c) Evaluation.The subject used in the athletics course of the Long Jump branch in FIK UNIMED students is qualitative data, because it is expressed by sentences and not numbers, while the quantitative data is obtained by converting qualitative data by giving a score to the data that has been collected.

*Corresponding email : suharjo@unimed.ac.id

ISSN 2685-6514 (Online)
ISSN 2477-331X (Print)

INTRODUCTION

As a prospective educator and coach must know the various aspects that support movement activities or sports activities. Through lectures, it is expected that students become ready-made educators in accordance with the demands and needs of the community. The development and progress of the times requires educators and coaches who have good knowledge and skills, so that the quality of education in Indonesia can be more advanced as expected.

One of the courses that must be taken by students of Physical Education, Health and Recreation is athletics. Athletics is a compulsory sport and must be understood, mastered both in theory and practice. All students are required to be able to master athletic numbers, be able to teach, and become professional athletic trainers properly and correctly.

Athletic learning courses for students is a must that must be done. Learning cannot stop altogether in the midst of the COVID 19 Pandemic, if the lecture stops altogether then students will be left behind with learning materials. Related to this, students must continue to learn and study as long as "social distance" can still be done, even though it is done at home independently.

Athletics is part of the subject matter of activities in the subjects of Physical Education, Health, and Recreation with the aim of providing a variety of student movement skills. With the Covid-19 pandemic, the athletic learning process has difficulty in following the learning process carried out independently or online in accordance with health protocols.

The learning process that is usually carried out in the village, but with the pademi Covid-19 is carried out in their respective homes. Especially for kmata, physical education lessons should be supported by complete infrastructure facilities because the facilities are one of the strategic parts in achieving learning goals. In other words, the complete and incomplete learning facilities in Unimed also affect the maximum and not the maximum of learning goals. Complete facilities can make it easier for lecturers to achieve certain targets that become learning goals. Conversely, incomplete facilities will make it difficult for lecturers to achieve their learning goals.

Media as a process of information sources for students must be adequate and in accordance with the learning objectives to be achieved, so that lecturers are required to be able to choose and provide media that suits their needs so that the learning process can be carried out properly in the midst of the Covid-19 pandemic.

The use of media not only makes the learning process more efficient, but the subject matter can be absorbed more deeply. Students will more easily understand learning materials more easily and understand a problem through lecturer explanations. That understanding would be even wiser if enriched by the activity of seeing, touching, feeling or experiencing through the media. In addition, the media can also strengthen students' love and appreciation for science and the process of finding their own knowledge.

In this case it is required to have creativity in learning in order to run the teaching and learning process well. This problem seems easy, but it is actually a difficult and complete activity, because it requires professionalism and careful imagination regarding aspects of learning and teaching competencies.

Based on the results of observations made at Unimed and information obtained from FIK lecturers in November 2020 that researchers observed that there are still many students

who do not understand the basic techniques in Long Jump learning. With the lecture done from home independently. Therefore, researchers conducted research on regular PJKR students in the class of 2020/2021 to improve the process of long jump learning outcomes through audio visual video media that video tutorials athletic learning. During this time, FIK Lecturers in the learning process use demonstration methods, namely lecturers after giving explanations to their students directly practice what has been explained earlier. But the impact of what the lecturer has applied so far is that not all students will easily understand and understand the lecture material delivered by the lecturer, because not all students pay full attention to the university.

Based on the above description in addition to the use of demonstration methods, it is considered necessary to improve creativity and innovation in the learning process, especially long jump materials. According to the above, researchers are very interested in conducting research with the title "Interactive Multimedia-Based Long Jump Athletic Learning During the Covid-19 Pandemic at FIK UNIMED".

METHODS

This research uses the Research and Development approach of development research adopted from Borg and Gall grouped in three stages. The research stages are; (1) The pre-development stage, at this stage, is carried out analysis and formulation of learning achievements by paying attention to the analysis of needs in context and learning materials and formulating student performance indicators. At this stage the following research activities; analysis of learning needs, analysis and formulation of course learning achievements, formulation of teaching materials and design of learning devices (syllabus, RPS and lecture contracts) and grid of questions. (2) The development stage, at this stage (a) developing the instrument grid, (b) establishing learning methods, strategies and models, (c) composing video tutorials (d) instructional media in multimedia form consisting of, video learning, and video tutorials (e) validation and feasibility tests. (3) The evaluation stage consists of; (a) develop UTS learning evaluation (b) Develop UAS learning evaluation, and (c) Instrument trial and (d) implementation of learning outcome assessment.

