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The effect of nearpod learning media on student learning motivation at SMKN 1 Sukoharjo

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Abstrak

Penelitian ini bertujuan untuk mengetahui ada tidaknya (1) perbedaan motivasi belajar siswa kelas antara kelas eksperimen dengan kelas kontrol, (2) perbedaan pengaruh media pembelajaran terhadap motivasi belajar siswa antara kelas eksperimen dengan kelas kontrol. Media pembelajaran yang digunakan pada kelas kontrol merupakan *Powerpoint* sedangkan kelas eksperimen menggunakan *Nearpod*. Penelitian ini menggunakan pendekatan kuantitatif dengan desain quasi eksperimen. Pola desain yang digunakan adalah *nonequivalent control group design* dengan *pretest* dan *posttest*. Teknik pengambilan sampel dilakukan dengan *purposive sampling*. Adapun sampel dalam penelitian ini berjumlah 72 siswa kelas X MPLB SMK Negeri 1 Sukoharjo. Pengumpulan data dilakukan dengan angket motivasi belajar. Teknik analisis data menggunakan uji Ancova dan uji LSD (*Least Significant Difference*). Hasil penelitian menunjukkan bahwa: (1) terdapat perbedaan motivasi belajar siswa antara kelas eksperimen dengan kelas kontrol (Sig. 0,00 < 0,05 dan F_{hitung} 180.744 > F_{tabel} 3.98), (2) terdapat perbedaan pengaruh media pembelajaran terhadap motivasi belajar siswa antara kelas eksperimen dengan kelas kontrol (*mean difference* kelas eksperimen 15,738 > kelas kontrol -15,738.

Kata kunci : gamifikasi; motivasi belajar; *nearpod*; quasi eksperimen

Abstract

The purpose of this research is to determine (1) the difference in student learning motivation between experimental and control classes and (2) the difference in the effect of learning media on student learning motivation between experimental and control classes. The learning media used in the control class is Powerpoint while the experimental class uses Nearpod. This research uses a quantitative approach with a quasi-experimental design. The design pattern used is a nonequivalent control group design with a pretest and posttest. The sampling technique was carried out through purposive sampling. The sample in this study amounted to 72 students in class X MPLB SMK Negeri 1 Sukoharjo. Data collection methods using learning motivation questionnaires. The data analysis technique used was the Ancova test and the LSD (Least Significant Difference) test. The results showed that: (1) there is a difference in student learning motivation between the experimental class and the control class (Sig. 0.00 <0.05 and the F calculated value 180.744 > F critical value 3.98);

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(2) there is a difference in the effect of learning media on student learning motivation between the experimental class and the control class (mean difference experimental class 15.738> control class -15.738).

Keywords: gamification; learning motivation; nearpod; quasi experiment

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Introduction

Learning motivation has an important role in learning because the presence of motivation encourages student's enthusiasm for learning and a lack of motivation can weaken student's enthusiasm for learning (Suharni, 2021). Furthermore, Suharni (2021) also stated that motivation is an absolute requirement in learning activities and a student is considered not to be maximally successful if learning without motivation. Both intrinsic and extrinsic motivation are equally important in fostering enthusiasm for learning. If students are excited and enthusiastic in the learning process, they will be able to understand the subject matter which will lead to optimal achievement, such as good academic performance (Lutfiwati, 2020).

One of the issues in the quality of education in Indonesia is the lack of optimal learning motivation (Hendrizal, 2020). Furthermore, Hendrizal (2020) also argues that the reality in the field shows that students do not have a high willingness to learn, feel uncomfortable and lazy during learning, and are unable to understand the learning delivered by the teacher. Save the Children's Deputy Chief Program Impact and Policy, Tata Sudrajat also stated that the loss of children's learning motivation up to 70 percent can be caused by boredom, unpleasant learning, and lack of interaction (Kasrina, 2023). Therefore, the presence of motivation cannot be underestimated because it has an important impact on learning. Thus, it is necessary to make efforts to increase motivation. Efforts to increase student learning motivation are also discussed in Self-Determination Theory.

Self-Determination Theory (SDT), proposed by Richard Ryan and Edward Deci since 1985, explains broad concepts of human development and motivation and has strong implications for education (Ryan & Deci, 2020). With the development of SDT, the future direction of SDT research and practice in education includes the application of technology in learning. Modern education experiences great challenges in attracting student attention and creating student engagement during learning (Ryan & Deci, 2020). The learning media is one form of extrinsic motivation that can be given to students. Nearpod learning media as a form of progress in the world of education is in line with the direction of SDT practices in modern education so it is relevant to be applied in order to increase student learning motivation. For this reason, the presence of learning media can be used as a way to increase student learning motivation.

