

Enhancing Social Studies Learning Outcomes in Elementary Classrooms through Audiovisual Media: A Classroom Action Research

Sumarsono¹, Fajar Setiawan²

¹ Universitas Nahdlatul Ulama Lampung Indonesia

² Universitas Muhammadiyah Surabaya Indonesia

sumarsono@gmail.com

ABSTRACT

Background: Social Studies learning in elementary classrooms often remains below the expected standard when teaching is dominated by lectures and minimal instructional media. Audiovisual materials can help students focus, connect concepts with concrete examples, and learn more meaningfully.

Aims: Building on this need, the study aimed to enhance Social Studies learning outcomes in an elementary classroom by integrating audiovisual media into instruction.

Methods: A two cycle classroom action research design was conducted with 25 fifth grade students, following the stages of planning, action, observation, and reflection. Data were gathered through achievement tests, classroom observations, and documentation, then analyzed descriptively by comparing mean scores and mastery levels from the pre action stage to Cycle I and Cycle II.

Result: After the intervention, students' performance improved steadily across cycles, indicating that the instructional changes were followed by measurable learning gains. The mean score rose from 63.2 at the pre action stage to 71.7 in Cycle I and 77.65 in Cycle II, while mastery increased from 31 percent to 54.5 percent and ultimately reached 100 percent in Cycle II. Observational records also showed stronger participation and more sustained attention during lessons when audiovisual media were used.

Conclusion: Overall, the findings suggest that incorporating audiovisual media within a classroom action research framework can improve learning outcomes and support more engaged learning in elementary Social Studies. This strategy is applicable as a practical classroom level improvement for teachers seeking better achievement without changing the core curriculum.

ARTICLE HISTORY

Submitted: October 12, 2025

Accepted: November 01, 2025

Published: December 15, 2025

KEYWORD

Audiovisual Media; Classroom Action Research; Elementary Students; Learning Outcomes; Social Studies Education;

Introduction

The urgency to improve learning outcomes in elementary Social Studies classrooms arises from persistent evidence that many students struggle to achieve expected competencies (Levy et al., 2023; Marosi et al., 2021). Social Studies introduces learners to social relationships, environmental awareness, and civic values that shape their understanding of society. At the elementary level, these concepts should be developed through meaningful learning rather than memorization (Mayer, 2024; Polman et al., 2021). In practice, however, instruction often emphasizes verbal explanations with limited instructional support. Such approaches make it difficult for students to grasp abstract ideas. As a result, students tend to become passive during lessons. Low participation frequently leads to unsatisfactory academic performance. Addressing this condition is essential to support early conceptual development.

The urgency of this issue is increasingly visible as educational expectations continue to evolve (Kavanagh & Dnp, 2021; Selwyn, 2021). Contemporary education emphasizes active learning, critical thinking, and student engagement from early schooling Li et al. (2024). Elementary students today are accustomed to visual and digital forms of information outside the classroom. When teaching methods fail to reflect these learning realities, instructional gaps emerge. Social Studies lessons may appear distant from students' everyday experiences. This disconnect often reduces attention and interest during

learning activities. Teachers face challenges in sustaining classroom engagement. Without instructional adaptation, learning outcomes are unlikely to improve.

The urgency to address low learning achievement is also related to the inherent characteristics of Social Studies content (Alghamdi et al., 2024; Smith et al., 2022). Many Social Studies topics involve processes and interactions that cannot be easily observed directly by students. Young learners often require concrete representations to understand abstract social phenomena (Cabello et al., 2021; Cantlon & Piantadosi, 2024). Traditional instruction rarely provides such representations. Consequently, students rely on surface learning strategies. This approach limits deeper understanding and long term retention. Over time, students may perceive Social Studies as difficult or monotonous. Improving instructional methods is therefore necessary to overcome these challenges.

The urgency of enhancing instructional strategies becomes clearer when considering the role of student engagement in learning success (Carroll et al., 2021). Engagement influences how students process information and construct understanding (Ranalli, 2021; Thomas et al., 2023). In many classrooms, Social Studies instruction offers limited opportunities for interaction. Students often listen without actively participating in discussions or activities. Passive learning environments reduce motivation and curiosity. Teachers may struggle to involve all students effectively. Without engaging instruction, students' learning potential remains underdeveloped. This situation highlights the need for instructional innovation.

The urgency to explore alternative instructional media has drawn attention to audiovisual approaches in elementary education (Al-Marouf et al., 2022). Audiovisual media present information through combined visual and auditory elements. Such media can help students visualize concepts that are otherwise abstract (Perez, 2022; Ruck, 2022). For elementary learners, visual support plays a crucial role in comprehension. Auditory explanations further reinforce understanding. When integrated appropriately, audiovisual media can create more dynamic learning experiences. However, effectiveness depends on thoughtful implementation. This underscores the need for systematic investigation.

