

Developing Local Wisdom-Based Teaching Materials to Foster Students' Conflict Resolution Competencies in Senior High School Sociology

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ABSTRACT

The integration of local wisdom into sociology learning has been widely promoted to strengthen students' cultural awareness; however, its application in developing conflict resolution competencies through instructional materials remains limited. This study aimed to develop local wisdom-based conflict resolution teaching materials for senior high school sociology learning and to evaluate their validity, practicality, and effectiveness. The study employed a Research and Development (R&D) approach using the Four-D (4D) model, comprising the stages of Define, Design, Develop, and Disseminate. The developed product was validated by two experts, followed by practicality testing involving four sociology teachers and twenty-five students. Product effectiveness was evaluated through a quasi-experimental design involving an experimental class (n = 30) and a control class (n = 34). Data were collected using expert validation sheets, practicality questionnaires, authentic assessment rubrics, and documentation. Data analysis included descriptive statistics, the Shapiro-Wilk normality test, Levene's homogeneity test, the Independent Samples t-test, and Cohen's d effect size. The findings indicated that the developed teaching materials met the criteria for validity and practicality and significantly improved students' conflict resolution competencies. Significant differences were found in local wisdom analysis, presentation, collaboration, and overall authentic assessment scores ($p < 0.001$), with very large effect sizes, whereas no significant difference was observed in the investigation dimension. These findings demonstrate that integrating local wisdom into project-based sociology learning enhances students' contextual reasoning, communication, and collaborative problem-solving competencies. The study contributes to sociology education by positioning local wisdom not merely as contextual learning content but as a pedagogical foundation for developing conflict resolution competencies through authentic learning experiences.

Keywords: Conflict Resolution, Local Wisdom, Sociology Education, Teaching Materials, Authentic Assessment

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PENDAHULUAN

Social conflicts have become increasingly complex in contemporary societies due to cultural diversity, rapid social change, and the widespread influence of digital communication. Differences in ethnicity, religion, cultural values, and socioeconomic backgrounds frequently generate misunderstandings that may escalate into interpersonal and community conflicts if individuals lack the competencies to manage them constructively (Arbatli et al., 2020; Azis, 2025; Buckley et al., 2022; Judijanto, 2025; Kemala et al., 2025). Consequently, conflict resolution has been recognized as an essential twenty-first-century competency that supports peaceful coexistence, democratic participation, and responsible citizenship (El Massoudi, 2021; Eliasa et

al., 2026; Mallick & Thakurta, 2024). International educational frameworks, including UNESCO's Global Citizenship Education (GCED) and the Sustainable Development Goals (SDG 4), emphasize that schools should not only develop students' academic knowledge but also foster dialogue, empathy, collaboration, and the ability to resolve conflicts through peaceful and culturally responsive approaches (Bosio, 2024; Ludvik et al., 2023; Sahni & Jena, 2024). Therefore, conflict resolution education has become an important component of preparing students to live and participate effectively in increasingly diverse societies.

In response to these challenges, sociology education has a strategic role in developing students' conflict resolution competencies because it examines social interaction, cultural diversity, social problems, and mechanisms for maintaining social harmony. Through sociology learning, students are expected to analyse the causes of conflicts, evaluate alternative solutions, and develop socially responsible attitudes toward diversity (Hasbi et al., 2023; Isufaj, 2025; Mallick & Thakurta, 2024; Shilina et al., 2026; Siregar & Pramudita, 2025). However, classroom practices remain predominantly focused on conceptual understanding and textbook-oriented instruction, with limited opportunities for students to engage in authentic investigations of conflict situations or collaboratively construct culturally appropriate solutions (Altaftazani et al., 2025; Rosely et al., 2025). As a result, students often acquire theoretical knowledge about social conflict without developing the practical competencies required to analyse, negotiate, and resolve conflicts in real-life contexts (Karpenko et al., 2024; Tuhuteru et al., 2023). This limitation highlights the need for instructional approaches that connect sociological concepts with authentic social experiences and meaningful cultural contexts.

Local wisdom has increasingly been recognized as an important educational resource because it embodies collective knowledge, social norms, cultural values, and community practices that have evolved to maintain social harmony across generations. Unlike decontextualized learning resources, local wisdom provides authentic social situations through which students can interpret social problems from cultural, ethical, and communal perspectives (Azahra et al., 2024; Mutiara et al., 2025; Nurhadianto, 2024). Recent studies have demonstrated that integrating local wisdom into learning enhances students' cultural awareness, critical thinking, social responsibility, and appreciation of diversity by connecting academic concepts with learners' lived experiences (Fathurrochman et al., 2026; Fitrianto & Farisi, 2025; Muhammad Tahir et al., 2025). Consequently, local wisdom is increasingly viewed not merely as cultural content to be introduced in classrooms but as a meaningful context that supports active, relevant, and culturally responsive learning (Ahmar & Azzajjad, 2025; Rasidi et al., 2025). Such characteristics suggest that local wisdom possesses considerable potential to strengthen conflict resolution learning, as students are encouraged to examine social conflicts within the cultural realities of their own communities rather than through abstract or hypothetical examples.

Previous studies have reported various educational benefits of integrating local wisdom into classroom learning. Most studies have focused on improving character education, environmental awareness, cultural literacy, critical thinking, and students' social attitudes through culturally contextualized learning (Afriyadi et al., 2024; Burhan, 2026; Sakti et al., 2024). Other studies have demonstrated that local wisdom can enrich project-based learning, problem-based learning, and inquiry learning by providing authentic contexts that increase students' engagement and learning motivation (Junaidin, 2025; Oktaviani et al., 2025; Rosmayanti et al., 2024; Zaki et al., 2024). Although these findings confirm the educational value of local wisdom, the existing literature predominantly positions it as contextual learning content or supporting instructional resources (Azahra et al., 2024; Burhan, 2026; Junaidin, 2025; Oktaviani et al., 2025). Relatively little attention has been given to developing local wisdom as a pedagogical foundation for designing teaching materials that systematically cultivate students' conflict resolution competencies through authentic assessment and project-based learning. Consequently, important opportunities remain to investigate how culturally grounded instructional materials can contribute to developing higher-order social competencies beyond conceptual understanding alone.

