The Effect of Interactive PowerPoint Media Design on Student Learning Interests

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Abstract

This research was conducted to determine the influence of design in interactive Powerpoint media on student learning interest and how the influence of interactive Powerpoint media on student learning interest. The purpose of this study is based on the frequency of use of Powerpoint media in the learning process. Based on the author's hypothesis, there is an influence of interactive Powerpoint media on students' interest in learning. This influence is positive, meaning that interactive Powerpoint media can increase student interest in learning. The method used in this research is a quantitative method with data collection techniques using online questionnaires that are distributed to predetermined targets. The target of this research is active students from various universities in Indonesia. There are a total of 40 respondents in this research. The results of this research indicate that the difference in design of interactive Powerpoint media can increase students' learning interest.
INTRODUCTION

Educational Activities have a core that can be said to be learning and teaching activities, (Megawaty, 2020) Assessing that education is an action to promote and improve the quality of human resources by how students follow the teaching-learning process and the impact can be seen from their interest and learning motivation. Many cases show that students' interest and motivation in learning are less enthusiastic and it is also known that many students' scores are still below the minimum completeness criteria (KKM), this is because the success of the learning process is influenced by several things, one of which is interest in learning (Munawar, 2016). According to Djamarah (2002), interest in learning can occur through changes that are influenced by various factors, both internal and external. Therefore, it is important to overcome the problem of low student interest in learning by improving teaching methods and a conducive learning environment. In this case, interactive learning media has an important role in increasing the effectiveness of the teaching-learning process and facilitating positive changes in student learning interests.

Low interest in student learning is a problem that is often encountered in the world of education, especially in the context of learning in class during lecture hours. This can be caused by various factors, such as an unattractive curriculum, less innovative teaching methods, or a less conducive learning environment (Lukas & Yunus, 2021; Rizvi & Prophet, 2021). Low interest in student learning can cause several important problems, such as low learning outcomes, less learning motivation, and less-than-optimal learning behavior (Almendingen et al., 2021; Misidawati et al., 2021). This impacts the quality of education and intellectual development of students, as well as reducing their ability to overcome challenges and take advantage of opportunities in their careers and lives. According to (Alamri et al., 2020; Aysa, 2019) to overcome the low interest in student learning, several solutions can be taken, such as improving the quality of curriculum and teaching methods, creating a conducive learning environment, and facilitating interaction between students and lecturers, and increasing student learning motivation through interesting and motivating programs and activities. By making these efforts, it is expected to help overcome the low interest in student learning and improve the quality of teaching and learning and improve student learning outcomes.

The process of teaching and learning activities (KBM) at all levels requires a process, both influenced internally and externally by oneself. For example, external factors are learning media. According to Nurrita (2018), Learning media is an instrument used for the learning and teaching process to provide ease and clarity in the delivery of meaning and messages so that they can be easily understood. Learning media is used to organize and guide educators in delivering learning materials or messages to students as recipients of messages, the formation of these interactions is expected to make it easier for students to understand the material and stimulate their cognitive thinking skills (Indriyani, 2019). Without learning media, KBM cannot run well. Supported by the opinion (Tafonao, 2018)
states that learning media must be utilized for its function to improve the quality of learning and teaching. It can be concluded that the medium of learning is everything that can create conditions that allow learners to acquire knowledge, and skills and develop attitudes. One of the uses of optimal learning media is to make the design or appearance of learning media as attractive as possible without reducing the value of the material presented. So it seems clear that the media is an absolute requirement for creating a learning process. Therefore, as a lecturer, you should be able to choose suitable media for students to use. Along with the times, computers have been present during human life. The computer is a learning media tool that can be used as a support in achieving learning material with an interesting, effective, and efficient learning atmosphere (Amalia, 2016). One of the supporting learning media generated from computers is PowerPoint media (Elpira & Ghufron, 2015).

According to Ashhar (2012), PowerPoint software is a program designed to display multimedia presentations that are attractive, easy to create and use, and have an affordable cost. The PowerPoint program only needs the tools used to store data (Anggoro, 2020). PowerPoint media is usually used in a presentation made by lecturers while teaching in class (Elpira & Ghufron, 2015). PowerPoint can be used as a tool to deliver interactive and attractive presentation materials. This application was developed by Microsoft and contained in the Microsoft Office package, along with Microsoft Excel, Microsoft Word and several other applications, (Susanti, Ritonga & Bambang, 2021) added that the use of PowerPoint By utilizing features such as inserting sounds and images, adapting background themes and colors to attract the attention and engagement of the learners. PowerPoint can be designed to adjust the material presented, to provide a learning experience that motivates students, educators not only want their students to be able to remember the subject matter but also want their students to be able to understand the subject matter comprehensively to increase the motivation and interest in learning obtained by students to last longer. Students have an important role to play in shaping their understanding and increasing awareness of what they are reading, writing, and facing. According to Susilana & Riyana (2008) The use of media in teaching and learning activities can help to arouse students' positive attitudes towards the subject matter and strengthen the learning process.

