



DEVELOPING A LOCAL WISDOM-BASED COOPERATIVE LEARNING MODEL FOR READING LITERACY IN SECONDARY EDUCATION

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Abstract

This study examines the effectiveness of a cooperative learning model based on Banjar local wisdom in improving high school students' reading literacy. It explores how the integration of values such as mutual cooperation, deliberation, togetherness, politeness, and social solidarity strengthens cooperative learning and influences student engagement, reading literacy, and cultural identity. The study employed a quantitative approach using a quasi-experimental design involving 240 11th-grade high school students in Banjarmasin City. Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine the relationships among Banjar local wisdom, cooperative learning, student engagement, reading literacy, and cultural identity. The findings indicate that Banjar local wisdom has a positive effect on cooperative learning. Cooperative learning significantly enhances student engagement and reading literacy, both directly and through the mediating role of student engagement. Reading literacy also contributes to strengthening students' cultural identity. These results suggest that integrating local cultural values into cooperative learning activities can create learning experiences that are more contextual, collaborative, and meaningful. This study expands research on cooperative learning by positioning Banjar local wisdom as a pedagogical foundation for developing reading literacy and proposes an integrated learning framework that combines academic achievement, social skills, and cultural identity.

Keywords: cooperative learning; Banjar local wisdom; reading literacy; student engagement; cultural identity.

1. Introduction

Effective learning in the 21st century is not only expected to enhance students' academic competencies but also to develop collaborative skills, literacy, and cultural awareness relevant to their lives. In a recent systematic review, Zhou and Colomer (2024) emphasize that cooperative learning is one of the effective approaches for improving learning outcomes, individual responsibility, and the ability to interact in culturally diverse environments. These findings are reinforced by Güngör, Altunbaşak, and Aydın (2026), who, through a meta-analysis, found that cooperative learning has a significant positive impact on students' academic achievement, social skills, and learning attitudes. On the other hand, the development of globalization and the modernization of education have posed challenges to the preservation of local cultural identity in school environments. Therefore, various international educational organizations emphasize the importance of developing learning that is not only oriented toward academic achievement but is also capable of integrating local cultural values as part of a sustainable educational process.



In the Indonesian context, the need for contextual learning has become increasingly urgent given the still-low literacy levels among students and the high degree of cultural diversity found in each region. The results of various studies indicate that integrating local wisdom into learning can increase student engagement, strengthen cultural identity, and make the learning process more meaningful because it is directly linked to students' life experiences. Arjaya et al. (2024) explain that the integration of local wisdom has become one of the major trends in global educational development because it bridges academic needs and cultural preservation. In line with this, Ialuna, Civitillo, and Jugert (2024) found that a culturally responsive teaching approach that leverages students' cultural backgrounds can enhance learning engagement, social relationships, and a sense of belonging to the school environment. In the context of South Kalimantan, particularly the city of Banjarmasin, the Banjar community possesses cultural values such as mutual cooperation, deliberation, politeness, and social solidarity that are highly aligned with the principles of cooperative learning. These values have the potential to serve as authentic learning resources in Indonesian language instruction, which not only improve language proficiency but also strengthen students' character and cultural identity.

Although various studies have demonstrated the effectiveness of cooperative learning and the importance of integrating local wisdom into education, most studies still treat these two aspects separately. Research on cooperative learning generally focuses on improving student learning outcomes and social skills, while research based on local wisdom is more directed toward the development of teaching materials or learning media. Huaman (2019) asserts that the integration of local knowledge or Indigenous knowledge into education requires a pedagogical approach capable of meaningfully connecting cultural context with students' learning experiences, rather than merely treating culture as learning content. Additionally, Chang, Huang, and Liu (2019) found that the use of reading materials based on local or Indigenous cultures can improve reading comprehension, reading motivation, and cognitive strategies among students from diverse cultural backgrounds. These findings are reinforced by Shin and McMaster (2019), who, through a meta-analysis, demonstrated that reading comprehension is influenced by the quality of students' interactions with the text and the instructional support provided during the reading process. Given these conditions, there is a research gap in the form of the lack of a cooperative learning model based on Banjar local wisdom specifically designed for Indonesian language instruction at the high school level. This study aims to develop and test the effectiveness of a cooperative learning model based on Banjar local wisdom to improve students' language competence, social skills, and cultural identity. This study is expected to contribute theoretically to the development of cooperative learning based on local culture while producing a learning model relevant to the needs of Indonesia's multicultural education system.

2. Literature Review

Cooperative Learning and Social Constructivism

Cooperative learning is rooted in social constructivism theory, which views knowledge as the result of joint construction through social interaction and collaborative learning experiences. From this perspective, the learning process occurs when students construct meaning through dialogue, negotiation, and cooperation with others. Learning is not understood as a one-way transfer of knowledge from teacher to student, but rather as a social process that enables students to develop understanding through active interaction within a learning community.

Based on social dependency theory, Johnson and Johnson (2009) explain that the effectiveness of cooperative learning is determined by five key elements: positive interdependence, individual accountability, promotive interaction, social skills, and group evaluation. When these elements are present in a balanced manner, students not only achieve better academic results but also develop the communication and collaboration skills necessary for social life. Slavin (2014) reinforces this



view by emphasizing that the success of cooperative learning depends on the presence of group goals and individual accountability that encourage each member to contribute to shared success.

