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The Application of Interactive PowerPoint to Improve Learning Concentration in Pancasila Education Learning for Class XI of SMA Negeri 6 Semarang

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Abstract

Student concentration during Grade XI Pancasila Education lessons at SMA Negeri 6 Semarang was not optimal. Preliminary observations revealed that a number of students failed to pay attention to the teacher's explanations, engaged in conversations with peers, or busied themselves with activities unrelated to the lesson, thereby hindering the effective reception of instructional information. This study aimed to improve the learning concentration of Grade XI students through the implementation of interactive PowerPoint media. A classroom action research design was employed, conducted over two cycles; each cycle comprised the stages of planning, action implementation, observation, and reflection. Data were collected via observation sheets, questionnaires, and documentation, then analyzed both quantitatively and qualitatively, with a success criterion set at a minimum of 80% of students achieving a "good" category rating. The results demonstrated consistent improvement across stages: the initial condition showed an average score of 56.46 with a class mastery rate of 5.56%; this rose to an average of 61.91 with 61.11% mastery in the first cycle and reached an average of 72.57 with 100% mastery in the second cycle. Thus, the use of interactive PowerPoint media proved effective in enhancing student concentration during Pancasila Education lessons; it is therefore recommended as an alternative instructional medium that could be further developed for other subjects to foster active student engagement during the learning proces.

Keywords: *interactive powerpoint; learning concentration; pancasila education*

INTRODUCTION

Learning is a process designed to help students develop knowledge, skills, and attitudes in everyday life. Learning success is not only determined by the teacher's ability to deliver material but also requires student involvement throughout the learning process, as learning activities are closely related to motivation, interest, attention, and interactions that encourage students to be actively involved (Sadirman, 2016). Learning concentration can be understood as students' ability to focus their attention and thoughts on the material being studied so that the information presented is more easily received, understood, and processed into knowledge (Yasintha Pemba, 2022).

Concentration is a crucial aspect of successful learning, but this ideal situation is often lacking in the classroom. Students struggle to maintain attention when learning is monotonous and lacks variety. The lack of varied learning media is one factor that needs to be addressed in creating learning that maintains student attention. Therefore, low concentration can be seen in behaviors such as inattention to teacher explanations, being easily distracted by other activities, talking to friends, and not actively responding to questions during learning activities. The issue of concentration is becoming increasingly important in Pancasila Education learning, because this subject is not only oriented towards theoretical mastery of material but also directs students to understand the values of Pancasila, analyze issues of national and state life, and demonstrate behavior in accordance with these values. Thus, it demands active student involvement in observing, discussing, and making decisions (M.Gulo,

2025). The results of initial observations on grade XI J students at SMA Negeri 6 Semarang showed that out of 36 students, there were 34 students who still had a learning concentration score in the poor category. Students did not pay attention to the teacher's explanation and were busy talking with friends and doing activities outside of learning activities. This condition is in accordance with the opinion of Mulawarman et al. (2023), the gap between the expected learning conditions and the actual conditions in the classroom, if not immediately addressed, has the potential to hinder the process of receiving and processing information by students so that understanding of the material is less than optimal.

One way to address these issues is through innovative learning media. Based on the cognitive theory of multimedia learning, humans process information through visual and verbal channels, which have limited capacity. Therefore, multimedia presentations need to be designed in a targeted manner so students can focus on important information, organise it, and connect it to existing knowledge. PowerPoint, which is generally used only for displaying text and images, can be developed into a more interactive medium by adding videos, animations, prompt questions, quizzes, case studies, and feedback, so students not only receive information but also actively engage in learning (Mayer, 2022).

Previous research has extensively examined the benefits of interactive PowerPoint, including research by Natalia and Tankin (2022), which focused on the use of interactive PowerPoint media to increase student attention by utilizing hyperlinks, animations, and games in learning. Research by Maydini et al. (2025) showed that the use of varied learning media can improve student learning concentration. Research by Sufa et al. (2023) proved that interactive PowerPoint media can increase student learning motivation. And research by Aulia et al. (2024) proved that interactive PowerPoint media can increase student enthusiasm in participating in learning. However, research that specifically examines improving the learning concentration of eleventh-grade students in Pancasila Education learning through a classroom action research design with multilevel improvement stages still has room for development. This study offers the application of interactive PowerPoint media that is designed and refined cyclically, accompanied by empirical data on learning concentration achievements at each stage as a novelty that complements previous studies. Previous research has not placed student learning concentration as a primary aspect improved through the application of PowerPoint media.