The urgency of conducting classroom based research lies in bridging the gap between theory and practice (Tveitnes et al., 2025; Wahlgren & Aarkrog, 2021). Many instructional strategies are promoted in educational literature, yet their classroom application remains inconsistent (Afonso et al., 2025; Dignath et al., 2022). Teachers often adopt new media without evaluating its impact. As a result, instructional improvements may not be sustained. Classroom action research provides a practical framework for reflective teaching. It allows educators to assess instructional changes directly within their classrooms. Through continuous reflection, teaching practices can be refined. This approach aligns with the need for contextualized educational research.

The urgency of applying classroom action research is particularly relevant in elementary school settings (Miller et al., 2021; Smets et al., 2022). At this level, teachers directly influence students' attitudes toward learning. Small instructional adjustments can produce meaningful changes in learning outcomes (Moser et al., 2021). Classroom action research encourages teachers to reflect on their practices systematically. It supports evidence based instructional decision making. By observing student responses, teachers can improve lesson effectiveness. This process benefits both students and teachers. Therefore, classroom action research offers practical value for instructional improvement.

The urgency to address low mastery levels is often reflected in assessment outcomes (Whittingham et al., 2024; Winget & Persky, 2022). Many students fail to reach minimum learning standards in Social Studies (Catalano et al., 2021; Pokhrel & Chhetri, 2021). Such results suggest that instructional strategies may not adequately support diverse learners. Repeated low achievement can negatively affect students' confidence. Over time, students may lose interest in the subject. Improving learning outcomes requires strategies that accommodate different learning styles. Audiovisual media offer opportunities to address these differences. Investigating their role is therefore important.

The urgency for evidence based teaching practices further strengthens the need for this study (Bergmark, 2023; Howard et al., 2022). Teachers require instructional strategies supported by classroom

level data (Finkelstein et al., 2021; Woodcock et al., 2022). Abstract theoretical recommendations alone are insufficient for classroom application. Classroom action research provides empirical evidence grounded in real teaching contexts. By examining learning outcomes across instructional cycles, teachers can evaluate effectiveness. Such evidence supports informed instructional decisions. In the case of audiovisual media, systematic evaluation is essential. Without evidence, innovation may not be sustained.

The urgency of the present study ultimately lies in its contribution to improving classroom practice (Kurtz et al., 2024; Sato & Loewen, 2022). By examining the use of audiovisual media through classroom action research, this study responds to practical instructional challenges. It provides insights into how instructional media can enhance learning outcomes. The findings are relevant to elementary educators seeking effective strategies. This study also contributes to classroom based educational research. Its focus aligns with the need for reflective instructional improvement. Consequently, the research holds both practical and academic significance.

Recent studies have increasingly emphasized the pedagogical value of audiovisual and digital media when they are intentionally integrated into learning activities. Abuelela (2025) demonstrates that film based audiovisual input can support learners' understanding by translating abstract ideas into observable and meaningful representations, particularly when media use is aligned with instructional goals. Research conducted by Zhang et al. (2025) further suggests that immersive audiovisual stimulation can enhance learners' attention, indicating its potential contribution to maintaining focus during classroom instruction. In a higher education context, López-Carril et al. (2026) report that visually oriented digital platforms foster interaction and engagement, implying that similar visual strategies may be beneficial when adapted to elementary learning environments. The importance of structured implementation is highlighted by Passarinho et al. (2026), who argue that audiovisual media become effective only when supported by active teacher guidance and pedagogical planning. From a broader media literacy perspective, Sotero et al. (2026) stress that learners must be guided to process audiovisual information critically rather than consume it passively. Complementary insights from Ferrari & Merigo (2026) on online learning communities and from Dinis (2026) on storytelling and performative digital practices indicate that engagement emerges when media use is meaningfully situated within learning contexts. Collectively, these studies suggest that audiovisual media can positively influence learning outcomes, thereby reinforcing the relevance of examining its application through a classroom action research approach in elementary Social Studies instruction.

The rationale of this study emerges from the practical challenges faced by elementary teachers in improving Social Studies learning outcomes through everyday instructional practices. Although audiovisual media are frequently recommended as supportive learning tools, their classroom use often remains unsystematic and limited to attracting students' attention. In many cases, teachers apply audiovisual materials without structured reflection on their instructional value. Consequently, the contribution of such media to learning achievement is difficult to determine. Classroom action research provides a reflective framework that allows instructional strategies to be examined within real classroom conditions. Through iterative cycles, teachers can observe student responses and refine instructional decisions. This approach enables audiovisual media to function not merely as supplementary materials, but as integral components of the learning process. Therefore, this study is grounded in the need to connect instructional media use with continuous classroom based improvement.

