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The influence of using information technology-based learning media and interest in learning on students' learning ability at SMP Negeri 8 Manado

Stenly Maramis[1], Tinneke E M Sumual[2], Paulus R Tuerah[2]
[1] Department of Education Management Masters Study Program, Postgraduate Program, Manado State University
[2] Master of Education Management Study Program, Postgraduate Program, Manado State University

Abstract
This research aims to determine the influence of the use of information technology-based learning media and interest in learning on students' learning abilities at SMP Negeri 8 Manado. This research method is a survey method with a sample of 81 students. Data collection techniques are questionnaire techniques and documentation. The data analysis technique uses multiple regression analysis methods. The results show that: (1) The use of information technology-based learning media has a positive and significant effect on students' learning abilities at SMP Negeri 8 Manado. The results of simple regression analysis calculations show that the $t_{count} > t_{table}$ value, namely t_{count} 7.992 > t_{table} 1.984. (2) Interest in learning has a positive and significant effect on students' learning abilities at SMP Negeri 8 Manado. The results of simple regression analysis calculations show that the $t_{count} > t_{table}$ value, namely t_{count} 5.370 > t_{table} 1.984. (3) The use of information technology-based learning media and interest in learning together influence students' learning abilities at SMP Negeri 8 Manado. The F test results show that $F_{count} > F_{table}$, namely 272.66 > F_{table} 3.09. The results of multiple correlation analysis obtained a correlation value of 0.923. This means that the use of information technology-based learning media and interest in learning have a relationship with the strong category. Based on analysis of the coefficient of determination, an R Square value of 0.849 was obtained. This means that the contribution of the influence of the use of information technology-based learning media and interest in learning together on students' learning abilities is 89.4%, the remaining 10.6% is influenced by other factors not discussed in this research.

Keywords: ICT learning media, interest in learning, learning ability

Introduction

The increasingly rapid development of information technology in the current era of globalization cannot avoid its influence on the world of education. Global demands require the world of education to always and always adapt technological developments to efforts to improve the quality of education, especially adapting its use to the world of education, especially in the learning process. Information technology is the development of information systems by combining computer technology with telecommunications (Baharudin, 2010). Educational institutions in Indonesia are starting to compete to utilize Information and Communication Technology for education by building hardware infrastructure, internet networks, procuring software and so on, all of which is being done in an effort to meet the need for more effective and efficient learning methods.

Many educational practitioners realize that the use of media or tools really helps the learning process activities. However, the limitations of learning media on the one hand and the weak ability of teachers to create such media on the other hand have made lecture methods increasingly mushroom. This condition is far from favorable. It is thought that the limited learning technology tools used in the classroom are one of the reasons for the weak quality of education. The scientific and technological revolution, changes in society, understanding how children learn, advances in communication and information media, and so on give their own meaning to educational activities. This challenge is one of the basics for the importance of a technological approach in managing education and teaching. The challenges of globalization that teachers must anticipate in the rapid and fundamental development of science and technology. Under these conditions, an educator is expected to be able to adapt responsively, wisely and wisely. Responsiveness means that teachers must be able to master science and technology products related to the world of education, such as learning using technology-based media. Without good mastery of science and technology, teachers will be left behind and become victims of science and technology. The phenomenon that occurs at SMP Negeri 8 Manado is that there are teachers who have more competence in utilizing information technology for learning, but there are also some teachers who have not utilized information technology-based learning media in learning activities.

Interest is a persistent tendency to pay attention to and remember some activity. A person who is interested in an activity will show that activity consistently with a sense of enjoyment. In other words, interest is a feeling of preference and interest in something or an activity by order. Interest is basically the acceptance of a relationship between oneself and something outside oneself. The stronger and closer the relationship, the greater the interest. It is a wrong assumption to say that interest is innate. Interest is a feeling that comes from being connected to something. Interest in something is learned and can influence learning and influence new interests. So, interest in something is a result of learning and tends to support further learning activities.

In routine daily classroom activities, teachers must try to avoid things that are monotonous and boring. A teacher must always give students enough things to think and do.

Teachers must also maintain students' interest in learning. According to Gagne, so that learning activities run well in the learning process, teachers must present stimulating materials to attract students' attention. In the learning process at SMP Negeri 8 Manado, when there are teachers who teach using learning media, many of the students look enthusiastic and eager to learn. However, in learning activities without teaching media, students look lethargic and sleepy.