The presence of media in the teaching and learning process is quite important because the media can be an intermediary in conveying unclear material (material) (Febrita & Ulfah, 2019). In addition, learning media also simplifies the complexity of the material presented so that it is easier to understand. However, the reality is that the utilization of learning media often goes unnoticed for various reasons, such as limited time to make teaching preparations, difficulty in finding the right media, unavailability of costs, and so on (Febrita & Ulfah, 2019). The existence of very diverse types of learning media should be an option for teachers to choose media carefully so that it can be used appropriately (Kustandi & Darmawan, 2020). The learning media used by informatics subject teachers is still in the form of Powerpoint which does not attract students' attention, has not been able to increase learning interactivity, and has not triggered an increase in student learning motivation. Therefore, other learning media that are more interactive are needed to help increase student learning motivation.

Interactive learning media comes as a form of application of technology in education. Interactive learning media is a form of intermediary in the form of tools (software) or materials (hardware) that functions to clarify the messages contained in the subject matter from educators to students so that the learning process is expected to be more effective (Oktaviani & Nurhamidah, 2023). One of the interactive

learning media is Nearpod. Nearpod is a website-based application that can be accessed for free or paid online or offline learning that allows educators and students to interact directly or indirectly. This application has interesting features that can support interactive and effective learning (Oktaviani & Nurhamidah, 2023). Gliksman (2015) argues that Nearpod is a presentation platform that injects interaction elements into class presentations so that students can be more engaged. Technology-based interactive learning media (ICT) such as Nearpod is needed to support the learning process (Feri & Zulherman, 2021). Research conducted by Ridwan and Mahliatussikah (2021) shows that Nearpod supports the learning process, both offline and online, which is easy and fun for students.

The results of previous research on Nearpod are research conducted by Sagara et al. (2023) showed that there was an increase in learning motivation with the application of Nearpod learning media. Another study conducted by Naumoska et al. (2022) also stated that there was an effect of Nearpod on student motivation in student learning and had great potential to be applied to learning to make teaching more interesting and not monotonous. Furthermore, the results of Ami's research (2021) also state that the use of Nearpod as a learning media can create interactive learning through innovative and educational features. However, Ami (2021) further mentioned the disadvantages of using Nearpod, such as requiring internet data which is quite wasteful, must be supported by a strong signal so that it is less effective in areas with less supportive signals, no language detection (language is still limited to English), and teachers can only create learning modules through computers.

At this time, there are still many students who experience a lack of motivation, one of which is at SMK Negeri 1 Sukoharjo. Based on the results of observations during the implementation of informatics subject learning, it is known that the learning motivation of class X students majoring in Office Management and Business Services (MPLB) is still not optimal. The lack of learning motivation is characterized by low enthusiasm for learning, which results in the difficulty of students in understanding the material presented because they pay less attention to the teacher. This can be seen in the results of assignments that are less precise so that it also has an impact on student grades that do not meet the Criteria for Achieving Learning Objectives or Kriteria Ketercapaian Tujuan Pembelajaran (KKTP). In the long run, problems with learning motivation can make it difficult for students to understand learning materials which can also have an impact on the quality of students and the quality of the younger generation of the Indonesian nation (Yuha et al., 2021). For this reason, learning motivation is important to research so that ways can be found to trigger an increase in learning motivation in students. One of the efforts to increase student learning motivation can be done by using the learning media (Febrita & Ulfah, 2019).

In connection with the importance of learning motivation in learning for students accompanied by factors that are thought to cause low student learning motivation, namely the learning media used. Therefore, this research is important to do. Based on this background, there are several problem formulations, namely: (1) Is there a difference in learning motivation of class X MPLB students in informatics subjects at SMK Negeri 1 Sukoharjo between the experimental class and the control class, (2) Is there a difference in the effect of learning media on learning motivation of class X MPLB students in informatics subjects at SMK Negeri 1 Sukoharjo between the experimental class and the control class?.

