ACADEMIA: Jurnal Inovasi Riset Akademik
Vol. 5, No. 4, Tahun 2025
E-ISSN: 2807-1808
P-ISSN: 2807-2294
Online Journal System: https://jurnalp4i.com/index.php/academia

DEVELOPMENT OF PROBLEM-BASED LEARNING (PBL) E-MODULE USING NEARPOD APPLICATION TO IMPROVE IPS LEARNING OUTCOMES

Tri Wahyuni[1], Siti Aisyah[2], Ismira[3]
Elementary School Teacher Education Study Program, Adzkia University[1,2,3]
e-mail: triwahyuni90@guru.sd.belajar.id

ABSTRAK

Penelitian ini dilatarbelakangi oleh rendahnya hasil belajar IPS akibat pembelajaran yang masih didominasi metode ceramah satu arah dan penggunaan modul cetak konvensional. Penelitian ini bertujuan untuk mengembangkan E-Modul IPS berbasis Problem Based Learning (PBL) berbantuan aplikasi Nearpod yang valid, praktis, dan efektif untuk meningkatkan hasil belajar murid sekolah dasar. Penelitian ini merupakan penelitian dan pengembangan (R&D) dengan menggunakan model ADDIE yang meliputi tahap Analysis, Design, Development, Implementation, dan Evaluation. Instrumen penelitian terdiri atas lembar validasi ahli, angket respons guru dan murid, serta tes hasil belajar. Subjek penelitian melibatkan 70 murid kelas V dari tiga sekolah dasar di Kota Bukittinggi, yaitu SDN 03 Pakan Labuah, SDN 08 Kubu Tanjuang, dan SDN 11 Aur Kuning. Analisis data dilakukan melalui uji validitas, praktikalitas, dan efektivitas. Hasil tahap Analysis menunjukkan bahwa pembelajaran IPS masih didominasi metode ceramah dan penggunaan buku teks sehingga murid cenderung pasif dan mengalami kesulitan memahami konsep abstrak. Pada tahap Design, dirancang E-Modul berbasis PBL menggunakan aplikasi Nearpod. Hasil tahap Development menunjukkan bahwa E-Modul memperoleh kategori sangat valid dari ahli materi, bahasa, dan desain, dengan rata-rata validitas sebesar 97,33%. Pada tahap Implementation, hasil uji praktikalitas memperoleh persentase 98% dari guru dan 84,49% dari murid, keduanya termasuk kategori sangat praktis. Pada tahap Evaluation, hasil tes belajar menunjukkan peningkatan rata-rata nilai dari 53,50 pada pretest menjadi 90,43 pada posttest, dengan nilai N-Gain sebesar 0,7902 dalam kategori tinggi. Sementara itu, hasil angket efektivitas memperoleh persentase 83,43% dengan kategori sangat efektif. Dengan demikian, E-Modul IPS berbasis Problem Based Learning (PBL) berbantuan aplikasi Nearpod dinyatakan valid, praktis, dan efektif untuk mendukung peningkatan hasil belajar murid sekolah dasar.

Kata Kunci: *E-Modul, Problem Based Learning (PBL), Aplikasi Nearpod, Hasil Belajar IPS*

ABSTRACT

This study was motivated by the low Social Studies learning outcomes resulting from learning activities that are still dominated by one-way lectures and the use of conventional printed modules. This study aimed to develop a Problem-Based Learning (PBL)-based Social Studies E-Module assisted by the Nearpod application that is valid, practical, and effective in improving elementary school students' learning outcomes. This research employed a research and development (R&D) approach using the ADDIE model, which consists of five stages: Analysis, Design, Development, Implementation, and Evaluation. The research instruments consisted of expert validation sheets, teacher and student response questionnaires, and learning outcome tests. The research subjects involved 70 fifth-grade students from three elementary schools in Bukittinggi City, namely SDN 03 Pakan Labuah, SDN 08 Kubu Tanjuang, and SDN 11 Aur Kuning. Data were analyzed through validity, practicality, and effectiveness assessments. The Analysis stage revealed that Social Studies learning was still dominated by lecture methods and textbook use, causing students to be less active and experience difficulties in understanding abstract concepts. During the Design stage, a PBL-based E-Module was designed using the

