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[jk] Editor Decision

1 message

Ahmad Nasrulloh <ahmadnasrulloh@uny.ac.id>
To: Ugi Nugraha <ugi.nugraha@unja.ac.id>

Tue, Jun 7, 2022 at 12:39 PM

Ugi Nugraha:

We have reached a decision regarding your submission to Jurnal Keolahragaan, "THE EFFECT OF TEACHERS' PERCEPTIONS ON THE APPLICATION OF THE TAM MODEL ON STUDENTS' LEARNING OUTCOMES".

Our decision is: Revisions Required (Minor)

Please revise your paper according to the reviewer's comments below and also the comments in the soft-copy of your article (file attached), then highlight in yellow the revised part.

Please revised the file attached below without deleting the comments from reviewers and send the revised article within 10 days as of now.

If possible, please add 1 or 2 references from Jurnal Keolahragaan, and revise your paper before:

If you have any questions, please let us know

Thank you very much

Best regards

Ahmad Nasrulloh
(Scopus ID: 57200069837) Universitas Negeri Yogyakarta
ahmadnasrulloh@uny.ac.id

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Ugi Nugraha <ugi.nugraha@unja.ac.id>

[jk] Editor Decision

1 message

Ahmad Nasrulloh <ahmadnasrulloh@uny.ac.id>
To: Ugi Nugraha <ugi.nugraha@unja.ac.id>

Sun, Jul 3, 2022 at 8:13 AM

Dear Ugi Nugraha:

Congratulation,

After a thorough review process, The Editorial Team of Jurnal Keolahragaan has reached a decision regarding your submission.

The Editorial Team pleased to inform you that your manuscript has been accepted.

We kindly ask you to pay the article publication fee. The article publication fee is Rp 1.500.000,-. You may pay by bank transfer to:

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Thank you very much for submitting your article to Jurnal Keolahragaan. We welcome your contributions in future.

Best regards.

Ahmad Nasrulloh
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Ugi Nugraha <ugi.nugraha@unja.ac.id>

[jk] Editor Decision

1 message

Ahmad Nasrulloh <ahmadnasrulloh@uny.ac.id>
To: Ugi Nugraha <ugi.nugraha@unja.ac.id>

Wed, Sep 7, 2022 at 8:52 AM

Dear Ugi Nugraha:

We have notes to revise from the proofreading journal. Please revised it 7 days before publishing.

Thank you very much for submitting your article to Jurnal Keolahragaan.

Best regards.

Ahmad Nasrulloh
(Scopus ID: 57200069837) Universitas Negeri Yogyakarta
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by Ugi Nugraha

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The effect of teachers' perceptions of the TAM learning model seen on the student's learning outcomes in high school

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Abstract: Technology is an important aspect in improving the process of student development. This study attempts to examine how are the descriptive results of teacher perceptions and student learning outcomes and how are the perceptions of the application of the tam model applied to student learning outcomes. The sample of this research is as many as 38 teachers who teach subjects physical education with a working period of 1-8 years and 9-16 years. The method used in this research is a mixed method with quantitative data as primary data and qualitative data as reinforcing data. In the results obtained, it can be seen that there is an influence between teacher perceptions of the Technology Acceptance Model (TAM) learning model which measures the level of understanding of students in interactive multimedia learning media on student learning outcomes, and the results of teacher interviews that today's technology needs are very important to improve learning. Therefore, this test is very important because there are no researches who have tested these variables and there is an influence from the variables being tested. Therefore, this study aims to examine the results of descriptive statistics on teacher perceptions which are seen from student learning outcomes and measure the effectiveness of the perception of the application of the Tam model on student learning outcomes.

Keywords: football, sports education, TAM.

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INTRODUCTION

The very rapid development of technology in the current era of globalization has provided many benefits in various aspects of education, society, culture, and economy (Nikou & Aavakare, 2021; Usmeldi et al., 2017; Varpanen, 2021). The development of information technology supported by infrastructure, computers, and the internet has had an impact on all aspects of life, especially education (Das, 2021; Gathong & Chamrat, 2019; Martini et al., 2018). Educational technology aims to process one's quality maturation for future development (Astuti et al., 2021; Papadakis, 2021; Shanmugam & Balakrishnan, 2019).