Research Methods

This study used a quantitative approach with a quasi-experimental design. The design pattern used is a nonequivalent control group design with pretest and posttest. The population in this study were all X MPLB class students at SMK Negeri 1 Sukoharjo, totaling 108 students. As for the population, a sample of 72 students from two classes was taken, namely class X MPLB 2 and class X MPLB 3, each consisting of 36 students. The sampling technique used was purposive sampling with the consideration that both classes had low learning motivation characterized by low learning effectiveness and student scores that had not met the Criteria for Achieving Learning Objectives (KKTP). The research design can be seen in Table 1.

The instrument in the form of a questionnaire was prepared before conducting the research. The questionnaire instrument contains 26 statement items with a 5-level Likert scale as an answer choice. The instrument was validated using the Pearson product moment test and tested for reliability using Cronbach's alpha. The statement items in the questionnaire refer to the learning motivation indicators

submitted by Hamzah B. Uno. The instrument test was conducted on 36 students outside the research sample.

Table 1
Research Design

Class	Initial Condition	Treatment	End State
Experiment	O_1	X	O_2
Control	O_3	-	O_4

Description:
Experiment : Group or class that receives treatment
Control : Untreated group or class
O_1 : Experimental class pretest
O_2 : Experimental class posttest
O_3 : Control class pretest
O_4 : Control class post-test
X : Nearpod learning media

The prerequisite analysis test consists of normality test, homogeneity test, and linearity test to prove that the data meet the requirements for further analysis. After the data meets the requirements, further analysis is carried out using the Ancova test and the LSD (Least Significant Difference) test to test whether or not the hypothesis that has been proposed is accepted.

Results and Discussion

Research Results

Before conducting the research, it is necessary to test the questionnaire instrument. The learning motivation questionnaire instrument was tested for validity using the product moment formula. There are 27 statement items submitted with the following results. The validity test results can be seen in Table 2.

Table 2
Validity Test Results

	Valid	Invalid
Learning Motivation Questionnaire	1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27	5

Based on the results of the validation test presented in Table 2, it was decided that 26 statement items were valid and suitable for use while 1 statement item was invalid so it was not suitable for use. Furthermore, the reliability test uses Cronbach's alpha formula on 26 statement items. The reliability test results show a value of 0.764> 0.6 so the questionnaire items are considered reliable. After the validity and reliability tests were carried out, 26 valid and reliable questionnaire statement items were obtained so that they were suitable for use in measuring student learning motivation.

This research was conducted at SMK Negeri 1 Sukoharjo in class X MPLB 2 as the control class and X MPLB 3 as the experimental class. The experimental class was treated with Nearpod learning media while the control class was treated with Powerpoint learning media. The data was collected in the form of pretest and posttest results. The following is a description of the pretest results of learning motivation of experimental and control classes which can be seen in Table 3.

Table 3
Description of Pretest Data on Learning Motivation

Group	N	Range	Minimum	Maximum	Mean	SD
Experiment Pretest	36	18	69	87	76.92	5.516
Control Pretest	36	22	59	81	73.17	5.490

The following is a description of the data from the *posttest* results of the learning motivation questionnaire for the experimental and control classes presented in Table 4.

Table 4
Description of Posttest Data on Learning Motivation

Group	N	Range	Minimum	Maximum	Mean	SD
Experiment Posttest	36	25	95	118	107.47	5.614
Control Posttest	36	21	84	99	90.50	4.300

Furthermore, in order to determine the acceptance or rejection of the hypothesis that has been proposed previously, it is necessary to test the hypothesis. Before hypothesis testing is carried out, prerequisite tests are first carried out. This study uses 3 prerequisite tests, namely normality test, homogeneity test, and linearity test. The results of the normality test using Kolmogorov-Smirnov on residual data for the posttest resulted in a significance value of 0.179> 0.05 so the data was declared normally distributed. The homogeneity test with Levene's test resulted in a significance value of 0.118 > 0.05 and an F calculated value of 2.504 < F critical 3.978 so that the data was declared homogeneous. The linearity test shows a significance value of 0.002 < 0.05 so the linear assumption is fulfilled.

Based on the prerequisite test results, the data is normally distributed, homogeneous, and linear so that further analysis can be carried out. The results of the first hypothesis test in this study using the ancova test with the help of SPSS Statistic 26 can be seen in Table 5.

Table 5
Ancova Test Results

Ancova Test	Type III Sum of Squares	df	Mean Square	F	Sig.	Conclusion
Student Learning Motivation	3982,957	1	3982,957	180,744	0,000	There are differences in student learning motivation

Based on Table 5, the results of the student learning motivation hypothesis test resulted in an F calculated value of 180.744 > F critical 3.98 and a significance value of 0.000 <0.05. Furthermore, to test the second hypothesis, the LSD (Least Significant Difference) test was used. The following are the results of the LSD test can be seen in Table 6.