Despite the growing body of research on local wisdom-based education, several important gaps remain. First, most previous studies have emphasized the integration of local wisdom as contextual learning content rather than as a pedagogical framework that systematically guides instructional design (Fitrianto & Farisi, 2025; Shufa & Tito Pangesti Adji, 2024; Widyawardana et al., 2021). Second, existing studies have primarily examined learning outcomes such as character development, cultural literacy, environmental awareness, and critical thinking, while the development of students' conflict resolution competencies has received considerably less attention (Ahmed et al., 2024; Choi & Ahn, 2021; Sivrikova et al., 2020). Third, studies focusing on local wisdom have rarely developed comprehensive teaching materials that integrate authentic conflict cases, project-based learning activities, and authentic assessment into a unified instructional package (Perdana et al., 2024; Retnowati et al., 2020; Sokhanvar et al., 2021; Vlachopoulos & Makri, 2024). Finally, although authentic assessment is increasingly recommended for evaluating higher-order competencies, its application in assessing students' conflict resolution competencies within culturally contextualized learning remains limited (Ahmed et al., 2024; Choi & Ahn, 2021; Sanjaya et al., 2022). These gaps indicate the need for instructional innovations that position local wisdom not only as a learning context but also as a pedagogical foundation for designing, implementing, and evaluating conflict resolution learning.

Unlike previous studies, this research positions local wisdom not merely as contextual learning content but as the pedagogical foundation underpinning the development of conflict resolution teaching materials for sociology education. The developed instructional materials integrate authentic local conflict cases, project-based learning, collaborative inquiry, reflective learning activities, and authentic assessment into a coherent instructional design intended to foster students' conflict resolution competencies (Castillo et al., 2025; Konrad et al., 2020). By combining product development with empirical evaluation of validity, practicality, and effectiveness, this study offers a more comprehensive approach to local wisdom-based instructional development than has commonly been reported in previous research. Accordingly, the study contributes both theoretically, by extending the pedagogical role of local wisdom in sociology education, and practically, by providing an evidence-based instructional resource that can support culturally responsive conflict resolution learning in secondary schools.

Based on the identified research gaps, this study aimed to develop local wisdom-based conflict resolution teaching materials for senior high school sociology learning and to evaluate their validity, practicality, and effectiveness. Furthermore, the study sought to examine the extent to which the developed teaching materials enhance students' conflict resolution competencies through authentic assessment in project-based learning. It is expected that the findings will contribute to the advancement of culturally responsive sociology education by providing empirical evidence that local wisdom can serve as an effective pedagogical foundation for developing students' higher-order social competencies in multicultural contexts.

METHOD

Research Design

This study employed a Research and Development (R&D) approach using the Four-D (4D) development model (Richey & Klein, 2014; Thiagarajan, 1974). The model consists of four sequential stages: Define, Design, Develop, and Disseminate, and was selected because it provides a systematic framework for developing instructional materials through iterative cycles of needs analysis, design, expert validation, revision, and classroom implementation. The first phase focused on developing local wisdom-based conflict resolution teaching materials, whereas the second phase evaluated the product through expert validation, practicality testing, and effectiveness testing using a quasi-experimental design with a non-equivalent control group. This sequential procedure ensured that the developed product satisfied quality standards before its instructional impact was examined. This design is consistent with contemporary recommendations in educational design research, which emphasise iterative

refinement, stakeholder involvement, and empirical evaluation to ensure that instructional products are pedagogically sound and practically applicable in authentic educational settings (McKenney & Reeves, 2018; Plomp & Nieveen, 2013).

Research Participants

Different participants were involved at each stage of the development process according to the objectives of product evaluation. The validation stage involved two experts, consisting of one expert in sociology education and one expert in instructional media. These experts were purposively selected because they represented complementary areas of expertise required to evaluate both the pedagogical quality and the technical feasibility of the developed teaching materials. Rather than increasing the number of validators, the study prioritised complementary expertise to ensure comprehensive evaluation of instructional content and media design before classroom implementation. The practicality evaluation involved four sociology teachers and twenty-five students, who assessed the usability of the developed teaching materials after implementation. The effectiveness test employed a quasi-experimental design involving two intact classes. The experimental group consisted of 30 students, whereas the control group consisted of 34 students. The use of intact classes reflected normal school conditions and enabled the evaluation of the developed teaching materials under authentic classroom settings.

Product Development Procedure

The development procedure followed the four stages of the Four-D model. During the Define stage, curriculum documents, sociology textbooks, previous studies, and classroom conditions were analysed to identify instructional needs and challenges related to conflict resolution learning. The Design stage involved preparing the instructional framework, selecting local wisdom content, developing project-based learning activities, designing authentic assessment rubrics, and preparing the initial prototype of the teaching materials. During the Develop stage, the prototype was evaluated through expert validation and subsequently revised based on the validators' recommendations. The revised product was then implemented to evaluate its practicality and effectiveness. Finally, the Disseminate stage involved introducing the final version of the teaching materials to sociology teachers through limited dissemination after the classroom implementation had been completed.

Research Instruments

Four instruments were employed to collect research data. The expert validation sheet was used to evaluate content feasibility and instructional media quality, covering content accuracy, curriculum alignment, language clarity, presentation, graphical design, and instructional usefulness. The practicality questionnaire measured teachers' and students' perceptions of the usability of the developed teaching materials, including ease of use, learning presentation, visual appearance, and overall practicality. Students' conflict resolution competencies were assessed using an authentic assessment rubric integrated into project-based learning activities. The rubric consisted of four competency dimensions: Investigation, Local Wisdom Analysis, Presentation, and Collaboration. Each dimension contained clearly defined performance indicators rated on a four-point scale to ensure objective assessment of students' performance throughout the learning process. Documentation in the form of classroom observations, learning artefacts, and students' project reports was used to support data interpretation and verify the implementation process.

Data Collection Procedure

Data collection was conducted sequentially according to the stages of product development. Expert validation was undertaken after the initial prototype had been completed. The revised product was subsequently implemented to obtain practicality data from teachers and students. The effectiveness evaluation was carried out during classroom implementation through authentic project-based learning. Students completed collaborative investigations of local conflict cases, analysed conflict resolution strategies based on local wisdom, presented their findings, and reflected on the learning process. Throughout these activities, students' performance was assessed using the authentic assessment rubric, allowing competency

development to be evaluated comprehensively rather than relying solely on conventional written tests.

Data Analysis

The data were analysed using descriptive and inferential statistical techniques. Validation and practicality data were analysed using descriptive statistics by calculating mean scores and percentages. The interpretation of the mean scores followed a four-point rating scale, as presented in Table 1.

Table 1. Criteria for Interpreting Validation and Practicality Scores

Mean Score	Interpretation (Validity)	Interpretation (Practicality)
3.26–4.00	Very Valid	Very Practical
2.51–3.25	Valid	Practical
1.76–2.50	Fairly Valid	Fairly Practical
1.00–1.75	Invalid	Impractical

The effectiveness data derived from the authentic assessment rubric were analysed in four stages. First, descriptive statistics (mean and standard deviation) were calculated for each competency dimension and the overall score. Second, the assumptions for parametric analysis were examined using the Shapiro–Wilk test for normality and Levene's test for homogeneity of variances. Third, differences between the experimental and control groups were analysed using the Independent Samples t-test. Finally, Cohen's *d* was calculated to determine the magnitude of the treatment effect, allowing the practical significance of the intervention to be interpreted alongside statistical significance.