Despite extensive discussions on audiovisual and digital media in educational literature, important gaps remain. Previous studies have largely concentrated on measuring the effectiveness of audiovisual media through experimental designs or perception based surveys. Such approaches often overlook the complexity of classroom dynamics and the need for instructional adjustment over time. Moreover, many studies report short term outcomes without tracing learning improvement across multiple teaching cycles. Research that positions teachers as active agents who systematically modify instructional media based on classroom evidence is still limited. In the context of elementary Social Studies, classroom action research has rarely been employed to explore how audiovisual media can

support sustained learning improvement. These limitations indicate the absence of research that integrates audiovisual media with reflective instructional practice in real classroom settings.

In response to these gaps, the purpose of this study was to improve Social Studies learning outcomes in an elementary classroom through the structured integration of audiovisual media within a classroom action research framework. The study focused on examining changes in students' learning achievement across successive instructional cycles. It was guided by the assumption that the reflective and systematic use of audiovisual media would contribute to more effective learning processes and improved academic performance in Social Studies.

Method

Research Design

This study was conducted using a classroom action research approach designed to improve Social Studies learning outcomes through a cyclical and reflective instructional process. The research procedure began with identifying classroom learning problems, followed by an initial assessment conducted prior to the intervention. The instructional intervention was implemented in two consecutive cycles, each consisting of planning, action, observation, and reflection stages. Findings from the first cycle were used as the basis for revising instructional strategies in the subsequent cycle. This sequential process allowed continuous adjustment of teaching practices based on observed classroom conditions. The complete research procedure is presented in Figure 1, which illustrates the flow of classroom action research implemented in this study using audiovisual media. This design was selected to ensure that instructional improvement occurred within a real classroom context.

Participants

The participants in this study were 25 students enrolled in the fifth grade of an elementary school. The class represented a range of learning abilities and academic backgrounds. All students were involved in the learning activities and assessment processes throughout the research cycles. A total sampling technique was applied because the research was conducted in a single intact classroom. The classroom teacher served as the practitioner researcher who implemented the instructional intervention and facilitated learning activities. Student participation followed normal classroom routines without additional grouping. Ethical classroom practices were maintained throughout the study.

Instruments

Multiple instruments were employed to obtain data related to both the learning process and learning outcomes. Achievement tests were used to measure students' Social Studies performance at the pre action stage and at the end of each instructional cycle. Classroom observation sheets were utilized to document students' learning behaviors, including participation, attentiveness, and interaction during lessons. Supporting documents such as lesson plans and samples of student work were also collected to strengthen the credibility of the findings. All instruments were aligned with the learning objectives and instructional materials. Observations focused on observable classroom activities rather than subjective interpretation. This combination of instruments enabled comprehensive data collection.

Data Analysis

Data analysis was carried out using descriptive techniques appropriate for classroom action research. Students' test results were analyzed by calculating average scores and levels of learning mastery at each research stage. Comparisons were made between the pre action condition, Cycle I, and Cycle II to identify trends in learning improvement. The proportion of students achieving the minimum mastery criterion was used as a key indicator of instructional success. Observational data were analyzed qualitatively by examining patterns of change in student engagement across cycles. Test results and observational findings were interpreted together to support reflective decision making. This analytical approach emphasized instructional improvement rather than statistical generalization.

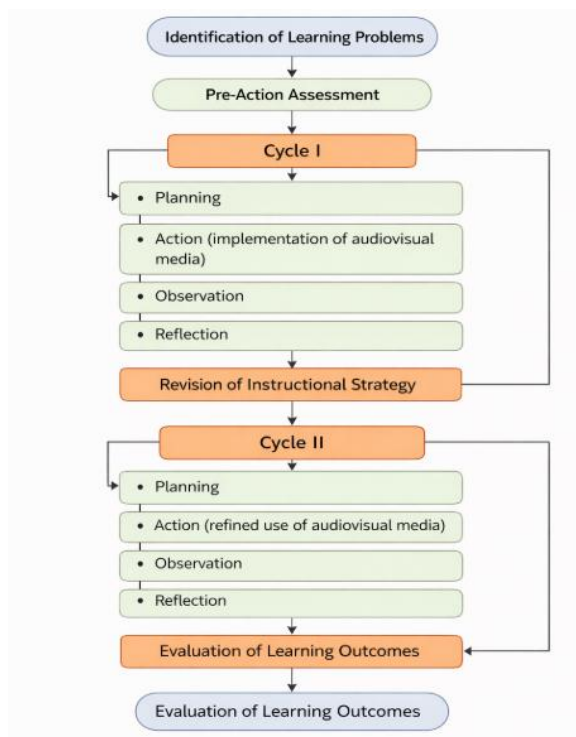


Figure 1. Flowchart of the Classroom Action Research Procedure Using Audiovisual Media