The use of interactive PowerPoint media in learning has several reasons that cause an increase in student interest in learning according to Makhnunah (2022), Marpaung & Pongkendek (2020) and Ramadani (2023): (1) Interactive PowerPoint makes students feel good when lecturers teach; (2) Attractive designs and colors in PowerPoint affect students' interest in following the learning process; (3) Interactive PowerPoint makes it easier for students to understand the material; (4) The use of interactive PowerPoint makes students more focused during the learning process; (5) Lecturers who use interactive PowerPoint when teaching, make students pay close attention; and (6) The use of interactive PowerPoint increases student interest in the learning process.

According to Munawar (2016), interactive is a situation where students not only pay attention to the media but also interact with the media during the learning process. Therefore, it can be stated that interactive PowerPoint media is a learning media that can be used to distribute learning material to students and then present interaction between students and the media so that the learning process can take place properly and effectively, and enjoyably. Interest is a high tendency or a great sense of interest in something. The interest in student learning referred to in this study is the magnitude of
student interest in following the learning process that uses interactive PowerPoint media in its implementation (Elpira & Ghufron, 2015). Interest plays an important role in the lives of students and has a major impact on the development of students' attitudes and behavior. Students or in this case students who are interested in following the learning process will try harder than students who are not interested in following the learning process. According to Adawiyah (2019), Students who have an interest and motivation in what they are and should learn will become active in finding out the material learned until they feel satisfied with the information they get.

The importance of paying attention to the interest in learning from students in the learning process taught by lecturers is not the same for every student, so lecturers need to improve the fun and interesting learning methods so that students do not feel bored and bored during learning activities. According to Asari (2021), active, innovative, creative, effective, and fun learning designed and implemented in teaching and learning activities can motivate students to learn better which certainly improves student learning outcomes. How to make learning activities fun, interesting, and exciting. One way to increase student interest in learning during learning activities is to use learning media that focuses on student activity and prioritizes them to be more active in class than just lecturers who play an active role (Munawar, 2016). From the description above, it can be concluded that the importance of cultivating interest is very influential in the world of education. This interest builds a reflection of students’ readiness to follow the learning process. Based on the background described above, the author conducted this study to determine the influence of interactive PowerPoint media design on student learning interests. Because the use and utilization of PowerPoint as a teaching and learning instrument have been very widely used in educational environments, one of which is in learning and teaching activities at the higher education level. By knowing the contribution of interactive PowerPoint media design to student learning interests, it is hoped that it can provide benefits for lecturers and educational institutions to pay more attention and use the right design in making interactive PowerPoint media so that it can motivate and increase student learning interest. In addition, the results of this study can also be a reference material for further researchers in conducting research related to learning media and increasing student interest in learning.

METHOD

In conducting this study, the author used quantitative methods or approaches. Quantitative methods are methods that process numerical data and focus more on the research process in measuring objective results and using statistical analysis (Priadana & Sunarsi, 2021; Sileyew, 2019). To obtain valid and accountable data, the author uses an instrument in the form of a questionnaire. Questionnaires are instruments that are often used to collect quantitative data by providing written questions to respondents (Makbul, 2021). This questionnaire is made by including questions in clear language and easy to understand by respondents so that it is expected to facilitate the data collection process and ensure the validity of the data obtained related to research variables and in this case the influence of interactive PowerPoint media on student learning interests. For data collection, the author will survey by distributing questionnaires to selected samples. In this case, the author will use the purposive sampling sample selection technique, which is sample selection with certain considerations (Lenaini, 2021). In this case, the selected
sample is students who attend lectures that use interactive PowerPoint media as teaching materials in the teaching-learning process.

Data Collection
The data collection technique used in this study is a questionnaire dissemination technique using the Likert scale and cumulative scale. The Likert scale is a scale based on the sum of respondents' attitudes when responding to statements. On the Likert scale, respondents were asked to strongly disagree, disagree, neutralize, agree, and strongly agree with each statement. Then the cumulative scale is a scale used to ask respondents to respond with a statement "Yes" or "No" from a statement or question in the questionnaire (Abdullah, 2015).