The methods used in this study use development research. Research in this learning model uses quantitative approaches as well as using the Research & Development (R&D) development model of Borg and Gall.

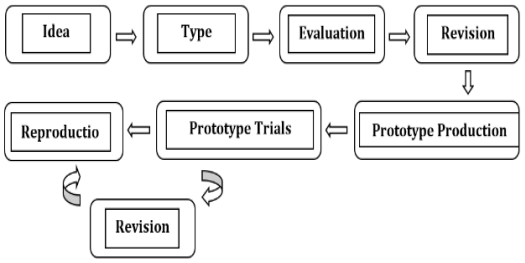

Figure 1. Development Model with Flow Chart

The steps on the above design include; (1) the first specified is an idea to be developed, by gathering information as a basis of thought to make a concept, (2) the creation of a learning model (product design), the form of the design is a learning development model, (3) product revision I, revisions carried out by the experts concerned, (4) prototype production, done by practicing learning development models in the field, (5) prototype trials, testing of field subjects both in phase I trials and phase II trials, (6) revision of the second product,

revisions carried out by experts, in order to obtain perfect results, (7) reproduction, product refinement to go to the final product expected in development. Instruments used in the study with closed and open questionnaires. The use of closed questionnaires to find out the extent of the effectiveness and efficiency of the product has been made. While the open questionnaire is used to determine the weaknesses and discrepancies of the product to the needs of the product and used during focus group discussion (FGD). This research data analysis technique used is: (1) needs analysis using percentage techniques to see the level of product needs, (2) To measure the effectiveness and efficiency of products using as a validity test with FGD techniques by 3 experts, namely athletic learning lecturers, LECTURERS / IT experts and athletic trainers. (3) to see the effectiveness and efficiency of the product used phase I trials as many as 30 people and group II trials as many as 60 people using percentage and quantitative.

Table 1. Validation of Expert Assessment of Material Stage I

Scala	Criterion	Interval formula	Average score
5	Excellent	$X \geq Xi + 1{,}8\ SB$	$X > 4{,}2$
4	Good	$Xi + 0{,}6\ SBi < X \leq Xi + 1{,}8\ SBi$	$3{,}4 < X \leq 4{,}2$
3	Enough	$Xi\text{-}0{,}6\ SB < X \leq Xi + 0{,}6\ SBi$	$2{,}6 < X \leq 3{,}4$
2	less	$Xi\text{-}1{,}8\ SB < X \leq Xi - 0{,}6\ SBi$	$1{,}8 < X \leq 2{,}6$
1	very less	$X \leq Xi - 1{,}8\ SB$	$X \leq 1{,}8$

Information:
(Xi) = Ideal average
formula Xi = ½ (maximum ideal score + ideal minimum score)
(SBi) = Formula's ideal default deviation SBi = 1/6 (maximum ideal score – minimum ideal score)
(x) = processed score

At the implementation stage where the analysis of needs collected from the results of the learning process through observation using audio visuals and interviews with questionnaires, which are given to students will be obtained. Analysis of the needs obtained, it can be concluded that the idea of this development is the need for a learning development model so that it will be able to help students in the learning process. The next step after getting an idea is to make the initial product in the form of a series of learning developments that can later be used as guidelines or instructions to facilitate the long jump learning process so that it can get good learning outcomes. The initial product is outlined in the learning development model. The process of making products developed by researchers, researchers must consult products to experts and lecturers, learning experts, in order to produce the perfect product. From the creation of the learning model has been completed then the next stage is to evaluate the learning model. This evaluation is done to improve and improve the learning model.

RESULT

The initial product design of interactive media learning athletic long jump numbers is a product that can help students in understanding long jump materials during the covid-19 pandemic. This interactive multimedia work system of long jump learning begins by accessing this interactive multimedia application, students can find out the implementation of long jump learning from the initial implementation to the end. Furthermore, from the needs analysis that has been done on 35 respondents consisting of PJKR students , 89% who said there has been no athletic learning of long jump numbers using interactive multimedia and 11% never know the learning of long jump numbers using interactive media.