Results and Discussion

Results

The findings from this classroom action research show a clear and gradual improvement in students' Social Studies achievement after audiovisual media were integrated into instruction. Students' performance was assessed at three points, the pre action stage, Cycle I, and Cycle II, enabling a direct comparison of mean scores and mastery attainment across the research phases.

Table 1. Students' Social Studies Learning Outcomes Across Research Stages

Research Stage	Mean Score	Students Achieving Mastery (%)
Pre-Action	63.20	31.0
Cycle I	71.70	54.5
Cycle II	77.65	100.0

As shown in Table 1, the pre action stage produced the lowest mean score, and fewer than one third of students achieved the minimum mastery criterion. After the first cycle, the mean score increased to 71.70 and the mastery rate rose to 54.5 percent, indicating that the introduction of audiovisual media was followed by meaningful learning gains, although some students still remained below the mastery threshold. Following instructional revisions and a refined implementation of audiovisual media in Cycle II, students' achievement improved further, with the mean score reaching 77.65 and mastery attainment increasing to 100 percent. This pattern suggests that learning improvement was not only associated with the use of audiovisual media, but also with the iterative refinement of how the media were implemented during teaching.

To support the numerical evidence, the trend in mean scores across stages is visualized in Figure 2. The figure presents a consistent upward trajectory from pre action to Cycle II, reinforcing the improvement described in Table 1 and making the progression across cycles easier to interpret.

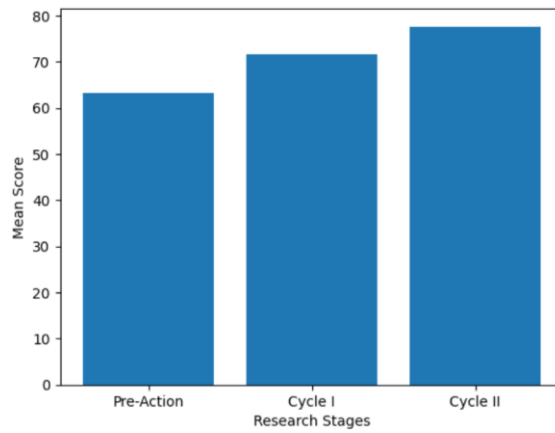


Figure 2. Improvement of Students’ Mean Social Studies Scores Across Research Stages

Discussion

The results of this study demonstrate a gradual and meaningful improvement in students’ Social Studies learning outcomes following the systematic integration of audiovisual media. Rather than producing instant gains, learning improvement occurred progressively across instructional cycles, indicating that change emerged through sustained instructional effort. This pattern supports the view that audiovisual media function most effectively when embedded within reflective teaching practices. Abuelela (2025) similarly argues that audiovisual materials enhance learning when they are pedagogically aligned with instructional objectives. In the present study, audiovisual media helped students develop clearer conceptual understanding of Social Studies content. This clarity contributed directly to improved academic performance. Thus, learning gains should be interpreted as the result of both media integration and instructional reflection.

Building on this improvement, increased student engagement emerged as a key factor influencing learning outcomes. Classroom observations showed that students became more attentive and involved during lessons supported by audiovisual media. This finding is consistent with López-Carril et al. (2026), who reported that visually rich digital media can stimulate interaction and sustain learner attention. Although their work focused on higher education, the present study demonstrates that similar engagement mechanisms operate at the elementary level. Engagement served as a bridge between instructional input and learning achievement. When students were actively involved, they processed learning content more effectively. Consequently, engagement played a central role in the observed learning improvement.

Despite initial gains in Cycle I, not all students achieved mastery, highlighting the importance of instructional refinement. This finding indicates that audiovisual media alone are insufficient to guarantee optimal learning outcomes. Passarinho et al. (2026) emphasize that teacher guidance and instructional structure are critical in maximizing the effectiveness of audiovisual media. In the present study, reflection after Cycle I enabled the teacher to identify instructional weaknesses. Subsequent adjustments improved the alignment between learning materials, media use, and students’ learning needs. These refinements resulted in stronger learning outcomes in Cycle II. Therefore, instructional success depended not merely on media use but on how that media was pedagogically managed.

