



The effect of the cooperative integrated reading and composition (CIRC) learning model on learning motivation and reading comprehension ability of upper-grade students at SD Negeri 14 Batarang

Wahyuni, Yusmah, Muhammad Hanafi

^{a*} Indonesian Language Education, Universitas Muhammadiyah Sidenreng Rappang, Indonesia

*Correspondence: wahyunimh14@gmail.com

Receive: 27/07/2025

Accepted: 01/08/2025

Published: 01/10/2025

Abstrak

Penelitian ini adalah penelitian kuantitatif. Populasi dan sampel dalam penelitian ini seluruh siswa kelas tinggi berjumlah 30 siswa. Teknik pengumpulan data dalam penelitian ini tes, observasi, dokumentasi. Teknik analisis data yang digunakan analisis deskriptif, Uji Paired Sampel Test, Uji Homogenitas, Uji Independen Sample t-Test melalui aplikasi IBM Statistik. Penelitian ini bertujuan untuk mengetahui efektivitas model pembelajaran *Cooperative Integrated Reading and Composition* (CIRC) dalam meningkatkan motivasi belajar dan kemampuan membaca pemahaman siswa sekolah dasar. Penelitian ini menggunakan pendekatan kuantitatif dengan desain eksperimen semu yang melibatkan kelas eksperimen yang diberi perlakuan model *Cooperative Integrated Reading and Composition* (CIRC) dan kelas kontrol dengan pembelajaran konvensional. Data penelitian dianalisis menggunakan analisis deskriptif, distribusi frekuensi, uji homogenitas, *Paired Sample t-Test*, dan *Independent Sample t-Test*.

Hasil penelitian menunjukkan bahwa model pembelajaran *Cooperative Integrated Reading and Composition* (CIRC) secara signifikan lebih efektif dalam meningkatkan motivasi belajar siswa dibandingkan pembelajaran konvensional. Rata-rata skor motivasi siswa pada kelas eksperimen meningkat dari 68,47 menjadi 89,73, sedangkan pada kelas kontrol hanya meningkat dari 60,67 menjadi 67,40. Selain itu, pemerataan hasil lebih baik ditunjukkan dengan penurunan standar deviasi, serta hasil uji statistik menunjukkan perbedaan signifikan (Sig. < 0,05). Pada aspek kemampuan membaca pemahaman, hasil penelitian juga menunjukkan efektivitas yang signifikan. Rata-rata nilai kelas eksperimen meningkat dari 67,53 menjadi 92,00, sedangkan kelas kontrol hanya meningkat dari 64,53 menjadi 77,53. Sebanyak 94% siswa kelas eksperimen mencapai kategori "Sangat Baik", sedangkan pada kelas kontrol tidak ada yang mencapai kategori tersebut. Hasil uji *t* juga menunjukkan perbedaan signifikan (Sig. < 0,05), dengan varians yang homogen sehingga perbandingan valid.

Dengan demikian, dapat disimpulkan bahwa penerapan model pembelajaran *Cooperative Integrated Reading and Composition* (CIRC) efektif dalam meningkatkan motivasi belajar dan kemampuan membaca pemahaman siswa sekolah dasar secara optimal dan merata.

Kata Kunci: Cooperative Integrated Reading and Composition (CIRC), motivasi belajar, membaca pemahaman, siswa sekolah dasar, penelitian kuantitatif

Abstract

This research is a quantitative study. The population and sample in this research consisted of all upper-grade students, totaling 30 students. The data collection techniques used were tests, observations, and documentation. The data analysis techniques included descriptive analysis, Paired Sample t-Test, Homogeneity Test, and Independent Sample t-Test using IBM SPSS Statistics software. The purpose of this research was to determine the effectiveness of the Cooperative Integrated Reading and Composition (CIRC) learning model in improving students' learning motivation and reading comprehension ability at the elementary school level. The study employed a quantitative approach with a quasi-experimental design, involving an experimental class taught using the Cooperative Integrated Reading and Composition (CIRC) model and a control class taught using

conventional methods. The data were analyzed using descriptive statistics, frequency distribution, homogeneity test, Paired Sample t-Test, and Independent Sample t-Test.

