



Improvement Learning Outcomes of Sepaktakraw Basic Techniques Using Audiovisual Media During Covid-19 Pandemic in PJOK Students of Sriwijaya University

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Abstract

This study aims to produce audiovisual based learning media during Covid-19 Pandemic to improve the Sepaktakraw basic technique in Physical Education, Sport, Health and Recreation Students in Sriwijaya University with a total of 41 students by using a limited trial (small group) to 11 students and a vast trial (large group) by using 30 students. Analysing technique in this research is a linear regression model. The results in this study indicate that the implementation of audiovisual media based learning process with Sepaktakraw basic technique is used in Physical Education, Sport, Health and Recreation Students of Sriwijaya University. According to material experts of obtained a percentage of 88% (very good) and media experts of obtained of 84,61% (very good) category. The pre-test results was found to have average value of 64,67 and the post-test result was found to have average value of 90,80 with F count $< 0,05$, that means is a significant difference between student knowledge before and after watching the video of Sepaktakraw basic technique. It can be concluded that audiovisual based learning of media to improve Sepaktakraw game technique in Physical Education, Sport, Health and Recreation Students in Sriwijaya University are valid, practical and feasible to use.

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INTRODUCTION

The Impact Of The Corona Virus Disease 2019 (Covid-19) Pandemic is now beginning to spread the world of education. This is done as an effort to prevent the spread of Covid-19 transmission (Apriyanti, 2020; Wargadinata et al., 2020). It is hope that all educational institutions will not carry out of activities as usual, this can diminish the spread of Covid-19. The spread of the Covid-19 had a profound effect on the economic world which was start to fade, but now the impact is being felt by the education world (Aini et al., 2020; Hamid et al., 2020). The are exposed to disease, lockdown and quarantine policies carried out in an effort to reduce the interaction of many people who can provide access to the spread of Covid-19 (Alchamdani et al., 2020; Prayudha, 2020; Zaharah et al., 2020).

Education is an effort to prepare reliable human resources the country development. Education is one of the most important factors in human life (Sumarni et al., 2019; Yusfi et al., 2020). Education is included as human essential despite of the needs for clothing and food (Sumarni, 2016). Education development also to follow industrial revolution because education is degraded which inversed to the world's technological cycle (Abidah, 2020; Ekok et al., 2020; Gunawan et al., 2017). The leading sector of human resource development, education has a significant contribution to competate in global changing of socio-economic condition must compatible to modern times and demands of human needs (Handayani & Lestari, 2019; Wahyuddin, 2014).

Sepaktakraw is a compulsory subject that must be passed by each students of Physical Education, Sport, Health and Recreation in Sriwijaya University. To play Sepaktakraw well, student must frequently perform practice of the basic skills tactics of Sepaktakraw and many physical elements related to the game. The learning process by playing make a good experience for the

students, not only to develop muscle skills, coordination, communication, movement and learn to concentrate on finding creative ideas in playing games (Iyakrus, 2019; Novitasari & Mediatati, 2021; Sya'ban, 2020). At this point, education must be able to adapt the fast developments in technology field by starting to build systems (Maulidina et al., 2018; Pertiwi et al., 2017).

The problem generally faced in teaching Sepaktakraw is the low enthusiasm of students in following the lesson. It is majorly because of the teaching methods applied by lecturers which are still conventional that is by directly teaching them to do practice in the field. The conventional method makes students bored, tired and monotonous so that their enthusiasm to follow the class reduces (Eka Prasetiawati, 2015; Sardiman, 2017). Besides, the lecturers seldom use teaching media that can stimulate students interest in the Sepaktakraw. It is affects student learning results that are lower than targets. Therefore, it is important to find out a better way to improve students learning results in Sepaktakraw (Sulaiman, 2014).

To assist students understand the learning of materials better, it is important to apply audiovisual media in teaching (Isolihatun, 2012; Pratama et al., 2021). The use of media in teaching can be improve the effective to learning activities, because the interaction patterns can be directly observed also can to help students easier in understanding materials delivered by lecturers. Media are tool bridging the message exchanged in the classroom to achieve the learning goals. A study conducted by (Eka Prasetiawati, 2015) found that there was improvement in the learning Sepaktakraw using audiovisual can be facilitate students to develop their mental of imagination about a movement skills. The practical learning model in this study was combined with audiovisual media to improve basic skills of Sepaktakraw (Cendra et al., 2019).