In the world of education, technology is an important aspect of improving the process of student development. One of the uses of technology is in physical education lessons (Fitri & Winarni, 2016; Fitriadi & Rachman, 2014). With the existence of adequate technology in physical education learning, develop the self-potential of students (Artyhadewa, 2017; Cahyati & Suherman, 2014). Physical education is one of the subjects that trains students in psychomotor aspects (Ardiyanto & Fajaruddin, 2019; Susanto & Lismadiana, 2016). One of the materials that can develop the potential of students is football.

Football is one of the physical education materials that develop the ability to cooperate between students (Arianto & Setyawan, 2019; Sucipto & Widiyanto, 2016; Sumarno & Irianto, 2019). Football today is closely related to the development of existing technology. With technology, soccer material can be developed, one of which is the virtual procedure for playing soccer (Adam & Sukoco, 2015; Anggitasari et al., 2019; Susanto & Lismadiana, 2016). Such as research (Ilissaputra & Suharjana, 2016; Mardhika & Dimyati, 2015; Nasution & Suharjana, 2015) explains physical education learning



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on students' learning interests, but there is no perception from teachers on the use of technology in physical education learning.

Based on the learning outcomes of students in the physical education subject for soccer material, it was found that there were gaps between genders. Where the male gender is more dominant than the female gender due to the soccer material male students are more active and can practice the material. Based on the results of interviews with physical education subject teachers in accordance with student learning outcomes where there are differences between genders in soccer material. In addition, such as research (Arianto & Setyawan, 2019) which explains the relationship of gender to physical education learning.

Therefore, the urgency of this research is to find out the results of descriptive statistical tests and the influence of the application of technology on student learning outcomes and the perception of educators on the application of the TAM model. By looking at how important the application of technology is to student learning outcomes, there is a problem formulation from this research, namely: 1) What is the perception of educators on the application of the TAM model; 2) How are students' learning outcomes on soccer material; 3) How does the perception of the application of the Tam model affect student learning outcomes.

METHODS

This study used a mixed-method approach that combined qualitative and quantitative methods (Khun-Inkeeree et al., 2021; Maharani & Subanji, 2018; Wu et al., 2020). By using a sequential explanatory design in this study, quantitative data becomes supporting data from qualitative data (Bátyi, 2017; Daguay-James & Bulusan, 2020). Sources of data used in this study in the form of qualitative data, namely the results of interviews with teachers who teach physical education subjects and quantitative data in the form of questionnaires on student learning outcomes and teacher performance observation sheets. The sample of this study was 40 teachers consisting of 20 high school teachers in West Bangko sub-district with a total of 12 male teachers and 8 female teachers. Then in the West Pamenang sub-district, there are 20 high school teachers with 15 male teachers and 5 female teachers in Merangin District. The working period of each teacher consists of 1-8 years and 9-18 years. The sampling technique in this research is total sampling. The reason for taking the research subject is because the sub-district has done a lot of physical education learning so that it can be seen the perception of teachers and student learning outcomes. The instruments were a sheet for learning outcomes and an observation sheet for teacher performance. The sheet consists of perceptions that there is a significant influence on teacher understanding on aspects of attitude toward using, behavioral intention to use, and actual use simultaneously on physical education learning outcomes in Merangin Regency. There is a valid statement item on this instrument using a Likert scale. The scale consists of 5 points with a very good score of 4, good which is 3, less good is 2, and not good is 1. Each statement is a representative of each indicator (See Table 1).

Table 1. Instrument Grid

Variable	Indicator	Sub Indicator	Item
TAM	Attitude toward using	a. Convenience to interact	10 question
		b. Happy to use	
		c. Enjoy using	
		d. Not boring	
	Behavioral intention use	a. Has helpful features	10 question
		b. Always try to use	
		c. Continue in the future	
	Actual Use	a. Usage Time	10 question
		b. Frequency of Use	

The data were collected through interviews, as well as observation sheets, and learning outcomes question sheets. Structured interviews included a question list that had been prepared before conducting direct interviews (Husband, 2020; Kell et al., 2017). Interviews were conducted with the physical education teachers. The observation sheet is given to the teacher to measure performance and

the learning outcome questionnaire is distributed to students. After the data were collected and analyzed, for quantitative data analysis using SPSS, conclusions were obtained.