In interactive multimedia products that have been made will be assessed by media experts and learning strategists and after this stage will be conducted phase I product trials with samples. The results of media validation provide some input.

Table 2. Validation of Media Expert Assessment Stage I

No	Indikator	Skor	Kategori
1	Display Design	3	Enough
2	View Text	3	Enough
3	Programming	3	Enough
4	Video	3	Enough
5	Audio	3	Enough
Sum		15	
Average		3	
Media Quality Category		Enough	

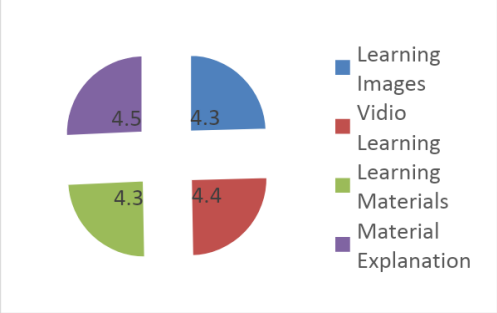

Figure 1. Validation of Media Expert Assessment Stage I

The above explanation which results from the assessment of media experts on athletic extreme media products of long jump numbers is the design of display and programming that get a score of 3 with a good category, the rest get a score of 3 and are still categorized enough. The results of the assessment of the interactive media indicator athletic long jump number with a score of 3 are still categorized enough and need improvements to improve the product so that it can be tested to users.

Table 3. Validation of Expert Assessment of Material Stage I

No	Indikator	Score	Category
1	Learning Images	3,5	Good
2	Vidio Learning	3,5	Good
3	Learning Materials	3,5	Good
4	Material Explanation	3,7	Good
Sum		14,2	
Average		3,55	
Media Quality Category		Good	

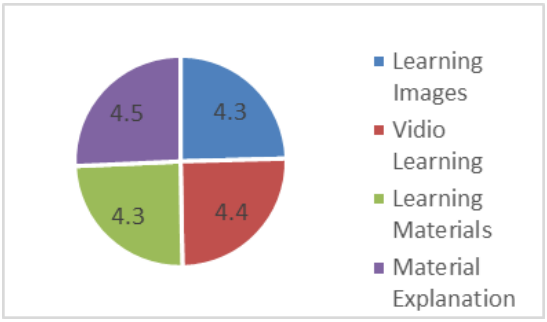

Figure 2. Validation of Media Expert Assessment Stage I

The assessment of the material expert on interactive media shows the results of the four indicators of the assessment of athletic interactive media products of long jump numbers shows the results of assessments of learning images, learning videos, and learning materials getting a score of 3.5 and material explanation indicators getting a score of 3.7 with a good category. The results of the assessment of the interactive media indicator athletic long jump number with an average score of 3.55 categorized well and needed improvements to perfect the product. Validation was carried out in phase I and got some improvements for product improvements and then researchers made product improvements that will be carried out in phase II validation by experts. The results of phase II validation are as follows:

Table 4. Validation of Media Expert Assessment Phase II

No	Indikator	Score	Category
1	Display Design	4,5	Excellent
2	View Text	4,3	Excellent
3	Programming	4,5	Excellent
4	Video	4	Good
5	Audio	4,2	Good
Sum		21,5	
Average		4,3	
Media Quality Category		Excellent	

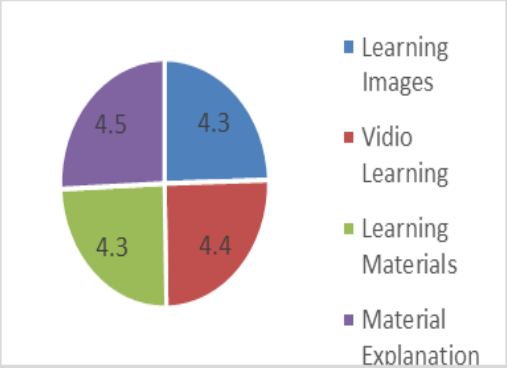

Figure 3. Validation of Media Expert Assessment Phase II

Validation of phase II conducted by media experts above shows an assessment of this long jump athletic affective media product from display design indicators, display text and programming that get scores of 4.5 and 4.3 with excellent categories, while video and audio indicators with scores of 4 and 4.2 with good categories. The results of the assessment of interactive media indicator athletic long jump numbers with an average score of 4.3 and categorized very well and furthermore the product can be tested into sempel.