Table 2. Interpretation of Cohen's *d* Effect Size

Cohen's <i>d</i>	Interpretation
< 0.20	Negligible
0.20–0.49	Small
0.50–0.79	Medium
≥ 0.80	Large

This combination of descriptive statistics, hypothesis testing, and effect size analysis is recommended in recent educational research because it provides a more comprehensive evaluation of instructional effectiveness by identifying not only whether differences are statistically significant but also the magnitude and educational importance of those differences.

RESULT AND DISCUSSION

Development of the Local Wisdom-Based Conflict Resolution Teaching Materials

The development process resulted in a set of local wisdom-based conflict resolution teaching materials designed to support sociology learning in senior high schools. The product was developed through the Four-D model, comprising the stages of Define, Design, Develop, and Disseminate. The development process was preceded by a needs analysis involving curriculum analysis, classroom observations, interviews with sociology teachers, and a review of literature on conflict resolution education and local wisdom. The resulting teaching materials integrate concepts of conflict resolution with local wisdom values originating from the surrounding community. Rather than presenting conflict merely as a theoretical concept, the materials encourage students to investigate authentic social conflicts, analyze local wisdom as an alternative conflict resolution strategy, discuss possible solutions collaboratively, and communicate their findings through classroom presentations. This instructional design is intended to develop students' analytical, collaborative, and communication competencies while strengthening their appreciation of local cultural values. The developed product consists of several integrated components, including learning objectives aligned with the national curriculum, contextual learning materials, authentic local conflict cases, inquiry-based learning activities, worksheets, project assignments, authentic assessment rubrics, and reflection activities. Figure 1 illustrates the conceptual framework of the developed teaching materials.



Figure 1. Development Process and Main Components of the Local Wisdom-Based Conflict Resolution Teaching Materials.

As illustrated in Figure 1, the developed teaching materials were constructed through a systematic process beginning with curriculum and needs analysis, followed by instructional design, product development, and product evaluation. The final product integrates authentic conflict cases, local wisdom values, student worksheets, collaborative learning activities, reflective tasks, and authentic assessment, enabling students to develop conflict resolution competencies through contextual and meaningful learning experiences.

Table 3. Specifications of the Developed Teaching Materials

Component	Description
Title	Local Wisdom-Based Conflict Resolution Teaching Materials
Target Users	Grade XI Senior High School Students
Subject	Sociology
Development Model	Four-D (Define, Design, Develop, Disseminate)
Learning Approach	Project-Based Learning integrated with Local Wisdom
Learning Activities	Problem identification, investigation, local wisdom analysis, discussion, presentation, reflection
Assessment	Authentic assessment using analytical rubrics
Expected Competencies	Conflict analysis, communication, collaboration, appreciation of local wisdom

The integration of local wisdom into every learning activity distinguishes the developed teaching materials from conventional sociology textbooks. Local wisdom is positioned not merely as contextual learning content but as a pedagogical foundation that guides students in analyzing social conflicts and constructing culturally appropriate solutions. Consequently, students are expected not only to understand theoretical concepts of conflict resolution but also to develop practical competencies for addressing social problems within their own communities. The developed prototype was subsequently evaluated through expert validation to determine its content accuracy and instructional feasibility before being implemented in classroom learning.

Product Validity

The developed teaching materials were subjected to expert validation prior to classroom implementation to determine their content appropriateness and media feasibility. The validation involved two experts consisting of a subject-matter expert and an instructional media expert. The evaluation covered the accuracy of content, language, presentation, graphical design, instructional usefulness, and technical quality of the developed teaching materials. The validation results are presented in Table 4.

Table 4. Expert validation results of the developed teaching materials

Validation Aspect	Mean Score	Percentage	Category
Content validity	3.27	81.75	Valid
Media validity	3.60	90.00	Very Valid
Overall validity	3.44	86.00	Very Valid

Table 4 shows that the content expert assigned a mean score of 3.27 (81.75%), indicating that the developed teaching materials met the criteria of valid. The media expert provided a higher mean score of 3.60 (90.00%), which falls into the very valid category. When both validation results were combined, the overall mean score reached 3.44 (86.00%), indicating that the product was very valid and appropriate for use in sociology learning after minor revisions.

The content expert particularly appreciated the relevance of the learning materials to the curriculum and the integration of local wisdom into conflict resolution topics. Meanwhile, the media expert highlighted the clarity of the visual layout, consistency of typography, ease of navigation, and accessibility of the teaching materials across different digital devices. Overall, the validation process confirmed that the developed product fulfilled both pedagogical and technical quality standards before proceeding to classroom implementation.

Table 5. Summary of Expert Suggestions and Product Revisions

Validator	Main Suggestions	Revisions Implemented
Content Expert	Improve the contextual examples of local conflict and strengthen the alignment between learning objectives and learning activities.	Additional authentic local conflict cases were incorporated, and learning objectives were refined to ensure consistency with the learning outcomes.
Media Expert	Improve layout consistency, typography, and illustration placement to enhance readability.	Layout organization, font consistency, spacing, and placement of illustrations were revised to improve visual quality and usability.

The expert validation results demonstrate that the developed teaching materials satisfy essential quality criteria in terms of content, instructional design, and media presentation. More importantly, the validators acknowledged that local wisdom was not merely presented as supplementary information but was systematically integrated into learning activities that encourage students to analyse authentic social conflicts through culturally relevant perspectives. The relatively higher score assigned by the media expert indicates that the visual presentation, accessibility, and overall usability of the teaching materials have successfully supported the intended learning process. Meanwhile, the content validation confirms that the instructional materials are aligned with curriculum objectives and accurately represent concepts of conflict resolution in sociology education. These findings suggest that the product possesses adequate pedagogical quality to support classroom implementation and provide a strong foundation for subsequent practicality and effectiveness testing. After revisions based on expert recommendations had been completed, the teaching materials were considered suitable for classroom implementation. Therefore, the next stage examined the practicality of the product during actual learning activities.

Product Practicality

Following expert validation, the revised teaching materials were implemented in classroom learning to evaluate their practicality. The practicality test involved four sociology teachers and twenty-five students who had used the developed teaching materials during the

learning process. Practicality was evaluated using a structured questionnaire that assessed the clarity of learning materials, organization of learning activities, usability, visual presentation, and overall user experience. The results of the practicality evaluation are summarized in Table 6.