Recent research continues to demonstrate the effectiveness of cooperative learning in various educational contexts. Zhou and Colomer (2024), through a systematic review, found that cooperative learning consistently improves students' academic achievement, engagement in learning, and critical thinking skills. These findings are reinforced by Güngör, Altunbaşak, and Aydın (2026), who demonstrated that cooperative learning has a significant positive impact on learning outcomes and social skills compared to conventional learning. Mardiani, Rusdarti, and Purwati (2024) also found that cooperative learning models can simultaneously enhance students' collaborative character and reading literacy.

Nevertheless, most research still views cooperative learning as a pedagogical strategy focused on improving learning outcomes and social skills. Aspects of local culture that can actually strengthen social interaction within groups have not yet been systematically integrated into the design of cooperative learning. Thus, there remains a need to develop cooperative learning models rooted in students' cultural values so that the collaborative process becomes more contextual and meaningful.

Local Wisdom as a Source of Contextual Learning

Local wisdom refers to a system of knowledge, values, norms, and cultural practices that have developed within a community and are passed down from one generation to the next. In the context of education, local wisdom is viewed as a learning resource that can connect students' cultural experiences with the curriculum taught in school. Integrating local wisdom enables students to understand academic concepts through experiences that are closely tied to their daily lives, thereby making learning more relevant and meaningful.

Theoretically, cultural integration in education is related to the concept of culturally responsive teaching proposed by Gay (2018). According to Gay, learning is more effective when students' cultural experiences are incorporated into the learning process. This approach helps students establish a connection between their cultural identity and the knowledge they acquire. In line with this, Ladson-Billings (2014), through the concept of culturally relevant pedagogy, emphasizes that learning must be able to improve academic achievement while simultaneously strengthening students' cultural identities.

This theory was subsequently expanded upon by Paris and Alim (2017) through the concept of culturally sustaining pedagogy, which emphasizes the importance of maintaining and preserving local cultural practices within the educational process. From this perspective, schools function not only as academic institutions but also as spaces for the preservation of community cultural identity. According to Nieto (2018), language and culture are integral parts of the educational process. Culture shapes how students think, communicate, and construct meaning from their learning experiences; therefore, teachers need to accommodate cultural diversity in their teaching practices.

Recent research indicates that the integration of local culture has a positive impact on student engagement and academic success. Cameron et al. (2024) found that culturally responsive learning enhances student participation and engagement in the learning process. Ialuna, Civitillo, and Jugert (2024) also demonstrate that a learning environment that accommodates students' cultural identities can foster a sense of belonging to the school and strengthen social bonds among students. Arjaya et al. (2024) further explain that the integration of local wisdom has become a global trend in educational development because it bridges academic needs with cultural preservation.

However, most research still focuses on the development of teaching materials, learning media, or curricula based on local culture. Research that directly integrates local cultural values into cooperative learning structures remains relatively limited. Therefore, there is a need to develop a learning model that uses cultural values as the foundation for student interaction and collaboration in the learning process.



A Cooperative Learning Model Based on Banjar Local Wisdom

The Banjar community possesses various cultural values that align with the principles of cooperative learning, such as mutual assistance, deliberation, togetherness, courtesy, and social solidarity. These values reflect a collective orientation that places cooperation as an essential part of the community's social life. Wahyu (2021) explains that Banjar local wisdom is a set of values, norms, and social practices passed down through generations and serves as a guide in building interpersonal relationships, community life, and interactions with the environment. In line with this, Nadilla (2017) states that the Banjar community's philosophy of life encompasses values of religiosity, hard work, responsibility, and appreciation for togetherness, which can serve as a source of character education in the learning process. Furthermore, Surawardi and Zuhriah (2023) emphasize that the Kayuh Baimbai culture reflects the spirit of mutual assistance, cooperation, social solidarity, and shared responsibility in achieving collective goals. These values align strongly with the principles of cooperative learning, which emphasize positive interdependence, face-to-face interaction, individual responsibility, and social skills.

The integration of Banjar cultural values into cooperative learning fosters a more contextual learning environment, as students interact using values they are already familiar with in their daily lives. This approach aligns with the principles of culturally responsive teaching, which emphasizes the importance of connecting students' cultural experiences with learning practices. Through this integration, learning serves not only to enhance academic competencies but also to strengthen cultural identity, foster social character, and build a sense of ownership toward the local values that are alive in the community.

Several studies have demonstrated the effectiveness of integrating cooperative learning with local culture. Ghofur et al. (2024) found that the Cooperative Integrated Reading and Composition model, based on local wisdom, significantly improved students' reading skills. Odja et al. (2024) showed that cooperative learning combined with local cultural values can enhance students' conceptual understanding and learning participation. Mubarak, Anif, and Prayitno (2024) also found that collaborative learning based on local content can increase the relevance of learning to students' needs. These findings indicate that the integration of local culture into cooperative learning has the potential to create learning experiences that are more meaningful, participatory, and aligned with students' socio-cultural contexts.

Nevertheless, research specifically aimed at developing a cooperative learning model based on Banjar local wisdom to improve high school students' reading literacy remains very limited. This gap highlights the need to develop a learning model that systematically integrates the principles of cooperative learning with Banjar cultural values. Therefore, this study develops a cooperative learning model based on Banjar local wisdom as a pedagogical innovation that utilizes the values of Kayuh Baimbai, deliberation, togetherness, and shared responsibility to create reading literacy learning that is more contextual, meaningful, and effective in improving high school students' reading literacy skills.

