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From Local Wisdom to Digital Engagement: Developing Articulate Storyline Media for Contextual Elementary Learning

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Abstract: This study aims to develop interactive learning media using Articulate Storyline to enhance student interest and learning outcomes in Natural and Social Sciences for elementary education. This study employed a research and development method using the ADDIE model, which includes analysis, design, development, implementation, and evaluation stages. The subjects involved were fourth-grade elementary students who participated in media trials and implementation. Instruments used in this study included questionnaires, interview guides, observation sheets, and learning outcome tests. Data collection was conducted through expert validation, limited trials, and classroom application. The analysis utilized descriptive quantitative techniques to determine the media's feasibility, practicality, and effectiveness. Expert evaluations showed that the developed media was appropriate and relevant to the learning content. Responses from teachers and students also indicated that the media was easy to use and engaging. The implementation phase revealed a marked increase in student learning interest, with questionnaire scores rising from 68.5% to 87.2%, and a significant improvement in learning outcomes, as average test scores increased from 72.4 to 85.6 after using the media. The integration of local content based on natural resources in the Special Region of Yogyakarta enhanced the media's contextual relevance and relatability to students. This study contributes to the field of elementary education by offering an innovative and adaptive digital media solution that supports independent and contextual learning, in line with the objectives of the current national curriculum.

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Introduction

Education in Indonesia faces ongoing challenges in student learning interest and academic achievement, with a significant gap between expectations and actual performance despite reforms and investments. The 2018 PISA results placed Indonesian students below the OECD average in reading, mathematics, and science, reflecting systemic issues in teaching quality and engagement (Suryani & Hamdu, 2025). Low motivation, curiosity, and critical thinking are compounded by teacher-centered methods, rote learning, and limited access to stimulating resources—particularly in rural or under-resourced schools. These factors hinder national education goals and highlight the need for strategies that enhance both cognitive outcomes and student motivation, fostering a lasting interest in learning (Mustadi et al., 2022).

The quality of education in Indonesia remains a major concern, particularly in terms of students' learning interest and academic outcomes. Low interest often leads to disengagement, absenteeism, and underachievement, a problem reflected in the 2018 PISA results where over 70% of Indonesian students failed to meet minimum proficiency in

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reading, with similar trends in mathematics and science. These issues stem from factors such as teacher-centered methods focused on memorization, limited access to engaging resources, varying teacher competence, and socio-economic disparities, especially in rural areas (Dahlan et al., 2020). Educational psychology affirms that motivated students achieve better results, yet current reforms—such as curriculum changes, teacher certification, and digital learning programs—have not fully addressed the root issue of student motivation. Bridging the gap between policy and classroom practice requires innovative, student-centered strategies that foster engagement, curiosity, and meaningful learning (Sundari & Utami, 2024).

Prior studies in Indonesia have shown that Articulate Storyline-based learning media consistently improve learning interest, academic outcomes, and other skills across various subjects and educational levels. Research in elementary social studies and science, as well as junior high and high school biology and physics, has reported significant gains in post-test scores, N-gain values, motivation, retention, and critical thinking, often confirmed through statistical tests ($p < 0.05$) (Mulyawati et al., 2024). The media's interactive and contextual features, especially when combined with approaches like problem-based learning or contextual teaching and learning, have been found to enhance both engagement and cognitive performance. These findings highlight the strong potential of Articulate Storyline as a tool for fostering intrinsic motivation and measurable learning gains, while also pointing to the need for further development and optimization of its design to maximize educational impact—precisely the focus of the present study (Nurhasanah et al., 2024).

