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DEVELOPMENT OF CLASSPOINT-BASED LEARNING MEDIA ON CREATIVE ECONOMY FOR GRADE 6 AT UPT SPF SDN PERCONTOHAN PAM MAKASSAR

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Abstract

The lack of engaging and interactive learning media in elementary school social science education has contributed to students' low interest and achievement, especially in understanding creative economy concepts. This study aims to develop ClassPointbased learning media on creative economic materials. measure the validity of ClassPoint-based learning media on creative economic materials and determine the effectiveness of ClassPoint-based learning media on student learning outcomes. The method used in this research is research and development (R&D) with Robert Maribe Branch's 2009 development model, namely analysis, design, development, implementation, and evaluation (ADDIE). The subjects used in this study were grade VI Saoraja students with a total of 20 students. Data collection techniques and instruments in this study through observation, interviews, learning material validation sheets, learning media validation sheets, teacher response questionnaires, and student response questionnaires. Then the data analysis technique by giving scores to the validation results and response questionnaires, calculating the percentage score of the validity results and response questionnaires, calculating the average percentage score of the validity results and response questionnaires, and categorizing the average percentage according to the eligibility criteria. Based on the data analysis, the feasibility validation of the developed media obtained 92% material expert validation, 93% media expert validation, 97% practitioner validation. While the percentage of student response questionnaire results on a small scale is 97% and the percentage of student response questionnaire results on a large scale is 96%. Based on this, it can be

concluded that classpoint-based learning media on creative economic materials are suitable for use in the learning process.

Keywords: Learning Media, ClassPoint, Creative Economy.

Abstrak

Kurangnya media pembelajaran yang menarik dan interaktif dalam pendidikan ilmu pengetahuan sosial di sekolah dasar telah berkontribusi pada rendahnya minat dan prestasi siswa, terutama dalam memahami konsep-konsep ekonomi kreatif. Penelitian ini bertujuan untuk mengembangkan media pembelajaran berbasis ClassPoint pada materi ekonomi kreatif, mengukur validitas media pembelajaran berbasis ClassPoint pada materi ekonomi kreatif dan mengetahui keefektifan media pembelajaran berbasis ClassPoint terhadap hasil belajar siswa. Metode yang digunakan dalam penelitian ini adalah penelitian dan pengembangan (R&D) dengan model pengembangan Robert Maribe Branch tahun 2009, yaitu analysis, design, development, implementation, dan evaluation (ADDIE). Subjek yang digunakan dalam penelitian ini adalah siswa kelas VI Saoraja dengan jumlah 20 siswa. Teknik dan instrumen pengumpulan data pada penelitian ini melalui observasi, wawancara, lembar validasi materi pembelajaran, lembar validasi media pembelajaran, angket respon guru, dan angket respon siswa. Kemudian teknik analisis data dengan memberikan skor pada hasil validasi dan angket respon, menghitung persentase skor hasil validasi dan angket respon, menghitung rata-rata persentase skor hasil validasi dan angket respon, dan mengkategorikan rata-rata persentase sesuai dengan kriteria kelayakan. Berdasarkan analisis data, validasi kelayakan media yang dikembangkan diperoleh validasi ahli materi 92%, validasi ahli media 93%, validasi praktisi 97%. Sedangkan persentase hasil angket respon siswa pada skala kecil sebesar 97% dan persentase hasil angket respon siswa pada skala besar sebesar 96%. Berdasarkan hal tersebut, dapat disimpulkan bahwa media pembelajaran berbasis classpoint pada materi ekonomi kreatif layak digunakan dalam proses pembelajaran.

Kata kunci: Media Pembelajaran, ClassPoint, Ekonomi Kreatif.

INTRODUCTION

Education has a very crucial role in shaping a competent generation so that through education every student can develop their potential and be able to gain the knowledge and skills needed to overcome future challenges. Education can improve the quality of life of each individual or community by utilizing technology or using information media so that each student is able to develop critical thinking skills and increase creativity (Mawardi et al., 2024). Excellent education is very appropriate and relevant to the development of education today which emphasizes two aspects, namely student activeness in learning and the formation of character values and readiness to face real-life challenges (Sani, 2014). The rapid development of information and communication technology characterizes the development of the digital era. Ideally, as a learning solution in the 21st century, learning must fulfill technological development factors as the basis for educational development in schools.