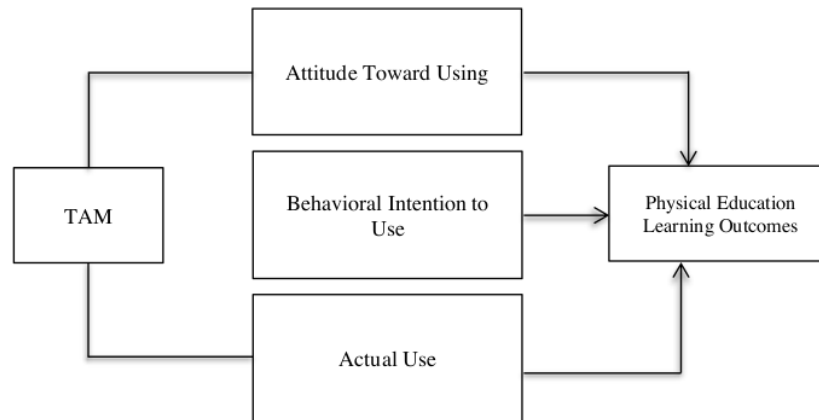


Figure 1. Research Procedure

This study used qualitative data analysis, descriptive statistics and inferential statistics of quantitative data. Inferential statistical analysis aims to estimate parameters and test hypotheses of a study. The descriptive statistics used in this research is a numerical approach method by presenting the mean, median, min and maximum data. The inferential statistics used the assumption test, linearity test and regression test. Before performing the regression test, the assumption test and linearity test were carried out first. The first step in this research is to determine the normality and linearity of a data using the normality test and linear test. The results of the interviews used a gradual qualitative data analysis test.

RESULTS AND DISCUSSION

The following describes the descriptive statistical results of perception variables. Perception indicators: teacher's perception of attitude towards using technology, teacher's perception of the desire to use technology, teacher's perception of the use of technology in learning. The results obtained from the distribution of questionnaires in schools are shown in Table 2.

Table 2. Description of Teachers' Perceptions of Attitudes in Using Technology

Response	Interval	F	%	Category	Mean	Me	Min	Max
High School in West Bangko District	M 8.0 – 14.4	0	0%	Not very good	3.69	4.2	2.0	5.0
	14.5 – 20.8	4	11.1%	Not good				
	20.9 – 27.2	10	27.8%	Enough				
	27.3 – 33.6	15	41.7%	Good	3.52	3.50	1.0	5.0
	33.7 – 40.0	7	19.4%	Very good				
	F 8.0 – 14.4	1	2.8%	Not very good				
High School in West Pamenang District	14.5 – 20.8	4	11.1%	Not good	3.91	4.0	2.0	5.0
	20.9 – 27.2	13	36.1%	Enough				
	27.3 – 33.6	11	30.6%	Good				
	33.7 – 40.0	7	19.4%	Very good	3.76	4.0	2.0	5.0
	M 8.0 – 14.4	0	0%	Not very good				
	14.5 – 20.8	1	2.9%	Not good				

F	14.5 – 20.8	2	5.9%	Not good
	20.9 – 27.2	11	32.4%	Enough
	27.3 – 33.6	14	41.2%	Good
	33.7 – 40.0	7	20.6%	Very good

Based on Table 2, the category of teacher perceptions of the attitude toward using technology in the West Bangko sub-district is superior, it can be seen from the percentage of very good scores from the teacher's response.

Table 3. Description of Teacher's Perception of Desire to Use Technology

Response	Interval	F	%	Category	Mean	Me	Min	Max
High School in West Bangko District	M 7.0 – 12.6	0	0%	Not very good	4.41	5.0	3.0	5.0
	12.7 – 18.2	0	0%	Not good				
	18.3 – 23.8	4	11.2%	Enough				
	23.9 – 29.4	13	36%	Good				
	29.5 – 35.0	19	52.8%	Very good				
	F 7.0 – 12.6	0	0%	Not very good	4.41	4.5	3.0	5.0
	12.7 – 18.2	0	0%	Not good		0		
	18.3 – 23.8	3	8.3%	Enough				
	23.9 – 29.4	15	41.7%	Good				
	29.5 – 35.0	18	50%	Very good				
High School in West Pamenang District	M 7.0 – 12.6	0	0%	Not very good	4.55	5.0	3.0	5.0
	12.7 – 18.2	0	0%	Not good				
	18.3 – 23.8	3	8.8%	Enough				
	23.9 – 29.4	9	26.5%	Good				
	29.5 – 35.0	22	64.7%	Very good				
	F 7.0 – 12.6	0	0%	Not very good	4.50	5.0	3.0	5.0
	12.7 – 18.2	0	0%	Not good				
	18.3 – 23.8	2	5.9%	Enough				
	23.9 – 29.4	13	38.2%	Good				
	29.5 – 35.0	19	55.9%	Very good				

Based on Table 3, the category of teacher perceptions of the desire to use technology at the West Pamenang High School is superior, it can be seen from the percentage of very good scores.