This research is driven by the urgent need to address two persistent issues in Indonesian education: low student learning interest and poor learning outcomes, which are closely linked. Despite reforms such as curriculum changes and digital learning programs, many classrooms still rely on teacher-centered methods that fail to foster engagement or active learning. Advances in educational technology offer opportunities for transformation, yet integration remains limited due to low teacher digital literacy, lack of training, and weak pedagogical models (V. V. Siregar et al., 2024). Articulate Storyline stands out as a powerful but underused platform for creating interactive, visually engaging, and student-centered media. While proven effective in certain contexts, its broader potential especially for boosting motivation and measurable achievement remains underexplored (Juhaeni et al., 2021). In line with 21st-century demands for autonomy, curiosity, and digital engagement, and in the context of post-pandemic learning challenges, this study aims to develop, implement, and validate Articulate Storyline-based media aligned with the national curriculum. The results are expected to provide practical benefits for teachers, curriculum developers, and policymakers in improving teaching and learning quality in Indonesia.

Many students demonstrate limited enthusiasm and declining academic performance, with conventional teaching methods often failing to capture attention or encourage active participation. Integrating digital media, particularly interactive and visually engaging tools offers a promising approach to improving learning interest and outcomes (Priyadi & Ratnaningsih, 2022). The primary objective of this research is to develop and validate interactive learning media using Articulate Storyline to enhance students' motivation and academic performance. Specifically, the study aims to: (1) analyze students' baseline learning interest and achievement; (2) design and develop curriculum-aligned media tailored to student needs; (3) assess its validity and practicality through expert judgment and classroom implementation; and (4) evaluate its effectiveness through pretest–posttest analysis. The findings are expected to contribute to both academic literature and practical classroom improvements, providing teachers with tools to create more engaging and meaningful learning experiences.

A needs analysis conducted through classroom observations, interviews, and documentation in five elementary schools in the Yogyakarta Special Region revealed key challenges in social science learning: low student interest due to traditional, teacher-centered methods; low average scores (59.72) below the Minimum Mastery Criteria; limited use of interactive media, with reliance on worksheets, PowerPoint, or non-contextual videos; underutilization of available technology; and passive classroom participation that hinders engagement and comprehension. These issues underscore the need for locally relevant, interactive learning media that can enhance both interest and academic achievement.

This research is expected to contribute to educational practice and scholarly discourse by expanding knowledge on the pedagogical potential of Articulate Storyline—an underutilized platform in Indonesian education—through its integration with theories of motivation, multimedia learning, and student-centered pedagogy. The study will produce a validated, curriculum-aligned digital learning product that teachers and instructional designers can adopt as a replicable model for creating engaging and effective learning materials. For school leaders, curriculum developers, and policymakers, the findings offer evidence-based insights into how well-designed digital media can address low student motivation and achievement, while informing professional development programs to enhance teachers' digital literacy and capacity for technology-enhanced instruction. Ultimately, the research aims to support a shift toward more interactive, student-centered classrooms, contributing to the improvement of educational quality in Indonesia.

Research Method

This study employed a research and development (R&D) method using the ADDIE model, which includes five systematic stages: Analysis, Design, Development, Implementation, and Evaluation (Witasari, 2024). This model was chosen for its suitability in guiding the structured development of interactive learning media and ensuring the resulting product is valid, practical, and effective for classroom use. The research was conducted with fourth-grade students and teachers from five elementary schools in the Special Region of Yogyakarta, Indonesia. Participant selection was based on purposive sampling to ensure representation from schools with varying levels of technological facilities and learning outcomes. The participants involved in each stage were as follows:

Table 1. Research Participants

No	Stage	Participants
1	Expert validation stage	2 content expert and 1 media expert
2	One-to-one trial	6 students and 1 teacher
3	Small group trial	15 students and 1 teacher
4	Field trial	28 students and 1 teacher
5	Implementation stage	56 students and 2 teacher (experimental and control groups)

This study followed the ADDIE model in developing the learning media: the analysis stage identified student needs, social science learning difficulties, and media limitations through observations, teacher interviews, and student questionnaires; the design stage defined objectives, content structure, visual interface, and interactivity features, with storyboards aligned to curriculum standards; the development stage produced the interactive media using Articulate Storyline with Yogyakarta's natural and geographical feature as the theme; the implementation stage applied the media in classrooms, with an experimental group using the developed product and a control group using PowerPoint; and the evaluation stage assessed

effectiveness, validity, and practicality through expert reviews, student feedback, and pretest–posttest analysis.