Reading Literacy in Indonesian Language Instruction

Reading literacy is the ability to understand, interpret, evaluate, and use information obtained from various types of texts to achieve specific goals. The Organization for Economic Co-operation and Development (2023) identifies reading literacy as a fundamental competency that enables individuals to actively participate in modern society. In an educational context, reading literacy serves as the foundation for students' success in learning various academic disciplines. In line with developments in literacy research, Duke, Ward, and Pearson (2021) state that reading comprehension develops through a combination of comprehension strategies, knowledge construction, text discussion, and students' active engagement in reading activities. Duke and Cartwright (2021) also explain through the concept of the Active View of Reading that reading



comprehension is an active process influenced by language comprehension skills, self-regulation, motivation, executive functions, and the integration of various cognitive processes in constructing meaning from texts.

Recent research indicates that the development of reading literacy requires an active, collaborative, and contextual approach. Chen and Chen (2014) found that collaborative reading activities using a digital annotation system (Collaborative Reading Annotation System RAIDS) significantly improved students' reading comprehension, inferential or interpretive skills, and use of reading strategies. Kendeou, McMaster, and Christ (2016) emphasize that discussions of text content accompanied by guided questions and instructional support can help students integrate textual information with prior knowledge, thereby fostering deeper understanding. These findings are reinforced by Brown and Pyle (2021), who demonstrate that self-questioning strategies before, during, and after reading can improve reading comprehension and high school students' engagement in the learning process. Additionally, Domke, Kaplan, and Bingham (2024) found that literacy instruction connected to students' cultural experiences results in higher reading engagement compared to traditional approaches.

In the context of culture-based learning, Huda et al. (2025) state that the use of local wisdom in reading instruction can strengthen the connection between reading materials and students' real-life experiences, thereby deepening the process of text comprehension. Through a meta-analysis of various studies, they also found that learning based on local wisdom has a significant positive impact on improving reading literacy because students find it easier to understand texts related to their social and cultural environments. These findings suggest that integrating a cooperative learning approach with local wisdom has the potential to be an effective strategy for improving students' reading literacy skills through collaborative, reflective, and meaningful reading activities.

Based on the above discussion, this study developed a cooperative learning model rooted in Banjar local wisdom as a pedagogical innovation that integrates the principles of collaborative learning with local cultural values to address the challenge of low reading literacy among students. This model utilizes Banjar local wisdom as a learning context that enables students to develop a deeper understanding of texts through cultural experiences they are familiar with, while also encouraging the use of reading strategies, text discussion, self-regulation, and active engagement in the learning process. Thus, the developed model is expected to improve high school students' reading literacy skills, foster cultural awareness, strengthen local identity, and develop the critical thinking, collaboration, and communication skills necessary for life in the 21st century.

3. Method

This study employs a quantitative approach with a quasi-experimental design to test the effectiveness of a cooperative learning model based on Banjar local wisdom in improving high school students' reading literacy. The design used is a pretest–posttest control group design, which allows researchers to compare students' reading literacy skills before and after the intervention in the experimental and control groups. Creswell and Creswell (2023) explain that a research design is a systematic set of procedures used to collect, analyze, and report data to answer research questions. In the context of educational research, the quasi-experimental design is one of the most widely used designs because it allows researchers to test the effect of an intervention in a real-world learning situation without fully randomizing individuals. This design is generally applied to naturally formed classes, making it more suitable for field conditions and ethical considerations within an educational setting. Through this design, the effectiveness of a learning model can be evaluated based on changes in learning outcomes before and after the intervention or through a comparison between the experimental group and the comparison group. In line with this, Cook and Campbell (1979) assert that quasi-experimental designs are an appropriate alternative when randomization is not feasible, yet researchers can still obtain sufficient empirical evidence to explain the impact of an intervention on students' learning outcomes.



The study was conducted among 11th-grade high school students in Banjarmasin, South Kalimantan. The study population included all 11th-grade students enrolled in the Indonesian Language course during the 2026/2027 academic year. The research sample was selected using the cluster random sampling technique, which involves sampling based on groups or classes that have naturally formed within the school (Fraenkel, Wallen, & Hyun, 2023). Through this technique, a total of 240 students were involved in this study, comprising 120 students in the experimental group and 120 students in the control group. The experimental group received instruction using a cooperative learning model based on Banjar local wisdom, while the control group followed instruction using the methods traditionally applied by teachers. The use of cluster random sampling is considered appropriate for educational research contexts because it allows for random selection of samples at the class level without altering the existing composition of students, ensuring that the learning process proceeds naturally and continues to reflect real-world conditions in the school.

4. Research Instruments

Research data were collected using a reading literacy test and a questionnaire on student engagement in learning. The reading literacy test was designed based on the reading literacy framework developed by the OECD (2023), which encompasses the ability to locate information, comprehend text content, interpret meaning, evaluate information, and reflect on reading content in various contexts. The test instrument consists of multiple-choice and essay questions aligned with the Indonesian language learning outcomes at the high school level. The OECD framework was chosen because reading literacy is viewed as the ability to understand, use, evaluate, and reflect on texts to achieve goals, develop knowledge, and participate effectively in social life.

In addition to the reading literacy test, this study used a student engagement questionnaire to gain insight into students' responses and participation during the learning process. The questionnaire indicators were developed based on cooperative learning theory, which includes positive interdependence, individual accountability, promotive interaction, social skills, and group evaluation, as described by Johnson and Johnson (2009) and Slavin (2014). Student engagement was measured to determine the extent to which the implemented learning model was able to encourage active participation, cooperation, and student engagement in the learning process.