The definition of science literacy proposed by Magdalena et al. (2021) provides a comprehensive description of the importance of mastering science in everyday life, especially in knowledge and understanding of concepts, decision making, involvement in life and special abilities in communicating effectively to solve problems. The relationship between science literacy and learning outcomes is first, science literacy includes the ability to understand science

concepts used as indicators to assess students' understanding of the ability to conduct scientific investigations. The second science literacy competency is evaluating and designing scientific investigations related to the learning outcome indicators of interpreting the results of other people's research and the results of one's own research so as to understand the meaning of the data obtained and then connect it with the scientific concepts learned, inference, explanation, and evaluation(Irawan et al., 2023)r.

The third science literacy competency is to explain data and facts scientifically which allows a person to understand, build arguments, make decisions and communicate effectively (Prahastiwi, 2019). Science literacy can emphasize that not only knowledge is limited to scientific concepts but a set of skills that enable each student to evaluate information and make rational decisions (Abidin, 2017; Cerelia et al., 2021). The low level of science education that is still conventional and the expertise of teachers in carrying out science education which is still influenced by the curriculum and learning system, the quality of education, the selection of teaching procedures and models of teachers and science education that is still conventional by confronting science modules without trying to solve problems and find solutions in overcoming boredom and boredom in learning, can hinder the achievement of national education goals besides that it can also hinder the development of overall student learning outcomes. (Percival & Ellington, 2007). Learning media has an important role in the learning process. Learning media is a tool or intermediary in conveying information to students. Good learning media is media that can optimize the knowledge of the five senses of learners, so that the information conveyed can be understood and last long. Economics is one of the subjects that requires learning media in its delivery. One of them is material needs. In this material there are sub-materials of various needs, means of satisfying needs, and the use of means of satisfying needs in the material needs have a long flow, so that varied learning media are needed and can also provide clear illustrations. The urgency to develop ClassPoint-based learning media in the context of Creative Economy education for sixth-grade students arises from the need to improve students' scientific literacy and engagement in learning.

The achievement of the above objectives can be overcome by teaching IPAS from an early age by introducing science concepts in building the foundation of the phenomena of events around and adapted to the age development of students at each level. Roestiyah (2008) says that by implementing effective learning, teachers have varied learning strategies and are adapted to the characteristics of students or students' initial abilities to achieve learning objectives. The concept of IPAS in the independent curriculum is designed to provide active learning experiences by integrating science and social studies learning and it is expected that students can understand the world around them, develop critical thinking skills and can foster curiosity (Sardiman, 2018) provides a very relevant view of IPAS learning in elementary schools in an independent curriculum that is taught in an integrated manner can provide many benefits for students through holistic learning, meaningful understanding so as to improve the quality of learning in developing the abilities needed to have a positive attitude towards learning.

One of the learning outcomes of IPAS in the independent curriculum in phase C in grade VI SD is to recognize various kinds of community economic activities and creative economies in the surrounding environment which are expected that students take an action or make a decision related to daily life based on their understanding of the wealth of local wisdom that applies in their area and the scientific values of the local knowledge. Creative economy material contained in one of the IPAS subject contents has enormous potential in shaping students' understanding of the economic world from an early age. However, there are still students who do not understand

and apply the concept of creative economy in everyday life. Economics is one of the important subjects for children to learn from an early age. This subject teaches children about basic economic concepts, such as production, consumption, distribution, and prices. It also teaches children about the importance of financial skills, such as money management, investment and entrepreneurship. To make economics lessons more interesting and fun for elementary school children, creative planning is required.

In creating a more interactive learning atmosphere, teachers can use ClassPoint-based multimedia that can help students more easily understand creative economic concepts and increase student involvement in the social studies learning process. These conditions must create learning conditions that are dynamic, effective and provide attractiveness for students by using ClassPoint-based media to encourage student interest and learning outcomes in finding information from ClassPoint learning media that has been provided on IPAS Creative Economy material.

The results of initial observations and observations at SD Negeri Percontohan UPT SPF PAM Makassar City on September 06 - September 18, 2023 found that the media used were still simple because the students' assignments given were only based on the package book, there was a separate LKPD (student worksheet) but there was no visible interest in creative economy material. The condition of each class has been facilitated with SmartTV, Internet Network and every student has a smartphone. The economic conditions of the parents of students at UPT SPF SD Negeri Percontohan PAM are mostly middle to upper economic conditions, and the positive impact after the online learning due to COVID 19 each student has been facilitated with a smartphone by their parents. However, based on the size of the facility, teachers are underutilizing the advantages of human resources.