Table 6. Practicality evaluation of the developed teaching materials

Practicality Aspect	Mean Score	Percentage	Category
Content clarity	3.33	83.25	Practical
Learning presentation	3.38	84.50	Practical
Usability	3.49	87.25	Practical
Visual design	3.37	84.25	Practical
Overall practicality	3.38	84.50	Practical

As presented in Table 6, the developed teaching materials obtained an overall practicality score of 3.38 (84.50%), indicating that the product met the practical category. The highest score was achieved on the usability aspect (Mean = 3.49), suggesting that both teachers and students considered the teaching materials easy to access and implement during classroom learning. Meanwhile, the content clarity, learning presentation, and visual design aspects also received positive evaluations, with mean scores ranging from 3.33 to 3.38. These findings indicate that the developed teaching materials are not only pedagogically appropriate but also operationally feasible for classroom implementation. The integration of contextual conflict cases, project-based learning activities, and local wisdom values enabled teachers to facilitate learning more effectively while supporting students' active engagement throughout the instructional process.

The practicality findings demonstrate that the developed teaching materials can be implemented effectively under actual classroom conditions. The positive responses from both teachers and students indicate that the product possesses a balance between instructional quality and usability. Rather than increasing instructional complexity, the integration of local wisdom into conflict resolution learning provided meaningful contextual examples that helped students understand abstract sociological concepts through authentic social situations. The relatively high score on the usability aspect reflects that the teaching materials were accessible, well organized, and compatible with classroom learning activities. In addition, the project-based tasks and collaborative learning activities encouraged students to participate actively in investigating social conflicts, discussing possible solutions, and presenting their findings. These characteristics are consistent with contemporary approaches to sociology education, which emphasize contextual learning, authentic assessment, and student-centred instruction. Overall, the practicality results strengthen the argument that the developed teaching materials are suitable for classroom implementation and provide an appropriate foundation for evaluating their instructional effectiveness through experimental testing. The positive practicality findings indicate that the developed teaching materials can be implemented effectively under classroom conditions. The subsequent stage therefore focused on examining whether the product also improved students' conflict resolution competencies.

Product Effectiveness

Descriptive Statistics

The effectiveness of the developed teaching materials was evaluated by comparing the authentic assessment performance of students in the experimental and control groups. The assessment measured four dimensions of conflict resolution competence, namely investigation, local wisdom analysis, presentation, and collaboration. Descriptive statistics were calculated to provide an overview of students' achievement in each assessment dimension before conducting hypothesis testing. The descriptive statistics are presented in Table 7.

Table 7. Descriptive statistics of authentic assessment scores

Assessment Dimension	Experimental (n = 30) Mean $\pm$ SD	Control (n = 34) Mean $\pm$ SD
Investigation	30.60 $\pm$ 3.79	29.65 $\pm$ 1.63
Local Wisdom Analysis	21.10 $\pm$ 1.65	18.41 $\pm$ 1.16
Presentation	16.63 $\pm$ 0.96	13.56 $\pm$ 1.71
Collaboration	12.63 $\pm$ 1.10	10.88 $\pm$ 1.07

Overall Score	80.97 ± 4.95	72.50 ± 2.36
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As shown in Table 7, students in the experimental group consistently achieved higher mean scores than those in the control group across all authentic assessment dimensions. The largest differences were observed in Local Wisdom Analysis, Presentation, and Collaboration, whereas the difference in Investigation was relatively small. These descriptive findings indicate that the developed teaching materials were particularly effective in strengthening students' ability to analyse social conflicts using local wisdom, communicate ideas, and collaborate in solving contextual problems.

Hypothesis Testing

Prior to hypothesis testing, the data were examined to ensure that they satisfied the assumptions required for parametric analysis. The Shapiro-Wilk test indicated that all variables in both the experimental and control groups were normally distributed, while Levene's test confirmed the homogeneity of variances. Therefore, differences between the two groups were analysed using the Independent Samples t-test. To complement statistical significance testing, Cohen's *d* was calculated to determine the magnitude of the treatment effect. The results of the hypothesis testing are presented in Table 8.

Table 8. Independent Samples t-test and effect size

Assessment Dimension	p-value	Cohen's <i>d</i>	Interpretation
Investigation	0.187	0.33	Small effect; not significant
Local Wisdom Analysis	<0.001	1.91	Very large effect
Presentation	<0.001	2.18	Very large effect
Collaboration	<0.001	1.62	Very large effect
Overall Score	<0.001	2.23	Very large effect

The Independent Samples t-test revealed that there was no statistically significant difference between the experimental and control groups on the Investigation dimension ($p = 0.187$). However, statistically significant differences were found for Local Wisdom Analysis, Presentation, Collaboration, and the Overall Score ($p < 0.001$). The effect size analysis further demonstrated that the developed teaching materials produced very large educational effects, particularly for Presentation ($d = 2.18$), Local Wisdom Analysis ($d = 1.91$), Collaboration ($d = 1.62$), and the Overall Score ($d = 2.23$). These findings indicate that the intervention had not only statistically significant effects but also substantial practical significance in improving students' conflict resolution competencies.

Profile of Students' Conflict Resolution Competencies

The statistical analyses presented in the previous section confirmed that the developed teaching materials produced significant improvements in students' authentic assessment performance. Nevertheless, statistical significance alone does not fully explain how each dimension of conflict resolution competence developed following the instructional intervention. Therefore, a competency profile was constructed to provide a more comprehensive interpretation of students' achievement across the four authentic assessment dimensions. The competency profile synthesizes descriptive statistics and effect size analysis to illustrate the relative strengths of students' competencies after participating in learning activities using the developed teaching materials. This profile enables a clearer identification of the competency dimensions that benefited most from the intervention and provides an educational interpretation beyond statistical significance.

