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Media information technology games based on local cultural content

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Abstract. This study aims to determine the effect of information technology game media on cultural content on learning motivation of Yogyakarta PGRI University students. This research was conducted because there were still some students who had low motivation to learn, because some lecturers were inconsistent in the use of information technology game media. This study uses quantitative methods with a student population with a sample of 74 students. This study uses questionnaire instrument data collection techniques to obtain data media games and information and learning motivation. The analysis technique used in this study is simple regression analysis. The results of this study concluded that there was a positive and significant influence between technology and media games based on local cultural content on the learning motivation of Civics Education students class of 2019/2020. The results obtained with a value of $r_{xy} = 0.800 > r_{table} 0.227$ which means that the information technology game media based on local cultural content can affect student motivation.

Keyword: Technology, learning Media, Learning Motivation, Culture.

1. Introduction

Based on Law Number 20 the Year 2003 concerning the National Education System (Indonesia) article 1 paragraph 1 states that education is a conscious and planned effort to create an atmosphere of learning and learning process so that students actively develop their potential for spiritual, religious, self-control, personality, intelligence, noble character, and skills needed by himself, society, nation, and country.

The implementation of education, in general, is to develop the quality and potential of human resources to build a more developed nation. The development of science and technology influences progress in education, including the quality of learning in schools [1] [2] [3]. This means that with technology, schools are required to be more creative in making learning interesting and effective with technology-based learning media and information. The learning process that uses technology and information-based media is expected to increase student motivation to participate in learning to obtain maximum learning results.

The use of media in learning can arouse student learning motivation, clarify, facilitate concepts, and enhance absorption. Furthermore learning motivation is the overall driving force within students that gives rise to learning activities, which ensures continuity of learning activities and provides the direction of activities study, so aim that the desired can be achieved [4]. The use of technology-based learning media and information is in line with the paradigm of student-centered learning or student-centered learning which is expected to encourage student motivation to be active in the learning process.

One of the uses of technology and information in learning media is the development of technology and information-based game media [5]. Technology and information game media is a technology-based interactive learning media in the form of Power Point media that contains a series of learning materials that are equipped with an evaluation game [1] [6]. In technology and information game media there are material and evaluation in the form of games in power points so that they are expected to be able to make learning more effective and efficient. The purpose of using technology and information game media is



that students are more motivated in learning [7].

Multimedia provides opportunities for students to learn not only one source but provides opportunities for students to develop cognitive abilities well and creatively [8] [7]. Based on that, the use of technology and information game media in learning is important. But in practice, the development of technology and information game media has not been used optimally and has not been used consistently [9].

The PEC (Pancasila and Citizenship Education) course is one of the compulsory subjects ranging from elementary school to tertiary education with a mission to educate the nation's life. Based on Law no. 20/2003 Article 37 explains that PEC is an effort to equip students with basic knowledge and skills regarding the relationship between citizens and the state and state defense education to become citizens who can be relied on by the nation. and declare.

PEC learning objectives tend to lead to morals that are expected to be realized in everyday life, namely through behavior that reflects the personality of Pancasila as the foundation of the Indonesian state. The PEC course also learns about everyday life to become good citizens and form students with Pancasila morals. So that the PEC course does not only learn about cognitive aspects in the form of knowledge about the state and citizens but also learn about attitudes and morals [10].

In addition to the cognitive aspects of learning, PEC courses also include affective and psychomotor aspects and emphasize value education and moral and norm development. Furthermore, the PEC course also emphasizes students to become good citizens in order to be able to develop and preserve noble and moral values that come from the Indonesian nation. It is hoped that these values can be implemented in everyday life in the life of the nation and society. So that PEC learning becomes an important lesson for further study by students.

Based on the data obtained by researchers, it is known that the number of lecturers who teach PEC courses in Yogyakarta regional universities is 59 lecturers. Regarding classroom learning, 82% of lecturers in PEC courses in Yogyakarta region universities use technology and information-based learning media. It can be seen that 43% of all lecturers in PEC courses in Yogyakarta region universities, 25 lecturers often use technology and information game media. As many as 39%, namely 23 lecturers, sometimes use technology and information game media. The remaining 18% of lecturers have never used technology and information game media [11].

More specifically in the PEC course, the information that researchers obtained based on the results of interviews with lecturers and students was that the number of lecturers teaching PEC courses was 3 lecturers. Of the three lecturers, each teach classes A, B, and C. The three lecturers are part of 82% of lecturers who use technology and information-based learning media. However, the use of gaming technology, media and information is still inconsistent [12].