Copyright (c) 2025 ACADEMIA: Jurnal Inovasi Riset Akademik

ACADEMIA: Jurnal Inovasi Riset Akademik
Vol. 5, No. 4, Tahun 2025
E-ISSN: 2807-1808
P-ISSN: 2807-2294
Online Journal System: https://jurnalp4i.com/index.php/academia

Nearpod application. The Development stage showed that the E-Module achieved a very valid category based on assessments by material, language, and design experts, with an average validity score of 97.33%. During the Implementation stage, the practicality assessment obtained scores of 98% from teachers and 84.49% from students, both categorized as very practical. During the Evaluation stage, the learning outcome tests showed an increase in the average score from 53.50 on the pretest to 90.43 on the posttest, with an N-Gain score of 0.7902, categorized as high. Meanwhile, the effectiveness questionnaire obtained a score of 83.43%, categorized as very effective. Therefore, the PBL-based Social Studies E-Module assisted by the Nearpod application was considered valid, practical, and effective in supporting the improvement of elementary school students' learning outcomes.
Keywords: *E-Modules, Problem-Based Learning (PBL), Nearpod Application, Social Studies Learning Outcomes*

INTRODUCTION

The development of information and communication technology has influenced various aspects of education, including the implementation of learning activities in elementary schools. The integration of technology into learning provides opportunities for teachers to present instructional materials in more interactive, accessible, and engaging ways (Baroroh et al., 2024; Naibaho & Rantung, 2024). One form of technology integration is the use of electronic modules (e-modules), which allow learning materials to be presented through text, images, videos, and interactive activities. Interactive digital learning materials can provide students with opportunities to explore learning content more independently and support the achievement of learning objectives (Ardiyanto et al., 2025).

In elementary education, Social Studies (IPS) plays an important role in helping students understand social life, environmental conditions, cultural diversity, and various phenomena in their surroundings. Social Studies learning should not be limited to memorizing concepts but should also encourage students to observe, analyze, and respond to problems related to everyday life. Therefore, learning activities need to provide meaningful experiences that connect subject matter with students' real-life contexts. Arisanti et al. (2022) emphasize that critical thinking skills are important in Social Studies learning because they are closely related to students' ability to understand concepts and achieve better learning outcomes.

However, the implementation of Social Studies learning in elementary schools still faces challenges, particularly in the use of learning models and instructional materials that have not fully encouraged active student participation. Learning activities that rely heavily on teacher explanations and conventional teaching materials may provide limited opportunities for students to investigate problems, exchange ideas, and construct their own understanding. Such conditions indicate the need for learning resources that are not only informative but also capable of facilitating active and contextual learning.

The preliminary findings in this study also indicate that students' Social Studies learning outcomes require improvement. In the initial assessment involving 23 students, only 8 students achieved the minimum learning completion criterion (KKM), while 15 students had not achieved it. This finding suggests that students' understanding of the learning material has not been optimal. The learning process therefore needs to be supported by instructional materials and learning activities that can help students understand concepts through more active and meaningful experiences.

One alternative is the Problem-Based Learning (PBL) model, which places contextual problems at the beginning of the learning process. Through this model, students are encouraged to identify problems, gather relevant information, discuss possible solutions, and present their

Copyright (c) 2025 ACADEMIA: Jurnal Inovasi Riset Akademik

findings. Previous research by Ariyani & Kristin (2021) found that the implementation of PBL had a positive contribution to fifth-grade students' Social Studies learning outcomes and critical thinking skills. Similar findings were reported by Utami (2022), who examined the application of PBL in improving Social Studies learning outcomes among fifth-grade elementary school students. These findings indicate that PBL has the potential to support more active and problem-oriented Social Studies learning.