Table 5. Validation of Material Expert Assessment Phase II

No	Indikator	Score	Category
1	Learning Images	4,3	Excellent
2	Vidio Learning	4,4	Excellent
3	Learning Materials	4,3	Excellent
4	Material Explanation	4,5	Excellent
Sum		17,5	
Average		4,37	
Media Quality Category		Excellent	

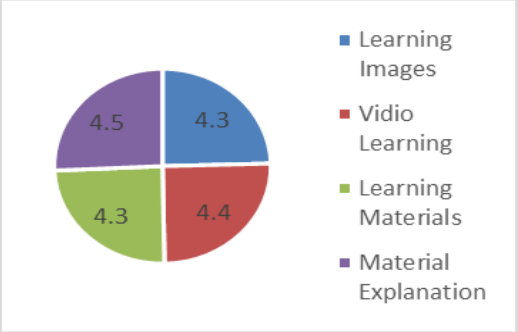

Figure 4. Validation of Material Expert Assessment Phase II

Implementation of improvements from the vaidasi material expert stage I, then the researchers perform validation phase II. The results of phase II validation on the learning image indicator and learning meteri get a rating score of 4.3 with excellent categories. While learning videos get a score of 4.4 and the explanation material gets a score of 4.5 with an excellent category. The results of the assessment of all indicators on material experts with an average score of 4.37 and categorized as excellent and worthy of product trials.

Improvement of validation results from both experts who each provide input for interactive multimedia products that can later be used as a learning medium for long jump number athletic learning materials in pjok teachers. This became the basis for researchers to conduct trials on sempel. So from the results of improvements that have been made, the interactive multimedia product of athletic learning long jump numbers can be used in tests I and II on sempel.

The group I trial was conducted by 30 students with the aim of assessing the feasibility of interactive media by filling out user eligibility test

questionnaires. This questionnaire is divided into media aspects, material aspects, and learning aspects. The data generated from the phase I trial is:

Table 6. Phase I Trial Results

Indikator	Score	Category
Media Aspects	4,07	Good
Material Aspects	3,58	Good
Learning Aspects	3,67	Good

From the results of initial field trials, interactive multimedia long jump numbers developed by researchers scored 4.07 for media aspects, 3.58 for material aspects, and 3.67 for learning aspects so that the average score is 3.79 or fall into the category of "Good". Media in this category deserves to be used as a learning medium. Furthermore, the three indicators show that the results of the phase I trial for the whole are still in the category of "Good" with a note that still needs to be improved to get maximum results in the phase II trial.

DISCUSSION

This research basically examines the influence of interactive media as an optimization of long jump number athletic learning for FIK Unimed students. It can be ascertained that the learning process becomes an obstacle by students in getting athletic learning materials for long jump numbers in this pandemic period. The problem needs innovation in the learning process by using interactive media to improve the understanding of FIK Unimed students in the learning process. The findings of this study are in line with previous research that shows that it is necessary to innovate the implementation of teaching to improve the skills of these students independently.

This study was conducted on students of PJKR FIK Unimed in phase I and phase II trials with different classes. The results of the study in the phase I trial of the three indicators of media aspects, meteri aspects and learning aspects for the whole are still in the category of "Good". In addition, the results of phase II trials of the same three indicators show the results of the implementation of phase II trials for the whole in the category "Very Good" so that later the implementation and dissemination of the product can be carried out.

CONCLUSION

In this study, the results can be concluded that the development of learning innovation is needed one of them by making interactive media learning athletic long jump numbers. The results that have been done by using the interactive media of athletic long jump numbers may improve the understanding of students in knowing the learning of athletic long jump numbers so that later it can be applied to students. As for being effective, the efficiency of the product in learning becomes a plus in the process of learning athletic long jump numbers.

ACKNOWLEDGEMENT

The learning process is a series of information transmissions carried out by lecturers and later must be conveyed to students properly and correctly. This makes lecturers must be more creative in designing learning in this pandemic so that later it can be adjusted and the material to be taught. This condition requires lecturers to understand more about the process of athletic materials for long jump numbers. Advice in this implementation can later be used by sports teachers for the occurrence of a good teaching process as expected. This

will in the future be carried out in the development of applications similar to different athletic materials..