Standardization in the use of learning media identifies problems that often arise in the mismatch between teaching materials and everyday life so that the main purpose of using learning media can be more effective and meaningful for students becomes irrelevant. (Prastowo, 2011) and the lack of interesting learning activities by involving students directly. Learning media based on the results of observations also show that starting from its application does not show students' reading interest, the use of media used is not on target and does not contain science material, the use of media is only based on print media so that access to material does not run smoothly and questions that do not show problem solving are still LOST (Lower Order Thinking Skills) not HOST (High Order Thinking Skills).

This kind of learning media does not provide an interesting experience in completing IPAS tasks given by the teacher and does not encourage better learning outcomes for students so that learning media requires development so that students are developed through ClassPoint-based media to train students' skills in solving problems and digging up information and deepening creative economic material through learning experiences between teachers and students.

The gap in the teaching and learning process has an impact on the low ability of learning outcomes in solving problems through science literacy on the concept of IPAS, this can be seen that there are still students who have not reached the Minimum Completion Criteria (KKM), namely <75, namely 37 students out of 69 students (54%) who have not completed and 32 students out of 69 (46%) students have completed. The conclusion from the description above is that the low interest and learning outcomes of students in creative economic materials using IPAS concept learning media are influenced by several causal factors, namely (1) the media used is less interesting, the content or material is not in accordance with the initial abilities of students, (2) the media provided provides less stimulation, (3) learning device facilities are adequate but have not

been utilized properly, and (3) the presentation of questions on the material still uses questions that are lost competencies.

Previous research on ClassPoint-based learning media development usually follows a structured methodology such as the Research and Development (R&D) model or the 4D model, which includes the stages of Define, Design, Develop, and Disseminate (Muliani et al., 2024; Nur et al., 2024) This process involves expert validation to ensure content feasibility, language appropriateness, and design quality, as well as practical testing with students to assess usability and effectiveness (Asyhari & Afidah, 2023; Halawa et al., 2024). Studies show that integrating ClassPoint into learning media significantly increases student motivation and engagement, such as a 12.5% increase in student motivation in a ClassPoint-assisted interactive game-based learning media study. In addition, ClassPoint-based media in mathematics received a high validation score of 0.9 and a practicality percentage of 90.8%, indicating its effectiveness and ease of use. It has been successfully applied across a wide range of subjects, including physics, mathematics, and biology, demonstrating its versatility in various educational environments. In addition, it can be accessed online and offline, providing flexibility and accessibility for various learning environments (Sukroyanti et al., 2024).

This research aims to develop ClassPoint-based learning media that will be used in learning creative economy materials. In the growing digital era, it is important for educators to utilize technology in the learning process to increase student engagement and understanding. This learning media is expected to provide an innovative, interactive, and fun approach, so that students are more motivated to learn and more easily understand creative economy concepts that are often considered complicated. In addition, this research also aims to measure the validity of the learning media developed. This validity is very important because the learning media must be in accordance with the learning objectives and can be implemented effectively in the classroom. By evaluating the validity, researchers can ensure that the media developed has adequate quality to be used by educators and learners. Furthermore, this research will measure the effectiveness of ClassPoint-based learning media on students' understanding of creative economy materials. Through the measurement of effectiveness, researchers can find out the extent to which the use of this media can improve student learning outcomes compared to conventional learning methods. The novelty of this research lies in the use of ClassPoint as a learning media platform, which integrates interactive elements that can enhance the learning experience. Although there have been many studies that discuss the use of technology in education, this research focuses on the specificity of creative economy materials which are still relatively rare to be the main focus. As such, this research not only presents an innovative solution for creative economy learning, but also contributes to the educational literature by introducing a new approach that utilizes modern technology. By combining theory and practice, the results of this study are expected to serve as a reference for educators, curriculum developers, and other researchers in an effort to improve the quality of education in the field of creative economy.