Data were collected using four instruments: validation sheets for expert assessment of content and media design, practicality questionnaires for teachers and students to evaluate usability, attractiveness, and functionality, a Likert-scale learning interest questionnaire (1–4) measuring attention, curiosity, enthusiasm, and enjoyment, and curriculum-aligned pretests and posttests on Yogyakarta's natural and geographical features to assess learning outcomes. Data collection involved observations to assess classroom engagement and student behavior during implementation, interviews with teachers and students in the analysis and trial phases, questionnaires to measure learning interest and media practicality, and pretests and posttests administered to both control and experimental groups to evaluate learning outcomes.

The validity and practicality of the developed learning media were evaluated using descriptive statistics on a 4-point rubric (1–4), where scores above 3.5 denote high validity or practicality. This threshold is informed by educational design research methodologies—such as the use of Aiken's V for expert agreement and threshold cut-offs derived from empirical validation studies, which prioritize content accuracy and usability (Ramayanti & Yerimadesi, 2024). Validity was gauged via expert assessments focusing on content quality, design, and language, while practicality was determined through teacher and student feedback during the implementation phase.

Table 2. Media Validity

No	Aspect	Indicators	Score
1	Navigation	Function and accuracy of media navigation	4, 4, 4
2	Display	Quality of media design display	4, 3, 4
		Suitability of text or item colors with the background	4, 3, 4
		Layout of media icons	4, 4, 4
3	Text matter	Quality of text in the media	4, 4, 4
		Readability of instructional text in the media	4, 4, 4
4	Media Functionality	Ease of operating the media	4, 4, 3
		Integration of media with the material	4, 4, 4
		Relevance of images and videos to the material	4, 4, 4
		Total Average	3.88

Based on the table above, the second validation result was 3.88, categorized as very good. Overall, the first and second validation results, after incorporating feedback and revisions, indicate that the Articulate Storyline media on Yogyakarta's natural resources is ready to be tested with students and can be used to measure learning interest and outcomes as recommended by the media expert.

The effectiveness of the media in improving learning interest and learning outcomes was measured using the N-Gain formula. The interpretation followed Hake's criteria: an N-Gain score below 0.3 was categorized as low, between 0.3 and 0.7 as moderate, and above 0.7 as high. This method allowed for a clear assessment of the extent to which the intervention enhanced students' engagement and academic achievement. To assess statistical significance, paired t-tests were employed for normally distributed datasets, while Wilcoxon tests were used when normality assumptions were violated, following established analytical protocols in intervention research (Arrieta-Cohen et al., 2024). These analyses compared pretest and posttest scores between the control and experimental groups, providing robust evidence of the media's impact.

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Results and Discussion

The final version of the interactive learning media developed in this study was designed using Articulate Storyline and tailored to the social science theme Yogyakarta's Natural and Geographical Feature. The media integrates engaging visual design, intuitive navigation, and interactive features such as clickable maps, audio-visual explanations, and embedded quizzes to support active learning. Each component was structured to align with the national curriculum while incorporating local content to enhance contextual relevance. The following figures illustrate the main interface elements of the media, including the cover page, main menu, and sample learning activities.