Several studies have examined the development of digital learning materials and the implementation of PBL in elementary education. Desyandri et al. (2024), for example, developed a PBL-based e-module integrated with multicultural education using the ADDIE model. Their study demonstrated that the developed e-module met the validity and practicality criteria based on assessments from experts, teachers, and students. This research shows that integrating PBL into an e-module can provide an alternative learning resource that supports contextual learning in elementary schools.

Research on the use of Nearpod has also demonstrated its potential in supporting Social Studies learning. Fadhilah (2025) developed Nearpod-based interactive multimedia for fourth-grade students on the topic of Indonesian cultural diversity. Their findings indicated that the developed media achieved a high level of validity and supported students' learning outcomes. The use of Nearpod provides opportunities to integrate various interactive learning activities, allowing students to engage with learning materials through different forms of digital interaction.

Other studies have also highlighted the contribution of interactive e-modules to elementary students' learning outcomes. Safitri and Dafit (2025) developed interactive e-modules using the ADDIE model and reported positive results in terms of product validation, teacher and student responses, and learning outcomes. Similarly, Alyusfitri et al. (2024) examined interactive multimedia-based e-modules and found a relationship between students' responses to the learning materials and their learning outcomes. These studies provide evidence that interactive digital learning materials can support the learning process, particularly when their content and activities are designed according to students' learning needs.

Although previous studies have addressed PBL-based e-modules and Nearpod-based learning media, these topics have generally been examined separately or implemented with different learning content and educational contexts. Jannah & Amini (2026) focused on a PBL e-module integrated with multiculturalism, while Zulfa & Imron (2024) focused on Nearpod-based interactive multimedia for Social Studies content. This indicates an opportunity to develop an instructional product that combines the PBL learning model, e-module format, and Nearpod application within the context of fifth-grade Social Studies learning.

The development of a PBL e-module using the Nearpod application is therefore considered necessary to address the identified learning needs. An e-module can organize learning materials systematically, while the PBL model provides a learning framework that encourages students to understand and solve contextual problems. Nearpod can complement these elements by providing interactive features that support students' participation during learning activities. The combination of these components is expected to create learning experiences that are more engaging, structured, and oriented toward student activity.

The developed product is also expected to provide teachers with an alternative instructional resource that can be used to facilitate Social Studies learning. Through the integration of learning materials, problem-solving activities, and interactive features, students are expected to become more actively involved in understanding the subject matter. Consequently, the development of this product is not merely intended to transform printed

Copyright (c) 2025 ACADEMIA: Jurnal Inovasi Riset Akademik

materials into digital formats but also to integrate an appropriate learning model and interactive technology into a single instructional resource.

The novelty of this study lies in the integration of the Problem-Based Learning model into an electronic module developed using the Nearpod application for fifth-grade Social Studies learning. Previous studies have examined the development of PBL-based e-modules (Nispiah & Alwin, 2023) and the development of Nearpod-based interactive multimedia for Social Studies learning (Inanta et al., 2022). However, this study combines both approaches into one learning product designed specifically to support problem-oriented Social Studies learning in elementary school.

The developed e-module is designed to connect learning content with problem-solving activities and interactive features available in Nearpod. This integration is expected to provide a learning resource that not only presents subject matter but also facilitates students' active engagement in exploring problems and understanding concepts. Thus, the contribution of this study is reflected in the design and development of an integrated instructional product that combines a learning model, digital module, and interactive application within a specific learning context.

Based on the problems and research gaps described above, this study aims to develop a Problem-Based Learning (PBL) e-module using the Nearpod application for fifth-grade Social Studies learning. Specifically, this study examines the validity, practicality, and effectiveness of the developed e-module in supporting the learning process and improving students' learning outcomes. The development process follows the ADDIE model, consisting of Analysis, Design, Development, Implementation, and Evaluation stages. The results are expected to provide an alternative digital learning resource that supports more interactive and problem-oriented Social Studies learning in elementary schools.