METHODS

This study uses a development research design with the ADDIE model approach, which consists of analysis, design, development, implementation, and assessment stages. First, at the Analysis stage (needs analysis), researchers identify the initial conditions and needs of students to understand the learning context. Next, at the Design stage, the learning media design is made by considering the content and appropriate learning strategies. At the Development stage, the media that has been designed is developed into a product that is ready for use in the classroom. After

that, at the Implementation stage, the media is applied in the learning process to measure student responses. Finally, the Evaluation stage includes evaluating the effectiveness of the learning media that has been used, ensuring that the media meets educational standards and has a positive impact on students. The population in this study were elementary school students at UPT SPF SD Negeri Percontohan PAM Makassar, while the sample was taken from the class that had been determined as the research target. Data collection techniques used include interviews, questionnaires, and observations to obtain information about learning needs and the effectiveness of the developed media. In addition, researchers will use a validity test to ensure that the learning media produced is in accordance with educational standards. For data analysis, researchers will use quantitative and qualitative methods, with statistical analysis to measure the effectiveness of the media, as well as descriptive analysis to describe the results of observations and feedback from students and teachers. With this approach, the research aims to evaluate and optimize the use of ClassPoint-based learning media in the context of creative economy education.

RESULTS AND DISCUSSION

This research and development produce ClassPoint-based learning media products implemented in class VI at UPT SPF SD Negeri Percontohan PAM Makassar City on Creative Economy material. The development of this interactive learning media was carried out using the ADDIE development model, which consists of five development stages, namely: (1) analysis stage, (2) design stage, (3) development stage, (4) implementation stage, and (5) evaluation stage. **Analyze**

The development of this learning media aims to meet the needs of UPT SPF SD Negeri Percontohan PAM, especially in learning IPAS Creative Economy material for grade VI students. At the needs analysis stage, there are three main focuses: (a) analysis of student characters and learning problems, (b) competency analysis, and (c) analysis of school facilities and environment.

a. Analysis of Student Characters and Learning Problems

The results of observations and interviews show that the learning process in class VI tends to be conventional, with the lecture method dominating. Teachers rarely use innovative learning media, so the process is less varied and interactive.

b. Competency Analysis

An analysis was conducted of the flow of IPAS Phase C learning objectives that students should achieve. Creative Economy material was selected for the development of learning media. The following is a summary of the instructional analysis that shows the elements of IPAS learning outcomes, where students are expected to recognize and solve problems related to daily life based on the understanding of the material that has been learned.

Design

In the learning media design stage, four main stages are carried out:

a) Creating a ClassPoint-based Learning Media Design Framework

The media used was ClassPoint, which was designed by creating a framework for compiling interactive media. This framework made it easier for researchers to compile PowerPoint slides that included Creative Economy material and interactive quizzes. These quizzes were placed on each slide to evaluate student understanding. In addition, features such as draggable objects and random name picker were added to enhance students' understanding of the more difficult material.

b) Developing Validation Sheets for Learning Materials and Learning Media

In addition to the outline, researchers also developed a validation sheet that included aspects of assessment of the appropriateness of the content and presentation of the material. This validation sheet is important to ensure that the media and materials used meet the established educational standards.

Development

In the third stage of the ADDIE research model, which is development, researchers began to develop ClassPoint learning media after the design framework was completed. There are two main things to do:

a) Making ClassPoint Learning Media

The designed media was developed using the ClassPoint application, focusing on the Creative Economy material that discusses the economic activities of local communities. In this learning media, there are several interactive quiz features to increase interaction with students. The features include word cloud, short answer, slide drawing, draggable objects, random name picker, and multiple choice. The word cloud collects short answers from learners about the creative economy, which are then displayed in the form of a word cloud on a slide. The short answer feature is also used to collect answers in short sentences. Both of these features help in obtaining immediate feedback from students and increase their engagement in the learning process.

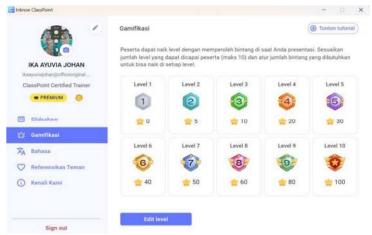


Figure 1. Gamification Features in the ClassPoint App (Source: Product Development Results)

b) Product Validation

Product feasibility validation aims to determine the level of feasibility and validity of the learning media developed to determine the feasibility and validity, the validator provides an assessment on the material expert validation sheet and the media expert validation sheet that the researcher has compiled previously and provides comments and suggestions for improving the ClassPoint learning media developed.