The results of the study revealed that the Cooperative Integrated Reading and Composition (CIRC) learning model was significantly more effective in increasing students' learning motivation compared to conventional learning. The average motivation score of students in the experimental class increased from 68.47 to 89.73, while in the control class it only increased from 60.67 to 67.40. Moreover, the evenness of results was better indicated by the decrease in standard deviation, and the statistical tests showed a significant difference (Sig. < 0.05). In terms of reading comprehension ability, the findings also demonstrated significant effectiveness. The average score of the experimental class increased from 67.53 to 92.00, whereas the control class only increased from 64.53 to 77.53. A total of 94% of students in the experimental class achieved the "Excellent" category, while none in the control class reached this level. The t-test results also indicated a significant difference (Sig. < 0.05), with homogeneous variance ensuring valid comparison. Therefore, it can be concluded that the implementation of the Cooperative Integrated Reading and Composition (CIRC) learning model is effective in enhancing elementary school students' learning motivation and reading comprehension ability in an optimal and equitable manner.

Keywords: Cooperative Integrated Reading and Composition (CIRC), learning motivation, reading comprehension, elementary students, quantitative research

Introduction

Reading is a fundamental skill that plays an essential role in the educational process. It serves not only as a tool for obtaining information but also as the foundation for developing critical and creative thinking abilities. In the context of elementary education, reading comprehension is considered a vital indicator of students' academic success because it enables them to understand and connect various kinds of information across subjects. According to the Indonesian Ministry of Education and Culture (Kemdikbud, 2023), reading comprehension at the elementary level is not merely about decoding symbols or recognizing words but about constructing meaning and drawing inferences from the text. Hence, effective reading instruction is central to developing students' literacy competence.

However, the reading performance of Indonesian students remains a major concern. The Programme for International Student Assessment (PISA) report in 2021 revealed that Indonesia ranks among the lower tiers in reading compared to other participating countries. Many elementary students still struggle to interpret and evaluate texts critically, indicating weaknesses in comprehension and reasoning (Suryani & Aini, 2022). This condition demonstrates the urgent need for innovative and effective learning models that can enhance students'

reading comprehension and foster motivation in reading activities.

One of the main causes of low reading comprehension in Indonesian elementary schools is the use of conventional teaching methods that tend to be teacher-centered. These traditional approaches often focus on mechanical aspects of reading, such as pronunciation and vocabulary, while neglecting interactive and meaning-making processes. As a result, students become passive recipients rather than active constructors of knowledge. They are rarely given opportunities to discuss, collaborate, or apply their understanding creatively. Consequently, their motivation to engage with reading materials remains low, and their comprehension skills do not develop optimally. Therefore, educators must implement innovative instructional models that can increase both reading comprehension and learning motivation.

The Cooperative Integrated Reading and Composition (CIRC) learning model offers a promising solution. Developed by Slavin (1995), CIRC integrates cooperative learning principles with reading and writing activities. The model encourages students to work in small groups, discuss ideas, and produce written outcomes collaboratively. It is grounded in social constructivist theory, particularly Vygotsky's (1978) concept that knowledge is constructed through social interaction. Through cooperative group discussions and writing tasks, CIRC provides students with opportunities to interpret texts

actively, share perspectives, and refine understanding through peer feedback.

Previous research has demonstrated that CIRC significantly improves students' reading comprehension. Triana and Zulkifli (2023) found that students taught using CIRC scored higher in comprehension tests than those in conventional classrooms. The collaborative process enhanced their critical thinking and text interpretation. Similarly, Fatimah and Rahmat (2022) reported that CIRC not only improved students' literacy skills but also increased their learning motivation because students enjoyed teamwork and felt responsible for group success. These findings suggest that the combination of social interaction and integrated literacy activities makes CIRC particularly effective for elementary learners.