Based on interview with Mr. Arizky Ramadhan, M.Pd, the ability of the material in this semester a significant decline, almost

75 % or around 40 students had not mastered and had not been able to practice the basic techniques of Sepaktakraw. This is significant decline was most likely due to the current online learning process due to the Covid-19 pandemic and its something new for educators and students. The learning process for the Sepaktakraw course during the current Covid-19 Pandemic often uses face to face media using virtual meetings and mostly uses the lecture method when explaining material and assignments to student. Meanwhile, the media method and other models are minimally used in the learning process in Sepaktakraw course at Sriwijaya University because online learning is very new and different from usual. It is very important to develop models, media and learning methods so that the learning process achieves goals and students able to master the material.

The importance of basic techniques in the game of Sepaktakraw, hopefully the provision of an exercise model using Audiovisual media can be solution to improve the skills of playing Sepaktakraw. It can also be used as a reference for trainers and lecturers to apply training models using the right media, so that students can understand and practice basic Sepaktakraw techniques easily and correctly to find out the differences and how big influence of mastery techniques the use of Audiovisual media in Physical Education, Sport and Health Students at Sriwijaya University. The application of audiovisual media and appropriate variations of learning in the basic Sepaktakraw process,

it is hoped that it will run more optimally, the obstacles have been present so far can be overcome.

METHODS

This study is used development research method, known as R&D (*Research and Development*) from Borg and Gall model which consists of 10 (ten) research steps: (1) Research and Information Collection; (2) Planning; (3) Product Development; (4) Field Trial; (5) Major Product Revisions; (6) Main Field Test; (7) Operational Product Revision; (8) Operational Field Trial; (9) Final Product and (10) Dissemination and Implementation. Data analysis technique used qualitative and quantitative method with descriptive statistics. Analyze the data for effectiveness test using t-test (dependent sample t-test) with SPSS 21 for Windows. The normally category of the data distributed if has a probability value greater than 0.05 ($p > 0.05$). The percentage value gained from calculation will interpreted with qualitative sentences based on the table 1 as follows:

Table 1. Descriptive Accounting of Percentage

Value of Score Range	Category
80 - 100	Very Good
70 - 79	Good
60 - 69	Good Enough
50 - 59	Not Good
40 - 49	Very Poor

RESULTS AND DISCUSSION

Table 2. Instument Validation of Material

No	Indicators	Score	Average Value
1	Basic of Sepaksila Technieques	12	
2	Basic of Sepakkura Techniques	12	
3	Basic of Memaha Techniques	12	
4	Basic of Head Techniques	12	
5	Construction	16	67
6	Language	6	

Table 3. Instrument Validation of Media

No	Indicators	Score	Average Value
1	Basic of Sepaksila Techniques	10	
2	Basic of Sepakkura Techniques	12	
3	Basic of Memaha Techniques	12	
4	Basic of Head Techniques	11	
5	Construction	12	57

Table 4. Qualification Results of Material and Media Expert Test Level I

Validator	Score Earned	Expected Score	%	Description
Material Expert	67	72	93	Very Worthy
Media Expert	57	64	90	Very Worthy

After was input and revision in stage I from material and media expert had stated that was feasible to produce with revision according to suggestions. Two lecturers expert did not recommend doing a phase II revision, so the next step was to revise the product that had been made. A revision was made to improve the application based Sepaktakraw basic techniques video before being test for students of Physical Education, Sport, Health and Recreation in Sriwijaya University.

Small-Scale Trial

Table 5. Frequency Distribution of Students Assessment Video Based Applications for Basic Sepaktakraw Techniques

No	Interval	Category	Frequency	%
1	$30.5 < X$	Very Good	3	27.27
2	$25.5 < X \leq 30.5$	Good	8	72.73
3	$20.5 < X \leq 25.5$	Enough	0	0
4	$15.5 < X \leq 20.5$	Less Worthy	0	0
5	$X \leq 15.5$	Unworthy	0	0
Amount			11	100

Based on table 5, it shows that the students assessment of basic Sepaktakraw techniques training video for students is the "Unworthy" category of 0% (0 people), "Less Worthy" 0% (people), "Enough" 0% (0 people), "Good" by 72.73% (8 people) and "Very Good" by 27.27% (3 people).