Based on table 6, the LSD test results show a Sig. 0.000 <0.05 in both classes, both in the experimental and control classes. The mean difference of the experimental class is 15.738 while the control class is -15.738.

Table 6
LSD Test Results

Dependent Variable: Posttest Learning Motivation						
(I) Class	(J) Class	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Experiment Class	Control Class	15,738*	1,171	0,000	13,403	18,074
Control Class	Experiment Class	-15,738*	1,171	0,00	-18,074	-13,403

Discussion

Based on the results of hypothesis testing with ancova, it is known that there are differences in learning motivation in the experimental class and control class before and after the treatment is given. This is evidenced by the F calculated value of 180.744 > F critical 3.98 and a significance value of 0.000 <0.05. Thus, it can be concluded that there is an effect of using Nearpod learning media on student learning motivation. During learning, students look enthusiastic and happy to be involved in learning. This is in line with Ridwan and Mahliatussikah's research (2021) which states that Nearpod learning media also helps create an easy and fun learning process. The learning motivation questionnaire shows the indicator with the highest score, namely the indicator 'there are interesting activities in learning'. This is in line with the results of research conducted by Naumoska et al. (2022) which states that there is an effect of Nearpod on student motivation in learner learning and has great potential to be applied to learning so as to make teaching more interesting and not monotonous.

The use of Nearpod learning media meets the demands of the application of technology in learning. Ryan and Deci (2020) stated that the direction of self-determination theory practice in the future is the application of technology in learning, for example with gamification. Gamification is an effort to increase student motivation and engagement through an approach that uses game elements and game mechanics (Sari & Alfiyan, 2023). The time to climb feature as a means of creating game-based interactive quizzes shows that Nearpod is relevant to be applied in today's learning as a way to increase student motivation.

The LSD test results that have been carried out show that student learning motivation tends to increase higher after applying Nearpod learning media. The experimental class obtained a Sig. 0.000 < 0.05 which means there is a significant effect with a mean difference of 15.738, while the control class obtained a Sig. 0.000 < 0.05 which means there is a significant effect with a mean difference of -15.738. Therefore, it can be stated that Nearpod learning media is more effective in increasing student learning motivation because it has a greater influence on learning motivation compared to Powerpoint learning media. Research by Sagara et al. (2023) showed that there was an increase in learning motivation with the application of Nearpod learning media.

The increase in student learning motivation with Nearpod learning media strengthens the self-determination theory proposed by Richard Ryan and Edward Deci in 1985 which states that learning media is one of the things that affects motivation. In line with Gliksman's (2015) statement, Nearpod encourages student engagement with interaction elements. Student engagement with Nearpod learning media is also in accordance with aspects of intrinsic motivation, namely relatedness or connection to the environment where students can directly answer questions in Nearpod media and cooperate with friends in group tasks through available features. Thus, the effectiveness of student learning with Nearpod also increases marked by students' enthusiasm in learning and focused attitude during learning. Despite the improvement, during the learning process with Nearpod there were obstacles.

The obstacles that occurred during the use of Nearpod learning media were due to a computer in the laboratory that was not functioning properly so that there were students who then accessed Nearpod via their smartphones. The student was then still able to follow the learning well. This shows that Nearpod learning media can be accessed in various ways, both with laptops, computers and smartphones, making it easier for students if they want to repeat learning the material independently at home.

Conclusion

Based on the results of research on the influence of Nearpod learning media on student learning motivation in class X MPLB at SMK Negeri 1 Sukoharjo, it is concluded that there is a positive influence of Nearpod learning media on student learning motivation. This is evidenced by the results of the ancova test with F calculated value 180.744 > F critical 3.98 and Sig. 0.000 < 0.05 which shows a real difference in the learning motivation of experimental and control class students before and after treatment. Thus, there is an impact or influence of Nearpod learning media on student learning motivation. The LSD test results show a Sig. 0.000 < 0.05 in the experimental class and control class so it shows a significant difference in learning motivation. The mean difference of the experimental class is 15.738 and the control class mean difference is -15.738. The mean difference comparison results show that Nearpod learning media is superior in increasing motivation compared to Powerpoint learning media. As for future researchers, it is expected that they can examine the use of Nearpod learning media more broadly with diverse samples and use other features available in Nearpod to the maximum according to learning needs. The features include Sway, Audio, BBC Video, Nearpod 3D, PhET simulation, VR Field Trip, Draw it, Fill in the Blank, Memory Test, Matching Pairs, and Flip.