Based on the description, the problem studied in this research is how the application of interactive PowerPoint media can improve the learning concentration of grade XI students in Pancasila Education learning. This research aims to improve student learning concentration through the application of interactive PowerPoint media. This research is expected to be useful theoretically in enriching studies on the use of interactive learning media to improve learning concentration. Practically, it helps students maintain attention during learning, provides experience and reflection material for teachers in utilising interactive media, and serves as a reference for other researchers who want to develop similar media or learning strategies.

METHOD

This research is a Classroom Action Research (CAR) with a qualitative and quantitative data analysis approach implemented to improve the learning process and increase student learning concentration. The research was conducted in class XI-J of SMA Negeri 6 Semarang in August 2026. The research subjects were all 36 students of classes XI-J, who were determined through a census technique because all class members were made research subjects. The implementation of the action took place in two cycles, each consisting of two meetings lasting 90 minutes, with each cycle including four stages, namely planning, acting, observing, and reflecting. If the success indicator has been achieved in Cycle II, the research is stopped and vice versa if it has not been achieved, the action is continued based on the results of the reflection.

In the planning stage, the researcher determined the Pancasila Education material, compiled learning tools, designed interactive PowerPoint media containing text, images, videos, animations, trigger questions, case studies, quizzes, and prepared learning concentration observation sheets, teacher skills observation sheets, questionnaires, and documentation instruments. The action syntax in the implementation stage included preliminary activities in the form of apperception and providing initial stimulus through PowerPoint, core activities in the form of multimedia presentations of material accompanied by questions, quizzes, and interactive activities that students responded to, and closing activities in the form of joint conclusions and learning reflections. In Cycle II, the media was refined based on the results of Cycle I reflections, especially in the aspects of animation/video presentation, material clarity, and variations of interactive questions.

Data were collected through observation, questionnaires, and documentation. Observations were used to observe students' attention to teacher explanations and media, their ability to concentrate, responses to questions, active participation in activities, ability to maintain focus, and teacher skills in applying media. Questionnaires were used as a supporting instrument to determine students' responses regarding learning concentration, while documentation was used to complement the observation and questionnaire data. The learning concentration score of each student was calculated using the formula $N = (S/Smaks) \times 100$, where N is the learning concentration score, S is the total score obtained, and Smaks is the maximum score, which were then grouped into very good (81-100), good (61-80), sufficient (41-60), less (21-40), and very less (0-20). The class average score was calculated using the formula $\bar{X} = \Sigma X/N$, while the classical completion percentage was calculated using the formula $P = (F/N) \times 100\%$, where F is the number of students categorised as good or very good and N is the total number of students. Quantitative data were analysed descriptively through scores, average values, and percentages at each stage, while qualitative data were analysed through data reduction, data presentation, and conclusion drawing. The action was declared successful if at least 80% (29 out of 36) students achieved the good or very good learning concentration category at the end of Cycle II, accompanied by a gradual increase in average values from the initial conditions to Cycle I and to Cycle II.

RESULTS AND DISCUSSION

Initial observations (pre-cycle) conducted before the action showed that students' concentration in learning Pancasila Education was still relatively low. Students were seen talking with friends, paying attention to things outside the lesson, and not responding to question-and-answer activities even though the teacher had implemented lecture, question and answer, discussion, assignment, and presentation methods. Low concentration in learning during the learning process will affect students' active involvement in understanding the Pancasila Education material. Based on the results of the initial condition questionnaire, out of 36 students, only 2 students (5.56%) achieved the learning concentration criteria, with an average score of 56.46, which is classified as sufficient. These findings indicate that most students still experience difficulties in focusing and maintaining attention during the Pancasila Education learning process. The pre-cycle conditions provide an indication that corrective action is still needed through the implementation of more interactive learning media. In Cycle I, the action was implemented through the use of interactive PowerPoint media that combined text, images, videos, questions, and interactive activities. The results of the learning concentration analysis in Cycle I are presented in Table 1.

Table 1. Analysis of Learning Concentration Results in Cycle I

Category	Value
Highest Score	70.00
Lowest Score	55.00
Average Learning Concentration Score	61.91
Number of Students Who Passed	22 out of 36
Number of Students Who Did Not Pass	14 out of 36
Percentage Passed	61.11%
Percentage Not Passed	38.89%

Based on Table 1, as many as 22 students have achieved the good learning concentration category, while 14 other students are still in the sufficient category. The average value of learning concentration in Cycle I was 61.91, showing an increase compared to the initial condition of 56.46, with a range of values between 55 and 70. These findings indicate that the application of interactive PowerPoint media in Pancasila Education learning was able to provide a positive influence on increasing student learning concentration in Cycle I. However, the actions in Cycle I were not fully optimal because the percentage of classical completion (61.11%) was still below the success indicator set at 80%, so that the results of the reflection became the basis for improving the media in Cycle II, especially in the aspects of animation/video presentation, material clarity, and variations of interactive questions. In Cycle II, the interactive PowerPoint media was refined based on the results of the reflection on Cycle I. The results of the analysis of learning concentration in Cycle II are presented in Table 2.