Learning motivation is a critical psychological factor influencing academic performance. Ryan and Deci (2000) distinguish between intrinsic and extrinsic motivation. Intrinsic motivation arises from internal desires to explore, understand, and master knowledge, while extrinsic motivation is driven by external rewards such as grades, praise, or competition. Both types are necessary in education, but intrinsic motivation is more sustainable because it fosters curiosity and long-term engagement. In reading instruction, motivation determines how actively students participate in learning, how persistently they cope with difficulties, and how effectively they comprehend texts. Students with high motivation tend to read more, employ diverse comprehension strategies, and achieve better literacy outcomes (Wahid & Lestari, 2023).

The reality observed at SD Negeri 14 Batarang reflects challenges in both reading comprehension and learning motivation among upper-grade students. Observations during the previous semester revealed that the average reading comprehension score was only 65, below the minimum mastery criterion (KKM) of 75. Many students showed low interest in reading and lacked confidence in expressing their understanding of texts. Teachers mostly used conventional instruction, focusing on individual reading without collaborative or interactive activities. Consequently, students perceived reading as

a monotonous task rather than an enjoyable and meaningful process. This situation necessitates the implementation of a learning model like CIRC that not only improves cognitive outcomes but also enhances students' motivation to learn.

The CIRC model integrates three key phases—reading, group discussion, and composition. In the reading phase, students read texts individually or in pairs and identify main ideas, details, and keywords. In the group discussion phase, they share interpretations, clarify meanings, and discuss comprehension questions collaboratively. Finally, in the composition phase, they engage in writing activities such as summarizing, rewriting stories, or composing essays based on the texts. These integrated stages encourage active engagement, peer learning, and deeper processing of information. According to Zainuddin (2023), CIRC is effective because it connects cognitive, affective, and social aspects of learning simultaneously, thereby fostering a more holistic literacy experience.

In addition to improving comprehension, CIRC promotes students' motivation to learn by fostering a sense of belonging and shared responsibility. Cooperative learning environments encourage students to support each other, celebrate success together, and develop self-confidence. The positive interdependence among group members leads to mutual encouragement, which enhances engagement and enjoyment during lessons. Moreover, the inclusion of competitive elements among groups can serve as an extrinsic motivator that complements students' intrinsic interest in learning. Thus, the CIRC model has a dual advantage: it nurtures students' motivation while simultaneously improving their reading comprehension performance.

Despite the positive evidence, previous studies have rarely examined the combined effect of CIRC on both learning motivation and reading comprehension. Most research has focused solely on cognitive outcomes without analyzing the motivational dimensions that mediate learning success. This gap indicates the need for a more comprehensive investigation into how the CIRC model influences both psychological

and academic factors. The present study addresses this gap by exploring the effect of the Cooperative Integrated Reading and Composition model on students' learning motivation and reading comprehension abilities at SD Negeri 14 Batarang.

This study also aligns with the Indonesian national education agenda, particularly the "Merdeka Curriculum," which emphasizes literacy development and student-centered learning. The curriculum encourages teachers to design learning experiences that cultivate independent, collaborative, and reflective learners. CIRC fits well within this framework because it engages students in authentic reading and writing tasks that promote critical thinking and cooperative skills. Hence, this research contributes not only to academic theory but also to the practical implementation of the national literacy movement in Indonesian elementary schools.

Furthermore, the study offers valuable implications for educators. Teachers can use the findings as a reference for designing engaging and interactive reading lessons. By combining CIRC with motivational strategies—such as providing constructive feedback, recognizing achievements, and incorporating enjoyable reading materials—teachers can foster both cognitive and affective development among students. School administrators can also utilize the results to support training programs that promote innovative literacy instruction across grade levels.