METHODS

This study employed a Research and Development (R&D) approach to develop a Problem-Based Learning (PBL) e-module using the Nearpod application for fifth-grade Social Studies learning. The development procedure followed the ADDIE model, which consists of five stages: Analysis, Design, Development, Implementation, and Evaluation. The research was conducted at three elementary schools in Bukittinggi, West Sumatra, involving 70 fifth-grade students: 23 students from SDN 03 Pakan Labuah, 24 students from SDN 08 Kubu Tanjuang, and 23 students from SDN 11 Aur Kuning. The participants were involved in the implementation and evaluation of the developed learning product.

The development process began with the Analysis stage, which involved identifying learning needs, curriculum requirements, student characteristics, and problems encountered in Social Studies learning. In the Design stage, the researchers prepared the e-module structure, learning objectives, PBL-based learning activities, assessment instruments, and interactive content using Nearpod. The Development stage involved producing the e-module and conducting expert validation to assess its material, design, and language quality. Revisions were made based on the validation results before the product was implemented. The Implementation stage involved using the validated e-module in classroom learning, while the Evaluation stage was conducted to assess the product's validity, practicality, and effectiveness and to identify aspects requiring improvement.

Data were collected through validation sheets, teacher and student response questionnaires, and learning outcome tests. The validation sheets were used to assess the quality of the e-module in terms of material, instructional design, and language. Teacher and student

Copyright (c) 2025 ACADEMIA: Jurnal Inovasi Riset Akademik

ACADEMIA: Jurnal Inovasi Riset Akademik
Vol. 5, No. 4, Tahun 2025
E-ISSN: 2807-1808
P-ISSN: 2807-2294
Online Journal System: https://jurnalp4i.com/index.php/academia

questionnaires were administered to determine the practicality of the product, while the learning outcome tests consisted of 20 multiple-choice questions administered before and after implementation. The collected data were analyzed using descriptive quantitative techniques. Validation and questionnaire scores were converted into percentages by comparing the obtained scores with the maximum possible scores and multiplying the results by 100%. The resulting percentages were then interpreted using the applicable assessment criteria to determine the validity and practicality levels of the developed product.

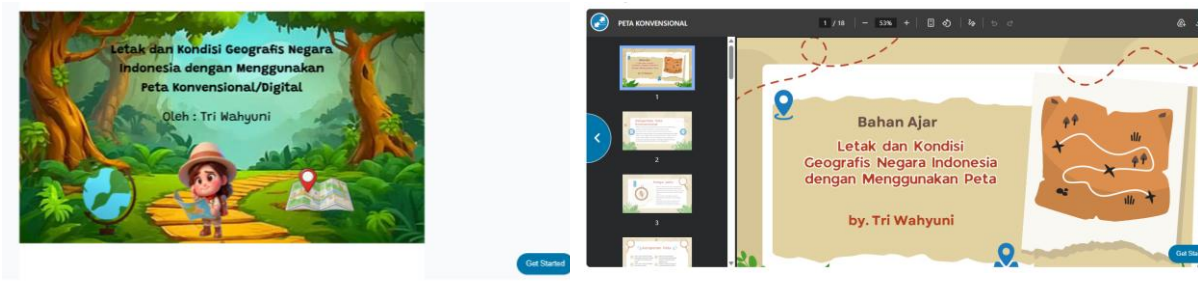
The effectiveness of the e-module was examined by comparing students' pretest and posttest scores and calculating the normalized gain (N-Gain). The N-Gain was calculated using the formula (g=(S_{post}-S_{pre})/(S_{max}-S_{pre})), where (S_{post}) represents the posttest score, (S_{pre}) represents the pretest score, and (S_{max}) represents the maximum possible score. N-Gain values were interpreted as high ($g \geq 0.70$), medium ($0.30 \leq g < 0.70$), and low ($g < 0.30$). In addition, the effectiveness questionnaire was analyzed descriptively to determine students' responses to the use of the e-module. The results of these analyses were used to evaluate the extent to which the developed product met the validity, practicality, and effectiveness criteria.