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Table 4. Description of Teacher's Perception of the Use of Technology in Learning

Response	Interval	F	%	Category	Mean	Me	Min	Max
High School in West Bangko District	M 5 – 9	0	0%	Not very good	3.58	3.0	2.0	5.0
	10 – 13	1	2.8%	Not good				
	14 – 17	19	52.8%	Enough				
	18 – 21	10	27.8%	Good				
	22 – 25	6	16.7%	Very good				
	F 5 – 9	0	0%	Not very good	3.38	3.0	2.0	5.0
	10 – 13	2	5.8%	Not good				
	14 – 17	21	58.3%	Enough				
	18 – 21	10	27.8%	Good				
	22 – 25	3	8.3%	Very good				
High School in West Pamenang District	M 5 – 9	0	0%	Not very good	3.44	3.0	3.0	5.0
	10 – 13	0	0%	Not good				
	14 – 17	22	64.7%	Enough				
	18 – 21	9	26.5%	Good				
	22 – 25	3	8.8%	Very good				
	F 5 – 9	0	0%	Not very good	3.44	3.0	3.0	5.0
	10 – 13	0	0%	Not good				

14 – 17	21	61.8%	Enough
18 – 21	11	32.4%	Good
22 – 25	2	5.9%	Very good

Based on Table 4, the category of teacher perceptions of the use of technology in learning at West Bangko District Senior High School is superior, it can be seen from the percentage of good scores.

Table 5. Description of Physical Education Learning Outcomes

School	Interval	Category	F	%	Mean	Me	Min	Maks
High School in West Bangko District	25,00 – 43,75	Very Not Good	1	2,5	76,4	76	40	92
	43,76 – 62,50	Not good	8	20				
	62,51 – 81,25	Good	19	47,5				
	81,26 – 100	Very good	12	30	74	76	40	92
High School in West Pamenang District	25,00 – 43,75	Very Not Good	3	7,5				
	43,76 – 62,50	Not good	9	22,5				
	62,51 – 81,25	Good	14	35				
	81,26 – 100	Very good	14	35				

Based on Table 5, the physical education learning outcomes of students in West Bangko District Senior High School and West Pamenang District High School have good to very good categories with percentages of 77.5% and 70.0% respectively. Furthermore, the researchers tested the assumptions in the form of a normality tests and linearity test. Data is normally distributed if the significant value obtained is greater than 0.05.

Table 6. Normality test of TAM perception of teachers in West Bangko District Senior High School and West Pamenang District High School

School	Variable	Kolmogorov-Smirnov		
		Statistic	Df	Sig.
High School in West Bangko District	Attitude toward using	.073	46	.200*
	Behavioral intention use	.239	46	.200
	Actual Use	.074	46	.200*
	Attitude toward using	.175	46	.200*
High School in West Pamenang District	Behavioral intention use	.078	46	.200
	Actual Use	.175	46	.200*

Based on Table 6, it can be concluded that the data is normally distributed. The normality test was obtained by the Kolmogorov-Smirnov test, the significance value was > 0.05. The linearity test of TAM perceptions of teachers at West Bangko District Senior High School and West Pamenang District High School is described in Table 7.

Table 7. The linearity test of TAM perceptions of teachers in Bangko Sub-district Senior High School and Pamenang District High School

School	Variable	Kolmogorov-Smirnov ^a	Deviation from linearity
		Sig	Sig
High School in West Bangko District	Attitude toward using	0.041	0.034
	Behavioral intention use	0.042	0.035
	Actual Use	0.043	0.036
	Attitude toward using	0.046	0.036
High School in West Pamenang District	Behavioral intention use	0.047	0.037
	Actual Use	0.036	0.042

Based on Table 7, the linearity test of the variables above has a linear relationship between West Bangko High School and West Pamenang District High School. It is proven that the result of $\text{sig} < 0.05$. For the results of the description of the TAM perception regression test for teachers at Bangko District High School and Pamenang District High School (See Table 8).