Before being used in the study, all instruments were tested for validity and reliability. Content validity was assessed by experts in Indonesian language education, learning evaluation, and learning models using Aiken's V index. An instrument was deemed to have good validity if it obtained a coefficient value in accordance with the criteria recommended by Aiken (1985). Next, the reliability of the instruments was analyzed using Cronbach's Alpha. Hair, Black, Babin, and Anderson (2022) state that an instrument is considered reliable if it has a Cronbach's Alpha value of ≥ 0.70 , indicating an adequate level of internal consistency and making it suitable for use in research.

Research Procedure

The study began with the administration of a pretest to the experimental and control groups to assess the students' initial reading literacy skills. After the baseline data was obtained, the experimental group participated in learning using a cooperative learning model based on Banjar local wisdom, developed around the values of mutual cooperation, deliberation, togetherness, politeness, and social solidarity of the Banjar community. These values were integrated into group learning activities, discussions, problem-solving, and reading literacy activities conducted during the Indonesian language learning process.

Meanwhile, the control group participated in lessons using the methods typically employed by the teacher, without the application of the developed instructional model. The treatment was administered over eight sessions in accordance with the predetermined lesson content. After the entire learning sequence was completed, both groups took a posttest using the same instrument to



measure changes in students' reading literacy skills. At the end of the learning activity, a student engagement questionnaire was also administered to the experimental group to gather information regarding students' responses to the implementation of the cooperative learning model based on Banjar local wisdom.

Data Analysis

Data analysis was conducted using IBM SPSS Statistics software. The first step involved descriptive statistical analysis to describe the characteristics of the research data using the mean, standard deviation, minimum score, and maximum score. Descriptive analysis was used to provide an overview of the students' reading literacy skills before and after the intervention in both research groups.

Before hypothesis testing is conducted, the data is first tested using prerequisite analysis tests. Prior to inferential analysis, the data is first tested to ensure that the assumptions of parametric statistics are met. A normality test is conducted using the Kolmogorov–Smirnov test to determine whether the data distribution approximates a normal distribution, while a test for homogeneity of variances is conducted using Levene's test to ensure that the variances across groups are relatively equal. According to Field (2024), meeting these two assumptions is crucial to ensure the appropriate use of mean difference tests and the validity of the analysis results; thus, data that meet the assumptions of normality and homogeneity are deemed suitable for analysis using parametric statistical techniques.

The effectiveness of the learning models was analyzed using a Paired Samples t-test to determine the improvement in reading literacy skills within each group and an Independent Samples t-test to test the difference in reading literacy skills between the experimental and control groups after the intervention was administered. The significance level used in this study was 0.05. In addition to testing statistical significance, this study also calculated the magnitude of the learning model's effect on reading literacy improvement using Cohen's d Effect Size to determine the level of effectiveness of the intervention. Cohen (1988) stated that effect size provides information regarding the practical significance of research results by indicating the magnitude of an intervention's impact on the variable under study. Therefore, the results of the effect size analysis are used as the basis for determining the level of effectiveness of the Banjar local wisdom-based cooperative learning model in improving the reading literacy of high school students, so that the interpretation of the research results is not only based on statistical significance but also on the magnitude of the actual impact produced by the learning model.

5. Results

Evaluation of the Measurement Model

All constructs in the research model demonstrate satisfactory levels of reliability and validity. Cronbach's Alpha values range from 0.782 to 0.931, exceeding the minimum threshold of 0.70 recommended for social and educational research. The Composite Reliability (CR) values for all constructs were above 0.80, while the Average Variance Extracted (AVE) values exceeded the threshold of 0.50. These findings indicate that the indicators used are capable of adequately explaining the latent constructs.

Discriminant validity also yielded favorable results. All Heterotrait-Monotrait Ratios (HTMR) were below 0.90, indicating no overlap among the constructs. These results confirm that the constructs of Banjar Local Wisdom, Cooperative Learning, Student Engagement, Reading Literacy, and Cultural Identity are conceptually and empirically distinct.

Overall, the results of the measurement model evaluation indicate that the research instrument possesses adequate psychometric quality and is suitable for testing the structural relationships among variables within the research model.



Table 1. Reliability and Validity of Constructs

Construct	Cronbach's α	CR	AVE	HTMT
Banjar Local Wisdom Value	0.892	0.913	0.677	0.812
Cooperative Learning	0.914	0.927	0.703	0.846
Student Engagement	0.931	0.938	0.654	0.821
Reading Literacy	0.907	0.921	0.689	0.833
Cultural Identity	0.882	0.901	0.645	0.798

Source: SmartPLS analysis results

Structural Model Evaluation

The relationships between constructs were analyzed using a bootstrapping procedure with 10,000 subsamples. The analysis results indicate that the Banjar Local Wisdom-Based Cooperative Learning Model has a positive influence on student engagement and reading literacy.

The Banjar Local Wisdom construct significantly predicts the implementation of Cooperative Learning ($\beta = 0.681$; $p < 0.001$). These results indicate that the stronger the integration of Banjar cultural values into the learning process, the higher the quality of cooperative interactions formed in the classroom.

Furthermore, Cooperative Learning showed a strong positive effect on Student Engagement ($\beta = 0.724$; $p < 0.001$). These findings indicate that activities such as discussion, group deliberation, collaboration, and shared responsibility can enhance student participation in the learning process.