In general, some learning content contains principles or concepts that are quite complicated and abstract. Problems that are complicated and complex for students who have only moderate abilities will certainly take a long time to learn. To be able to understand quickly and easily, abstract and complex concepts or principles in learning require information technology (computer programs) that are appropriate to the learning content. Information technology via computers will try to describe abstract and complex concepts/principles as carefully as possible into something real, simple, systematic and as clear as possible. Advances in information technology have produced various types and displays of media that can also be used for learning purposes, meaning that teachers and textbooks or printed media and nature are no longer the dominant learning sources.

Hamalik stated that the ability to learn is a form of growth or change in a person which is expressed in new ways of behaving thanks to experience and practice. There are three domains (aspects) related to students' learning abilities, namely the cognitive domain (knowledge), the affective domain (attitudes), and the psychomotor domain (skills). An example of the cognitive domain is students' ability to analyze a problem based on their understanding. An example of the affective domain is that students are able to determine their attitude to accept or reject an object. The psychomotor domain is where students are able to express themselves well.

Every student is said to be successful in learning if he has the ability to learn as stated above. However, the problem is that not all students have the same abilities. Many factors influence students' learning abilities, including internal factors, external factors, and learning approach factors. Internal factors that influence students' learning abilities are students' health and intelligence. Students who are healthy and have good intelligence will have good readiness in learning, so that their learning abilities can be optimal. On the other hand, students who are not healthy (are sick) will find it difficult to receive lessons so their learning abilities will be less than optimal.

The learning ability of students at SMP Negeri 8 Manado seems to have decreased somewhat through their response to the assignments given by the teacher. Many students do not do the assignments given by the teacher. In learning activities there are also students who do not respond to any material given. There is material that is actually easy to understand, but some students have difficulty analyzing and understanding the material. This research aims to determine the influence of the use of information technology-based learning media and interest in learning on students' learning abilities at SMP Negeri 8 Manado.

Method

This research uses a quantitative approach with a survey method. The population in this study was 130 students at SMP Negeri 8 Manado. The data collection techniques used in this research were questionnaires, observation and documentary. The research instrument used is a list containing a series of written statements or questions consisting of a number of items regarding something to be researched which must be answered by the respondent. The research instrument was tested for validity and reliability. Data analysis techniques are classical assumption testing, simple regression analysis, multiple regression testing, and hypothesis testing. The classic assumption tests are the normality test and the linearity test. Meanwhile, hypothesis testing is the t test, multiple correlation test, and F test.

Results and Discussion

According to Sudjana (2004:12) "Validity is the accuracy of a tool in assessing what it assesses". Meanwhile, according to Arikunto (2002:146) "Validity is a measure that shows the levels of validity or authenticity of an instrument. "To test the validity of this instrument, the Product Moment Correlation technique is used. The validity test of the instrument (questionnaire) is intended to find out whether the instrument used can reveal data from the variables studied accurately. Based on the indicators from the technology-based learning media variable, which totaled 11 questions, the results showed that there were 11 valid questions. Based on the indicators of the learning interest variable, which totaled 8 questions, the results showed that there were 8 valid questions. Based on the indicators from the learning ability media variable, which totaled 9 questions, the results showed that there were 9 valid questions.

Reliability testing refers to an understanding that an instrument is trustworthy enough to be used as a data collection tool because the instrument is good (Arikunto, 2006: 178). To test the reliability of the instrument, the Alpha Cronbach formula is used. The reliability coefficient for the use of technology-based learning media is 0.565, because 0.565 > 0.05. This means that the reliability of technology-based learning media is reliable. The reliability coefficient for interest in learning is 0.417, because 0.417 > 0.05. This means that the reliability of learning interest is reliable. The reliability coefficient for learning ability is 0.494, because 0.494 > 0.05. This means that the reliability of learning ability is reliable.

The normality test is used to determine whether the residual values (existing differences) under study are normally distributed or not. The technique used is the Kolmogrov-Sumirnov technique with the help of the SPSS 20 application. The rule used to test normality is the significant score, which is in the results of the Kolmogrov-Surminov calculation. Based on the test results, it shows that the value of Asymp. The sig for the variable use of technology-based learning media is or 0.857 > 0.05 so that the population is normally distributed. The learning interest variable shows the Asymp value. Sig or 0.384 > 0.05 so that the population is normally distributed. Meanwhile, the learning ability variable shows the Asymp value. Sig or 0.625 > 0.05 so that the population is normally distributed.

