

Interest of 11th Grade Students in Mathematics Learning Media Assisted by Microsoft PowerPoint

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Abstract

Learning media has an important role in providing new variations in learning, especially in learning mathematics. The purpose of this research is to describe students' interest in learning using Microsoft PowerPoint on statistics in grade 11. This research is a descriptive quantitative study with a sample of 24 students from SMK Migas Bumi Melayu, Riau, Indonesia. The research instrument used was a non-test instrument in the form of a learning interest questionnaire with 20 statements consisting of 5 aspects. The data analysis technique used is quantitative descriptive analysis. The final results show that the feeling of pleasure category is at 81.67%. For the category of interest in learning is at 81.46%. While in the category of attention to learning is at 79.79%. And for the category of involvement in learning is at 80.42%. Based on the results of the research that has been described per aspect, almost all categories of student learning interest in the questionnaire are classified as very good, so that learning media shows a positive response from students to student learning, with a percentage of 80.83% in the very good category.

Keywords: Learning Media, Microsoft PowerPoint, Statistics

Abstrak

Media pembelajaran memiliki peran penting dalam memberikan variasi baru dalam pembelajaran, khususnya dalam pembelajaran matematika. Tujuan dari penelitian ini yakni mendeskripsikan minat belajar siswa dengan menggunakan Microsoft PowerPoint pada materi Statistika di kelas 11. Penelitian ini merupakan penelitian kuantitatif deskriptif dengan sampel penelitian sebanyak 24 siswa yang berasal dari SMK Migas Bumi Melayu, Riau, Indonesia. Instrumen penelitian yang digunakan adalah instrumen non-test berupa angket minat belajar dengan 20 pernyataan yang terdiri dari 5 aspek. Teknik analisis data yang dipakai yakni dengan menggunakan analisis deskriptif kuantitatif. Hasil akhir menunjukkan bahwa kategori perasaan senang berada di persentase 81,67%. Untuk kategori ketertarikan pada pembelajaran berada di 81,46%. Sedangkan pada kategori adanya perhatian pada belajar berada di 79,79%. Dan untuk di kategori keterlibatan pada pembelajaran berada di 80,42%. Berdasarkan hasil penelitian yang sudah dipaparkan per aspek, maka hampir semua kategori minat belajar siswa yang ada di angket tergolong pada kategori sangat baik, sehingga media pembelajaran menunjukkan respon positif siswa terhadap pembelajaran siswa, dengan persentase sebesar 80.83% dengan kategori sangat baik.

Kata kunci: Media Pembelajaran, *Microsoft PowerPoint*, Statistika

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INTRODUCTION

A good educational process can boost the potential of students to know many things and learn continuously. Education is one aspect that is useful for survival in the existing wheel of life (Zafrullah et al., 2023; Zafrullah & Zetriuslita, 2021). Education is defined as the process of preparing individuals to become citizens in order to achieve the ideals of the nation. Therefore, it can be said that education is an important element for the progress of a nation, which is believed to be able to grow the quality of its citizens. Education is very important in ensuring the transmission of culture from one generation to another (Anwar et al., 2022). In this case, the government as a regulator has made various efforts to

realize the golden generation, namely creating citizens who have qualified intelligence by making various efforts, such as competing in developing technology.

Technology continues to experience significant developments, especially in the field of mathematics (Nurdyansyah & Aini, 2020; Rahmawati & Juandi, 2022). The existence of technological developments in all areas of work, including in solving mathematical problems is an advancement in the field of learning. Various options in learning Mathematics are proposed to help students understand concepts regarding mathematics issues, one of which is learning mathematics.

Mathematics is a subject that already exists in schools that has an important role in everyday life and also in technological developments (Rachmantika & Wardono, 2019; Rahmah, 2013). Mathematics is the basis of all life which can be one of the solutions in solving complex problems, so it requires variations in learning mathematics. There are many variations when you want to learn mathematics, one of which is by using learning media.