Table 2. Analysis of Learning Concentration Results in Cycle II

Category	Value
Highest Score	81.25
Lowest Score	62.50
Average Learning Concentration Score	72.57
Number of Students Who Passed	36 out of 36
Number of Students Who Did Not Pass	0 out of 36
Percentage Passed	100%
Percentage Not Passed	0%

Table 2 shows a significant improvement in Cycle II, with a classical completion percentage reaching 100% and an average score of 72.57. A total of 35 of 36 students (97.22%) were in the good category, and 1 student (2.78%) achieved the excellent category, with no more students found in the sufficient, less, or very less categories. These findings prove that the application of interactive PowerPoint media that has been refined based on the results of previous reflections is able to effectively increase student learning concentration in Pancasila Education learning. Thus, all students in grades XI-J have achieved the good or very good learning concentration category at the end of Cycle II, which indicates that the research success indicators have been met. A summary of the comparison of results at each stage of the research is presented in Table 3.

Table 3. Comparison of Learning Concentration Results Between Research Stages

Stage	Average	Passed	Percentage
Pre-Cycle	56.46	2/36	5.56%
Cycle I	61.91	22/36	61.11%
Cycle II	72.57	36/36	100%

The data in Table 3 shows a gradual and consistent increase in learning concentration at each stage of the study, both in terms of average scores and the percentage of classical completion. This improvement is inseparable from the presentation of material through a combination of text, images, videos, animations, and interactive activities that are able to attract students' attention and encourage their active participation in answering questions and taking interactive quizzes. Improvements in the animation/video presentation, material clarity, and variety of interactive questions in Cycle II also contributed to increased student engagement and consistency in maintaining focus throughout the learning process. These findings align with research by Natalia and Tankin (2022), which demonstrated that interactive PowerPoint presentations equipped with hyperlinks, animations, images, sounds, and games can improve the attention and concentration of elementary school students, resulting in greater enthusiasm, faster response times, and better ability to maintain attention. Similar findings were also presented by Maydini et al. (2026), who demonstrated that PowerPoint-based learning media equipped with visual elements can increase students' attention and enthusiasm for learning, as well as by Sufa (2023), who demonstrated that interactive PowerPoint presentations met good eligibility criteria in supporting learning and increasing student engagement. This agreement reinforces the theoretical basis of the Cognitive Theory of Multimedia Learning, which asserts that a targeted combination of visual and verbal elements can help students focus on relevant information.

Although the four relevant studies were conducted at different levels, subjects, and interactive media concepts, all showed similar findings that interactive PowerPoint media with visual elements, animations, and interactive activities were consistently able to increase student attention, engagement, and understanding. This strengthens the conclusion that the application of interactive PowerPoint media in this study was effective in increasing the learning concentration of grade XI-J students in Pancasila Education learning. This study has limitations in terms of time and relatively large preparation in designing and refining the media in each cycle, so it is necessary to consider the maturity of the media design from the early stages in further research.

CONCLUSION

Based on the research results, it can be concluded that the application of interactive PowerPoint media effectively increases the learning concentration of grade XI-J students in Pancasila Education

learning. This increase is indicated by a consistent increase in the average learning concentration value from 56.46 in the initial condition to 61.91 in Cycle I and reaching 72.57 in Cycle II, accompanied by an increase in the percentage of classical completion from 5.56% to 61.11% and finally reaching 100% at the end of Cycle II, which exceeds the minimum success indicator of 80%. This finding answers the formulation of the research problem and proves that cyclical media improvements contribute significantly to increasing student learning concentration. Based on these conclusions, it is recommended that students continue to increase their attention and activeness in responding to interactive activities during learning. Teachers are advised to continuously develop interactive PowerPoint media, especially in the aspects of animation/video presentation and variations of interactive activities, so that students' learning concentration is always maintained. The interactive PowerPoint media that proved effective in this study can also be further developed for application in other subjects. For future researchers, it is recommended to prepare learning media designs more thoroughly from the initial stage and compare the effectiveness of this interactive media with other media or learning models to obtain more optimal results in improving student concentration and learning outcomes.

DECLARATION OF GENERATIVE AI

The authors declare that no generative AI or AI-assisted technologies were used in the writing process of this manuscript.