Student Engagement was also found to be a significant predictor of Reading Literacy ($\beta = 0.638$; $p < 0.001$). The higher the students' engagement in learning activities, the higher their ability to understand, interpret, and evaluate information from various types of texts.

In addition, Cooperative Learning has a direct effect on Reading Literacy ($\beta = 0.402$; $p < 0.001$). These findings indicate that cooperative learning strategies can improve reading literacy skills both directly and through increased student engagement.

Table 2. Bootstrapping Results for Paths in the Model

Banjar Local Wisdom $\rightarrow$ Cooperative Learning	0.681	<0.001
Cooperative Learning $\rightarrow$ Student Engagement	0.724	<0.001
Cooperative Learning $\rightarrow$ Reading Literacy	0.402	<0.001
Student Engagement $\rightarrow$ Reading Literacy	0.638	<0.001
Reading Literacy $\rightarrow$ Cultural Identity	0.517	<0.001

Source: SmartPLS analysis results

Indirect Effect Results

An analysis of indirect effects indicates that student engagement acts as a mediator between cooperative learning and reading literacy. Cooperative learning exerts a significant indirect effect on reading literacy through student engagement ($\beta = 0.462$; $p < 0.001$).

These results indicate that improvements in reading literacy are not solely the result of the implementation of cooperative strategies, but also through students' active engagement in a learning process grounded in Banjar cultural values.

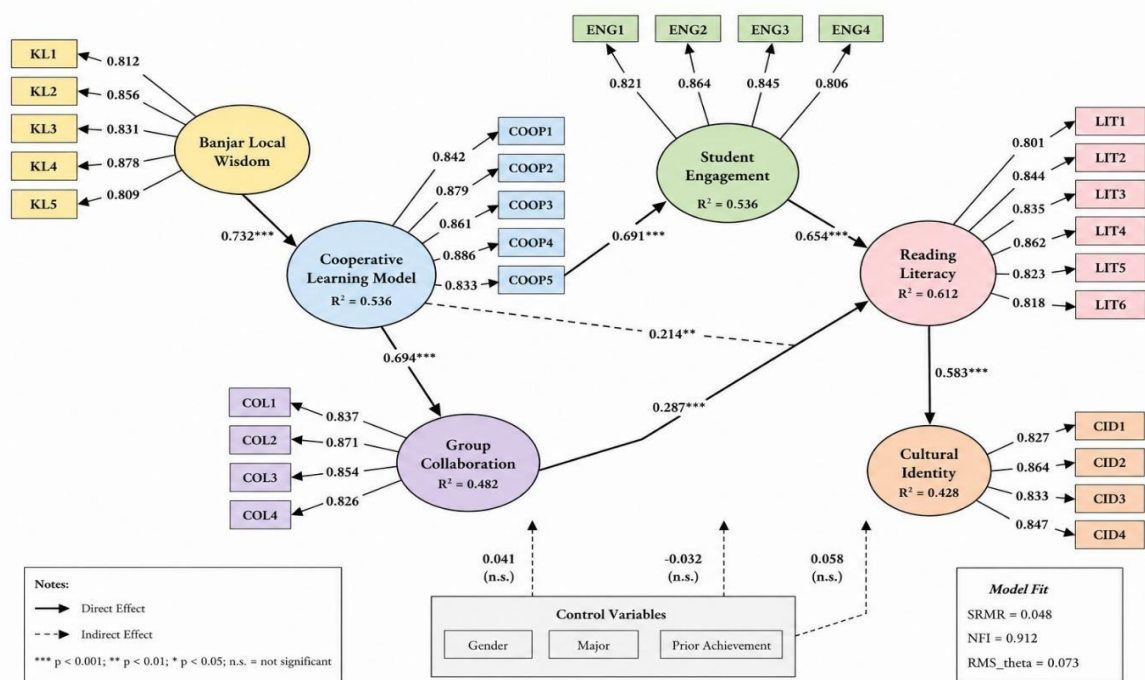


Figure 1. Structural Model Bootstrapping Results, Source: Author's own work

Overall, the model indicates that the integration of Banjar local wisdom values contributes positively to the effectiveness of cooperative learning. Cooperative learning, in turn, enhances student engagement, which ultimately has a significant impact on improving reading literacy and strengthening students' cultural identity. These findings confirm that the values of mutual cooperation, deliberation, togetherness, and social solidarity inherent in Banjar culture can serve as an effective pedagogical foundation for Indonesian language learning at the high school level.

6. Discussion

This study demonstrates that a cooperative learning model based on Banjar local wisdom is an effective approach for improving high school students' reading literacy. The integration of cooperative learning principles with local cultural values results in a learning experience that is more contextual, collaborative, and meaningful for students. These findings support the social constructivist perspective, which views social interaction as the primary means of constructing knowledge. In this context, students not only gain an understanding of the learning material through reading and discussion activities but also construct meaning based on their own cultural experiences. The results of this study also demonstrate that the success of learning is determined not only by the pedagogical strategies employed but also by the learning process's ability to accommodate students' social and cultural backgrounds.

The Role of Cooperative Learning in the Development of Reading Literacy

Cooperative learning has emerged as a key factor in improving students' reading literacy. Through group work, discussions, the exchange of ideas, and collaborative task completion, students gain broader opportunities to develop their understanding of the text. This finding aligns with the Social Interdependence Theory proposed by Johnson and Johnson (2009), which explains that positive interdependence and individual responsibility within a group can enhance learning effectiveness. When students help one another in understanding texts, the learning process no longer occurs



individually but becomes a collective activity that enriches the interpretation of the reading material.