RESULT AND DISCUSSION

Result

1. Development of the PBL E-Module

The development of the PBL e-module using the Nearpod application followed the five stages of the ADDIE model. The analysis stage identified students' learning needs and the problems encountered in Social Studies learning. The design stage produced the learning structure, materials, problem-based activities, and assessments. During the development stage, these components were integrated into an interactive e-module using Nearpod. The product was subsequently revised based on expert validation before being implemented in fifth-grade classrooms at SDN 03 Pakan Labuah, SDN 08 Kubu Tanjuang, and SDN 11 Aur Kuning, involving 70 students.



Picture 1. Overview of the Developed Media

The developed PBL-based e-module using the Nearpod application consists of systematically organized learning materials integrated with interactive features to support students' learning activities. The media presents learning content, contextual problems, and various interactive activities designed according to the stages of the Problem-Based Learning model. Through this integration, students can explore learning materials, identify problems, discuss possible solutions, and complete learning activities more actively. The developed media is presented in Picture 1 as an overview of the final product before its implementation in fifth-grade Social Studies learning.

Copyright (c) 2025 ACADEMIA: Jurnal Inovasi Riset Akademik

ACADEMIA: Jurnal Inovasi Riset Akademik
Vol. 5, No. 4, Tahun 2025
E-ISSN: 2807-1808
P-ISSN: 2807-2294
Online Journal System: https://jurnalp4i.com/index.php/academia

2. Product Validity

Product validity was assessed by experts in three aspects: material, instructional design, and language. The results are presented in Table 1.

Table 1. Expert Validation Results

Validation aspect	Percentage
Material	98%
Design	96%
Language	98%
Average	97.33%

Table 1 shows that the material aspect obtained a score of 98%, the design aspect 96%, and the language aspect 98%. The average validation score was 97.33%. These results indicate that the developed PBL e-module met the validity criteria and was suitable for implementation in learning activities.

3. Product Practicality

The practicality of the developed e-module was evaluated through teacher and student response questionnaires. The results are presented in Table 2.

Table 2. Practicality Assessment Results

Respondent	Percentage
Teachers	98%
Students	84.49%
Small-group trial	89%

The teacher response questionnaire yielded a score of 98%, while the student response questionnaire obtained 84.49%. The small-group trial resulted in a practicality score of 89%. These findings indicate that the e-module received positive responses from teachers and students and could be used to support Social Studies learning.

4. Product Effectiveness

The effectiveness of the e-module was examined by comparing students' learning outcomes before and after its implementation. The pretest and posttest results are presented in Table 3.

Table 3. Descriptive Statistics of Students' Learning Outcomes

Statistics	Pretest	Posttest
Number of students	70	70
Mean	53.50	90.43
Standard deviation	11.143	7.109
Minimum score	30	80
Maximum score	70	100

Table 3 indicates an increase in the average learning outcome from 53.50 in the pretest to 90.43 in the posttest. The minimum score also increased from 30 to 80, while the maximum

Copyright (c) 2025 ACADEMIA: Jurnal Inovasi Riset Akademik

score increased from 70 to 100. The reported N-Gain score was 0.7942, which falls into the high category. Furthermore, the effectiveness questionnaire yielded a score of 83.43%. These results suggest that the developed PBL e-module was associated with improved student learning outcomes and received positive evaluations in the implementation process.

.