Figure 1. Lesson on natural resource of D.I.Yogyakarta

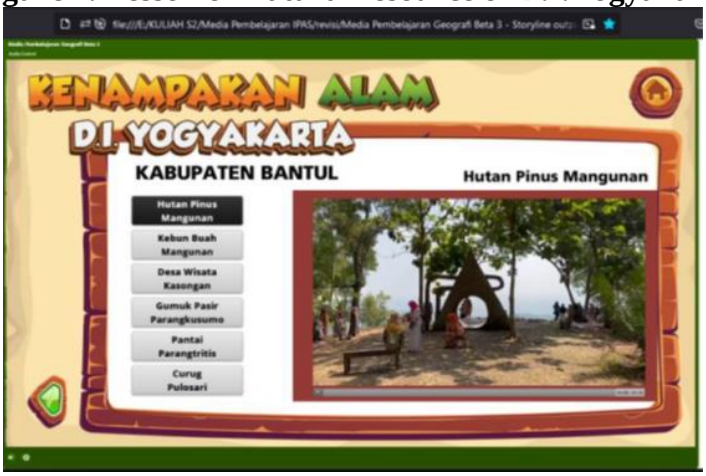

Figure 2. Display of lesson's video

The figure above presents the Articulate Storyline-based learning media developed for the Social Science theme Yogyakarta's Natural and Geographical Features. The design emphasizes clear navigation, interactive elements, and visual appeal, enabling students to engage actively with the content rather than passively reading text. The integration of images, interactive buttons, and feedback features was intended to support comprehension and encourage exploration, making the learning process both effective and enjoyable.

Table 3. Validation Results of Storyline-based Media

Aspect Evaluated	Expert Judgment (Average Score)	Category
Content Relevance	3.75	Very Valid
Instructional Clarity	3.70	Very Valid
Visual Design	3.65	Very Valid
Interactivity	3.70	Very Valid

Aspect Evaluated	Expert Judgment (Average Score)	Category
Overall Average	3.70	Very Valid

The Articulate Storyline-based learning media, validated by two content experts and one media expert, obtained an average score of 3.70 out of 4, categorized as very valid. This demonstrates strong content relevance, instructional clarity, visual design, and interactivity, all aligned with the social science curriculum theme Yogyakarta's Natural and Geographical Features. The validation results are summarized in Table 3, confirming that the media meets high standards of quality. These findings align with previous studies by Jazuli et al., (2024) and Alfirzan et al., (2024), who also reported high validity for Storyline-based media in primary education.

Table 4. Practicality Assessment of Storyline-based Media

Respondent Group	Trial Type	Average Score	Category	Noted Strengths
Teachers	One-to-one & Small Group	3.70	Very Practical	Easy to use, time-efficient, engaging design
Students	One-to-one & Small Group	3.60	Very Practical	Interactive features (clickable maps, drag-and-drop quizzes, narration)
Overall		3.65	Very Practical	

The media's practicality, assessed by teachers and students during one-to-one and small group trials, achieved an average score of 3.65, classified as very practical. Teachers noted its ease of use, time efficiency, and engaging design, while students enjoyed its interactive features such as clickable maps, drag-and-drop quizzes, and narration. These findings support Majid & Sekar Purbarini Kawuryana, (2024) who found that Articulate Storyline media increases engagement compared to static slides, with the local Yogyakarta content further enhancing relevance and accessibility for elementary students.

The impact of the media on learning interest can be seen from pretest and posttest questionnaires, in the experimental group showed an N-Gain score of 0.54, indicating a moderate improvement in learning interest, with the highest gains in curiosity and enjoyment. This suggests that the media's interactive design and contextual relevance boosted student engagement. Consistent with Inayah et al., (2023), Storyline-based tools enhance autonomy and enthusiasm, especially when incorporating sound, animation, and local culture, showing that well-designed media can address common motivational challenges in social science classrooms.

The impact of the media on learning outcomes can also be seen from pretest and posttest results. It showed the experimental group using the developed media achieved an average N-Gain of 0.57, compared to 0.30 in the control group, with a t-test confirming a significant difference ($p < 0.05$). This indicates the media's effectiveness in enhancing learning outcomes, aligning with Rohmadani et al., (2022), who found multimedia-based instruction improves concept mastery in elementary science. The visual and interactive features likely aided retention and application, particularly for spatial and environmental social science topics. The developed media proved valid, practical, and effective in enhancing learning interest and outcomes, combining local context, curriculum relevance, and interactivity to create a strong instructional tool for social science study. This study highlights the value of technology integration in primary education when designed to meet student needs and motivation, and suggests future media development incorporate storytelling, gamification, and real-world problem-solving to further boost engagement and

understanding.