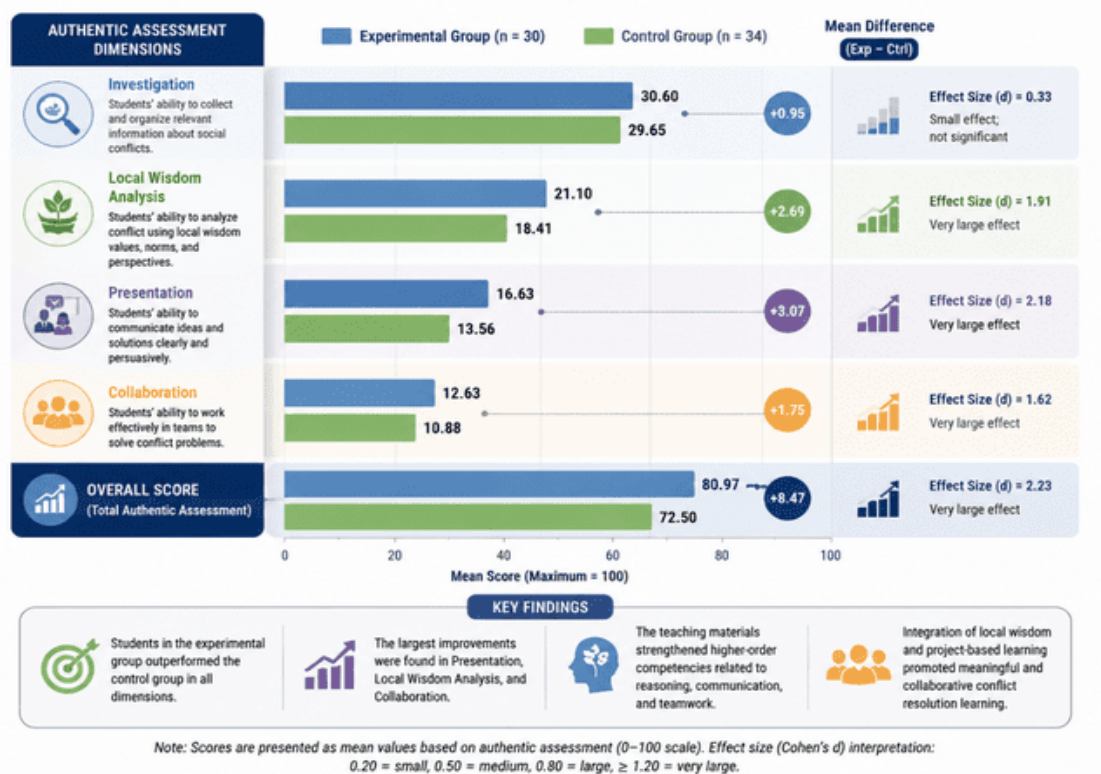


Figure 2. Profile of Students' Conflict Resolution Competencies

Figure 2 demonstrates that students in the experimental group consistently outperformed those in the control group across all dimensions of conflict resolution competence. The graphical comparison indicates that the largest performance gaps occurred in Presentation, Local Wisdom Analysis, and Collaboration, whereas the difference in Investigation was comparatively small. This pattern suggests that the developed teaching materials contributed more substantially to higher-order competencies involving contextual reasoning, communication, and collaborative problem solving than to basic investigative skills. To provide a more systematic interpretation of these findings, the competency profile is further summarized in Table 9 by integrating mean differences, effect sizes, and educational interpretations for each competency dimension.

Table 9. Interpretation of students' conflict resolution competency profile

Competency Dimension	Experimental Mean	Control Mean	Mean Difference	Effect Size (d)	Educational Interpretation
Investigation	30.60	29.65	+0.95	0.33	Comparable investigative competence
Local Wisdom Analysis	21.10	18.41	+2.69	1.91	Strong improvement in contextual reasoning
Presentation	16.63	13.56	+3.07	2.18	Strong improvement in academic communication
Collaboration	12.63	10.88	+1.75	1.62	Strong improvement in collaborative problem solving

Table 9 summarizes the magnitude and educational meaning of the improvements observed in each competency dimension. The largest improvement occurred in Presentation, followed by Local Wisdom Analysis and Collaboration, all of which demonstrated very large effect sizes. These findings indicate that the developed teaching materials were particularly successful in promoting students' communication skills, contextual reasoning, and collaborative problem-solving abilities. By contrast, the relatively small improvement in the Investigation

dimension suggests that both groups possessed comparable abilities in conducting initial information gathering. Consequently, the primary contribution of the developed teaching materials lies in strengthening students' ability to analyse, communicate, and collaboratively resolve social conflicts rather than merely collecting information about them.

DISCUSSION

The primary novelty of this study lies in repositioning local wisdom from its conventional role as contextual learning content to a pedagogical foundation for developing students' conflict resolution competencies in senior high school sociology. Unlike previous studies, which predominantly integrated local wisdom to strengthen cultural literacy, character education, or contextual understanding (Azahra et al., 2024; Burhan, 2026; Fitrianto & Farisi, 2025), the present study systematically incorporated authentic local conflict cases, project-based learning activities, collaborative inquiry, reflective learning, and authentic assessment into a unified instructional design. This integration enabled students to engage with real social conflicts through culturally meaningful learning experiences while simultaneously developing analytical reasoning, communication, and collaborative problem-solving competencies. Beyond producing an instructional product that is pedagogically sound, the study demonstrates how local wisdom can function as an instructional framework that guides the design, implementation, and assessment of conflict resolution learning. In this regard, the research extends the pedagogical role of local wisdom from a contextual resource to a comprehensive instructional approach for cultivating higher-order social competencies within culturally responsive sociology education.

The findings consistently demonstrate that the developed local wisdom-based conflict resolution teaching materials achieved the intended quality standards while effectively strengthening students' conflict resolution competencies. The product was confirmed to be valid in terms of content and instructional design, practical for classroom implementation, and effective in improving students' abilities to analyse conflicts through local wisdom, communicate their ideas, and collaborate in resolving authentic social issues. Notably, the intervention produced the greatest improvements in higher-order competencies related to contextual reasoning, academic communication, and collaborative problem-solving, whereas students' investigative abilities showed relatively limited improvement. These findings suggest that integrating local wisdom into project-based sociology learning not only supports students' conceptual understanding of social conflict but also promotes the development of practical competencies required to address conflict constructively in culturally diverse communities. Consequently, the study provides empirical evidence that culturally grounded teaching materials can facilitate more meaningful and competency-oriented sociology learning than conventional instructional approaches.

The findings of this study are generally consistent with a growing body of research demonstrating that integrating local wisdom into educational practice enhances students' higher-order competencies and promotes more meaningful learning experiences. Previous studies have shown that local wisdom-based learning contributes to the development of cultural awareness, critical thinking, communication, collaboration, and social responsibility by connecting academic content with learners' everyday experiences (Fitrianto & Farisi, 2025; Fathurrochman et al., 2026; Oktaviani et al., 2025; Rasidi et al., 2025). Similarly, studies on project-based learning and authentic assessment have reported that engaging students in authentic investigations and collaborative problem-solving activities strengthens communication skills, reflective thinking, and real-world problem-solving competencies (Konrad et al., 2020; Retnowati et al., 2020; Sokhanvar et al., 2021; Vlachopoulos & Makri, 2024). The present findings extend this evidence by demonstrating that these pedagogical approaches become more effective when they are systematically integrated within a local wisdom-based instructional framework specifically designed for conflict resolution learning. Rather than functioning as isolated instructional components, local wisdom, project-based learning, collaborative inquiry, and authentic assessment operated as mutually reinforcing elements that enabled students to interpret authentic social conflicts from culturally grounded perspectives

while collaboratively constructing appropriate solutions. Consequently, the present study not only corroborates previous evidence regarding the educational value of local wisdom but also demonstrates its broader pedagogical potential for developing conflict resolution competencies in sociology education.