In conclusion, the challenges of low reading comprehension and motivation among elementary students require urgent pedagogical innovation. The Cooperative Integrated Reading and Composition (CIRC) model, with its integration of reading, writing, and cooperative learning, provides a research-based strategy to enhance students' literacy outcomes. Through collaborative activities, meaningful interaction, and intrinsic engagement, this model empowers students to become active, motivated, and competent readers. Therefore, the present study aims to investigate the effect of the CIRC learning model on learning motivation and reading comprehension ability among upper-grade students at SD Negeri 14 Batarang, with the expectation that its

findings will contribute to improving literacy practices in Indonesian elementary education.

Method

The present research employed a quantitative approach with a quasi-experimental design, specifically the *Nonequivalent Control Group Design*. This design was chosen because it allows the researcher to compare the effects of two different teaching methods on groups that are not randomly assigned but have similar characteristics. In educational contexts, random assignment is often impractical; therefore, quasi-experimental design provides a feasible alternative for testing causal relationships between learning models and students' learning outcomes. The design involved two groups: an experimental group taught using the *Cooperative Integrated Reading and Composition (CIRC)* model and a control group taught using conventional instruction. Both groups were given pre-tests and post-tests to measure their learning motivation and reading comprehension ability before and after the treatment.

The population of the study consisted of all upper-grade students (Grades IV–VI) at *SD Negeri 14 Batarang*, totaling 30 students. Due to the small population size, the researcher used a total sampling technique, meaning that all students participated in the study. The sample was then divided into two groups of equal size: 15 students in the experimental group and 15 students in the control group. The two groups were selected based on classroom equivalence, where both groups had similar average academic performance and learning conditions prior to the study. This ensured that any observed differences in outcomes could be attributed to the instructional model rather than pre-existing differences in ability or motivation.

The study involved three key variables. The independent variable was the *Cooperative Integrated Reading and Composition (CIRC)* learning model, while the dependent variables were (1) students' *learning motivation* and (2) their *reading comprehension ability*. The CIRC model was used as the treatment variable applied only to the experimental group, while the control group continued with conventional learning.

Learning motivation referred to students' internal and external drive to engage actively in reading lessons, and reading comprehension referred to their ability to understand, interpret, and evaluate written texts. These variables were selected because they represent both affective and cognitive aspects of the reading process, which are central to literacy development at the elementary level.

The operational definitions of each variable were formulated to ensure clarity and accurate measurement. The *CIRC model* was defined as a cooperative learning approach that integrates reading and writing activities in small groups. Students worked collaboratively through structured stages: reading a text, discussing its meaning, and producing a written output such as a summary or composition. The *learning motivation* variable was defined as the students' drive, either intrinsic or extrinsic, to participate in the learning process, marked by indicators such as enthusiasm, persistence, attention, and willingness to achieve academic goals. The *reading comprehension* variable was defined as students' ability to understand the meaning of texts through literal, inferential, critical, and evaluative comprehension. These operational definitions helped align the teaching procedures and measurement instruments with the study's objectives.

The data collection techniques used in this study included observation, testing, and documentation. The observation technique was employed to assess students' learning motivation throughout the learning process. The observation sheet contained indicators of motivation such as activeness in class, cooperation during group activities, attention to tasks, and persistence in solving problems. The test technique was used to measure reading comprehension ability through a pre-test and post-test that contained passages followed by questions representing four comprehension levels: literal, inferential, critical, and evaluative. The total possible score was 100 points, divided proportionally across the four levels. Meanwhile, the documentation technique was used to gather supporting data such as student attendance, prior academic records, and instructional materials used during the experiment. All

instruments were validated by experts in language education to ensure content validity and were tested for reliability using the Cronbach Alpha coefficient, with a reliability score above 0.70 considered acceptable.