Media Aspects

The frequency distribution of data from students assessments of the video application

Material Aspects

The frequency distribution of data from students assessments basic of Sepaktakraw techniques training video for small-scale trial obtained the lowest score (minimum) of 27.0, the highest score (maximum) of 32.0, the mean of 29.27, the median value of 30.0, the frequently occurring value (mode) of 27.0 and the standard deviation (SD) of 2.005. If displayed in the form of a frequency distribution, the assessment of the video basic Sepaktakraw techniques for students in Sriwijaya University.

of basic Sepaktakraw techniques for students from the media display aspect got the lowest score (minimum) of 15.0, the highest score (maximum) of 20.0, the mean of 16.27, the median of 16.0, frequently occurring value (mode) of 15.0 and the standard deviation (SD) of 1.555. If displayed in the form of a frequency distribution, the assessment of the video basic Sepaktakraw techniques for students in Sriwijaya University.

Table 6. Frequency Distribution of Students Assessment Video Based of Media Display for Basic Sepaktakraw Techniques

No	Interval	Category	Frequency	%
1	$17.5 < X$	Very Good	1	9.1
2	$14.5 < X \leq 17.5$	Good	10	90.9
3	$11.5 < X \leq 14.5$	Enough	0	0
4	$8.5 < X \leq 11.5$	Less Worthy	0	0
5	$X \leq 8.5$	Unworthy	0	0
Amount			11	100

Based on table 6, it shows that the students assessment video based of media display of basic Sepaktakraw techniques for students is the “Unworthy” category of 0% (0 people), “Less Worthy” 0% (people), “Enough” 0% (0 people), “Good” by 90.90% (10 people) and “Very Good” by 9.10% (1 people).

Combined Total of Material Aspects and Media Display

The frequency distribution of data from students assessments of the video application of basic Sepaktakraw techniques for small-scale trial got the lowest score (minimum) of 42.0, the highest score (maximum) of 52.0, the mean of 45.55, the median of 47.0, the frequently occurring value (mode) of 42.0 and the standard deviation (SD) of 3.357.

Table 7. Frequency Distribution of Students Assessment Video Based Material Aspect and Media Display Basic Sepaktakraw Technique

No	Interval	Category	Frequency	%
1	$46 < X$	Very Good	6	54.55
2	$38 < X \leq 46$	Good	5	45.45
3	$30 < X \leq 38$	Enough	0	0
4	$22 < X \leq 30$	Less Worthy	0	0
5	$X \leq 22$	Unworthy	0	0
Amount			30	100

Based on table 7, it shows that the total of students assessment video Based material aspects and media display basic Sepaktakraw techniques training video is the “Unworthy” category of 0% (0 people), “Less Worthy” 0% (people), “Enough” 0% (0 people), “Good” by 45.45% (5 people) and “Very Good” by 54.55% (6 people).

Big-Scale Trial Material Aspects

The frequency distribution of data from students assessments for video basic of Sepaktakraw techniques training for big-scale trial obtained the lowest score (minimum) of 37.0, the highest score (maximum) of 63.0, the mean of 52.47, the median value of 54.50, the frequently occurring value (mode) of 57.0 and the standard deviation (SD) of 6.86.

Table 8. Frequency Distribution of Students Assessment Video Based Applications for Basic Sepaktakraw Techniques

No	Interval	Category	Frequency	%
1	$52 < X$	Very Good	17	56.67
2	$44 < X \leq 52$	Good	8	26.67
3	$36 < X \leq 44$	Enough	5	16.66
4	$28 < X \leq 36$	Less Worthy	0	0
5	$X \leq 28$	Unworthy	0	0
Amount			30	100

Based on table 8, it shows that the students assessment of basic Sepaktakraw techniques training video for students is the “Unworthy” categor of 0% (0 people), “Less Worthy” 0% (people), “Enough” 16.66% (5 people), “Good” by 26.67% (8 people) and “Very Good” by 56.67% (17 people).

Media Aspects

The frequency distribution of data from students assessments of the video application of basic Sepaktakraw techniques for students from the media display aspect got the lowest score (minumum) of 25.0, the highest score (maximum) of 43.0, the mean of 35.73, the median of 37.50, frequently occurring value (mode) of 30.0 and the standard deviation (SD) of 5.02.