Based on the results of the initial survey, the researcher found that learning was centered on students, so that students were required to be active and lecturers became student facilities in learning activities. The method of presenting PEC course material at PGRI Yogyakarta University is carried out by direct verbal explanation to students (audience) with the help of technology and information game media. However, some learning classes for PEC subjects have not used technology and information game media. So it can be said that lecturers have not been consistent in using learning media, especially technology media and information games, this causes student learning motivation is still lacking (Preliminary survey interview with foreign students, Monday, June 24, 2020).

One of the contributing factors is that the lecturers explain a lot quickly so that students only listen and are less active. Another factor that causes this is the use of inappropriate and less attractive media, such things can have an impact on the learning process that is ineffective and efficient so that learning objectives cannot be achieved according to basic learning competencies (Initial survey interview with NA, Monday, June 24, 2020).

The low student motivation can be seen during the learning process of the PEC course. During learning, students still feel bored, lack attention, chat, often leave class, and are sleepy [6]. Low learning motivation is explained by some of the students' attitudes during learning such as students who look busy when the lecturer explains the material, it seems that students are less able to work on the questions given by the lecturer, besides that students still look passive when the lecturer asks students to come forward to present the results of the discussion through webinars [11] [13].

The cause of the low learning motivation of some students is the delivery of learning materials. At PGRI Yogyakarta University there are still lecturers who only use existing learning media, namely textbooks as a learning resource. Some lecturers are still inconsistent in using technology and information

game media. So that the lack of use of computers or technology and information as media in learning has an impact on the lack of motivation of students.

According to Bade Sai K Umar (2019) in his research, there were problems faced by lecturers related to learning media. Some of the difficulties faced by lecturers include designing and developing media that are in accordance with the material, lecturers have difficulty in designing technology-based and information-based media, and lecturers have difficulty applying learning media. In addition, most of the lecturers are constrained by the limited skills and infrastructure used [14][15].

Research related to technology and information-based learning media has been carried out by many previous researchers, one of which is research conducted on the effect of the use of learning media on student learning motivation [16] [17]. In the study, it was explained that the PEC course was one of the less desirable and less desirable subjects among students. So that a teacher must be able to motivate students to have an interest in learning PEC material. One of the motivations that was successfully carried out by a lecturer in this study was external motivation, namely using learning media. Based on the results of his research, there is a positive and significant influence between learning using information technology media on student learning motivation in PEC courses.

Learning media based on technology and information that is studied is an alternative development of learning media [6] [1]. The use of visual media, one of which can be useful for measuring the level of student ability, practical skills, and speaking ability of students more easily, because with this media students can be more creative and motivated so that it will affect student learning outcomes. It is evident from the research that has been done, it is found that learning without technology and information media students feel bored in learning [18] [19] [4]. Meanwhile, the use of technology-based visual media and information helps students become more active and enthusiastic.

Subsequent research related to the importance of technology and information-based media was also emphasized [5] on the influence of computer-based learning media on social studies learning outcomes in terms of student learning motivation. Based on his research, the learning process has the same obstacles as previous learning, namely students are less enthusiastic, look bored, less active and creative because they do not use learning media [20] [11]. So from this research, it is found that learning using computer-based media (Power Point) has more influence on learning motivation than direct learning models.

With the development of science and technology, the use of information-based technology and media is considered important because it is associated with advances in educational technology. The higher the educational technology, the higher the media needed to increase student motivation to learn effectively and efficiently. High student motivation can obtain high learning outcomes as well.

From the background above, it can be seen that learning media, especially technology-based media and important information, are used by schools in the learning process 4.0. The use of technology-based learning media and information is considered important because it can increase student motivation. In addition, the use of technology and information in the learning process can support and assist lecturers in delivering material.

2. Method

2.1 System Design

This study uses quantitative methods with a population of 74 students. This study used a questionnaire instrument data collection technique to obtain information technology media game data based on cultural content and learning motivation. The analysis technique used in this research is simple regression analysis. The data obtained were analyzed using taxonomic analysis techniques, compound by organizing and reducing data processing into patterns, categories and basic description units so that they can be compiled. determine the theme and can be formulated as a conclusion. Taxonomic analysis was carried out at the time of data collection and after data collection was complete. The analytical work carried out in this study was to organize, sort, code, and categorize the data in order to obtain a picture that corresponds to the aspects studied.

$$r_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{[N \sum X^2 - (\sum X)^2][N \sum Y^2 - (\sum Y)^2]}}$$