From the questionnaire's technique, data will be generated, either qualitative data (primary) or quantitative data (secondary). Primary data consists of nominal data and ordinal data. While secondary data consists of interval data and ratio data (Jaya, 2020). The distribution of this questionnaire was carried out online and filled out by students from various universities. The total number of respondents amounted to 40 people.

The variables in this study are:
1. Independent variable: Interactive PowerPoint media design
2. Dependent variable: student learning interest.

Analysis
Then the data analysis techniques used in this study are simple linear regression analysis and partial test analysis. In simple linear regression analysis, the independent variable describes the dependent variable (Muhartini et al., 2021). Then in the partial test, it will be known whether the independent variable has a significant effect on the dependent variable (Rahmaningsih, 2017).

The hypotheses of this study are:
1. Ho: There is no influence of interactive PowerPoint media design on students' learning interests.
2. Ha: There is an influence of interactive PowerPoint media on students' learning interests.

RESULT
The study was conducted to determine the influence of design in interactive PowerPoint media on student learning interest. Data in this study was taken from 40 respondents who filled out questionnaires containing Likert scales and cumulative scales. There are results from the research discussed in this study, as shown in Table 1.

a. Simple Regression Analysis

<table>
<thead>
<tr>
<th>Coefficientsa</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>B Std.Error Beta t Sig.</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>5.905 1.729 3.416 .002</td>
<td></td>
</tr>
<tr>
<td>2 Interactive Powerpoint Media (X)</td>
<td>1.788 .319 .673 5.611 .000</td>
<td></td>
</tr>
</tbody>
</table>

Based on the analysis of the data in the table above, the results of the regression equation are obtained as follows.
The regression equation shows a partial relationship between the independent variable and the dependent variable so that conclusions can be drawn through the equation. that:

1) The constant value is 5.905, meaning that if there is no use of interactive PowerPoint media variables (X + 0 values), then student learning interest is 5.905 units.

2) The value of the interactive PowerPoint media regression coefficient is 1.788, meaning that if the interactive PowerPoint media variable X) increases by 1% and the constant is zero (0), then student learning interest increases by 1.788 units. It states that interactive PowerPoint media design has a positive influence on student learning interest so using PowerPoint media will help increase student interest in learning.

b. Partial Test

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>B: 5.905</td>
<td>Std. Error: 1.729</td>
<td>t: 3.416</td>
<td>.002</td>
</tr>
<tr>
<td>1</td>
<td>Interactive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Powerpoint Media</td>
<td>X: 1.788</td>
<td>Beta: .673</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Std. Error: .319</td>
<td>t: 5.611</td>
<td>.000</td>
</tr>
</tbody>
</table>

Based on the Table 2 by observing rows, column t, and sig. It is can be concluded that interactive PowerPoint media variables have a positive and significant effect on student learning interest. This can be seen from the significant media PowerPoint (X) as follows.

1) The sig value is less than 0.05 (0.00 < 0.05).
2) Table t value = t (α/2 ; n-1) = t (0.025 ; 39) = 2.023.
   The mean of the t calculated value is greater than the t table (5.611 > 2.023).

This means Ho is rejected, which means that there is an influence of interactive PowerPoint media on students' learning interests. Assessing the ability of the independent variable to explain the variation of the dependent variable is carried out by testing the coefficient of determination (R²). The scale of R value ranges from zero (0) to one (1). A value close to zero indicates the independent variable's limited ability to explain dependent variation, while a value close to one indicates that the independent variable provides almost all the information needed to predict dependent variation. The results of the R² test will be applied to see the ability of the independent variable to influence dependent variation.

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>Type</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. error of Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>.673^a</td>
<td>.453</td>
<td>.439</td>
<td>2.08409</td>
</tr>
</tbody>
</table>
Based on the Table 3, the value of student interest in learning was influenced by the use of interactive PowerPoint media by 43.9% and the remaining 56.1% was influenced by other variables that were not studied by the author.