The results of this study also reinforce the findings of Zhou and Colomer (2024), which indicate that cooperative learning contributes to improvements in students' academic achievement, engagement in learning, and critical thinking skills. Similarly, Güngör, Altunbaşak, and Aydın (2026) found that cooperative learning has a significant positive impact on students' learning outcomes and social skills. In Indonesian language learning, the collaborative reading process allows students to compare interpretations, clarify information, and build a deeper understanding of the text. Thus, cooperative learning not only improves reading comprehension but also develops communication and collaboration skills, which are essential competencies in 21st-century education.

Interestingly, the research findings indicate that improvements in reading literacy are influenced not only by the group's structure but also by the quality of interactions that occur during the learning process. When students feel a sense of responsibility for the group's success, they tend to be more active in reading, discussing, and contributing to task completion. This suggests that the social aspects of learning serve to reinforce the cognitive processes involved in reading comprehension.

The Role of Banjar Local Wisdom as a Source of Contextual Learning

Research findings indicate that the integration of Banjar local wisdom significantly contributes to increased student engagement in learning. Cultural values such as mutual cooperation, deliberation, togetherness, politeness, and social solidarity have proven effective in creating a more inclusive and participatory learning environment. These results support the concept of culturally responsive teaching proposed by Gay (2018), which emphasizes that learning becomes more effective when students' cultural experiences are incorporated into the learning process.

These findings are also consistent with Ladson-Billings' (2014) concept of culturally relevant pedagogy, which emphasizes the importance of linking academic achievement to students' cultural identities. In this study, students not only learned Indonesian language material but also gained an understanding of the cultural values that are alive within the Banjar community. This process made learning more meaningful because students were able to see the connection between what they learned in school and the social realities they experience in their daily lives.

Furthermore, the research findings support the view of Paris and Alim (2017) regarding culturally sustaining pedagogy, which positions schools as spaces for preserving and developing local culture. Through the use of Banjar texts, stories, and cultural values in learning activities, students gain opportunities to recognize, appreciate, and strengthen their cultural identity. Thus, the integration of local culture into the learning process serves not only as a means of knowledge transfer but also as a medium for preserving cultural heritage—an increasingly important role in the face of globalization.

These findings also support the results of a study by Arjaya et al. (2024), which indicate that the integration of local wisdom has become a global trend in educational development because it bridges academic goals with cultural preservation. In the context of this study, Banjar cultural values serve as a bridge connecting students' life experiences with learning materials, thereby making the learning process more authentic and relevant.

The Model's Influence on Social Skills and Cultural Identity

In addition to improving reading literacy, the learning model developed also has a positive impact on students' social skills. Group activities grounded in the values of deliberation, cooperation, and shared responsibility encourage students to learn to respect others' opinions, develop communication skills, and build positive social relationships. These findings align with the



research by Mardiani, Rusdarti, and Purwati (2024), which demonstrates that cooperative learning can enhance students' collaborative character and ability to work together.

This improvement in social skills demonstrates that cooperative learning based on local wisdom not only yields academic benefits but also contributes to students' social development. The interactions that take place during the learning process help students develop empathy, tolerance, and the ability to solve problems collaboratively. These skills are an essential part of the social competencies required in an increasingly complex and multicultural society.

At the same time, the integration of Banjar cultural values helps strengthen students' cultural identity. Through various learning activities that incorporate local cultural elements, students gain learning experiences that enable them to understand the significance of culture as part of their daily lives. This finding supports the research by Cameron et al. (2024), which shows that culturally responsive learning can increase student engagement and strengthen their connection to the learning environment. Similar results were also found by Ialuna, Civitillo, and Jugert (2024), who stated that recognition of students' cultural identities contributes to an increased sense of belonging to the school and the learning community.

Overall, the results of this study indicate that cooperative learning based on Banjar local wisdom is not only effective in improving reading literacy but also capable of developing social skills and strengthening students' cultural identity. These findings demonstrate that the integration of cooperative learning and local wisdom yields more comprehensive benefits than the application of these two approaches separately. Thus, this study provides empirical support for the development of a learning model that integrates academic goals, the strengthening of social character, and cultural preservation within a single, integrated learning framework.

Practical Implications

The findings of this study offer a number of practical implications directly related to the effectiveness of a cooperative learning model based on Banjar local wisdom in improving students' reading literacy, social skills, and cultural identity. First, since cooperative interaction has been shown to be a key factor in improving reading comprehension, Indonesian language teachers need to shift from teacher-centered teaching practices toward more collaborative learning activities. In the context of secondary schools, activities such as group discussions, collaborative reading, text-based problem-solving, and group presentations can be systematically designed to encourage students to build understanding through the process of negotiating meaning and exchanging perspectives. Thus, improvements in reading literacy depend not only on students' individual abilities but also on the quality of social interactions created during the learning process.

Second, findings regarding the importance of integrating Banjar local wisdom indicate that learning becomes more meaningful when the material studied is linked to students' cultural experiences. Therefore, teachers and curriculum developers need to expand the use of folk tales, oral traditions, the values of mutual cooperation, deliberation, politeness, and various forms of Banjar cultural heritage as contextual learning resources. This approach allows students to understand texts through experiences close to their own lives while strengthening their awareness of local cultural identity. In practice, the use of locally-based teaching materials can enhance the relevance of learning and encourage more active student participation compared to the use of general materials that are distant from the context of their lives.