References

Ami, R. A. (2021). Optimalisasi pembelajaran bahasa Indonesia menggunakan media pembelajaran berbasis aplikasi nearpod. *Bahtera Indonesia: Jurnal Penelitian Bahasa Dan Sastra Indonesia*, *6*(2), 135–148. https://doi.org/10.31943/bi.v6i2.105

Febrita, Y., & Ulfah, M. (2019). Peranan media pembelajaran untuk meningkatkan motivasi belajar siswa. *Diskusi Panel Nasional Pendidikan Matematika*, 181–188. https://proceeding.unindra.ac.id/index.php/DPNPMunindra/article/view/571

Feri, A., & Zulherman, Z. (2021). Analisis kebutuhan pengembangan media pembelajaran IPA berbasis nearpod. *Jurnal Ilmiah Pendidikan Dan Pembelajaran*, *5*(3), 418. https://doi.org/10.23887/jipp.v5i3.33127

Gliksman, S. (2015). *iPad in education for dummies*. John Wiley & Sons.

Hendrizal. (2020). Rendahnya motivasi belajar siswa dalam proses pembelajaran. *Jurnal Riset Pendidikan Dasar Dan Karakter*, *2*(1), 44–53. https://ojs.adzkia.ac.id/index.php/pdk/article/view/57

Kasrina, E. (2023). Metode reward dan punishment : solusi tepat dalam meningkatkan motivasi belajar siswa. *Edudeena : Journal of Islamic Religious Education*, *7*(1), 97–109. https://doi.org/10.30762/ed.v7i1.978

Kustandi, C., & Darmawan, D. (2020). *Pengembangan media pembelajaran*. Kencana.

Lutfiwati, S. (2020). Motivasi belajar dan prestasi akademik. *Jurnal Kependidikan Islam*, *10*(1). https://doi.org/10.24042/alidarah.v10i1.5642

Naumoska, A., Rusevska, K., Blazhevska, A., & Stojanovska, M. (2022). Nearpod as a tool for increasing students' motivation for learning chemistry. *International Journal of Education and Learning*, *4*(1), 89–99. https://doi.org/10.31763/ijele.v4i1.616

Oktaviani, R., & Nurhamidah, D. (2023). Efektivitas penggunaan media pembelajaran interaktif nearpod pada mata pelajaran bahasa Indonesia. *Jurnal Didaktika Pendidikan Dasar*, *7*(2), 717–726. https://doi.org/10.26811/didaktika.v7i2.1121

Ridwan, N. A., & Mahliatussikah, H. (2021). Using nearpod for teaching Arabic in kindergarten and madrasah ibtidaiyah. *Al-Arabi: Journal of Teaching Arabic as a Foreign Language*, *5*(2), 142–155. https://doi.org/10.17977/um056v5i2p142-155

Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, *61*, 101860. https://doi.org/10.1016/j.cedpsych.2020.101860

Sagara, A. F., Sugiarti, L., Saputri, D. D., & Kusumayati, T. (2023). Upaya peningkatan motivasi belajar peserta didik dengan media pembelajaran berbasis digital web nearpod. *Bionatural*, *10*(2), 73–81. https://doi.org/10.61290/bio.v10i2.663

Sari, D. N., & Alfiyan, A. R. (2023). Peran adaptasi game (gamifikasi) dalam pembelajaran untuk menguatkan literasi digital: systematic literature review. UPGRADE: Jurnal Pendidikan Teknologi Informasi, *1*(1), 43–52. https://doi.org/10.30812/upgrade.v0i0.3157

Suharni. (2021). Upaya guru dalam meningkatkan motivasi belajar siswa. *Jurnal Bimbingan Dan Konseling*, *6*(1), 172–184. https://doi.org/10.31316/g.couns.v6i1.2198

Yuha, I. T. W., Astuti, I., & Fergina, A. (2021). Analisis motivasi belajar siswa (studi tentang peserta didik yang memiliki motivasi rendah di sekolah menengah atas Santun Untan Pontianak). *Jurnal Pendidikan Dan Pembelajaran*, *10*(12). https://dx.doi.org/10.26418/jppk.v10i12.51571