DISCUSSION

a. Use of interactive PowerPoint media by lecturers in learning activities

In the results of questionnaire data filled out by 40 respondents, it is known that in general lecturers have used interactive PowerPoint media in the learning process. From the results of the questionnaire data, all (40 respondents) chose the answer "Yes" then, the percentage was 100%, and for respondents who answered "No" the percentage was 0% because no one chose the answer "No". This indicates that all lecturers have used interactive PowerPoint in learning. The response to this question is following research conducted by Marpaung & Pongkendek (2020) from research conducted on 20 respondents who are students, it is known that the use of interactive PowerPoint media by lecturers in learning activities has a good influence on these learning activities for students.

b. Student Responses to the Use of Interactive PowerPoint Media when Lecturers Teach

In the results of questionnaire data filled out by 40 respondents, it is known that students feel happy if interactive PowerPoint media is used when lecturers teach. From the results of the questionnaire data, for those who filled out the scale 5, there were 7 respondents with a percentage of 17.5%, those who filled in scale 4, which amounted to 20 respondents with a percentage of 50%, those who filled in scale 3, which amounted to 13 respondents with a percentage of 17.5%, and for those who filled out scales 2 and 1, namely 0 respondents with a percentage of 0%. We can see in the selection of the dominant scale, namely scale 4 which means "Agree", therefore it can be concluded that dominant students agree that interactive PowerPoint media causes a sense of pleasure if interactive PowerPoint media is used when lecturers teach. In research of Marpaung & Pongkendek (2020) it was also mentioned that students had positive responses regarding the use and interactive PowerPoint media.

c. The Effect of Using Interactive PowerPoint Media on Student Learning

In the results of questionnaire data filled out by 40 respondents, it is known that the use of interactive PowerPoint media in the learning process increases students' interest in following the learning process. From the results of the questionnaire data, for those who filled out the scale 5, there were 8 respondents with a percentage of 20%, those who filled out the scale 4, which amounted to 17 respondents with a percentage of 42.5%, those who filled out scale 3, which amounted to 10 respondents with a percentage of 25%, for those who filled out scale 2, which amounted to 4 respondents with a percentage of 10%, and those who filled out scale 1, namely 1 respondent with a percentage of 2.5%. We can see in the selection of the dominant scale, namely the 4 scale which means agree, therefore it can be concluded that dominant students agree that using interactive PowerPoint media in learning, can increase students' interest in following the learning process. According to Suharti et al. (2022), there are differences in learning outcomes and learning processes between students who experience learning with interactive PowerPoint with those who do not.

d. The Effect of Using PowerPoint Design on Student Interest

In the results of questionnaire data filled out by 40 respondents, it is known that PowerPoint colors and designs affect student interest in following the learning process. From the results of the questionnaire data, for those who filled out the scale 5, there were
25 respondents with a percentage of 62.5%, those who filled in scale 4 were 10 respondents with a percentage of 25%, those who filled in the scale 3 were 4 respondents with a percentage of 10%, for those who filled in scale 2, which was 0 respondents with a percentage of 0%, and those who filled in scale 1, namely 1 respondent with a percentage of 2.5%. We can see in the selection of the dominant scale, namely the 5 scale which means very agree, therefore it can be concluded that dominant students strongly agree that PowerPoint colors and designs affect student interest in following the learning process. According to (Suharti et al., 2022) there are also differences in student motivation and interest in learning from students who experience learning using interactive PowerPoint to those who do not. According to (Azzahra & Pramudiani, 2022; Nursita et al., 2022) an attractive PowerPoint design can influence students' interest in learning and make them more focused on following the student learning process.

**e. The Effect of Using Interactive PowerPoint Media Design on Student Material Understanding**

In the results of questionnaire data filled out by 40 respondents, students more easily understand the material when interactive PowerPoint is used in the learning process. From the results of the questionnaire data, 32 respondents chose “Yes” then a percentage of 80%, and for 8 respondents who answered “No” with a percentage of 20%. Therefore, it can be concluded from the dominant results of 32 respondents with a percentage of 80% that Using interactive PowerPoint during the learning process makes it easier to understand the learning material. Based on research Valentina et al. (2022) there is a significant increase in material understanding from students who experience learning using PowerPoint and/or interactive learning media. Attractive and interactive PowerPoint designs can help strengthen interest in learning and help students remember information that has been received (Arsyad, 2018). In this case. According to (Wulandari, 2022) PowerPoint design and interactive learning media are very useful for students to achieve their goals of learning and understanding the material well. Therefore, the use of interactive learning media such as PowerPoint is highly recommended in learning to increase student interest and learning outcomes.

**f. The Effect of Using Interactive PowerPoint Media on Student Focus**

In the results of questionnaire data filled out by 40 respondents, it is known that students become more focused when interactive PowerPoint is used in the learning process. From the results of the questionnaire data, for those who filled out scale 5, there were 4 respondents with a percentage of 10%, those who filled in scale 4 amounted to 16 respondents with a percentage of 40%, those who filled out scale 3 amounted to 18 respondents with a percentage of 45%, for those who filled out scale 2, which amounted to 1 respondent with a percentage of 2.5%, and those who filled out scale 1, namely 1 respondent with a percentage of 2.5%. We can see in the selection of the dominant scale, namely the 3 scale which means enough; therefore, it can be concluded that dominant students are enough that when interactive PowerPoint media is used in the learning process, it makes it more focused. Based on research (Haq et al., 2022), learning using interactive PowerPoint media is effective in helping students achieve focus in understanding the material presented.