The findings confirmed that the developed media met all criteria for a high-quality learning product. Expert evaluations rated it highly for pedagogical, content, and design alignment, indicating strong validity. Teachers and students found the media practical and user-friendly, while implementation results showed moderate improvement in learning interest and high improvement in learning outcomes, supported by N-Gain scores and statistical tests. The integration of local content, visual interactivity, and embedded assessments increased engagement and contextual relevance, showing that well-designed, context-rich digital tools can bridge both motivational and cognitive gaps in primary education.

This study enriches the field of digital pedagogy by demonstrating how interactive multimedia significantly enhances both the affective and cognitive domains of learning. By weaving locally tailored content into a fully articulated ADDIE development-evaluation cycle, the media design goes beyond generic templates, anchoring learning in meaningful context. These findings resonate with Cognitive Theory of Multimedia Learning, which posits that well-designed multimedia through dual-channel input, active processing, and cognitive load management leads to deeper understanding and retention (Cavanagh & Kiersch, 2023). Moreover, the study supports constructivist learning theory, showing how learners actively build meaning from interactive, self-directed engagement rather than passively receiving content. Together, these theoretical foundations affirm that thoughtfully structured, contextually relevant interactive media can foster both emotional engagement and lasting knowledge construction in primary education.

Development studies utilizing Articulate Storyline in primary and secondary education contexts consistently report high validity, practicality, and effectiveness. For instance, Mustikawati & Isdaryanti, (2024) developed Storyline-based media for elementary IPAS (integrated science and social studies) and achieved validation scores of 94%–98%, student responses of 92%, and a statistically significant improvement in learning outcomes ($t=8.93$, $p < 0.05$). Similarly, Kristiani et al., (2022) found Storyline-based media on global warming highly valid (94.25%), very practical (92%), and moderately effective (N-Gain = 0.52), with student responses at 85%.

Integration of Yogyakarta's local geographical content echoes findings from Garim et al., (2023) in which interactive multimedia incorporating local cultural elements and Project-Based Learning significantly enhanced students' writing skills compared to conventional methods (t-test, $p=0.003$). This aligns with the results, underscoring the motivational and contextual benefits of localized content.

Beyond Storyline specifics, interactive multimedia employing contextual approaches has proven effective in enhancing conceptual understanding. For example, Pratiwi et al., (2024) found significant improvements in fourth-grade students' understanding of angle measurement ($p < 0.05$) after using contextually-designed interactive multimedia. Review literature further confirms that multimedia tools combining text, images, audio, video, and animations support deeper engagement and cognitive development in learners. This supports the theoretical framing of this study, where interactive design and multimodal presentation likely contributed to both motivational and cognitive benefits.

The findings of this study carry both conceptual and practical significance. Conceptually, the results reinforce the theoretical underpinnings of constructivist learning and multimedia learning principles, which posit that knowledge is better constructed when students actively interact with materials that are contextualized and stimulate multiple senses (B. H. Siregar et al., 2024). The significant increase in student interest and engagement

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further supports the notion that integrating local natural resources into interactive media can bridge the gap between abstract scientific concepts and students' lived experiences, making science more concrete and accessible (Rahayu & Agung, 2022). This study also contributes to the literature by showing that interest and motivation are not merely secondary to learning outcomes but function as mediators that shape how knowledge is acquired, processed, and retained (Arrieta-Cohen et al., 2024).

Practically, the findings highlight the potential of locally grounded interactive media as a powerful pedagogical tool for elementary science education. Teachers can design or adapt similar resources by embedding familiar flora, fauna, and landscapes into instructional media, thereby making science more relevant and relatable to students' everyday lives (Kristiani et al., 2022). For schools in resource-rich but underutilized regions, this approach provides an affordable and culturally meaningful strategy to enhance student engagement without depending solely on standardized, externally developed materials. Policymakers and curriculum developers may also draw on these results to promote the integration of contextualized, technology-enhanced learning resources into national education reforms, ensuring that instructional innovations remain both culturally relevant and pedagogically effective (Kostøl & Remmen, 2022). Ultimately, this study demonstrates that contextualized interactive media not only improves learning outcomes but also fosters enthusiasm, active participation, and long-term interest in science learning.