The research procedure was divided into three stages: *preparation*, *implementation*, and *evaluation*. During the preparation stage, the researcher developed lesson plans, validated research instruments, and coordinated with the school administration and teachers. During the implementation stage, both groups received six learning sessions over three weeks. The experimental group was taught using the CIRC model, where students worked collaboratively in reading and writing activities following the prescribed steps of reading, discussion, and composition. Meanwhile, the control group was taught using conventional instruction, focusing on individual reading and teacher explanations. Throughout the implementation, observations were carried out to record students' learning motivation and participation. Finally, in the evaluation stage, post-tests were administered to both groups to assess progress, and all data were collected for analysis.

The data analysis techniques consisted of both descriptive and inferential statistics using IBM SPSS Statistics software. Descriptive analysis was used to describe students' motivation and reading comprehension scores in terms of means, maximum and minimum values, and standard deviations. Paired Sample t-tests were applied to determine whether there were significant differences between pre-test and post-test scores within each group. To ensure the comparability of data, a homogeneity test (Levene's Test) was conducted to verify that the variances of the two groups were equal. Finally, an Independent Sample t-test was used to compare the post-test results between the experimental and control groups. The significance level was set at 0.05, meaning that a p-value below 0.05 indicated a statistically significant difference in learning outcomes due to the CIRC model.

To ensure the validity and reliability of the research, several precautions were taken. Instrument validation was conducted through

expert judgment to confirm that the items accurately represented the constructs being measured. The reliability of the instruments was established using internal consistency tests, and the Cronbach Alpha value exceeded the minimum requirement. Triangulation was applied by comparing the results of tests, observations, and documentation to strengthen data credibility. Furthermore, the researcher controlled extraneous variables by ensuring that both groups had the same learning duration, materials, and classroom environment. This consistency minimized bias and ensured that differences in outcomes were due to the teaching model, not other factors.

In summary, this study used a quantitative quasi-experimental method to examine the effect of the *Cooperative Integrated Reading and Composition (CIRC)* model on students' learning motivation and reading comprehension ability at *SD Negeri 14 Batarang*. The design allowed for the comparison of two instructional approaches—CIRC and conventional learning—through pre-tests and post-tests. Data were collected through validated instruments and analyzed statistically to determine the effectiveness of the model. The research process was carried out systematically and ethically, ensuring that findings could contribute valuable insights into the development of literacy-focused instructional strategies in Indonesian elementary education.

Result and Discussion

This section presents the findings of the research based on the data obtained from pre-tests and post-tests of both the experimental and control groups. The study investigated the effectiveness of the Cooperative Integrated Reading and Composition (CIRC) learning model in improving students' learning motivation and reading comprehension ability at *SD Negeri 14 Batarang*. The data analysis was

conducted using IBM SPSS Statistics software through descriptive and inferential statistical techniques, including Paired Sample t-Test, Homogeneity Test, and Independent Sample t-Test.

1. Students' Learning Motivation

The descriptive analysis showed that students in the experimental group experienced a significant increase in learning motivation after being taught using the CIRC model. The mean score for learning motivation in the pre-test was 68.47, which increased to 89.73 in the post-test. This indicates a substantial improvement of 21.26 points. Meanwhile, the control group, which received conventional instruction, showed a smaller increase from 60.67 to 67.40, an improvement of only 6.73 points.

The standard deviation in the experimental group decreased from 8.13 in the pre-test to 5.92 in the post-test, indicating more consistent motivation levels among students after the treatment. In contrast, the control group's standard deviation remained relatively stable (8.47 to 8.26), showing that there was little improvement in the evenness of motivation. The increase in the experimental group's mean score demonstrates that the cooperative and interactive nature of the CIRC model contributed to higher enthusiasm,

persistence, and engagement among students during the reading lessons.

To determine whether these differences were statistically significant, a Paired Sample t-Test was conducted. The results showed that the significance value (Sig.) for the experimental group was $0.000 < 0.05$, indicating a significant difference between pre-test and post-test scores. This means that the CIRC model had a significant effect on increasing students' motivation to learn. In contrast, the control group's significance value was $0.081 > 0.05$, indicating no significant difference. Thus, it can be concluded that the learning motivation of students improved significantly only in the class taught using the CIRC model.