Learning media is something that can be used to stimulate the minds and willingness of students to support learning, so that it has an important value when the teacher facilitates learning media for students (Angriani et al., 2020; Wijaya et al., 2021). By definition, learning media is defined as all forms used in conveying information (Wulandari et al., 2023; Zahwa & Syafi'i, 2022). Thus, correlatively good learning media can make a knowledgeable society due to an increase in the quality of learning. One of the subjects considered to be the key to creating a quality society is Mathematics. In relation to learning media, the way to deliver good learning is to create something fun for students who are studying interactive multimedia-based mathematics.

Interactive multimedia is a system that uses more than one media presentations (Text, Voice, or Video) simultaneously as well as interact live with its users, so that it can help in clarifying learning material (Tabrani et al., 2021). A multimedia can be referred to as interactive multimedia if students can adapt to the multimedia, then interactive multimedia becomes an innovation in the development of learning media (Anomeisa & Ernaningsih, 2020; Sakiah & Effendi, 2021). And the existence of interactive multimedia in the world of education provides positive benefits, namely representing teachers in conveying learning accurately (Fani & Sukoco, 2019).

Learning by using learning media has advantages because the learning atmosphere will feel better, so the function of learning media must be utilized as well as possible (Aksa, 2017). In addition, the function of learning media is to convey information in the lesson and make learning interesting so that students are enthusiastic about learning (Rachmadtullah et al., 2018). With the progress of the times and technological advances, the teacher must follow these advances. The teacher must also be able to identify the learning styles of most students, so that the teacher is able to overcome student problems in capturing learning material. One of them is by using Microsoft PowerPoint.

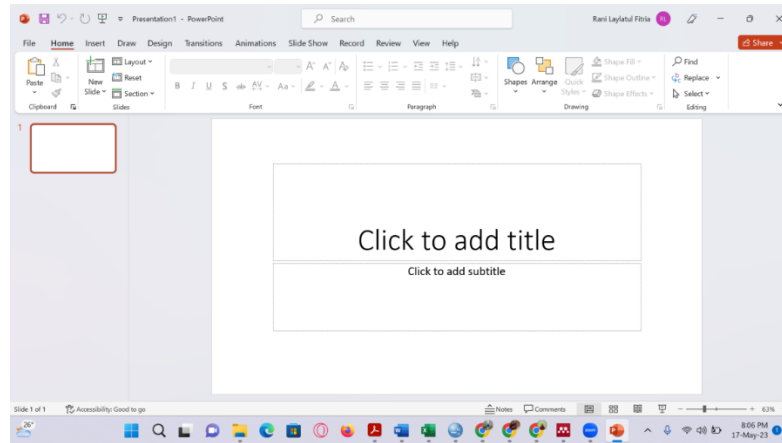


Figure 1. Initial View of Microsoft PowerPoint

Learning media made by researchers aim to enable students to learn by using applications that are already widely used by people, even with laptops/computers with low specifications. So that researchers make this application as an interactive multimedia-based learning media that will be studied. The results of previous studies indicate that PowerPoint-based learning media can help students increase their interest in learning (Dewi, 2019; Hermawan et al., 2020).

When teaching statistics material, teachers make less use of other media to convey this material, and more often use blackboard media as a teaching tool. By using the Microsoft Powerpoint application, material will be made with a complete explanation and accompanied by pictures so that students understand the material better. So that based on the explanation and results of the research described in the previous paragraph, this research will be carried out by describing students' learning interests on learning media using Microsoft PowerPoint.

METHOD

This research was conducted using a quantitative descriptive method. The purpose of this study was to describe the response of students' learning interest in a quantitative descriptive way to the use of learning media using Microsoft Powerpoint on the material of one-variable linear equations and inequalities. Responses to students' learning interests were determined by changing the response questionnaire data from students' learning interests into quantitative data. The subjects in this study were 24 class XI students from SMK Migas Bumi Melayu Riau.