Conclusion

This study successfully developed and evaluated interactive learning media using Articulate Storyline on the theme Yogyakarta's Natural and Geographical Features. The findings demonstrate that the media is valid, with expert evaluations confirming strong alignment in content, pedagogy, design, and interactivity (mean score = 3.75 on a 4-point scale); practical, as teachers and students rated it highly engaging, efficient, and easy to use (practicality score = 88.4%); and effective, as shown by significant improvements in students' learning interest (increasing from 68.5% to 87.2%) and learning outcomes (average test scores rising from 72.4 to 85.6). The integration of local content and interactive features such as clickable maps, audio-visual explanations, and embedded quizzes enhanced contextual relevance, motivation, and conceptual understanding. Theoretically, this research contributes to digital pedagogy by reinforcing the role of multimedia in supporting both affective and cognitive domains, while practically, it provides educators and policymakers with a replicable model of curriculum-based digital media development. Although limited to specific schools and topics, the study highlights the potential of localized, interactive media as a powerful instructional tool in primary education, with future opportunities to expand its application across subjects, learning settings, and adaptive technologies.

Recommendation

The results of this study highlight the important role of interactive, locally contextualized media in enhancing student engagement and learning outcomes. Several recommendations can be offered for teachers, schools, policymakers, and future researchers. For teachers, it is recommended to integrate interactive media into science instruction on a regular basis, particularly media that incorporates familiar flora, fauna, and landscapes from the students' own environment. Teachers are encouraged to adapt and customize these resources to accommodate different learning styles and abilities, ensuring inclusivity and sustained interest. In addition, teachers should explore a variety of platforms—such as Articulate Storyline, Canva, Genially, or Google Sites—to identify tools that best match their

classroom needs and available facilities. Embedding interactive media within collaborative, inquiry-based, or project-based activities can further amplify its impact by fostering critical thinking, teamwork, and problem-solving skills.

For schools, professional development programs should be provided to build teachers' capacity in designing and implementing interactive media effectively. Schools may also allocate resources to support the creation of locally relevant content, enabling science lessons to become more meaningful and culturally connected. For policymakers and curriculum developers, the findings suggest the value of encouraging contextualized digital learning resources within national and regional education reforms. By supporting innovations that are both technologically enhanced and rooted in local contexts, policies can ensure that instructional media not only improve academic achievement but also nurture lifelong interest in science.

For future researchers, this study opens several avenues for further exploration. Longitudinal studies are recommended to examine the long-term impact of interactive media on students' learning interest and achievement. Comparative research could also be conducted across different platforms and grade levels to identify the most effective designs and approaches. Additionally, future studies may investigate adaptive and personalized interactive media tailored to diverse learner profiles, as well as the integration of interactive media into collaborative, inquiry-based, or experiential learning environments. Such investigations will not only deepen the theoretical understanding of interactive learning but also broaden its practical applications in varied educational contexts.

References

Alfirzan, A., Miaz, Y., Amini, R., & Hadiyanto. (2024a). Development of Learning Media Using the Articulate Storyline Application in Integrated Thematic Learning. *Jurnal Penelitian Pendidikan IPA*, *10*(10), 7381–7389. https://doi.org/10.29303/jppipa.v10i10.8781

Alfirzan, A., Miaz, Y., Amini, R., & Hadiyanto. (2024b). Development of Learning Media Using the Articulate Storyline Application in Integrated Thematic Learning. *Jurnal Penelitian Pendidikan IPA*, *10*(10), 7381–7389. https://doi.org/10.29303/jppipa.v10i10.8781