From a cognitive standpoint, audiovisual media appeared to support students’ attention and information processing. The combination of visual and auditory input reduced the abstractness of Social Studies concepts. Zhang et al. (2025) suggest that immersive audiovisual stimulation can enhance attention and cognitive engagement. This perspective helps explain why students in the present study demonstrated greater focus during media-supported lessons. Enhanced attention facilitated deeper comprehension and retention of learning content. Repeated exposure to audiovisual instruction across cycles further strengthened learning processes. Consequently, audiovisual media functioned as a cognitive scaffold for elementary learners.

However, the findings also highlight the risk of passive media consumption if instructional guidance is insufficient. Sotero et al. (2026) stress that learners must be supported in interpreting audiovisual content critically rather than consuming it passively. In this study, audiovisual media were consistently accompanied by teacher-led discussion and guided learning activities. This approach encouraged students to actively engage with the content. Without such guidance, the instructional impact of audiovisual media may have been limited. The results therefore underline the importance of teacher mediation in audiovisual learning environments. Media effectiveness is closely tied to pedagogical control.

The classroom action research design played a crucial role in enabling instructional improvement. Rather than applying audiovisual media as a fixed intervention, the iterative cycles allowed continuous adaptation based on classroom evidence. Ferrari & Merigo (2026) argue that meaningful learning environments emerge when instruction responds flexibly to learner feedback. The present study supports this argument by demonstrating how reflection informed instructional decisions. Each cycle built upon the outcomes of the previous one. This process fostered a responsive and adaptive learning environment. Classroom action research thus proved effective for refining instructional strategies in practice.

Narrative and contextual elements within audiovisual media also contributed to improved learning engagement. Dinis (2026) emphasizes that storytelling and performative digital practices can enhance learners' emotional and cognitive involvement. In the present study, audiovisual materials contextualized Social Studies content within familiar social situations. This contextualization made learning more relatable for students. As a result, students were more willing to participate and express ideas. Engagement driven by contextual relevance supported deeper learning. This finding underscores the importance of selecting media that resonate with students' lived experiences.

The achievement of full mastery in Cycle II reflects the cumulative effect of reflective instructional practice. Learning improvement did not stem from a single instructional change, but from the interaction between media use and continuous pedagogical adjustment. This supports the arguments of Abuelela (2025) and Passarinho et al. (2026), who emphasize the importance of instructional integration in media-supported learning. In the present study, mastery was achieved only after audiovisual media were refined through reflection. This finding reinforces the idea that instructional improvement is a process rather than an event. Sustainable learning gains require ongoing evaluation and adaptation.

The findings also highlight the central role of teacher professionalism in elementary education. The teacher's ability to observe, reflect, and adapt instruction was essential to the success of this study. Sotero et al. (2026) emphasize that guided interpretation is a critical component of mediated learning. Through classroom action research, the teacher became an active agent of instructional improvement. Evidence-based decision making enabled more effective teaching practices. This approach supports professional growth while improving student learning outcomes. Thus, reflective teaching emerged as a key driver of instructional effectiveness.

Overall, this study demonstrates that audiovisual media can significantly enhance Social Studies learning outcomes when integrated within a reflective and systematic instructional framework. The findings extend previous research by Abuelela (2025), Zhang et al. (2025), López-Carril et al. (2026), Passarinho et al. (2026), Sotero et al. (2026), Ferrari & Merigo (2026) and Dinis (2026) into an elementary classroom context using classroom action research. More importantly, the study shows how media use, teacher reflection, and iterative instructional cycles interact to support meaningful learning improvement. Instructional innovation, therefore, should be accompanied by continuous evaluation. Through this approach, sustainable learning enhancement can be achieved in elementary Social Studies classrooms.

Implications

The outcomes of this study indicate several practical and pedagogical implications for elementary Social Studies instruction. The consistent improvement in learning outcomes suggests that audiovisual

media can enhance learning effectiveness when embedded within a structured instructional design. Teachers are therefore encouraged to integrate audiovisual materials as part of core learning activities rather than using them solely to attract attention. The findings also emphasize the role of reflective teaching in maximizing the impact of instructional media. By applying classroom action research, teachers are able to evaluate learning processes continuously and make informed instructional adjustments. This approach supports the development of adaptive teaching practices that respond directly to students' learning needs. At the institutional level, the study underscores the importance of providing professional support and training that equips teachers with the skills needed to design and implement media-supported instruction effectively.