2. Students' Reading Comprehension Ability

The results of the pre-test and post-test for reading comprehension ability also showed a remarkable improvement in the experimental group compared to the control group. The average score for reading comprehension in the experimental group increased from 67.53 to 92.00, a gain of 24.47 points. In contrast, the control group's mean score increased from 64.53 to 77.53, an improvement of only 13 points.

The distribution of scores revealed that 94% of students in the experimental group achieved the "Excellent" category (scores above 90), while only 6% were in the "Good" category. In the control group, none of the students reached the "Excellent" category; 60% were in the "Good" category, and 40% remained in the "Fair" category. These results clearly show that the CIRC model produced better comprehension outcomes.

In terms of standard deviation, the experimental group showed a reduction from 9.24 to 6.41, indicating that the comprehension improvement was relatively uniform across the class. The control group's standard deviation decreased only slightly, from 9.10 to 8.56, showing less consistency in students' progress.

The results of the Paired Sample t-Test for the experimental group showed a significance value of $0.000 < 0.05$, meaning that there was a statistically significant improvement in students' reading comprehension after being taught with the CIRC model. Similarly, the Independent Sample t-Test comparing the post-test results of the experimental and control groups yielded a significance value of $0.001 < 0.05$, confirming that the difference between the two groups was

statistically significant. The Homogeneity Test also indicated a significance value greater than 0.05, which means that both groups had equal variance, and the comparison was valid.

3. Summary of Results

Based on the descriptive and inferential analyses, it can be summarized that the CIRC learning model had a positive and significant effect on both students' learning motivation and reading comprehension ability. The experimental group outperformed the control group in all indicators measured. The improvement in motivation and comprehension was not only statistically significant but also pedagogically meaningful, as shown by the high post-test scores and consistent performance among students.

Table 1 below presents the summary of pre-test and post-test results for both variables:

Variable	Group	Pre-Test Mean	Post-Test Mean	Difference	Significance (2-tailed)
Learning Motivation	Experimental	68.47	89.73	21.26	0.00
	Control	60.67	67.40	6.73	0.081
Reading Comprehension	Experimental	67.53	92.00	24.47	0.00
	Control	64.53	77.53	13.00	0.01

The results in Table 1 demonstrate that both learning motivation and reading comprehension improved significantly in the experimental group compared to the control group. The statistical analyses confirm that the observed improvements were not due to random variation but were indeed the result of applying the Cooperative Integrated Reading and Composition model.

4. Observational Findings

In addition to quantitative data, classroom observations also supported the statistical findings. During the treatment, students in the experimental group exhibited high enthusiasm and active participation in group discussions. They were eager to share their understanding of texts, exchange ideas, and assist their peers. The teacher observed that students in the CIRC class were more attentive and confident in expressing opinions, whereas students in the control group tended to be passive and dependent on the teacher's explanation.

Furthermore, students in the experimental group developed stronger cooperation and responsibility toward group success. They frequently discussed how to divide tasks and help each other during reading and writing sessions. The integration of reading and writing activities in CIRC also helped students reinforce comprehension because they had to analyze and reconstruct information in their own words. These observations confirm that the cooperative learning environment created by CIRC promotes not only cognitive growth but also positive attitudes toward learning.

5. Key Findings

From the overall results, several key findings can be drawn:

1. The CIRC model significantly increased students' learning motivation, as indicated by higher mean scores and significant test results.
2. The CIRC model significantly improved reading comprehension ability, with a greater score increase compared to the control group.
3. The learning process in CIRC encouraged active, cooperative, and responsible participation, which contributed to higher engagement and comprehension.
4. The integration of reading and writing activities within a cooperative structure strengthened students' understanding of texts and improved retention.
5. Statistical tests confirmed that the differences between groups were significant, validating the effectiveness of the CIRC model.