Arrieta-Cohen, M. C., Torres-Arizal, L. A., & Gómez-Yepes, R. L. (2024). Evaluating the Impact of an Educational Intervention Using Project-Based Learning on Postpandemic Recovery in Rural Colombia. *Education Sciences*, *14*(12). https://doi.org/10.3390/educsci14121341

Cavanagh, T. M., & Kiersch, C. (2023). Using commonly-available technologies to create online multimedia lessons through the application of the Cognitive Theory of Multimedia Learning. *Educational Technology Research and Development*, *71*(3), 1033–1053. https://doi.org/10.1007/s11423-022-10181-1

Dahlan, D., Permana, L., & Oktariani, M. (2020). Teacher's competence and difficulties in constructing hots instruments in economics subject. *Cakrawala Pendidikan*, *39*(1), 111–119. https://doi.org/10.21831/cp.v39i1.28869

Garim, I., Latief, N., Amaliah, S., & Garing, J. (2023). Writing with Cultural Insight: Elevating Analytical Exposition through Local Culture and Project-Based Learning. *International Journal of Language Education*, *7*(4), 711–728. https://doi.org/10.26858/ijole.v7i4.58368

Inayah, A. N., Maftuh, B., & Sumantri, Y. K. (2023). *Pengaruh penggunaan media interaktif berbasis articulate storyline terhadap minat belajar IPS*. *10*(02), 173–187. https://doi.org/10.21831/jipsindo.v10i2.59735

Jazuli, L. O. A., Arvyaty, A., Hasnawaty, H., & Ibrahim, M. F. (2024). Pengembangan media pembelajaran Articulate Storyline untuk pemahaman konsep materi turunan. *Jurnal Riset Pendidikan Matematika*, *10*(2), 139–152. https://doi.org/10.21831/jrpm.v10i2.71066

Juhaeni, J., Safaruddin, S., & Salsabila, Z. P. (2021). Articulate Storyline Sebagai Media Pembelajaran Interaktif Untuk Peserta Didik Madrasah Ibtidaiyah. *AULADUNA: Jurnal Pendidikan Dasar Islam*, *8*(2), 150. https://doi.org/10.24252/auladuna.v8i2a3.2021

Kostøl, K. B., & Remmen, K. B. (2022). A qualitative study of teachers' and students' experiences with a context-based curriculum unit designed in collaboration with STEM professionals and science educators. *Disciplinary and Interdisciplinary Science Education Research*, *4*(1). https://doi.org/10.1186/s43031-022-00066-x

Kristiani, A., Wahyuni, D., & Wahyuni, S. (2022). Interactive Learning Media Development Articulate Storyline to Improve Science Literacy Capabilities of Junior High School Students. *Berkala Ilmiah Pendidikan Fisika*, *10*(2), 186. https://doi.org/10.20527/bipf.v10i2.13307

Majid, A. F., & Sekar Purbarini Kawuryana. (2024). Articulate Storyline 3 Interactive Media to Increase Learning Interest and Activeness of Fifth Grade Elementary School Students. *Jurnal Ilmiah Sekolah Dasar*, *7*(4), 740–751. https://doi.org/10.23887/jisd.v7i4.61517

Mulyawati, Y., Sukmanasa, E., Rostikawati, R. T., Deas Maharani, N., & Azizah, A. N. (2024). *A New Approach To Elementary Learning: An Interactive Digital Module For Critical Thinking With Articulate Storyline*. https://journal.unpak.ac.id/index.php/pedagogia

Mustadi, A., Sayekti, O. M., Rochmah, E. N., Zubaidah, E., Sugiarsih, S., & Schulze, K. M. (2022). Pancalis: Android-based learning media for early-reading in new normal. *Cakrawala Pendidikan*, *41*(1), 71–82. https://doi.org/10.21831/cp.v41i1.45883

Mustikawati, M., & Isdaryanti, B. (2024). Interactive Media Based on Articulate Storyline to Improve IPAS Learning Outcomes. *Jurnal Penelitian Pendidikan IPA*, *10*(8), 6045–6052. https://doi.org/10.29303/jppipa.v10i8.8271