Third, the research findings indicate that the development of social skills is a key benefit of cooperative learning based on local wisdom. Therefore, learning evaluations should not only focus on academic achievement but also consider indicators of collaboration, communication, group responsibility, and the ability to respect others' opinions. A more comprehensive assessment approach allows schools to develop 21st-century competencies in a more balanced way, where learning success is measured not only by mastery of the subject matter but also by students' ability to interact and collaborate in diverse social environments.



Finally, the findings of this study indicate that the preservation of local culture can be achieved through learning processes integrated into daily academic activities. Therefore, schools and education policymakers need to view local wisdom not merely as an additional component of the curriculum, but as a pedagogical resource capable of enhancing the quality of learning. Overall, these implications underscore that effective learning in the 21st century not only requires mastery of literacy competencies but also demands a harmonious integration of academic skill development, social skills, and the reinforcement of students' cultural identity through contextual and meaningful learning experiences.

7. Conclusion

This study provides empirical evidence that a cooperative learning model based on Banjar local wisdom is an effective approach for improving high school students' reading literacy. The integration of cooperative learning principles with Banjar cultural values—such as mutual assistance, deliberation, togetherness, politeness, and social solidarity—has proven capable of creating a more active, collaborative, and contextual learning environment. The results show that students who participated in learning through the developed model demonstrated better abilities to comprehend, interpret, and evaluate texts compared to those in conventional learning settings. These findings reinforce the view that learning that connects students' cultural experiences with academic activities can simultaneously improve the quality of both the learning process and outcomes.

From a theoretical perspective, the findings of this study support social constructivist theory and social interdependence theory, which emphasize interaction, collaboration, and social experience as the foundations of knowledge construction. The findings also reinforce the principles of culturally responsive teaching, culturally relevant pedagogy, and culturally sustaining pedagogy (Gay, 2018; Ladson-Billings, 2021; Paris & Alim, 2017), which recognize students' cultural identities as valuable resources for enhancing engagement, meaningful learning, and academic achievement. Thus, the cooperative learning model based on Banjar local wisdom functions not only as a strategy for improving reading literacy but also as a means of fostering character development, preserving local culture, and strengthening students' social competencies.

Nevertheless, this study has several limitations. The research was conducted among high school students in a specific region; therefore, generalizing the findings to other areas with different cultural characteristics should be done with caution. Additionally, this study focused on measuring the model's effectiveness regarding reading literacy and thus did not examine in depth its impact on other language skills such as writing, speaking, and listening. Future research is recommended to test this model at different educational levels, expand the scope of the study area, and integrate a longitudinal approach to observe the sustainability of the model's influence on students' literacy development and cultural identity. Thus, the development of learning based on local wisdom can make a broader contribution to contextual, inclusive, and sustainable educational development in Indonesia.

References

- Aiken, L. R. (1985). Three coefficients for analyzing the reliability and validity of ratings. *Educational and Psychological Measurement*, 45(1), 131–142. <https://doi.org/10.1177/0013164485451012>
- Arjaya, I. B. A., Suastra, I. W., Redhana, I. W., & Sudiatmika, A. A. I. A. R. (2024). Global trends in local wisdom integration in education: A comprehensive bibliometric mapping analysis from 2020 to 2024. *International Journal of Learning, Teaching and Educational Research*, 23(11), 1–23. <https://doi.org/10.26803/ijlter.23.7.7>



- Brown, S. A., & Pyle, N. (2021). A self-questioning strategy routine to enhance reading comprehension among secondary students. *Intervention in School and Clinic*, 53(6), 347–353. <https://doi.org/10.1177/0040059920976677>
- Cameron, T., Brown, V. A., Katz-Buonincontro, J., Anderson, R. C., Edmunds, A., Land, J., & Livie, M. (2024). Mirrors and windows: A case study of educators' culturally responsive teaching aspirations and syllabi transformation in the arts. *Teaching and Teacher Education*, 145, 104714. <https://doi.org/10.1016/j.tate.2024.104714>
- Chang, W.-H., Huang, T.-H., & Liu, Y.-C. (2019). Influence of an interactive e-book on the reading comprehension of different ethnic groups using indigenous culture as content. *International Journal of Human-Computer Interaction*, 35(4–5), 323–332. <https://doi.org/10.1080/10447318.2018.1543079>
- Chen, C.-M., & Chen, F.-Y. (2014). Enhancing digital reading performance with a collaborative reading annotation system. *Computers & Education*, 77, 67–81. <https://doi.org/10.1016/j.compedu.2014.04.010>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Cook, T. D., & Campbell, D. T. (1979). *Quasi-experimentation: Design and analysis issues for field settings*. Houghton Mifflin.
- Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.
- Domke, L. M., Kaplan, M., & Bingham, G. E. (2024). Differentiated reading groups: Bridging literacy instruction and culturally sustaining pedagogy. *The Reading Teacher*, 77(6), 800–809. <https://doi.org/10.1002/trtr.2317>
- Duke, N. K., & Cartwright, K. B. (2021). The science of reading progresses: Communicating advances beyond the simple view of reading. *Reading Research Quarterly*, 56(S1), S25–S44. <https://doi.org/10.1002/rrq.411>
- Duke, N. K., Ward, A. E., & Pearson, P. D. (2021). The science of reading comprehension instruction. *The Reading Teacher*, 74(6), 663–672. <https://doi.org/10.1002/trtr.1993>
- Field, A. (2024). *Discovering statistics using IBM SPSS statistics* (6th ed.). Sage Publications.
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2022). *How to design and evaluate research in education* (11th ed.). McGraw-Hill Education.
- Gay, G. (2018). *Culturally responsive teaching: Theory, research, and practice* (3rd ed.). Teachers College Press.
- Ghofur, A., Widiastuti, R., Hayati, N., Doorvina, D., Sukini, S., & Dewanto, D. (2024). Effectiveness of the Cooperative Integrated Reading and Composition (CIRC) learning model based on local wisdom to improve reading skills in children. *Jurnal Obsesi*, 8(6), 1675–1684. <https://doi.org/10.31004/obsesi.v8i6.6468>
- Güngör, F., Altunbaşak, İ., Aydın, A.T. et al. A second-order meta-analysis on the effects of cooperative learning on students' academic achievement, higher-order thinking, and affective behaviors. *Curr Psychol* 45, 552 (2026). <https://doi.org/10.1007/s12144-025-08943-0>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2022). *Multivariate data analysis* (9th ed.). Cengage Learning.
- Huda, T. A., Setiyadi, A. B., Haenilah, E. Y., Rusminto, N. E., Sinaga, R. M., & Hamid, M. A. (2025). Local wisdom-infused experiential learning and its effects on reading literacy: A meta-analysis. *Journal of Education and Learning (EduLearn)*, 19(3), 1743–1752. <https://doi.org/10.11591/edulearn.v19i3.22069>
- Ialuna, F., Civitillo, S., & Jugert, P. (2024). Culturally responsive teaching, teacher–student relationship and school belongingness: A multi-informant study in ethnically diverse