Limitations

Several limitations should be considered when interpreting the findings of this study. The research was conducted within a single classroom context, involving a limited number of participants, which constrains the extent to which the results can be generalized to other settings. The study primarily examined short-term improvements in learning outcomes without addressing long-term retention or transfer of knowledge. In addition, data analysis relied on descriptive measures, which limits the ability to establish causal relationships between the instructional intervention and learning outcomes. The study also did not explore individual differences among students or examine their subjective experiences with audiovisual learning in depth. These constraints suggest that the findings represent context-specific insights rather than universal conclusions.

Suggestions

In light of the findings and limitations, several recommendations can be offered for future research and instructional practice. Future studies could involve multiple classrooms or schools to provide broader empirical evidence regarding the effectiveness of audiovisual media in Social Studies learning. Researchers may also consider examining the long-term influence of audiovisual instruction on students' conceptual understanding and knowledge retention. From a practical perspective, teachers are advised to select audiovisual materials that are closely aligned with lesson objectives and students' developmental characteristics. Ongoing reflection and evaluation should accompany media use to ensure instructional relevance and effectiveness. Further research may also incorporate students' perspectives to gain deeper insight into how audiovisual media influence learning experiences. Such efforts would contribute to the refinement of media-based instructional strategies in elementary education.

Conclusion

The findings of this classroom action research indicate that integrating audiovisual media into elementary Social Studies instruction, when implemented through a reflective cycle of planning, action, observation, and revision, can lead to meaningful improvement in students' learning outcomes. The upward trend in achievement from the pre-action stage through Cycle II suggests that progress was strengthened by iterative refinement of instructional practices rather than by media use alone. Audiovisual materials helped students engage with Social Studies content more clearly by providing visual and auditory cues that supported comprehension and sustained attention. At the same time, the classroom action research process enabled the teacher to make evidence-informed adjustments that responded to students' learning needs, resulting in improved mastery attainment by the end of the intervention. Overall, the study highlights that audiovisual media can be a practical and effective instructional strategy in elementary Social Studies when it is intentionally aligned with learning objectives and continuously evaluated within classroom practice.

Author Contributions Statement

Sumarsono contributed to the conceptualization and design of the study, including the formulation of research objectives and the selection of the classroom action research framework. Sumarsono was responsible for conducting the instructional intervention, collecting the data, and performing the data analysis. Sumarsono also led the interpretation of findings and the preparation of the manuscript. Fajar Setiawan contributed to the development of research instruments, assisted in data interpretation, and provided critical feedback during the analysis and discussion stages. Fajar Setiawan also reviewed the manuscript and contributed to revising the content to improve clarity and academic coherence. Both authors approved the final version of the manuscript for submission.