Table 1. Material Expert Validation Results

No.	Aspects	Validation Score	Percentage	Criteria
1 Conter	nt Appropriateness Aspect	14	93%	Very Valid
2 Materi	al Aspects	14	93%	Very Valid
3 Aspect	ts of Language	13	87%	Very Valid

4 Readability and Communicability	14	93%	Very Valid
Aspects			
Total	55	92%	Very Valid

Source: Data processed in 2024

The results of the material expert validation above show a percentage of validity of 92 percent; this value is obtained from the attached material expert validation. Video learning media developed by researchers and can be used without revision, because the criteria for the feasibility of the material presented in the product are stated as "very valid".

Media expert validation is carried out to test the validity of video learning media graphics on economic activity material. It is expected that media experts can assess and suggest learning media pliers developed by researchers. The media validation questionnaire has four components These are: writing, display, ease of technician, and overall functionality. The validation results are shown in the following table 2:

Table 2. Media Expert Validation Results

No.		Aspects	Validation Score	Percentage	Criteria
1	Display Asp	pect	18	93%	Very Valid
2	Writing Asp	pect	19	93%	Very Valid
3	Aspects		19	95%	Very Valid
	Technical E	ase			
4	Aspects	Overall Function	14	93%	Very Valid
Total			64	93%	Very Valid

Source: Data processed in 2024

The results of the media expert validation above show 93% validity, which is obtained from the media expert validation that is attached. The video learning media developed by researchers can be used without revision because the media eligibility criteria presented in the product are declared "very valid",

Grade 6 teachers at UPT SPF SDN Percontohan PAM conducted this expert practitioner validation to test the economic activity material and learning media presented in the products developed by researchers. It is expected that expert practitioners (class teachers) can assess and suggest learning methods developed by researchers. As a basis for product revision, media validation is carried out by filling out an Assessment questionnaire sheet and providing feedback.

In the practitioner validation questionnaire (class teacher) there are four aspects: feasibility, graphics, content feasibility, material feasibility, and language feasibility. The validation results are shown in the following table3:

Table 3.Practitioner Expert Validation results (Classroom Teacher)

No.		Aspects	Score	Percentage	Criteria	
Validation						
1	Aspects Graphics	Feasibility	25	100%	Very Valid	
2	Content A	ppropriateness	15	100%	Very Valid	

	Aspect				
3	Material As	pects	14	93%	Very Valid
4	Aspects Feasibility	Language	19	95%	Very Valid
Total			73	97%	Very Valid

Source: Data processed in 2024

The results of the final validation of practitioners (Classroom teachers) above show a percentage of validity of 97%. This value is obtained from the expert validation of practitioners (Classroom teachers) which is in the attachment. ClassPoint learning media developed by researchers can be used without revision because the material and media eligibility criteria presented in the product are stated as "very valid".

c) Small Scale Trial

The purpose of this small-scale trial was to determine students' reactions to the quality and attractiveness of video learning media for creative economic activities. For five students at UPT SPF SDN Percontohan PAM, this trial was reviewed from three aspects: attractiveness, material, and language. The results of the small-scale student response test are as follows:

Table 4.Small Scale Trial Results

No.	Aspects	Score	Percentage	Criteria
1	Aspects of Attractiveness	100	100%	Very Interesting
2	Material Aspects	96	96%	Very Interesting
3	Language Aspect	71	95%	Very Interesting
	Average Score	267	97%	Very Interesting

Source: Data processed in 2024

Based on table 4.5 the results of small-scale trials show that the results of student responses to ClassPoint-based learning media on Creative Economy material amounted to 97% in table 3.2, the results of small-scale trials of ClassPoint-based learning media were declared "very interesting", so that the ClassPoint learning media that had been developed could be used in large-scale trials.

d) Large Scale Trial

The conduct of this large-scale trial stage has the aim of knowing the student's response to the attractiveness of ClassPoint-based learning media on creative economy material. This trial was reviewed from three aspects, namely aspects of attractiveness, material aspects and language aspects of 20 students at UPT SPF SDN Percontohan PAM. The following are the results of the large-scale student response test:

Table 5. Large Scale Trial Results

	2.00			
No	. Aspects	Score	Percentage	Criteria
1	Aspects of Attractiveness	394	98%	Very Interesting
2	Material Aspects	384	96%	Very Interesting
3	Language Aspect	283	95%	Very Interesting
Average Score		1061	96%	Very Interesting

Source: Data processed in 2024

Based on table 4.6, the results of the large-scale trial show that the results of student responses to the attractiveness of ClassPoint learning media are 96% based on Ika Ayuvia Johan table 3.3, the results of the large-scale trial of ClassPoint learning media on creative economic materials are very interesting, so that the IPAS learning media on Creative Economy materials that have been developed can be used in the learning process.