Table 9. Frequency Distribution of Students Assessment Video Based of Media Display for Basic Sepaktakraw Techniques

No	Interval	Category	Frequency	%
1	$37 < X$	Very Good	15	50
2	$31 < X \leq 37$	Good	7	23.33
3	$25 < X \leq 31$	Enough	7	23.33
4	$19 < X \leq 25$	Less Worthy	1	3.34
5	$X \leq 19$	Unworthy	0	0
Amount			30	100

Based on table 9, it shows that the students assessment video based of media display of basic Sepaktakraw techniques for students is the “Unworthy” category of 0% (0 people), “Less Worthy” 3.34% (1 people), “Enough” 23.33% (7 people), “Good” by 23.33% (7 people) and “Very Good” 50% (15 people).

Combined Total of Material Aspects and Media Display

The frequency distribution of data from students assessments of the video application of basic Sepaktakraw technique for big-scale trial got the lowest score (minumum) of 12.0, the highest score (maximum) of 20.0, the mean of 16.73, the median of 17.0, frequently occurring value (mode) of 17.0 and the standard deviation (SD) of 2.16.

Table 10. Frequency Distribution of Students Assessment Video Based Material Aspect and Media Display Basic Sepaktakraw Technique

No	Interval	Category	Frequency	%
1	17 < X	Very Good	10	33.33
2	14 < X ≤ 17	Good	15	50
3	11 < X ≤ 14	Enough	5	16.67
4	8 < X ≤ 11	Less Worthy	0	0
5	X ≤ 8	Unworthy	0	0
Amount			30	100

Based on table 10, it shows that the total of students assessment video Based material aspects and media display basic Sepaktakraw techniques training video is the “Unworthy” category of 0% (0 people), “Less

Worthy” 0% (people), “Enough” 16.67% (5 people), “Good” by 50% (15 people) and “Very Good” by 33.33% (10 people).

T-Test Paired Sample

Table 11. Basic of Sepaksila Techniques

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Low er	Upp er			
Pair 1	Pre-Test Sepak Sila – Post-Test Sepak Sila	-3.667	2.155	.393	-4.471	-2.862	-9.320	29	.000

Based on the table, the significance value of p is 0,000, it means that Ho is rejected. Thus, there is a significant difference

in the provision of audiovisual media with the basic techniques of Sepaksila.

Table 12. Basic of Sepakkura Techniques

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Low er	Upp er			
Pair 1	Pre-Test Sepak Kura – Post-Test Sepak Kura	-1.967	2.414	.441	-2.868	-1.065	4.463	29	.000

Based on the table, the significance value of p is 0.000, it means that Ho is rejected. Thus, there is a significant difference

in the provision of audiovisual media with the basic techniques of Sepakkura.

Table 13. Basic of Memaha Techniques

	Paired Differences							
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Low er	Upp er			
Pair 1 Pre-Test Paha – Post-Test Paha	-1.167	2.214	.404	-1.993	-.340	2.886	29	.007

Based on the table, the significance value of p is 0.007, it means that Ho is rejected. Thus, there is a significant difference

in the provision of audiovisual media with the basic techniques of Memaha.

Table 14. Basic of Head Techniques

	Paired Differences							
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Low er	Upp er			
Pair 1 Pre-Test Kepala – Post-Test Kepala	-.333	1.788	.362	-1.001	.334	-1.021	29	.316

Based on the table, the significance value of p is 0.316, it means that Ho is accepted. Thus, there is no significant difference in the provision of audiovisual media with the basic techniques of Head.

Development Stage

The developing learning media was suitable used based on validation of material experts, media experts test results by teacher and responses from students. Development research refers to the development model from Borg and Gall (Sugiyono, 2007: 50) which is limited to several stages: *First*, the information collection, *Second*, the planning *Third*, the product development and *Fourth*, the validation. and trials. The following is an explanation of each stage carried out in this research and development:

Stage of Information Collection

The standard review in this study is the initial stage of collecting information. This stage is carried out by making mapping of core competencies and competency standard than will be obtained material that developed in interactive Audiovisual based learning of media, the basic techniques of Sepaktakraw. After determining the developing material, than literature study is conducted to collect the material of Sepektakraw basic motion.