References

- Abuelela, H. A. S. (2025). FILM CLIPS AS AN AUDIOVISUAL MEDIUM IN EGYPTIAN GFL-TEACHING. *Revista de Filologia de La Universidad de La Laguna*, (51), 11–31. <https://doi.org/10.25145/j.refiull.2025.51.01>
- Afonso, A., Morgado, L., Carvalho, I. C., & Spilker, M. J. (2025). Facing Challenges in Higher Education: Enhancing Accessibility and Inclusion Through Flexible Learning Design. *Education Sciences*, 15(8), 1013. <https://doi.org/10.3390/educsci15081013>
- Alghamdi, J., Luo, S., & Lin, Y. (2024). A comprehensive survey on machine learning approaches for fake news detection. *Multimedia Tools and Applications*, 83(17), 51009–51067. <https://doi.org/10.1007/s11042-023-17470-8>
- Al-Marouf, R. S., Alahbabi, N. M. N., Akour, I., Alhumaid, K., Ayoubi, K., Alnnaimi, M., Thabit, S., Alfaisal, R., Aburayya, A., & Salloum, S. (2022). Students' perception towards behavioral intention of audio and video teaching styles: An acceptance study. *International Journal of Data and Network Science*, 6(2), 603–618. <https://doi.org/10.5267/j.ijdns.2021.11.004>
- Bergmark, U. (2023). Teachers' professional learning when building a research-based education: Context-specific, collaborative and teacher-driven professional development. *Professional Development in Education*, 49(2), 210–224. <https://doi.org/10.1080/19415257.2020.1827011>
- Cabello, V. M., Moreira, P. M., & Griñó Morales, P. (2021). Elementary Students' Reasoning in Drawn Explanations Based on a Scientific Theory. *Education Sciences*, 11(10), 581. <https://doi.org/10.3390/educsci11100581>
- Cantlon, J. F., & Piantadosi, S. T. (2024). Uniquely human intelligence arose from expanded information capacity. *Nature Reviews Psychology*, 3(4), 275–293. <https://doi.org/10.1038/s44159-024-00283-3>
- Carroll, M., Lindsey, S., Chaparro, M., & Winslow, B. (2021). An applied model of learner engagement and strategies for increasing learner engagement in the modern educational environment. *Interactive Learning Environments*, 29(5), 757–771. <https://doi.org/10.1080/10494820.2019.1636083>
- Catalano, A. J., Torff, B., & Anderson, K. S. (2021). Transitioning to online learning during the COVID-19 pandemic: Differences in access and participation among students in disadvantaged school districts. *International Journal of Information and Learning Technology*, 38(2), 258–270. <https://doi.org/10.1108/IJILT-06-2020-0111>
- Dignath, C., Rimm-Kaufman, S., van Ewijk, R., & Kunter, M. (2022). Teachers' Beliefs About Inclusive Education and Insights on What Contributes to Those Beliefs: A Meta-analytical Study. *Educational Psychology Review*, 34(4), 2609–2660. <https://doi.org/10.1007/s10648-022-09695-0>
- Dinis, F. (2026). Reimagining Memory Through Performativity: Storytelling and Digital Practices in Arts Education. *Lect. Notes Networks Syst.*, 1718 LNNS, 80–84. https://doi.org/10.1007/978-3-032-10731-2_8
- Ferrari, S., & Merigo, A. (2026). Rethinking Online Community Beyond Self-paced MOOCs. *Lect. Notes Comput. Sci.*, 15733 LNCS, 86–97. https://doi.org/10.1007/978-3-032-00056-9_8
- Finkelstein, S., Sharma, U., & Furlonger, B. (2021). The inclusive practices of classroom teachers: A scoping review and thematic analysis. *International Journal of Inclusive Education*, 25(6), 735–762. <https://doi.org/10.1080/13603116.2019.1572232>
- Howard, B., Diug, B., & Ilic, D. (2022). Methods of teaching evidence-based practice: A systematic review. *BMC Medical Education*, 22(1), 742. <https://doi.org/10.1186/s12909-022-03812-x>
- Kavanagh, J. M., & Dnp, P. A. S. (2021). Crisis in Competency: A Defining Moment in Nursing Education. *Online Journal of Issues in Nursing*, 26(1), N.PAG. <https://doi.org/10.3912/OJIN.Vol26No01Man02>
- Kurtz, G., Amzalag, M., Shaked, N., Zaguri, Y., Kohen-Vacs, D., Gal, E., Zailer, G., & Barak-Medina, E. (2024). Strategies for Integrating Generative AI into Higher Education: Navigating Challenges and Leveraging Opportunities. *Education Sciences*, 14(5), 503. <https://doi.org/10.3390/educsci14050503>
- Levy, B. L. M., Busey, C. L., Cuenca, A., Evans, R. W., Halvorsen, A.-L., Ho, L.-C., Kahne, J., Kissling, M. T., Lo, J. C., McAvoy, P., & McGrew, S. (2023). Social studies education research for sustainable democratic societies: Addressing persistent civic challenges. *Theory & Research in Social Education*, 51(1), 1–46. <https://doi.org/10.1080/00933104.2022.2158149>