The linearity test is a test to see whether there is a significant linear relationship between the variables being studied. The rule used is if the significant value of linearity is > 0.05 then the data has a linear pattern, otherwise the data does not have a linear pattern. The test results show that the sig value is > 0.05 or the significant value of

variable X1 is 0.852 > 0.05 and the significant value of variable X2 is 0.411 > 0.05. So it can be concluded that the independent and dependent variables have a linear relationship. The multiple linear regression analysis test in this research used the SPSS 20 program. Using information technology-based learning media (X1) and learning interest (X2) as independent variables and students' learning abilities (Y) as the dependent variable. The results for the regression equations X1 and X2 against Y are $\hat{Y} = 1.315 + 0.510\ X_1 + 0.505$ It can be concluded that there is an influence of the use of information technology-based learning media and interest in learning on students' learning abilities.

The t-test is used to determine the influence of the independent variable (use of information technology-based learning media and interest in learning) partially on the dependent variable (students' learning ability). The t-test was carried out by comparing t_{count} with t_{table} at a significance level of 0.05. The test criteria are as follows: if (Sig) < 0.05 or $t_{count} > t_{table}$ then there is an influence, conversely if (Sig) > 0.05 or $t_{count} < t_{table}$ then there is no influence. It is known that the Sig value for the influence of X1 on Y is 0.000 < 0.05 and t_{count} 7.992 > t_{table} 1.984. Thus, H1 is accepted, which means that there is an influence of X1 on Y. It is known that the Sig value. for the influence of X2 on Y is 0.000 < 0.05 and t_{count} 5.370 > t_{table} 1.984. Thus, H2 is accepted, which means that there is an influence of X2 on Y.

The F-test is used to determine the influence of the independent variables (use of information technology-based learning media and interest in learning) together on the dependent variable (students' learning ability). To determine the simultaneous influence of independent variables on the dependent variable, this can be done in the following way. The test criteria are as follows: if (Sig) < 0.05 or $F_{count} > F_{table}$ then there is an influence, conversely if (Sig) > 0.05 or $F_{count} < F_{table}$ then there is no influence. The test results show that F_{count} has a value of 272.66 > F_{table} = 3.09 with a significance of 0.000 < 0.05, so it can be concluded that the independent variables, use of information technology-based learning media (X1) and interest in learning (X2) simultaneously influence positive and significant for the dependent variable, students' learning ability (Y). Based on the results found, Ha is accepted and Ho is rejected, and the statement H0 that together (simultaneously) influences the use of information technology-based learning media and interest in learning on students' learning abilities at SMP Negeri 8 Manado.

The R value is 0.923, which means there is a strong relationship between the use of information technology-based learning media and interest in learning on students' learning abilities. The coefficient of determination (R2) is 0.849 or 89.4%, which means that 89.4% of the learning ability variable can be explained by the variable use of information technology-based learning media and interest in learning while the remaining 10.6% is explained by other factors that were not studied. in this research.

Conclusion

1. The influence of the use of information technology-based learning media on students' learning abilities at SMP Negeri 8 Manado, as evidenced by the results of simple regression analysis calculations which show that the $t_{count} > t_{table}$ value, namely t_{count} 7.992 > t_{table} 1.984 so that H1 is accepted. This means that there is a significant influence of the use of information technology-based learning media on students' learning abilities. The direction of the relationship between variables that have a significant influence on the use of information technology-based learning media on students' learning abilities is positive, because rcount is positive.
2. The influence of interest in learning on students' learning abilities at SMP Negeri 8 Manado, proven by the results of simple regression analysis calculations which show that the tcount > ttable value, namely t_{count} 5.370 > t_{table} 1.984 so that H2 is accepted. This means that there is a significant influence of interest in learning on students' learning abilities. The direction of the relationship between the variables interest in learning and learning ability is positive, because rcount is positive.
3. The use of information technology-based learning media and interest in learning have a significant effect on students' learning abilities at SMP Negeri 8 Manado as evidenced by the results of the F test which shows that $F_{count} > F_{table}$, namely 272.66 > F_{table} 3.09, so H3 is accepted. This means that there is a significant influence on the use of information technology-based learning media and interest in learning on students' learning abilities. Based on the results of the multiple correlation analysis, a correlation value of 0.923 was obtained, meaning that the use of information technology-based learning media and interest in learning has a relationship with the strong category, because the r_{count} is 0.923. Based on analysis of the coefficient of determination, an R Square value of 0.849 was obtained, meaning that the contribution of the influence of the use of information technology-based learning media and interest in learning together on students' learning abilities was 89.4%, the remaining 10.6% was influenced by other factors that were not discussed in this research.

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