This study uses a non-test instrument, namely a learning interest questionnaire with four categories, namely Happy Feelings, Student Interest, Student Attention, and Student Involvement (Syahputra, 2020). Before starting the research, the researcher validated the learning media with Microsoft Powerpoint with the aim of getting media that was valid and suitable for learning. Validation will be carried out to media experts, namely 1 mathematics education lecturer and 2 Vocational High School (SMK) teachers. After the media is corrected according to the suggestions and declared valid, then the media will be given to students.

After the media has been provided, the next step is that the researcher will distribute a

questionnaire using a Google Form with 20 questions. The researcher made each category into 5 questions with 14 positive questions and 6 negative questions. Researchers used a modified Likert scale to determine the scale categories contained in the questionnaire which contained four choices, namely strongly disagree (1), disagree (2), agree (3), and strongly agree (4). For negative statements, the value that will be used from the assessment is the opposite of positive statements. The descriptive and quantitative analysis techniques that will be used are Microsoft Excel as an aid when processing the data. Data processing techniques will be carried out by calculating the total percentage results of each category. After obtaining the results of the data analysis, the interest in learning questionnaire classification will then be carried out with the table below.

Table 1. Questionnaire Assessment Criteria

Intervals (%)	Criteria
0 – 20	Less Once
21 - 40	Not enough
41 – 60	Enough
61 - 80	Good
81 - 100	Very Good

Source: Arikunto (2010)

If all aspects have reached or exceeded 80%, the media will get a positive response from students. If all aspects have not reached 80%, then the media cannot get a positive response from students.

RESULTS AND DISCUSSION

Results

After the researcher distributed the questionnaires, the researcher then conducted an analysis per aspect, while the aspects of interest in learning are attached in Figure 2 below.



Figure 2. Results of Student Responses to the Criteria of Feeling Happy

From the percentage results in Figure 2, in the column I feel happy when using PowerPoint presentations as learning aids it shows 87.50% feel happy that learning with PowerPoint presentations can help students understand the material being taught. Meanwhile, there were 84.38% of students

who found it helpful and easier to understand the material with a PowerPoint presentation. In addition, there were 90.63% of students who felt PowerPoint presentations made learning more interesting and fun. Meanwhile, 69.79% of students felt PowerPoint presentations made learning monotonous and less interesting. Likewise, 76.04% of students felt bored and bored when using PowerPoint presentations as a learning tool. From the percentage results in Figure 2, it can be concluded that PowerPoint presentations make learning more interesting and fun, with a final percentage of 81.67%. The next aspect is in the image below:



Figure 3. Results of Student Responses to Interest in Learning

For an explanation from Figure 3, students feel interested in participating in learning when using PowerPoint presentations with a percentage of 84.00%. Students feel more interested in learning new material with PowerPoint presentations with a percentage of 84.00%. 70.00% of students feel uninterested in learning when only using PowerPoint presentations and 82.00% of students are happy to participate in learning with PowerPoint presentations. In addition, 74.00% of students felt that learning materials were less interesting and less motivating when only using PowerPoint presentations. So that the criteria for interest in learning have a final percentage of 81.46%. As for the next aspect can be seen in the image below:



Figure 4. Results of Student Responses to Attention to Learning

From Figure 4, it can be seen that the percentage results in the category of attention to learning show that 85.00% of students feel that PowerPoint presentations help to focus more attention on the material being studied. Whereas 81.00% of students felt more focused and concentrated when using

PowerPoint presentations as a learning tool. On the bar chart students feel more involved in learning when using PowerPoint presentations showing a percentage of 81.00%. Likewise, 81.00% of students feel that PowerPoint presentations help to prepare themselves better before taking exams. Meanwhile, students felt that PowerPoint presentations often distracted students and less focused on the material being studied, showing a figure of 73.00%. From this percentage it can be concluded that the category of attention to learning shows a percentage of 79.79%. The last aspect can be seen in the table below:

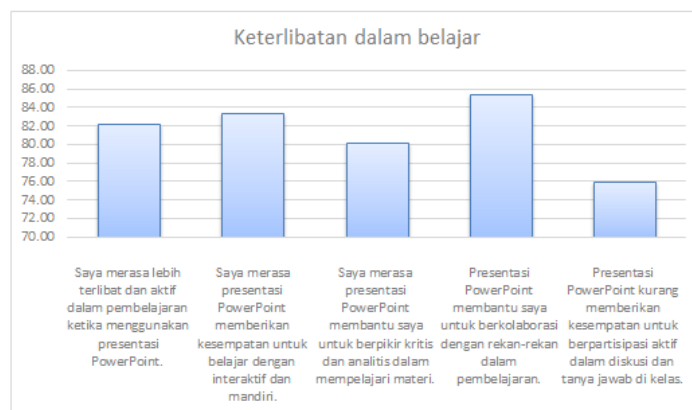


Figure 5. Results of Student Responses to Engagement in Learning

From Figure 5, it can be seen that 82.00% of students feel more involved and active in learning when using PowerPoint presentations. Furthermore, 83.00% of students felt PowerPoint presentations provided opportunities for interactive and independent learning. There are 80.00% of students feel PowerPoint presentations help to think critically and analytically in studying the material. On the PowerPoint presentation criteria helping to collaborate with colleagues in learning shows 85.00%. Meanwhile, PowerPoint presentations do not provide opportunities to actively participate in discussions and questions and answers in class show 76.00%. The percentage results belonging to the PowerPoint presentation category help to collaborate with peers in learning.

When calculating per category, then the researcher combines the results of the four categories with the aim of getting the average percentage of the questionnaire. The conclusions from the questionnaire percentages that have been explained in Figures 2 to Figure 5 are as follows:

Tabel 2. Hasil Akhir Minat Belajar

Indicator	Percentage	Category
Feeling happy	81.67%	Very Good
Interest in Learning	81.46%	Very Good
Presence of Attention to Learning	79.79%	Good
Engagement in Learning	80.42%	Very Good
Rata-Rata	80.83%	Very Good

From the results in Table 2, the feeling of pleasure category is at 81.67%. For the category of interest in learning is at 81.46%. While in the category of attention to learning is at 79.79%. And for the category of involvement in learning is at 80.42%. Based on the results of the research that has been described per aspect, almost all categories of student interest in the questionnaire are classified as very good, so that learning media shows a positive response from students to student learning, with a percentage of 80.83% in the very good category.

Discussion

In this modern era, learning media has a high position, meaning that the media has an important role in the learning process, especially in learning mathematics, because students are more interested in learning until the learning process ends. The use of Powerpoint can be used as an alternative to substitute learning, because its use does not require the internet and the small size of the learning files makes it easier for students to do learning on computers with standard specifications.

Based on the research obtained, each category of student learning interest has an average of 80.83% when learning to use Powerpoint learning media. So that learning motivation increases when learning by using learning media (Budiman, 2016). Learning media must be able to attract students' attention in order to achieve learning goals (Apriyani, 2017). So that the use of learning media with Powerpoint shows a positive response from students. Research with similar applications was carried out by Yuliana (2017) who say that the Powerpoint application increases the interest in learning from students. Research from Lutfi & Usamah (2019) which said that the learning outcomes of the control class were better, thereby increasing students' interest in learning. Research with the same application was carried out by Lestari et al (2020) which shows that learning media is able to increase student learning interest. With the research results described above, it appears that learning media with PowerPoint can provide a positive response to students.

CONCLUSION

The results of the research that has been done show that there is a positive response to learning media with Microsoft PowerPoint towards students' interest in learning mathematics, as evidenced by the average percentage of the four categories that have been studied, with details of the feeling of pleasure indicator being at a percentage of 81.67%. interest in learning by 81.46%, attention to learning by 79.79%, and involvement in learning by 80.42%. Based on the results of the research that has been described per aspect, almost all categories of student learning interest in the questionnaire are classified as very good, so that learning media shows a positive response from students to student learning, with a percentage of 80.83% in the very good category.

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