Discussion

The validation results indicate that the developed PBL e-module using the Nearpod application met the expected quality standards in terms of material, instructional design, and language. The high validation scores suggest that the learning content was considered appropriate, the instructional components were systematically organized, and the language was suitable for the intended elementary school students. These aspects are important because an effective digital learning resource should not only present accurate subject matter but also provide clear instructions and an appropriate learning structure. This finding is consistent with Rahmawati et al. (2025), who developed a PBL-based e-module integrated with multicultural education and reported that the product met the validity criteria. Similarly, Alawiyah and Ahmadi (2024) demonstrated that Nearpod-based interactive multimedia could achieve a high level of validity for elementary Social Studies learning. The present findings therefore support the potential of combining a structured learning model with interactive digital media to produce appropriate instructional materials.

The practicality assessment also indicates that the developed e-module received positive responses from teachers and students. The high teacher response suggests that the product can serve as an alternative instructional resource for organizing learning activities, while the student responses indicate that its features and presentation were generally acceptable to the learners. Nearpod provides interactive features that can support student engagement through activities such as quizzes, polls, and collaborative tasks. When integrated with PBL, these features can facilitate learning activities in which students explore problems, exchange ideas, and communicate their understanding. The findings are in line with Safitri and Dafit (2025), who reported positive teacher and student responses to interactive e-modules developed for elementary education. Alyusfitri et al. (2024) also highlighted the relationship between students' responses to interactive multimedia-based e-modules and their learning outcomes. These findings emphasize that the practicality of digital learning materials is an important consideration in ensuring that a developed product can be used in actual classroom settings.

Regarding effectiveness, students' average learning outcomes increased from 53.50 in the pretest to 90.43 in the posttest, with the reported N-Gain score of 0.7942 in the high category. This improvement suggests that the implementation of the PBL e-module was accompanied by better student performance after the learning activities. The PBL approach provides opportunities for students to engage with contextual problems, identify relevant information, discuss possible solutions, and construct their understanding through active learning. The Nearpod application complements this process by presenting learning content and activities through an interactive digital environment. This finding is supported by Dharma and Lestari (2022), who reported that PBL contributed positively to fifth-grade students' Social Studies learning outcomes and critical thinking skills. Bintoro et al. (2024) also found that Nearpod-based interactive multimedia supported learning outcomes in elementary Social Studies. Thus, the improvement observed in this study suggests that integrating PBL with Nearpod-based learning materials can be a promising approach to supporting Social Studies learning outcomes. However, because the study primarily presents descriptive pretest and

Copyright (c) 2025 ACADEMIA: Jurnal Inovasi Riset Akademik

posttest comparisons, the findings should be interpreted as an improvement observed during implementation rather than definitive evidence of a causal effect.

The main contribution of this study lies in the integration of the PBL model, an electronic module, and the Nearpod application into a single instructional product designed for fifth-grade Social Studies learning. Previous studies have examined PBL-based e-modules (Jayanti & Pertiwi, 2023) and Nearpod-based interactive multimedia (Cahyono et al., 2026), whereas this study combines these elements within one learning resource. This integration provides an alternative for teachers who need digital materials that combine structured subject content, contextual problem-solving activities, and interactive learning features. Nevertheless, the findings should be considered in relation to the study's scope, which involved 70 students from three elementary schools. Further research involving a wider range of schools and a comparison group is needed to examine the effectiveness of the product more rigorously. Future studies may also investigate its contribution to other learning outcomes, including critical thinking, collaboration, and student learning motivation.

CONCLUSION

The study successfully developed a Problem-Based Learning (PBL) e-module using the Nearpod application for fifth-grade Social Studies learning through the ADDIE development model. The product achieved an average validity score of 97.33%, consisting of 98% for material validity, 96% for design validity, and 98% for language validity. The practicality assessment reached 98% based on teacher responses and 84.49% based on student responses, while the small-group trial obtained a score of 89%. In terms of effectiveness, students' average scores increased from 53.50 in the pretest to 90.43 in the posttest, with the reported N-Gain of 0.7942, categorized as high. The effectiveness questionnaire also yielded a score of 83.43%. These findings indicate that the developed PBL e-module meets the validity and practicality criteria and shows potential to improve students' Social Studies learning outcomes.