- Li, L., Ismail, S. M., Patra, I., & Lami, D. (2024). RETRACTED ARTICLE: Not a passive learner but an active one: a focus on the efficacy of philosophy-based language instruction and its consequences on EFL learners' critical thinking, engagement, and academic achievement. *BMC Psychology*, 12(1), 148. <https://doi.org/10.1186/s40359-024-01648-2>
- López-Carril, S., Carpenter, J. P., Watanabe, N. M., & González-Serrano, M. H. (2026). Pinterest in Higher Education: Insights From a Sport Management Course. *Journal of Management Education*, 50(1), 8–36. <https://doi.org/10.1177/10525629251365942>
- Marosi, N., Avraamidou, L., & Galani, L. (2021). Culturally relevant pedagogies in science education as a response to global migration. *SN Social Sciences*, 1(6), 147. <https://doi.org/10.1007/s43545-021-00159-w>
- Mayer, R. E. (2024). The Past, Present, and Future of the Cognitive Theory of Multimedia Learning. *Educational Psychology Review*, 36(1), 8. <https://doi.org/10.1007/s10648-023-09842-1>
- Miller, I. K., Cunha, M. I. A., & Allwright, D. (2021). Teachers as practitioners of learning: The lens of exploratory practice. *Educational Action Research*, 29(3), 447–461. <https://doi.org/10.1080/09650792.2020.1842780>
- Moser, K. M., Wei, T., & Brenner, D. (2021). Remote teaching during COVID-19: Implications from a national survey of language educators. *System*, 97, 102431. <https://doi.org/10.1016/j.system.2020.102431>
- Passarinho, A. M. S., Nunes, T. J. C., Travasso, R. J. P., & Barradas, T. S. (2026). Teacher Support for Project-Based Learning on Audiovisual and Media Production Degrees. In *Springer Series in Design and Innovation* (Vol. 59, pp. 17–37). Springer Nature. https://doi.org/10.1007/978-3-032-00733-9_2
- Perez, M. M. (2022). Second or foreign language learning through watching audio-visual input and the role of on-screen text. *Language Teaching*, 55(2), 163–192. <https://doi.org/10.1017/S0261444821000501>
- Pokhrel, S., & Chhetri, R. (2021). A Literature Review on Impact of COVID-19 Pandemic on Teaching and Learning. *Higher Education for the Future*, 8(1), 133–141. <https://doi.org/10.1177/2347631120983481>
- Polman, J., Hornstra, L., & Volman, M. (2021). The meaning of meaningful learning in mathematics in upper-primary education. *Learning Environments Research*, 24(3), 469–486. <https://doi.org/10.1007/s10984-020-09337-8>
- Ranalli, J. (2021). L2 student engagement with automated feedback on writing: Potential for learning and issues of trust. *Journal of Second Language Writing*, 52, 100816. <https://doi.org/10.1016/j.jslw.2021.100816>
- Ruck, J. (2022). Elementary-level learners' engagement with multimodal resources in two audio-visual genres. *The Language Learning Journal*, 50(3), 328–343. <https://doi.org/10.1080/09571736.2020.1752291>
- Sato, M., & Loewen, S. (2022). The Research–Practice Dialogue in Second Language Learning and Teaching: Past, Present, and Future. *The Modern Language Journal*, 106(3), 509–527. <https://doi.org/10.1111/modl.12791>
- Selwyn, N. (2021). Ed-Tech Within Limits: Anticipating educational technology in times of environmental crisis. *E-Learning and Digital Media*, 18(5), 496–510. <https://doi.org/10.1177/20427530211022951>
- Smets, W., De Neve, D., & Struyven, K. (2022). Responding to students' learning needs: How secondary education teachers learn to implement differentiated instruction. *Educational Action Research*, 30(2), 243–260. <https://doi.org/10.1080/09650792.2020.1848604>
- Smith, T., Avraamidou, L., & Adams, J. D. (2022). Culturally relevant/responsive and sustaining pedagogies in science education: Theoretical perspectives and curriculum implications. *Cultural Studies of Science Education*, 17(3), 637–660. <https://doi.org/10.1007/s11422-021-10082-4>
- Sotero, J. M., Vicente, P. N., & Granado, A. (2026). Development and validation of a scale to assess algorithmic literacy in the context of recommender systems (ALRS). *Technology in Society*, 85. <https://doi.org/10.1016/j.techsoc.2026.103237>
- Thomas, G. L., Bailey, J., & Engeness, I. (2023). Scaffolding athlete learning in preparation for competition: What matters. *Sports Coaching Review*, 12(3), 281–301. <https://doi.org/10.1080/21640629.2021.1991713>
- Tveitnes, M. S., Helgevold, N., & Moen, V. (2025). Bridging the gap between theory and practice? Working with digital problem-based cases to strengthen student teachers as research-literate. *Discover Education*, 4(1), 228. <https://doi.org/10.1007/s44217-025-00651-y>
- Wahlgren, B., & Aarkrog, V. (2021). Bridging the gap between research and practice: How teachers use research-based knowledge. *Educational Action Research*, 29(1), 118–132. <https://doi.org/10.1080/09650792.2020.1724169>
- Whittingham, C. E., Hoffman, E. B., & Paciga, K. A. (2024). Assessment, accountability, and access: Constrained skill mastery as instructional gatekeeper. *Journal of Early Childhood Literacy*, 24(1), 69–95. <https://doi.org/10.1177/14687984211042056>
- Winget, M., & Persky, A. M. (2022). A Practical Review of Mastery Learning. *American Journal of Pharmaceutical Education*, 86(10), aipe8906. <https://doi.org/10.5688/aipse8906>
- Woodcock, S., Sharma, U., Subban, P., & Hitches, E. (2022). Teacher self-efficacy and inclusive education practices: Rethinking teachers' engagement with inclusive practices. *Teaching and Teacher Education*, 117, 103802. <https://doi.org/10.1016/j.tate.2022.103802>
- Zhang, W., Guan, Y., Hu, Z., Wang, C., Lu, D., & Lu, H. (2025). Interplay of student characteristics multidimensional engagement and influencing factors in online computer science education. *Scientific Reports*, 15(1). Scopus. <https://doi.org/10.1038/s41598-025-90142-9>