The consistency between the present findings and previous studies may be attributed to the shared emphasis on contextual, student-centred, and collaborative learning experiences. When students engage with authentic social issues that are closely connected to their own cultural environment, they are more likely to construct meaningful understanding, negotiate different perspectives, and apply sociological concepts to real-life situations. Such learning conditions encourage deeper cognitive engagement than conventional textbook-oriented instruction because students actively interpret social phenomena rather than merely acquiring declarative knowledge. The integration of authentic local conflict cases, collaborative inquiry, and reflective discussion within the developed teaching materials therefore provided multiple opportunities for students to analyse, communicate, and negotiate conflict resolution strategies grounded in local wisdom. Nevertheless, the relatively limited improvement observed in the Investigation dimension suggests that basic investigative skills were likely developed through regular sociology instruction in both groups, resulting in comparable performance regardless of the instructional materials used. Unlike the other competency dimensions, investigation primarily involves identifying and gathering information, whereas local wisdom analysis, presentation, and collaboration require students to interpret evidence, justify arguments, negotiate alternative perspectives, and construct culturally appropriate solutions. Consequently, the developed teaching materials exerted a greater influence on higher-order competencies involving contextual reasoning, communication, and collaborative problem-solving than on foundational inquiry skills.

The present study offers several important contributions to the advancement of sociology education and culturally responsive pedagogy. Conceptually, the findings extend existing perspectives by demonstrating that local wisdom should not be viewed merely as contextual learning content but as a pedagogical foundation capable of shaping the design, implementation, and assessment of conflict resolution learning. This perspective broadens the educational role of local wisdom beyond cultural preservation toward the systematic development of higher-order social competencies. Pedagogically, the study provides an integrated instructional framework that combines authentic local conflict cases, project-based learning, collaborative inquiry, reflective learning, and authentic assessment into a coherent learning design. Rather than adopting these instructional elements independently, the developed teaching materials demonstrate how their systematic integration can create meaningful learning experiences that simultaneously strengthen contextual reasoning, communication, and collaborative problem-solving. Methodologically, the study contributes empirical evidence from a comprehensive development process encompassing product validation, practicality evaluation, and experimental effectiveness testing. By integrating product development with rigorous evaluation, the study provides a replicable model for developing culturally grounded instructional materials that may be adapted across different subjects and educational contexts. Collectively, these contributions help address the research gaps identified in previous studies and provide new directions for future instructional design research grounded in local cultural knowledge.

The findings of this study have important implications for educational practice, research, and curriculum development. From a practical perspective, the developed teaching materials provide sociology teachers with an evidence-based instructional resource for implementing culturally responsive and competency-oriented learning that connects classroom instruction with authentic social issues in students' local communities. Such an approach may support teachers in fostering not only students' conceptual understanding of social conflict but also their ability to analyse problems critically, communicate ideas effectively, and collaborate in constructing culturally appropriate conflict resolution strategies. Academically, the study reinforces the growing recognition that local wisdom can serve as a pedagogical framework for developing higher-order social competencies rather than functioning solely as contextual

learning content. These findings therefore encourage future research to explore culturally grounded instructional design across different subject areas, educational levels, and sociocultural settings. At the policy level, the study provides empirical support for integrating local wisdom into curriculum implementation and instructional material development as part of broader efforts to strengthen culturally responsive education and twenty-first-century competencies. Future studies are recommended to investigate the long-term sustainability of students' conflict resolution competencies, examine the implementation of similar instructional designs in diverse cultural contexts, and explore the potential integration of digital learning technologies to further expand the accessibility and educational impact of local wisdom-based learning.

CONCLUSION

This study developed and evaluated local wisdom-based conflict resolution teaching materials for senior high school sociology using the Four-D development model. The findings demonstrate that the developed materials met the expected standards of validity, practicality, and effectiveness while significantly improving students' conflict resolution competencies, particularly in local wisdom analysis, presentation, and collaborative problem-solving. These results indicate that integrating authentic local conflict cases, project-based learning, and authentic assessment within a culturally grounded instructional design provides meaningful learning experiences that extend beyond conceptual understanding toward the development of practical social competencies. Beyond producing a validated instructional product, this study demonstrates that local wisdom can serve as a pedagogical foundation for designing conflict resolution learning rather than functioning solely as contextual learning content. By systematically integrating cultural values into instructional design, learning activities, and assessment, the developed teaching materials contribute to a more culturally responsive and competency-oriented approach to sociology education. This perspective expands the educational role of local wisdom in fostering students' higher-order reasoning, communication, and collaborative decision-making within authentic social contexts. The findings provide practical guidance for sociology teachers seeking to implement culturally responsive learning while offering empirical support for curriculum developers and educational policymakers to strengthen the integration of local wisdom into instructional materials.

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REFERENCES

- Afriyadi, M. M., Widiati, U., Arifin, I., Ramli, M., & Maba, A. P. (2024). Piil Pesenggiri Local Wisdom as the Base of Character Education in Social Studies Learning at Metro City Elementary School, Lampung. *Al-Tadzkiyyah: Jurnal Pendidikan Islam*, 15(1), 55. <https://doi.org/10.24042/002024152241700>
- Ahmar, D. S., & Azzajjad, M. F. (2025). Empowering local wisdom for enhancing students' social skills in the global era. *Journal of Education, Social & Communication Studies*, 2(2), 112-127. <https://doi.org/10.71028/jescs.v2i2.120>
- Ahmed, G. W., Abdelrahman, S. M., & Ali, A. F. (2024). Effect of conflict resolution educational program on resilience at work among internship nursing students. *International Journal of Advance Research in Nursing*, 7(2), 335-347. <https://doi.org/10.33545/nursing.2024.v7.i2.E.434>