- classrooms. *Learning, Culture and Social Interaction*, 43, 100839. <https://doi.org/10.1016/j.lcsi.2024.100839>
- Johnson, D. W., & Johnson, R. T. (2009). An educational psychology success story: Social interdependence theory and cooperative learning. *Educational Researcher*, 38(5), 365–379. <https://doi.org/10.3102/0013189X09339057>
- Kendeou, P., McMaster, K. L., & Christ, T. J. (2016). Reading comprehension: Core components and processes. *Policy Insights from the Behavioral and Brain Sciences*, 3(1), 62–69. <https://doi.org/10.1177/2372732215624707>
- Ladson-Billings, G. (2014). Culturally relevant pedagogy 2.0: a.k.a. the Remix. *Harvard Educational Review*, 84(1), 74–84. <https://doi.org/10.17763/haer.84.1.p2rj131485484751>
- Mardiani, F., Rusdarti, R., & Purwati, P. D. (2024). The IOLE cooperative learning model in improving students' collaborative character and reading literacy. *Curriculum Innovation*, 21(2), 1303–1316. <https://doi.org/10.17509/jik.v21i2.69487>
- Mubarak, H., Anif, S., & Prayitno, H. J. (2024). Local content through integrated collaborative learning: A survey of teaching materials needs. *Journal of Educational and Social Research*, 14(4), 271–284. <https://doi.org/10.36941/jesr-2024-0102>
- Nadilla, D. F. (2017). The life philosophy of the Banjarese as a value education in learning history. *Yupa: Historical Studies Journal*, 1(2), 188–196. <https://doi.org/10.30872/yupa.v1i2.97>
- Nieto, S. (2018). *Language, culture, and teaching: Critical perspectives* (3rd ed.). Routledge.
- Odja, A. H., Doung, R., Pikoli, M., Yunus, R., Mohamad, W. M., & Mursalin. (2024). The effectiveness of cooperative learning integrated with Huyula values and a variety of media to improve science mastery in inclusive environments. *Indonesian Journal of Science Education*, 14(2). <https://doi.org/10.15294/jpii.v14i2.24087>
- Organisation for Economic Co-operation and Development. (2023). *PISA 2022 results (Volume I): The state of learning and equity in education*. OECD Publishing. <https://doi.org/10.1787/53f23881-en>
- Paris, D., & Alim, H. S. (Eds.). (2017). *Culturally sustaining pedagogies: Teaching and learning for justice in a changing world*. Teachers College Press.
- Shin, J., & McMaster, K. L. (2019). Relations between CBM (oral reading and maze) and reading comprehension on state achievement tests: A meta-analysis. *Journal of School Psychology*, 73, 131–149. <https://doi.org/10.1016/j.jsp.2019.03.005>
- Slavin, R. E. (2014). Cooperative Learning and Academic Achievement: Why Does Groupwork Work?. *Anales De Psicología Annals of Psychology*, 30(3), 785–791. <https://doi.org/10.6018/analesps.30.3.201201>
- Sumida Huaman, E. (2019). Comparative Indigenous education research (CIER): Indigenous epistemologies and comparative education methodologies. *International Review of Education*, 65(1), 163–184. <https://doi.org/10.1007/s11159-018-09761-2>
- Surawardi, S., & Zuhriah, F. (2023). The social aspects of education in the local wisdom of the Kayuh Baimbai culture in South Kalimantan. *Al-Falah: Journal of Islamic Studies and Society*, 23(1), 69–84. <https://doi.org/10.47732/alfalahjikk.v23i1.239>
- Wahyu. (2021). Local wisdom in the Banjar cultural perspective. *Jurnal Socius*, 10(2), 54–66. <https://doi.org/10.20527/jurnalsocius.v10i2.11872>
- Zhou, T., & Colomer, J. (2024). Cooperative learning promoting cultural diversity and individual accountability: A systematic review. *Education Sciences*, 14(6), 567. <https://doi.org/10.3390/educsci14060567>