Planning Stage

This second stage consists of making a grid instruments in the research as criteria for evaluating interactive learning Audiovisual media. The grid of instrument that have been made developed into a research instrument in the form of a validation sheet. Validation sheet is used to determine the advisability of Audiovisual based interactive learning media

based on the assessment of material experts and media experts. Material experts provide assessments based on aspects of learning, material and language, while media experts provide assessments based on programming and display aspects. Observation sheets are used to determine the responses of lecturers and students about the using of interactive Audiovisual based learning media in students of Physical Education, Sport, Health and Recreation.

Development Stage

Audiovisual based interactive learning media product was made in this stage. The steps are making a Storyboard, the aim is to make easier in creating media determining the next stage of development so the parts of learning media can be arranged properly. Storyboards are made by drawing sketches using computer and being used reference for making layouts in all aspects of color and composition. The finished layout is filled material on technique and basic Sepaktakraw movements. The material in this Audiovisual based interactive learning media consists of 4 (four) sub-materials, there are Sepaksila, Sepakkura, Memaha and Basic of Head. After writing the material, the media is filled with pictures and videos that can supports the material.

Validation and Trial Phase

The validation and testing stages are done in hoping of the use of interactive learning media developement can be known its advisability based on the assessment of material experts and media experts. The validation of this interactive learning media was done by Arizky Ramadhan, M.Pd, as material experts competent in Sepaktakraw game technique and basic motion. Bardadi Ali as competent media expert in interactive Audiovisual based learning media. Media that have been validated will revised in next stage according to the advice of experts during the validation process. The next stage is media test learning process in classroom, by the aim of knowing responses of lecturers and students

to the developed based interactive learning media. The trial was conducted in Sriwijaya University into 2 parts that are large and small groups. During the using of interactive media in learning, researchers observed the use of these media. lecturers and students were asked for their responses, suggestions and comments the developed interactive learning media has been tested in student of Physical Education, Sport, Health and Recreation revised based on suggestions from lecturers and students.

Development Procedure

Needs Analysis

This is first step in conducting in research, aims to determine fun Sepaktakraw learning model by interactive based on Audiovisual media. The researchers made observations at the student of Physical Education, Sport and Health in Sriwijaya University.

Initial Product Creation

Based on the results of the need analysis, researchers make video Sepaktakraw game technical products. In creating the developed product, researchers make it based on theoretical and evaluations by media and material experts. The subjects of this study were students of Physical Education, Sport and Health in Sriwijaya University.

Revision I

Based on advices from the material and media experts related to the learning process on interactive media based products that have been tested on small scale groups, researcher can immediately make revisions.

Trial I

Small group trials were conducted as user of the product. At this stage, the product was tested on 11 students.

Revision II

In second stage of revision, the results are improvements of product development in small groups.

Trial II

Field trial was conducted on the product developed, tested on 30 students of Physical Education, Sport and Health in Sriwijaya University. Students are divided into several teams, then compete several times to find a good model.

Final Product

Product trials are intended to collect data that is used as a basis for determining the effectiveness, efficiency and attractiveness of the resulting product. The results of this are: 1) the data show compatibility students basic competencies. 2) easy to do by student. 3) Fun and encourage students to be active.

The Final Product

The results of this study indicate that the based learning was developed validated and tested are eligible as a proper learning of media for students. The interactive learning media in this study produced: 1). Making digital based interactive learning media using Audiovisual. The basic motion Sepaktakraw was captured by researcher. 2) This learning media contains the motion of Sepaktakraw, according to the sub-theme of learning, video and images are made attractive, adapting the characteristics of students. 3) There are evaluation questions about the interactive learning media of Sepaktakraw games so that student can measure the level understanding about the material. The results of student scores in evaluation can be seen immediately if students feel their scores are unsatisfactory and can repeat the evaluation. 4) There is a video on how to do the basic Sepaktakraw technique and movement in each explanation to make easier students to practice these movements.

This Audiovisual interactive learning media is considered feasible because it has the very good category on the assessment indicators. This is because the content of the material presented in the media is very appropriate and easy for student learning, so that students are able understand the material that has been delivered. When students see the

animate and interactive learning material, they always remember parts of the material and can practice them well, so the process of learning basic Sepaktakraw techniques run smoothly. In addition, after learning process with media researchers can also measure the level of understanding working on evaluation questions.