- Altaftazani, D. H., Sapriya, S., Maftuh, B., & Agustin, M. (2025). Objective Conditions of Social Studies Learning in Improving Students' Conflict Resolution Skills in Elementary Schools. *KnE Social Sciences*, 10(12), 90–98. <https://doi.org/10.18502/kss.v10i12.18865>
- Arbatli, C. E., Ashraf, Q. H., Galor, O., & Klemp, M. (2020). Diversity and Conflict. *Econometrica*, 88(2), 727–797. <https://doi.org/10.3982/ECTA13734>
- Azahra, Z., Harahap, A. L., Azizah, N., Hasibuan, F. I., Amelia, A., & Yusnaldi, E. (2024). Utilization of Local Wisdom as a Source of Social Studies Learning to Instill Cultural Values and Tolerance in SD/MI. *Holistic Science*, 4(3), 428–432. <https://doi.org/10.56495/hs.v4i3.770>
- Azis, I. (2025). The Dynamics of Social Conflict and Multicultural Dialogue in the Era of Globalization. *International Journal of Social Research*, 3(3), 134–142. <https://doi.org/10.59888/insight.v3i3.65>
- Bosio, E. T. (2024). *Ethical Global Citizenship Education*. Cambridge University Press. <https://doi.org/10.1017/9781009326742>
- Buckley, J., Adams, L., Aribilola, I., Arshad, I., Azeem, M., Bracken, L., Breheny, C., Buckley, C., Chimello, I., Fagan, A., Fitzpatrick, D. P., Garza Herrera, D., Gomes, G. D., Grassick, S., Halligan, E., Hirway, A., Hyland, T., Imtiaz, M. B., Khan, M. B., ... Zhang, L. (2022). An assessment of the transparency of contemporary technology education research employing interview-based methodologies. *International Journal of Technology and Design Education*, 32(4), 1963–1982. <https://doi.org/10.1007/s10798-021-09695-1>
- Burhan, I. (2026). Local Wisdom Based Social Studies Learning for Strengthening Character Education in Elementary School Students. *Jurnal Riset Multidisiplin Dan Inovasi Teknologi*, 4(02), 251–257. <https://doi.org/10.59653/jimat.v4i02.2390>
- Choi, H.-G., & Ahn, S. H. (2021). Effects of a conflict resolution training program on nursing students: A quasi-experimental study based on the situated learning theory. *Nurse Education Today*, 103, 104951. <https://doi.org/10.1016/j.nedt.2021.104951>
- Castillo, A. I. C., Blanco Carrasco, M., & Morales Cabrices, A. M. (2025). Situated and Critical Learning for Mediation and a Culture of Peace in Higher Education: An Innovative experience in the Cañada Real Galiana (Madrid, Spain). *Alternativas. Cuadernos de Trabajo Social*, 32(2), 427–454. <https://doi.org/10.14198/ALTERN.26485>
- Sahni, A. D., & Jena, P. C. (2024). Cross-Cultural Literary Dialogues for Global Citizenship: Advancing SDG 4 and SDG 17 through School-based International Partnerships. *Educational Administration: Theory and Practice*. <https://doi.org/10.53555/kuvey.v30i11.10533>
- El Massoudi, N. (2021). Global Citizenship Education (GCED) in The Digital Era: The Unexpected Tool for Peacebuilding. How 21st Century Fluencies Can Shape Sustainable Global Peace? *PCRConference Proceedings 2021*, 45–61. <https://doi.org/10.52987/pcrc.2021.006>
- Eliasa, E. I., Ilfiandra, Suwarjo, Sahril Buchori, Nadia Aulia Nadhirah, Halqim, A., Fayruziah Ifroch Sabtana, & Sarah Salsabila. (2026). Integrating Conflict Resolution into Learning: Teachers as Agents of Peace Education in Vocational School. *Edu Consilium: Jurnal Bimbingan Dan Konseling Pendidikan Islam*, 7(1), 37–50. <https://doi.org/10.19105/ec.v7i1.21966>
- Fathurrochman, I., Asnawan, Monita, D., & Hasan, Moh. F. (2026). Integration of local wisdom in elementary school local content curriculum: A study in rural areas of Indonesia. *The Curriculum Journal*, 37(3), 696–724. <https://doi.org/10.1002/curj.70029>
- Fitrianto, I., & Farisi, M. (2025). Integrating Local Wisdom into 21st Century Skills: A Contextual Framework for Culturally Relevant Pedagogy in Rural Classrooms. *International Journal of Post Axial: Futuristic Teaching and Learning*, 109–121. <https://doi.org/10.59944/postaxial.v3i2.444>
- Hasbi, Muh., Komariah, S., & Wilodati, W. (2023). Strategi Pengembangan Kemampuan Resolusi Konflik Melalui Pembelajaran Sosiologi bagi Peserta Didik Sekolah Menengah Atas. *Jurnal Paedagogy*, 10(3), 861. <https://doi.org/10.33394/jp.v10i3.7536>

- Isufaj, M. (2025). Education, State Ideologies, and International Conflict: A Sociological Framework for Peacebuilding and Social Cohesion. *European Journal of Social Science Education and Research*, 12(4), 80–95. <https://doi.org/10.26417/xt8fxt85>
- Judijanto, L. (2025). A New Paradigm of Socio-Cultural Communication: A Review of Adaptation, Meaning Negotiation, and Identity Strengthening in the Global and Digital Era. *Multitech Journal of Science and Technology*, 2(9), 645–666. <https://doi.org/10.59890/mjst.v2i9.64>
- Junaidin, J. (2025). Problem Based Learning Strategy Based on Local Wisdom in PAI Learning in Bima. *FiTUA: Jurnal Studi Islam*, 6(1), 115–126. <https://doi.org/10.47625/fitua.v6i1.1080>
- Karpenko, O., Liakh, T., & Spirina, T. (2024). Features of bullying prevention and conflict resolution among education seekers. *Social Pedagogy: Theory and Practice*, (3), 36–43. <https://doi.org/10.12958/1817-3764-2024-3-36-43>
- Kemala, V. D., Nadziroh, N., & Pratiwi, V. D. (2025). Peace Education and Citizenship Education in Indonesia. *Jurnal Citizenship: Media Publikasi Pendidikan Pancasila Dan Kewarganegaraan*, 8(2), 1–7. <https://doi.org/10.12928/citizenship.v8i2.1392>
- Konrad, T., Wiek, A., & Barth, M. (2020). Embracing conflicts for interpersonal competence development in project-based sustainability courses. *International Journal of Sustainability in Higher Education*, 21(1), 76–96. <https://doi.org/10.1108/IJSHE-06-2019-0190>
- Ludvik, M. B., Wills-Jackson, C., Eberhart, T. L., Mulholland, S., Bhansali, S., Nolan-Arañez, S., & Henline, J. (2023). Exploring the potential of mindful compassion pedagogies for effective global citizenship education and education for sustainable development. *International Review of Education*, 69(3), 275–297. <https://doi.org/10.1007/s11159-023-10009-x>
- Mallick, L., & Thakurta, A. G. (2024). Exploring conflict resolution skills and the imperative for educational programs in fostering peaceful coexistence of mankind. *International Journal of Advanced Academic Studies*, 6(2), 20–25. <https://doi.org/10.33545/27068919.2024.v6.i2a.1111>
- Rosely, M. S., Tuarissa, Y., & R. Jamadi, H. (2025). The Application of the Problem-Based Learning Cooperative Model to Improve Sociology Learning Outcomes on the Concept of Social Conflict. *International Journal of Education and Literature*, 4(3), 62–72. <https://doi.org/10.55606/ijel.v4i3.268>
- Muhammad Tahir, Farhan Hemawan, & Ventje Jany Kalukar. (2025). Innovative Contextual Learning Model Based on Bugis Local Wisdom to Enhance Cultural Literacy of Junior High School Students. *Jurnal Ar Ro'is Mandalika (Armada)*, 5(1), 297–308. <https://doi.org/10.59613/armada.v5i1.5373>
- Mutiara, Y., Juliana, A., Wulandari, R., Ambarwati, F., & Rahmawati, S. (2025). Integration of Local Wisdom Values in Early Childhood Collaborative Learning Strategies: A Study on Culture-Based Early Childhood Education. *BUHUTS AL ATHFAL: Jurnal Pendidikan Dan Anak Usia Dini*, 5(1), 52–62. <https://doi.org/10.24952/alathfal.v5i1.15415>
- Nurhadianto. (2024). The Learning Implementation Of Civic Education Based On Local Wisdom In Growing Social Awareness For High School Students. *International Conference on Applied Social Sciences in Education*, 1(1), 677–682. <https://doi.org/10.31316/icasse.v1i1.6880>
- Oktaviani, A., Melvina, H. I., Kusnita, D., Jamilah, & Abdullah, M. S. (2025). Local Wisdom in Developing Communication and Collaboration Skills of Elementary School Students in the 21st Century: A Systematic Literature Review. *International Journal Education and Computer Studies (IJECS)*, 5(2), 74–86. <https://doi.org/10.35870/ijecs.v5i2.4324>
- Perdana, D. R., Izzatika, A., Hariyanto, H., Apriliyani, R., & Nurwahidin, M. (2024). Project Based Learning Based Teaching Material Design with Local Wisdom Characteristics to Train Creative Thinking Skills in the Era of Society 5.0. *Inspirasi : Jurnal Pendidikan Dan Kebudayaan*, 1(1), 53–63. <https://doi.org/10.69836/inspirasi-jpk.v1i1.56>
- Rasidi, R., Istiningih, G., Masithoh, R. F., & Rosyidi, M. I. (2025). Education Based on Local Wisdom: An Alternative Model for the Integration of Cultural Values in The School Curriculum In Indonesia. *International Journal of Contemporary Studies in Education (IJ-CSE)*, 4(2), 114–135. <https://doi.org/10.56855/ijcse.v4i2.1521>