The development of ClassPoint-based learning media on Creative Economy material at UPT SPF SDN Percontohan PAM uses the ADDIE development model by Robert Maribe Branch (2009), which consists of five stages: analysis, design, development, implementation, and evaluation. In the analysis stage, researchers conducted observations and interviews with teachers and Grade 6 students to identify problems, potential, and needs in developing learning media. The purpose of this development is to support teachers in improving the competence of designing technology-based learning media and measuring the validity of the media. Validation was conducted by material experts, media experts, and practitioners (classroom teachers). Material expert validation showed that ClassPoint-based learning media on creative economy materials had a validity of 92%, with aspects of content, material, language, and readability and communication each getting 93%. Media expert validation showed a validity percentage of 94%, with aspects of appearance, writing, technical ease, and overall function also declared valid without revision. Assessment by practitioners (class teachers) resulted in a validity of 97%, which confirms that the media is very valid and worth testing on students. This result relevant with a study focusing on the development of interactive PowerPoint media integrated with ClassPoint for mathematics education found it to be valid and practical. The media achieved a validation score of 0.9 and a practicality percentage of 90.8%, indicating its suitability for educational use (Azmi et al., 2024).

At the implementation stage, limited trials were conducted in small groups (5 students) and large groups (20 students) to measure the effectiveness of this learning media on learning outcomes. The results of the limited trial showed a validity of 100% for the attractiveness aspect, 96% for the material aspect, and 95% for the language aspect, stating that this product is suitable for use. The large group trial resulted in an average validity of 96%, confirming that this product can be used in wider scale learning. The results showed that students preferred ClassPoint-based learning media on creative economy material because it was more interesting and interactive. This is in line with Imam Machali and M. Rizqi Amaluddin's research which states that digital learning media helps teachers design more interesting, creative, and innovative learning, which also increases the effectiveness and efficiency of learning. In addition, Putri et al.(2023) emphasized that digitizing learning media can increase students' interest in learning, make the learning process more interesting, and help them reach a wider range of subject matter, thus building critical reasoning. Research by Afriyadi et al (2023) also reinforces that ClassPoint-based learning media provides easy access, flexibility, fulfills audio-visual needs, and increases student involvement in more interactive and effective learning.

CONCLUSION

Based on the research and development of ClassPoint-based learning media for Creative Economy material in Grade 6 at UPT SPF SDN Percontohan PAM, the following conclusions can be drawn:

a. The development of ClassPoint-based learning media has shown significant potential in enhancing the quality of learning. The integration of interactive features such as quizzes, polls, draggable objects, and random name pickers helped students better understand complex concepts within the Creative Economy material. The media successfully created an engaging and

participatory learning atmosphere.

- b. The validity of the developed media was confirmed through expert assessments, showing high levels of appropriateness in terms of content, design, language, and usability. Media experts, material experts, and classroom practitioners all rated the product as "very valid," while student responses indicated a high level of satisfaction and engagement.
- c. The effectiveness of the media was demonstrated through small-scale and large-scale trials, which showed improvements in student motivation, interest, and comprehension. Students responded positively to the ClassPoint-based media and found the interactive approach helpful for grasping the subject matter more easily.

However, this study has several limitations. The sample size was relatively small (20 students), which may limit the generalizability of the findings. The scope of the material was focused only on a specific topic within Creative Economy, and the duration of media use was limited to a few learning sessions. Future research should consider larger sample sizes, wider topic coverage, and long-term implementation to assess sustained learning impacts. There is also considerable potential for further development of this learning media. It can be expanded to include other topics within IPAS or integrated across other subjects. Enhancing multimedia features, integrating real-time analytics for teachers, and adapting the media for blended or remote learning environments could further improve its effectiveness and applicability in various educational contexts.