The findings imply that integrating the PBL model into a Nearpod-based e-module can provide teachers with an alternative digital learning resource that encourages student participation, problem-solving activities, and more interactive learning experiences. The product can be considered as a supporting resource for Social Studies instruction, particularly in presenting contextual problems and facilitating students' understanding of learning materials. Further research is recommended to involve a larger number of schools and students, examine the effectiveness of the e-module through a comparison group or experimental design, and investigate its impact on other learning outcomes, such as critical thinking, collaboration, and learning motivation. Future development may also adapt the e-module to different topics and grade levels to broaden its applicability.

REFERENCES

Alawiyah, I. A., & Ahmadi, F. (2024). Developing Nearpod-based interactive multimedia on the topic of Indonesian cultural diversity for 4th grade elementary school students. *Journal of Integrated Elementary Education*, *4*(2), 173-188. https://doi.org/10.21580/jieed.v4i2.22022

Alyusfitri, R., Gistituati, N., Yerizon, Fauzan, A., & Yarman. (2024). The effectiveness and relationship of student responses toward learning outcomes using interactive multimedia-based e-modules in elementary schools. International Electronic Journal of Elementary Education, 16(5), 573–584. https://doi.org/10.26822/iejee.2024.354

Copyright (c) 2025 ACADEMIA: Jurnal Inovasi Riset Akademik

Ardiyanto, E. Y., Suryani, N., & Rahayu, U. (2025). Development of Problem-Based Learning (PBL) oriented e-module to improve critical thinking skills for elementary school students. *Jurnal Pendidikan Matematika*, *16*(1), 1-10. https://doi.org/10.36709/jpm.v16i1.249

Arisanti, D. A. K., Dantes, N., & Suastika, I. N. (2022). Environmental oriented problem-based learning (PBL) improves learning outcomes and self-efficacy of students in social studies in fifth-grade elementary schools. *Journal for Lesson and Learning Studies*, *5*(3), 377-384. https://doi.org/10.23887/jlls.v5i3.48537

Ariyani, B., & Kristin, F. (2021). Model pembelajaran problem based learning untuk meningkatkan hasil belajar IPS siswa SD. *Jurnal Ilmiah Pendidikan Dan Pembelajaran*, *5*(3), 353-361. https://doi.org/10.23887/jipp.v5i3.36230

Baroroh, A. Z., Kusumastuti, D. A., & Kamal, R. (2024). Pemanfaatan teknologi dalam pembelajaran. *Perspektif: Jurnal Pendidikan dan Ilmu Bahasa*, *2*(4), 269-286. https://doi.org/10.59059/perspektif.v2i4.1952

Bintoro, W. P., Triwahyuni, E., & Emyus, A. Z. (2024). The Influence of Digital Learning Media Nearpod on The Motivation and Academic Achievement of Elementary School Students. *Journal of Education Technology*, *8*(4), 654-661. https://doi.org/10.23887/jet.v8i4.85613

Cahyono, B. T., Prasetya, S. P., Suprijono, A., & Prastiyono, H. (2026). Pengaruh Media Interaktif Nearpod Terhadap Keterampilan Berpikir Tingkat Tinggi Pada Siswa Mata Pelajaran Ips Di Smpn 2 Buduran Sidoarjo. *Jurnal Pendidikan Sosial dan Humaniora*, *5*(3), 3879-3889. https://publisherqu.com/index.php/pediaqu/article/view/4855

Desyandri, D., Agustina, Y., & Lusiana, D. (2024). The development of problem-based learning model e-module integrated with multiculturalism in elementary schools. *Jurnal Prima Edukasia*, *12*(2), 183-193. https://doi.org/10.21831/jpe.v12i2.62368