CONFLICTING INTEREST STATEMENT

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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REFERENCES

Alamsyah, N., & Yusuf, D. U. (2025). Pengembangan Media Pembelajaran Interaktif Berbasis PowerPoint pada Mata Pelajaran Dasar Desain Grafis di SMK Negeri Kota Makassar. *Education and Information Technologies, 1*(1), 22–28.

Batubara, F. A., Tambunan, N., & Agustia, N. R. (2023). *Media Pembelajaran Interaktif Pendidikan Agama Islam Berbasis PowerPoint*. PT Green Pustaka Indonesia.

Brawijaya, I. Y., & Mawarti, R. A. (2025). Pengembangan Media Pembelajaran PowerPoint Interaktif pada Materi Nilai-Nilai Pancasila dalam Kerangka Praktik Penyelenggaraan Pemerintahan Negara Indonesia. *Jurnal Oase Nusantara, 4*(1), 45–55.

Budianti, Y., Rikmasari, R., & Oktaviani, D. A. (2023). Penggunaan Media PowerPoint Interaktif untuk Meningkatkan Hasil Belajar Siswa Sekolah Dasar. *Jurnal Inovasi Pendidikan dan Pembelajaran Sekolah Dasar, 7*(1), 127–137.

Estiana, R., Widyaningrum, A., & Wijayanti, A. (2023). Analisis Konsentrasi Belajar Siswa Melalui Media Pembelajaran Audio Visual Tema 7 Subtema 2 Kelas V SDN 2 Pengkolrejo Kabupaten Blora. *Didaktik: Jurnal Ilmiah PGSD STKIP Subang, 9*(4), 1420–1431.

Fiorella, L., & Mayer, R. E. (2022). Using Commonly-Available Technologies to Create Online Multimedia Lessons Through the Application of the Cognitive Theory of Multimedia Learning. *Educational Technology Research and Development, 70*(3), 831–848.

Gulo, M., Purba, B. M. M., Simanjuntak, H., & Sianipar, R. (2025). Pengaruh Multimedia Interaktif dalam Pembelajaran Pendidikan Agama Kristen terhadap Konsentrasi Belajar Siswa. *Sanctum Domine: Jurnal Teologi, 14*(2), 453–470.

Margiathi, S. A., Lerian, O., Wulandari, R., Putri, N. D., & Musyadad, V. F. (2023). Dampak Konsentrasi Belajar terhadap Hasil Belajar Murid. *Jurnal Primary Edu, 1*(1), 61–68.

Maydini, S., Saryanti, A., Oktavia, K. S., Nuraini, T., & Khoirunnisa. (2026). Penggunaan Media Pembelajaran PowerPoint untuk Menunjang Konsentrasi Belajar Siswa pada Pembelajaran IPAS di SD Kelas III. *Didaktik: Jurnal Ilmiah PGSD STKIP Subang, 11*(4), 312–323.

Mulawarman, A., Prasetya, F., Irzal, & Efendi, F. (2023). Pengaruh Media Pembelajaran Whiteboard Animation dan Motivasi terhadap Konsentrasi Belajar Siswa. *Jurnal Vokasi Mekanika, 5*(3), 205–213.

Natalia, M., & Tangkin, W. P. (2022). Penggunaan Media PowerPoint Interaktif untuk Meningkatkan Konsentrasi Belajar Siswa Kelas II SD. *Jurnal Educatio FKIP UNMA, 8*(3), 1017–1025.

Pemba, Y., Darmawang, D., & Kusuma, N. R. (2022). Peran Lingkungan Belajar terhadap Konsentrasi Belajar Murid di SMK Katolik Muktyaca. *Jurnal Pendidikan dan Profesi Keguruan, 2*(1), 15–24.

Putri, N. A. M., Suriansyah, A., Harsono, A. M. B., & Putra, E. C. S. (2024). Media Interaktif Matematika Berbasis PowerPoint terhadap Motivasi Belajar pada Materi Perkalian. *Journal of Educational Research and Development, 1*(2), 195–202.

Rahmawati, E., & Widagdo, A. (2024). Pengembangan Media PowerPoint Interaktif dalam Penguasaan Kosakata dan Kalimat Sederhana Bahasa Inggris Siswa Kelas IV SD. *Jurnal Kreatif: Jurnal Kependidikan Dasar, 14*(2), 76–83.

Saputri, Y., & Ain, S. Q. (2024). Pengaruh Media PowerPoint Interaktif Berbantu Canva terhadap Keaktifan Belajar Siswa Mata Pelajaran Pendidikan Pancasila Kelas IV SDN 182 Pekanbaru. *Pendas: Jurnal Ilmiah Pendidikan Dasar, 9*(4), 812–823.

Sardiman, A. M. (2016). *Interaksi dan Motivasi Belajar Mengajar*. PT RajaGrafindo Persada.