Learners can easy understand the basic movements of Sepaktakraw game. Media is a part of learning system and has practical values. Based on the results of the validation and testing, that the development of technical media and the basic motion of this digital-based Sepaktakraw is in accordance with the objectives of the learning media. Students can also interact directly with the media, so that become more motivated to learn. This Sepaktakraw basic motion technique media can be reused and can be saved as well as presenting learning information consistently and repeated as needed. Basic motion media presents picture of Sepaktakraw in the form of video according to student character.

The selection of colors, sizes and form of media has been adjusted to characteristics of students PJOK. Students look happy and motivate because they see pictures and colors are very interesting. Product development stage consist of making storyboards, layouts, writing materials, adding animated sound effect and images. According to Sudjana and Ahmad Rivai (2000: 6), learning media serves as a tool to clarify the lesson material to be delivered, as a tool to raise questions for further study and as a learning resource for students. That is, the media contains material that must studied by students. Sepaktakraw basic motion learning media is a worthy of being used as a learning resource because contains material with sub-themes increase knowledge for students in Sepaktakraw.

CONCLUSION

According to material experts, getting a percentage of 88% (Very Good) category and according to media experts, it obtained a percentage of 84.61% (Very Good) category.

Meanwhile, assessments in operational trials obtained “Very Good” and “Good” scores so it can be said the assessment tool is feasible to use. The effectiveness test was carried out by practicing the skill of four basic Sepaktakraw techniques. The result obtained by comparing of scores in pre-test (before watching video) with post-test (after watching video) regard the basic techniques of Sepaktakraw. The pre-test result obtained a median of 64.67 while the post-test results obtained median of 90.80. It was found that the F count < 0.05 , it can be concluded if there is a significant difference in the results between of student knowledge before and after watching the video of basic Sepaktakraw techniques training. Further research is needed to determine the level of effectiveness of the media in the media in learning, both for classroom action research and experiment.

REFERENCES

- Abidah, et al. (2020). The Impact of Covid-19 to Indonesian Education and Its Relation to the Philosophy of “ Merdeka Belajar .” *SiPoSE: Studies in Philosophy of Science and Education*, 1(1), 38–49.
- Aini, Q., Budiarto, M., Putra, P. O. H., & Rahardja, U. (2020). Exploring E-learning Challenges During the Global COVID-19 Pandemic: A Review. *Jurnal Sistem Informasi*, 16(2), 57–65.
- Alchamdani, A., Fatmasari, F., Rahmadani Anugrah, E., Putri Sari, N., Putri, F., & Astina, A. (2020). The Impact of Covid19 Pandemic on Online Learning Process in the College at Southeast Sulawesi. *Jurnal Kesehatan Lingkungan*, 12(1s1), 129.
- Apriyanti, C. (2020). the Parents Role in Guiding Distance Learning and the Obstacle During Covid-19 Outbreak. *Jurnal Ilmiah Pendidikan Dasar*, VII(2), 68–83.
- Cendra, R., Gazali, N., & Dermawan, M. R. (2019). Efektivitas media pembelajaran audio visual terhadap keterampilan teknik dasar bulu tangkis. *SPORTIF: Jurnal Penelitian Pembelajaran*, 5(1), 55–69.
- Egok, A. S., Gurmani, G., Pendidikan, P., Sekolah, G., & Selatan, S. L. S. (2020). Development of Etnosains Materials in 5E Cycle Learning Model Based on the Local Culture of Primary School Students. *Journal of Research and Educational Research Evaluation*, 9(1), 22–30.
- Eka Prasatiawati, H. (2015). Pengaruh Media Audio Visual Terhadap Penguasaan Teknik Smash Kedeng (Studi Pada Ekstrakurikuler Sepak Takraw Smp Negeri 2 Gedeg Kabupaten Mojokerto). *Jurnal Pendidikan Olahraga Dan Kesehatan*, 3(1), 140–146.
- Gunawan, A., Darmawan, D., & Maskur, M. (2017). Pemanfaatan Multimedia Interaktif Model Tutorial Dalam Meningkatkan Pemahaman Dan Minat Belajar Siswa Pada Mata Pelajaran Pendidikan Jasmani Dan Olahraga Kesehatan Bidang Bola Basket Di Sman 27 Garut. *Teknologi Pendidikan Dan Pembelajaran*, 2(2), 314–336.
- Hamid, R., Sentryo, I., & Hasan, S. (2020). Online learning and its problems in the Covid-19 emergency period. *Jurnal Prima Edukasia*, 8(1), 86–95.
- Handayani, F., & Lestari, W. (2019). Journal of Educational Research and Evaluation Need Analysis in The Development of HOTS-Oriented Study Project Assesment Instrument in Android-Based Science Learning. *Jere*, 8(1), 57–64.
- Isolihatun. (2012). *Pengembangan Perangkat Pembelajaran Model Cooperative Problem Based Learning Dengan Strategi Paket Berbantuan CD Pembelajaran Pada Materi Diferensial Kelas X*. 1(2).
- Iyakrus, I. (2019). Pendidikan Jasmani, Olahraga Dan Prestasi. *Altius: Jurnal Ilmu Olahraga Dan Kesehatan*, 7(2).
- Maulidina, M., Susilaningsih, S., & Abidin, Z. (2018). Pengembangan Game Based Learning Berbasis Pendekatan Saintifik Pada Siswa Kelas Iv Sekolah Dasar. *JINOTEP (Jurnal Inovasi Dan Teknologi Pembelajaran) Kajian Dan Riset Dalam Teknologi Pembelajaran*, 4(2), 113–118.
- Novitasari, E., & Mediatati, N. (2021). *Evaluation of Project Based Learning Model Trough online Settings to Increase Science Learning Outcomes*. 10(1), 1–7.
- Pertiwi, T. S., Sutisyana, A., & Sihombing, S. (2017). Pelaksanaan Permainan Bola Kasti Dalam Pembelajaran Pendidikan Jasmani Olahraga Dan Kesehatan Di Sd/Min Kota Bengkulu. *Kinestetik*, 1(1), 57–61.
- Pratama, D. S., Sumarni, S., Safaruddin, S., & Iyakrus, I. (2021). Digital Based Learning Media Development to Increase Baseball