- Retnowati, R., Istiana, R., & Nadiroh, N. (2020). Developing Project-Based Learning Related to Local Wisdom in Improving Students' Problem-Solving Skills. *JETL (Journal of Education, Teaching and Learning)*, 5(1), 137. <https://doi.org/10.26737/jetl.v5i1.1035>
- Richey, R. C., & Klein, J. D. (2014). Design and Development Research. In *Handbook of Research on Educational Communications and Technology* (pp. 141–150). Springer New York. https://doi.org/10.1007/978-1-4614-3185-5_12
- Rosmayanti, V., Sukmawati, S., Mohamed, S., Sujarwo, S., & Amin, S. (2024). Fostering Self-Directed Learning through Local Wisdom Project-Based Learning. *Journal of Language Learning and Assessment*, 52–72. <https://doi.org/10.71194/jlla.v2i2.115>
- Sakti, S. A., Endraswara, S., & Rohman, A. (2024). Revitalizing local wisdom within character education through ethnopedagogy approach: A case study on a preschool in Yogyakarta. *Heliyon*, 10(10), e31370. <https://doi.org/10.1016/j.heliyon.2024.e31370>
- Sanjaya, D. B., Suartama, I. K., Suastika, I. N., & Sukadi, S. (2022). The Effect of the Conflict Resolution Learning Model and Portfolio Assessment on the Students' Learning Outcomes of Civic Education. *International Journal of Instruction*, 15(1), 473–488. <https://doi.org/10.29333/iji.2022.15127a>
- Shilina, S., Yepremyan, T., Lemza, A., & Chavgun, D. (2026). Sociological Methods Of Studying Conflicts In The Student Environment As A Component Of The Regional Social Sphere. *Economics. Sociology. Law.*, 05(01), 95–107. <https://doi.org/10.22281/2542-1697-2026-05-01-95-107>
- Shufa, N. K. F., & Tito Pangesti Adji. (2024). Integrating Local Wisdom in Independent Learning: Urgency and Innovative Strategies. *PrimaryEdu : Journal of Primary Education*, 8(2), 22–39. <https://doi.org/10.22460/pej.v8i2.4937>
- Siregar, I., & Pramudita, P. (2025). Conflict in the Perspective of Multicultural Education. *Jurnal Pendidikan Sosiologi Dan Humaniora*, 16(1), 58–68. <https://doi.org/10.26418/j-psh.v16i1.89438>
- Sivrikova, N. V., Chernikova, E. G., Ptashko, T. G., & Kharlanova, E. M. (2020). Self-assessment of conflict resolution competencies by undergraduate students pursuing an education degree. *Science for Education Today*, 10(5), 67–83. <https://doi.org/10.15293/2658-6762.2005.04>
- Sokhanvar, Z., Salehi, K., & Sokhanvar, F. (2021). Advantages of authentic assessment for improving the learning experience and employability skills of higher education students: A systematic literature review. *Studies in Educational Evaluation*, 70, 101030. <https://doi.org/10.1016/j.stueduc.2021.101030>
- Thiagarajan, S. (1974). *Instructional Development for Training Teachers of Exceptional Children: A Sourcebook*. Leadership Training Institute/Special Education.
- Tuhuteru, L., Budianingsih, Y., Santika, I. G. N., Kartika, I. M., Sujana, I. G., & Esto Bula Wiri Memang. (2023). Conflict Resolution Learning Model As A Strategic Effort in Building Peace Amidst Indonesia's Diversity. *Widya Accarya*, 14(1), 66–72. <https://doi.org/10.46650/wa.14.1.1404.66-72>
- Vlachopoulos, D., & Makri, A. (2024). A systematic literature review on authentic assessment in higher education: Best practices for the development of 21st century skills, and policy considerations. *Studies in Educational Evaluation*, 83, 101425. <https://doi.org/10.1016/j.stueduc.2024.101425>
- Widyawardana, A., Tanjung, A., & Bachri, S. (2021). The Innovation of Teaching Materials Based on Local Wisdom for Disaster Mitigation Subject. *GeoEco*, 7(1), 23. <https://doi.org/10.20961/ge.v7i1.42121>
- Zaki, A., Mulbar, U., Husniati, A., & Naufal, M. A. (2024). Integrating Local Wisdom with Project-Based Learning to Enhance 21st-Century Skills in the Society 5.0 Era. *Journal of Ecohumanism*, 3(7), 1821–1831. <https://doi.org/10.62754/joe.v3i7.4341>