Nurhasanah, M., Suprapto, P. K., & Ardiansyah, R. (2024). The Effectiveness of Problem-Based Learning Assisted by Articulate Storyline Interactive Students' Critical Thinking Skills. *Jurnal Inovasi Pendidikan IPA*, *10*(1), 1–9. https://doi.org/10.21831/jipi.v10i1.64847

Pratiwi, K. H., Situmorang, R.-, & Iriani, T. (2024). The potential of interactive multimedia with contextual teaching and learning approaches in mathematics learning: a systematic literature review. *Jurnal EDUCATIO: Jurnal Pendidikan Indonesia*, *10*(2), 69. https://doi.org/10.29210/1202424526

Priyadi, R., & Ratnaningsih, N. (2022). The Development of Interactive Learning Media to Improve Students' Motivation on Trigonometry. *Inovasi Matematika (Inomatika)*, *4*(2), 171–189. https://doi.org/10.35438/inomatika

Rahayu, N. W. S. S., & Agung, A. A. G. (2022). Development of Interactive Multimedia Based on Contextual Approaches on Natural Resource Conservation Materials. *Indonesian Journal Of Educational Research and Review*, *5*(1), 64–76. https://doi.org/10.23887/ijerr.v5i1.44734

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E-ISSN: 2442-7667
pp. 1152-1162
Email: jklppm@undikma.ac.id

Ramayanti, N., & Yerimadesi, Y. (2024). Pengembangan E-modul Interaktif Larutan Penyangga Berbasis Guided Discovery Learning untuk Fase F SMA. *PEMBELAJAR: Jurnal Ilmu Pendidikan, Keguruan, Dan Pembelajaran*, *8*(2), 92. https://doi.org/10.26858/pembelajar.v8i2.66523

Rohmadani, Elvina, Nila Efrida Nasution, Yusliana Hasibuan, Dwi Andari, & Dia Kumala Sari. (2022). Penerapan Media Pembelajaran Interaktif Articulate Storyline untuk Meningkatkan Hasil Belajar IPA. *Mimbar Pendidikan Indonesia*, *3*(3), 455–461. https://doi.org/10.23887/mpi.v3i3.54804

Siregar, B. H., Panjaitan, A., Hasratuddin, H., Kairuddin, K., Mulyono, M., & Rahman, A. A. (2024). Digital Media Innovation Based on Multimedia Cognitive and Constructivist Theory in a Cultural Context: Encouraging Students' Higher Order Thinking Skills. *JTAM (Jurnal Teori Dan Aplikasi Matematika)*, *8*(1), 269. https://doi.org/10.31764/jtam.v8i1.16800

Siregar, V. V., Rajab, Hermansyah, Eva Ardinal, Rully Hidayatullah, & Nurkhaerat Alimudin. (2024). Analyzing the Influence of Digital Literacy and Pedagogical Knowledge on TPACK in Elementary School Teachers. *Jurnal Ilmiah Sekolah Dasar*, *8*(3), 476–486. https://doi.org/10.23887/jisd.v8i3.53414

Sundari, S., & Utami, S. (2024). Inquiry Learning Methods to Increase Student Motivation and Learning Outcomes. *Jurnal Pendidikan Kedokteran Indonesia: The Indonesian Journal of Medical Education*, *13*(2), 91. https://doi.org/10.22146/jpki.80754

Suryani, L., & Hamdu, G. (2025). Unnes Science Education Journal Accredited Sinta 2 ESD Biodiversity and Systems Thinking Context in PISA and End-Semester Exams Article Info. *Unnes Science Education Journal*, *14*(1), 49–58. https://doi.org/10.15294/usej.v13i1.18767

Witasari, R. (2024). Development of a Scientific-Based Thematic Learning Model to Improve Learning Outcomes for Elementary School Students. *At-Thullab : Jurnal Pendidikan Guru Madrasah Ibtidaiyah*, *8*(1), 15–28. https://doi.org/10.30736/atl.v8i1.1891