**g. When lecturers use interactive PowerPoint media when teaching, students become very attentive to it**

In the results of questionnaire data filled out by 40 respondents, it is known that students become very attentive to the lecturer's explanation when interactive PowerPoint
media is used during the learning process. From the results of the questionnaire, those who filled out scale 5 amounted to 2 respondents with a percentage of 5%, those who filled in scale 4 amounted to 20 respondents with a percentage of 50%, those who filled out scale 3 amounted to 13 respondents with a percentage of 32.5%, for those who filled out scale 2 which amounted to 4 respondents with a percentage of 10%, and those who filled out scale 1 were 1 respondent with a percentage of 2.5%. We can see in the selection of the dominant scale, namely the 4th scale which means agree, therefore it can be concluded that dominant students agree that when interactive PowerPoint media is used in the learning process, it makes it more focused on paying attention to the lecturer’s explanation or the material presented.

The results of this study are following previous research which showed that the type of learning media used in the learning process has an impact on learning outcomes and the process of teaching and learning activities carried out (Mardhiah & Akbar, 2018). For example, the use of interactive PowerPoint learning media can affect students' learning interests (Susanti et al., 2020), increasing student concentration during the learning process (Misbahudin et al., 2018). Mastery of subject matter by students can be improved by using interactive and effective learning media (Novita & Harahap, 2020) and can increase students' interest (Putri & Sibuea, 2014). Based on the results of the study, student responses to the use of interactive PowerPoint media were very good.

To improve interest and learning outcomes, rely heavily on the use of media during the learning process. Using multimedia media for learning can help meet the needs of various learning modalities of students, such as visual, auditory, and kinesthetic, to increase their interest in learning (Susilana & Riyana, 2008).

PowerPoint media is one of the media that is tailored to show multimedia presentations attractively, is easy to make, easy to use, and has an affordable cost. PowerPoint can be used through several methods of use, which are as follows (Susilana & Riyana, 2008): (1) Personal PowerPoint In this type of use, PowerPoint media is used as a medium for presentations in classroom learning. In this type, the control of learning lies with the educator; (2) Stand Alone In this type of use, PowerPoint is designed specifically for interactive individual learning and is capable of generating pre-programmed feedback; (3) Web Based In this type of use, PowerPoint is used in the web file format (HTML) so that the program that appears is a browser that can appear on the internet.

To develop PowerPoint well and innovatively in the learning process, here are the steps that can be done (Susilana & Riyana, 2008): (1) Identify the program with learners. This is so that the media can be designed according to the characteristics and needs of students; (2) Provide supporting materials, such as video, images, animation, and audio. These supporting materials can be obtained by browsing internet sites and can also be obtained by producing them yourself; (3) Package the material to be displayed in PowerPoint briefly, concisely, and clearly. This is so that students can easily understand the material displayed in PowerPoint; (4) After the materials have been collected and the materials have been prepared properly, then the next step is the PowerPoint process. Make PowerPoint as attractive as possible and make sure the PowerPoint design matches the characteristics of students; (5) After PowerPoint is created, convert the final presentation into a slide show, web pages, or executable file (Exe); (6) Before being used in the learning process, you should do a review first. This is to review the appearance of PowerPoint and if there are any shortcomings or errors, it can be revised so that it can be used comfortably during the learning process.
The research contribution in this article can be said to be an important contribution both theoretically, empirically, and methodologically. Theoretically, this study adds insight into the influence of interactive PowerPoint media design on student learning interests. Empirically, this study proves that there is a positive influence between interactive PowerPoint media design and student learning interests. And methodologically, this study shows that quantitative methods can be used to research the influence of design in learning media.

CONCLUSION

Based on the results of the research conducted, there is a positive influence of interactive PowerPoint media on student learning interest. The partial test results and coefficient of determination showed that PowerPoint design influenced student learning interest by 43.9% and the rest was influenced by other variables. Factors such as ease of understanding the material, focus, and student interest in the learning process, strengthen the influence of PowerPoint media on student learning interest. The limitation of this study is in the number of respondents, these results can be used as consideration and reference sources for further researchers in conducting further research on learning media.

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