REFERENCES

Ariani, S., & Tawali, T. (2021). Problems of Online Learning during Covid-19 Pandemic in Speaking For Professional Context Class. Jo-ELT (Journal of English Language Teaching) Fakultas Pendidikan Bahasa & Seni Prodi Pendidikan Bahasa Inggris IKIP, 8(1), 32-37.

Akhmad, I., Valianto, B., & Bowo, D. (2021, July). Interactive Media as Optimization of Understanding Basic Football Techniques in Pandemic Period. In 4th International Conference on Sports Sciences and Health (ICSSH 2020) (pp. 66-69). Atlantis Press.

Basheer, A., Hugerat, M., Kortam, N., & Hofstein, A. (2016). The effectiveness of teachers' use of demonstrations for enhancing students' understanding of and attitudes to learning the oxidation-reduction concept. Eurasia Journal of Mathematics, Science and Technology Education, 13(3), 555-570.

Connor Desai, S., & Reimers, S. (2019). Comparing the use of open and closed questions for Web-based measures of the continued-influence effect. Behavior research methods, 51(3), 1426-1440.

Dai, H., Milkman, K. L., & Riis, J. (2014). The fresh start effect: Temporal landmarks motivate aspirational behavior. Management Science, 60(10), 2563-2582.

Hariadi, S., & Watoni, M. R. R. (2020). Journal of Teaching Physical Education in Elementary School.

Nishimura, S., Kinomura, Y., Kobayashi, Y., Matsuzaki, R., Matsushita, S., & Ikeda, N. (2019). Learning Outcomes for Physical Education in Long Jump: Is it Possible for 5th Graders to Learn Take-off Techniques that Enable Greater Vertical Velocity?. International Journal of Sport and Health Science, 17, A37-A53.

Panteli, F., Tsolakis, C., Efthimiou, D., & Smirniotou, A. (2013). Acquisition of the long jump skill, using different learning techniques. The Sport Psychologist, 27(1), 40-52.

Pardilla, H., Henjilito, R., Asilestari, P., & Husnayadi, I. (2020). Decreased Athlete Motor Skills: Before and After Activity Coronavirus Disease (Covid-19) Pandemic. Inspiree, 1(2), 57-65.

Rosmaya, A., Garini, F. V. A., & Ruqoyyah, S. (2018). Application Of Demonstration Methods to Improve Student Learning Outcomes In Science Learning Energy Sources Material. COLLASE (Creative of Learning Students Elementary Education), 1(5), 306-314.

Sofiarini, A., & Rosalina, E. (2021). Analisis Kebijakan dan Kepemimpinan Guru Dalam Menghadapi Kurikulum 2013 Era Globalisasi. Jurnal Basicedu, 5(2), 724-732.

Syahputri, V. N., Rahma, E. A., Setiyana, R., Diana, S., & Parlindungan, F. (2020). Online learning drawbacks during the Covid-19 pandemic: A psychological perspective. EnJourMe (English Journal of Merdeka): Culture, Language, and Teaching of English, 5(2), 108-116.

Widyaningsih, S. W., Yusuf, I., Prasetyo, Z. K., & Istiyono, E. (2020). Online interactive multimedia oriented to HOTS through e-learning on physics material about electrical circuit. JPI (Jurnal Pendidikan Indonesia), 9(1), 1-14.

Wijaya, M. A., & Kanca, I. N. (2019). Media pembelajaran aktivitas pengembangan PJOK untuk Pendidikan Dasar dan Menengah. JOSSAE (Journal of Sport Science and Education), 4(1), 1-6.

Yurie, H., Ikeguchi, R., Aoyama, T., Kaizawa, Y., Tajino, J., Ito, A., ... & Matsuda, S. (2017). The efficacy of a scaffold-free Bio 3D conduit developed from human fibroblasts on peripheral nerve regeneration in a rat

sciatic nerve model. PloS one, 12(2), e0171448.

Yuzulia, I. (2021). The challenges of online learning during pandemic: Students' voice. Wanastra: Jurnal Bahasa Dan Sastra, 13(1), 08-12.