Information:

R_{xy} : Correlation coefficient between item scores and total

N : Number of trial subjects

$\sum x$: Number of items scored

$\sum x^2$: Total score of square items

$\sum y$: Total score

$\sum y^2$: Total score squared

$\sum xy$: The number of times the item score is multiplied by the totals

2.2 System Implementation

$P > 0.05$ then the independent variable (X) is independent. The Pearson Product Moment Correlation is represented by (r) provided that the value of r is not more than the price ($-1 \leq r \leq 1$). If the value of $r = -1$, that is, the value of -1 to 0 means that the correlation is negative, $r = 0$ does not exist correlation, $r = 1$ which is a value from 0 to 1 means a positive correlation.

3. Result and discussion

Hypothesis testing in this study uses the product-moment formula of Pearson. The independent variable and the dependent variable are said to have a relationship if the value of r count > r table at a significance level (α) of 5% with a total sample of 74 respondents. Hypothesis test results processed with the SPSS application can be seen in the following table:

Table 1. Hypothesis test results correlations

		Media Games	Motivation to learn
Media Games	Pearson Correlation	1	.800**
	Sig. (2-tailed)		.000
	N	74	74
Motivasi Leran	Pearson Correlation	.800**	1
	Sig. (2-tailed)	.000	
	N	74	74

** . Correlation is significant at the 0.01 level (2-tailed).

The R hitung value of 0.800 is positive, which means that the relationship between the two variables is positive, meaning that if one variable has increased, the other variables tend to increase as well. Then in Sig. (0.000) < (0.05) means that the relationship between the two research variables is significant / correlated. The degree of relationship between the independent variable and the dependent variable can be seen from the Pearson correlation value which is 0.800, which means that the level of influence between the media of information technology culture and learning motivation is strong. So it can be concluded that technology and information game media have a positive effect on learning motivation with a strong correlation level.

Based on the results of the table hypothesis test, the r table value is 0.800 with Sig. from 0,000. These results indicate that the count value (0.800) > r table (0.227), and the Sig value, (0.000) < (0.05), so it can be said that there is a relationship between the independent variable and the dependent variable. research. The results showed that there was an influence of cultural content information technology game media on student learning motivation at the PGRI Yogyakarta University.

From the results obtained by researchers found that SMA N 2 Bantul has as many as 59 teachers. From this number, 3 teachers taught PEC and the rest were in other subjects. In connection with the use of instructional media known as much as 82% use media technology game media content information

cultural content, the rest do not use. Of the 82% of teachers who use technology and information game media, not all teachers use it consistently. But it cannot be denied that the use of media information technology culture media games can affect student motivation.



Figure 1. Examples of Cultural Media Contents

This is by the theory of [15], stating that educational learning media are media whose use is integrated with the aims and content of teaching and is intended to enhance the quality of teaching and learning. The use of teaching media in the learning process can arouse new desires and interests, generate motivation and stimulation of learning activities and can bring psychological influence on students [21] [22] [23] [24].

Based on the results of the study, there is an influence between the media of information technology culture content media on student motivation in PGRI Yogyakarta University which has been statistically proven and strengthened by the results of grouping interval values. The variables of technology and information game media tended to be categorized as high at 24.32% or as many as 18 students. The variable of learning motivation in PEC subjects obtained a high category of 28.38% or 21 students.

This means that the frequency-based information technology game media game variable most often found is in the high category of 24.32%. Meanwhile, the learning motivation variable most often was also categorized as high by 28.38% of students and the rest in other categories. So that the media of technology and information games and learning motivation are both high in students.

4. Conclusion

Based on the results of data analysis, this conclusion will present the results of the study. The conclusion is "there is a positive and significant effect of the use of media based on information technology and cultural content on student motivation in PGRI Yogyakarta University. This conclusion is evidenced by the magnitude of the results greater than $r_{table} (0.800) > (0.227)$, from the data analysis, the t value is 11,297 with R square 0.639. The magnitude of this relationship indicates that the information technology media information variable has a positive or strong influence on the learning motivation variable.

Significance or significance of the relationship between these variables is proven by the t count is greater than t_{table} . So it can be concluded that the media game information technology culture media has a positive and significant effect on PEC student learning motivation by 63%. This means that when the technology and information game media has increased, the PEC learning motivation also tends to increase significantly. So that 63% of learning motivation is influenced by the cultural media of information technology and the remaining 37% of student learning motivation is influenced by other factors that are less careful by researchers.

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