Dharma, I. M. A., & Lestari, N. A. P. (2022). The Impact of Problem-based Learning Models on Social Studies Learning Outcomes and Critical Thinking Skills for Fifth Grade Elementary School Students. *Jurnal Ilmiah Sekolah Dasar*, *6*(2), 263-269. https://doi.org/10.23887/jisd.v6i2.46140

Fadhilah, N. A. N. (2025). Pengaruh Model Pembelajaran Game Based Learning Menggunakan Media Nearpod Terhadap Capaian Pembelajaran Pengetahuan Siswa Pada Mata Pelajaran IPS Di SMPN 33 Surabaya. *Jurnal Dialektika Pendidikan IPS*, *5*(2), 193-208. https://ejournal.unesa.ac.id/index.php/PENIPS/article/view/71445

Inanta, R., Zulhaji, Z., & Indrayani, I. (2022). Peningkatan Hasil Belajar IPS Melalui Media Nearpod pada Peserta Didik SMPK Penabur Kelapa Gading Jakarta. *Jurnal Pemikiran Dan Pengembangan Pembelajaran*, *4*(1), 418-424. http://ejournal-jp3.com/index.php/Pendidikan/article/view/241

Jannah, N., & Amini, R. (2026). Development of a Problem-Based Learning Interactive Digital Module for Elementary Science Education: Design, Validation, and Implementation. *Journal of Education Research*, *7*(3), 1768-1781. https://doi.org/10.37985/jer.v7i3.3972

Copyright (c) 2025 ACADEMIA: Jurnal Inovasi Riset Akademik

Jayanti, M. A., & Pertiwi, K. R. (2023). Pengembangan e-modul berbasis pbl untuk meningkatkan kemampuan analisis dan rasa ingin tahu siswa. *JINoP (Jurnal Inovasi Pembelajaran)*, *9*(1), 112-127. https://doi.org/10.22219/jinop.v9i1.23178

Naibaho, L., & Rantung, D. A. (2024). Peran teknologi dalam proses pembelajaran. *Jurnal Kolaboratif Sains*, *7*(1), 444-448. https://jurnal.unismuhpalu.ac.id/index.php/JKS/article/view/4896

Nispiah, N., & Alwin, A. (2023). Pemanfaatan media pembelajaran interaktif Nearpod terhadap hasil belajar. *Jurnal Georafflesia: Artikel Ilmiah Pendidikan Geografi*, *8*(1), 9-18. https://doi.org/10.32663/georaf.v8i1.3493

Rahmawati, N. P., Nuriman, N., Wardoyo, A. A., & Setiawan, A. B. (2025). Enhancing elementary students' learning outcomes in integrated science and social studies through problem-based learning supported by mind mapping: A classroom action research study. *EduStream: Jurnal Pendidikan Dasar*, *9*(2), 113-127. https://doi.org/10.26740/eds.v9n2.p113-127

Safitri, T. R., & Dafit, F. (2025). Development of interactive e-modules for elementary students: Enhancing learning outcomes. *PrimaryEdu: Journal of Primary Education*, *9*(1), 51-67. https://doi.org/10.22460/pej.v9i1.5681

Utami, V. O. (2022). The effect of using Problem-Based Learning (PBL) model on Social Studies learning outcomes for fifth grade students at SDN 03 Tiumang, Dharmasraya Regency. Jurnal IKA, 20(2). https://doi.org/10.23887/ika.v20i2.39413

Zulfa, F. A., & Imron, A. (2024). Penerapan Model Discovery Learning Berbantuan Nearpod Untuk Meningkatkan Hasil Belajar Peserta Didik Pada Pembelajaran Ips. *Pendas: Jurnal Ilmiah Pendidikan Dasar*, *9*(04), 601-613. https://doi.org/10.23969/jp.v9i04.19519

Copyright (c) 2025 ACADEMIA: Jurnal Inovasi Riset Akademik