Table 8. TAM Perception Regression Test on teachers at Bangko Sub-district Senior High School and Pamenang District High School

School	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
High School in West Bangko District	64.386	12.116		5.314	.000
	.126	.166	.122	.760	.042
High School in West Pamenang District	65.142	11.223		5.804	.000
	.101	.154	.106	.656	.016

From Table 8, it is found that there is an influence on the perception of TAM on teachers in West Bangko District Senior High School and West Pamenang District High School on physical education subjects. This is evidenced by the value of $\text{sig} < 0.05$.

Interview results were obtained from several teachers who teach physical education subjects at West Bangko District High School and West Pamenang District High School as follows:

1. Question 1: Are you able to use technology? If you use this technology, in what ways do you use it?

Teacher 1: Yes, technology is very complex and provides many benefits, one of which makes it easier for me to carry out teaching and learning activities and also communicate remotely with guardians and students directly. Teacher 2: Sure. In this modern era, technology is inseparable from human life, I use technology in various aspects of life, especially in teaching activities.

2. Question 2: How do you respond to technology that is rapidly advancing in human life?

Teacher 1: I think the development of advanced technology is a virtue that can make things easier in everyday life.

Teacher 2: In my opinion, the development of increasingly sophisticated technology must be accompanied by supervision and also accompanied by virtuous education and can make education more quality

3. Question 3: Do you apply technology to physical education learning?

Teacher 1: I apply technology in physical education learning, one of which is soccer material in the form of using the computer room to analyze strategies and soccer games.

Teacher 2: the application of technology in physical education learning is very important because it can facilitate the course of learning and communication, one of which is a smartphone in the learning that I teach, namely physical education, by creating a classroom, group chat, and so on, to facilitate communication.

The qualitative data shown in the results show that the teacher knows the learning outcomes of students through observing attitudes, actions, and skills in doing assignments. This shows that the teacher only understands the outstanding student skills, without paying attention to other students. Where, these students need guidance and understanding of their interests so that students can develop skills according to their interests (Abbott, 2017; Z. Luo et al., 2020; Sari & Sarwanto, 2018).

This study shows the application of the teacher perception model application on student learning outcomes evidenced by the difference in technology used by teachers between the districts of West Bangko and West Pamenang which can determine student learning outcomes. On the other hand, there are differences in student gender in learning outcomes because in soccer the male gender has a higher dominance. This research can have an impact on students, teachers, and even schools. For students, this research is a place to voice their opinions on learning outcomes in the physical education subject matter of soccer (Cain, 2020; Jufrida et al., 2019; Kapici et al., 2020). For teachers, this research can be used as a basis for developing and making the learning process even better and improving physical education learning technology, so that learning objectives can be achieved (Effendi & Hendriyani,

2020). For schools, this research can be used as a basis for developing technology and knowing the skills of students at the school, so that schools can take action to improve the skills of their students (J. M. Luo et al., 2019; Parrish & Lanvers, 2019; Sarid, 2018). Which will have an impact on increasing the results that students have, especially on soccer material

This research is in line with previous literature regarding the use of technology in physical education subjects on student learning outcomes. Researchers (Arianto & Setyawan, 2019) discussed the differences in student skills in learning physical education in junior high schools. Then the researchers (Sumarno & Irianto, 2019) discussed the relationship between technology use in physical education learning. Meanwhile, this study, it focuses more on how the effect of using the TAM model application on student learning outcomes. Therefore, this test is very important because there are no researchers who have tested these variables and there is an influence from the variables being tested. Therefore, this study aims to determine the results of descriptive statistics on teacher perceptions and student learning outcomes, and can determine the effect of the perception of the application of the TAM model on student learning outcomes.

CONCLUSIONS

Based on the results of research that has been done in the West Bangko High School district and West Pamenang High School district, it can be concluded that the use of technology for physical education students has a very positive effect on student learning outcomes, especially student learning outcomes in West Bangko High School district and West Pamenang High School district. Judging from the perception of teachers who use the TAM learning model, they can provide technology benefits to students in physical education subjects on soccer material. With the help of existing technology, it can improve students' abilities to make learning outcomes better. In addition to the use of technology, teachers who can develop their lessons with the help of technology can have a new impact on the students they teach.

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