REFERENCES

- Abidin, Y. (2017). Desain Sistem Pembelajaran dalam Konteks Kurikulum 2013. Refika Adiatama.
- Afriyadi et al., H. (2023). Media Pembelajaran Berbasis Digital (Teori & Praktik).
- Asyâ€TMari, A. H., & Afâ€TMidah, N. (2023). Development of powerpoint-based interactive learning media on class viii excretory system material smp. https://doi.org/10.33752/ns.v2i2.4203
- Azmi, S., Junaidi, J., Sripatmi, S., & Wahidaturrahmi, W. (2024). Pengembangan Media Pembelajaran Interaktif Powerpoint Berbasis Classpoint pada Materi Matematika SMP. *Mandalika*, 6(1), 384–399. https://doi.org/10.29303/jm.v6i1.7267
- Cerelia, J. J., Sitepu, A. A., N, F. A. L., Pratiwi, I. R., Almadevi, M., Farras, M. N., Azzahra, T. S., & Toharudin, T. (2021). Learning Loss Akibat Pembelajaran Jarak Jauh Selama Pandemi Covid-19 di Indonesia. *Seminar NASIONAL Statistik*, 1–14.
- Halawa, T., Nazara, A., & Lase, N. K. (2024). Pengembangan Media Pembelajaran Berbasis Power Point Interaktif Pada Materi Sistem Pencernaan Manusia Kelas XI. *Indo-MathEdu Intellectuals Journal*, 5(3), 3729–3733. https://doi.org/10.54373/imeij.v5i3.1392
- Irawan, M. F., Zulhijrah, Z., & Prastowo, A. (2023). Perencanaan Pembelajaran Ilmu Pengetahuan Alam Berbasis Project Based Learning Pada Kurikulum Merdeka di Sekolah Dasar. *PIONIR: Jurnal Pendidikan*, 12(3).
- Magdalena, I., Nadya, R., Prahastiwi, W., & Muhammadiyah Tangerang, U. (2021). Analisis Penggunaan Jenis-Jenis Media Pembelajaran Untuk Meningkatkan Hasil Belajar Siswa Di Sd Negeri Bunder Iii. *BINTANG: Jurnal Pendidikan Dan Sains*, 3(2), 377–386.
- Mawardi, Perdiansyah, F., & Ushaybiah, Z. M. (2024). The Effect of the STEM Learning Model (Science, Technology, Engineering, and Mathematics) on the Critical Thinking Skills of Grade IV Science and Technology Students at SDN Cipondoh 4, Tangerang City. *PIONIR:*

- Jurnal Pendidikan, 13(3), 200-209.
- Muliani, D., Azmi, K., Alius, M., Sulvayenti, A., & Amelia, L. (2024). The Influence of Classpoint Media on the Learning Motivation of Physics Education Study Program Students. *Kasuari*. https://doi.org/10.37891/kpej.v7i1.484
- Nur, I. M., Medriati, R., & Risdianto, E. (2024). Development of Interactive Game-Based Learning Media Assisted by Classpoint to Enhance Student Learning Motivation. *Asian Journal of Science Education*. https://doi.org/10.24815/ajse.v6i1.36129
- Percival, F., & Ellington, H. (2007). Teknologi Pendidikan terjemahan Sudjarwo. S.
- Prahastiwi, F. A. (2019). Keterkaitan Pembelajaran Literasi Sains dengan Keterampilan Berpikir Kritis Siswaddalam Pembelajaran IPA SD. Seminar Nasional Pendidikan Dasar, 1(1).
- Putri, D. A., Rizki, & Ritonga, W. A. (2023). The Effect of ClassPoint Learning Media as Interactive and Fun Learning. *International Journal of Humanities Education and Social Sciences*. https://doi.org/10.55227/ijhess.v2i6.554
- Sani, R. A. (2014). Pembelajaran Saintifik untuk Implementasi Kurikulum 2013. Bumi Aksara.
- Sardiman. (2018). *Interaction & Motivation for Teaching and Learning*. PT. Raja Grafindo Persada.
- Sukroyanti, B. A., Herayanti, L., & Bakti, A. M. (2024). The Development of Android-Based PowerPoint Learning Media on Wave Material to Determine the Learning Interests of Class XI High School Students. *JPFT (Jurnal Pendidikan Fisika Dan Teknologi)*, 10(1), 234–240. https://doi.org/10.29303/jpft.v10i1.6945