- Technique for Grade VI Elementary School Students. *Jere*, 10(1), 19–27.
- Prayudha, J. (2020). Students Problem Face in Online Learning AMIDT Pandemic Covid-19. *Journal of Teaching and Education*, 2(1), 71–81.
- Sardiman. (2017). Pengaruh Latihan Plyometric dan Panjang Tungkai terhadap Peningkatan Power Lompatan dan Smash Kedeng Sepak Takraw. *Journal of Physical Education and Sport Science*, 6(3), 286–290.
- Sulaiman. (2014). Alat Tes Keterampilan Sepak Takraw Bagi Atlet Sepak Takraw Jawa Tengah. *Journal of Physical Education Health and Sport*, 1(2), 68–76.
- Sumarni, S. R. I. (2016). *4-To-5-Year Old Children Speaking Ability Through Constructive Play With Peer Group at Bon Thorif Kindergarten in Palembang*. 58, 1107–1118.
- Sumarni, S., Ramadhani, R., Sazaki, Y., Astika, R. T., Andika, W. D., & Prasetyo, A. E. (2019). Development of “child friendly ICT” textbooks to improve professional competence of teacher candidates: A case study of early childhood education program students. *Journal for the Education of Gifted Young Scientists*, 7(3), 643–658.
- Sya’ban, A. (2020). Tinjauan Kemampuan Teknik Dasar dan Teknik Khusus Permainan Sepaktakraw Atlet Putri ATC (Ambacang Takraw Club). *Jurnal Partiot*, 2(1), 26–37.
- Wahyuddin. (2014). Implementasi Media Pembelajaran Berbasis Pengembangan Pendidikan Dan Karakter Bangsa. *Jurnal PENA*, 1, 21–30.
- Wargadinata, W., Maimunah, I., Dewi, E., & Rofiq, Z. (2020). Student’s Responses on Learning in the Early COVID-19 Pandemic. *Tadris: Jurnal Keguruan Dan Ilmu Tarbiyah*, 5(1), 141–153.
- Yusfi, H., Muslimin, & Destiana. (2020). *The Implementation of Underpass Learning Techniques Volleyball for Junior High School*. 422(Icope 2019), 95–99.
- Zaharah, Z., Kirilova, G. I., & Windarti, A. (2020). Impact of Corona Virus Outbreak Towards Teaching and Learning Activities in Indonesia. *SALAM: Jurnal Sosial Dan Budaya Syar-I*, 7(3), 269–282.