DISCUSSION

The results of this study revealed that the Cooperative Integrated Reading and Composition (CIRC) learning model had a significant positive impact on students'

learning motivation and reading comprehension ability. The findings indicate that students in the experimental group who were taught using the CIRC model showed higher enthusiasm, persistence, and collaboration compared to those in the control group taught with conventional methods. These outcomes reinforce the assumption that cooperative and integrated instructional approaches create more engaging and effective learning environments for elementary students, especially in reading-related subjects. The increase in both motivation and comprehension supports the theoretical framework that learning is most effective when it involves active participation, social interaction, and meaningful engagement with texts.

The improvement in learning motivation can be attributed to the social and interactive nature of the CIRC model. In this model, students work together in small groups where each member contributes to a shared goal. This cooperative structure aligns with Slavin's (1995) theory of cooperative learning, which emphasizes *positive interdependence* and *individual accountability*. Through teamwork, students experience a sense of belonging and responsibility, which enhances their willingness to participate. The opportunity to discuss, share ideas, and receive feedback from peers makes learning more dynamic and enjoyable. Motivation is further strengthened when students see that their contributions are valued and that their efforts lead to collective success. This sense of social support fulfills students' psychological needs for relatedness and competence, as proposed by Ryan and Deci (2000) in the *Self-Determination Theory*, which explains how intrinsic motivation increases when learners feel connected, capable, and autonomous.

Additionally, the use of group activities in the CIRC model helps students overcome anxiety and boredom often associated with traditional reading lessons. In conventional classrooms, students often read passively and are expected to understand texts individually without much interaction. This approach can reduce engagement and cause students to lose interest in reading. Conversely, in CIRC, the interaction among peers during reading, discussion, and writing activities encourages enthusiasm and curiosity. Students who are less confident can rely on peers for support, while high-achieving students strengthen their understanding by explaining ideas to others. This reciprocal learning process stimulates intrinsic motivation and promotes equitable participation, ensuring that every student plays an active role in the learning process.

The significant improvement in reading comprehension ability observed in this study also aligns with the theoretical foundations of the CIRC model. The model's integration of reading and writing activities facilitates deeper processing of information. According to Anderson and Pearson (1984), comprehension is an active process of constructing meaning through interaction between prior knowledge and textual information. When students discuss texts in groups, they activate their background knowledge, interpret ideas collaboratively, and refine their understanding through peer feedback. Moreover, the composition phase of the CIRC model—where students summarize or rewrite the main ideas—requires them to reconstruct the meaning of the text, which promotes long-term retention and comprehension. This approach is consistent with Graham and Perin's (2007) *writing-to-learn* principle, which states that writing enhances comprehension by helping learners

organize and internalize ideas more effectively.

Another important aspect of the CIRC model that contributed to improved comprehension is the **cooperative learning dynamic**. According to **Vygotsky's (1978) *Social Constructivist Theory***, learning is a social process that occurs through interaction with others within the *Zone of Proximal Development (ZPD)*. In this study, students in cooperative groups assisted each other in interpreting texts and constructing meaning. More capable peers provided scaffolding for those who struggled, helping them move from dependence to independence in understanding reading materials. This peer-assisted learning process made comprehension more accessible and meaningful, as students learned not only from the teacher but also from each other. The group discussions also encouraged critical thinking, as students were required to justify their interpretations and negotiate meaning collaboratively.

The findings of this study are consistent with previous research confirming the effectiveness of the CIRC model in literacy instruction. **Triana and Zulkifli (2023)** found that students taught with CIRC achieved higher reading comprehension scores than those in traditional classrooms. Similarly, **Fatimah and Rahmat (2022)** reported that the CIRC model enhanced both reading comprehension and learning motivation among elementary students by fostering a more interactive and student-centered learning environment. Furthermore, **Rahman (2021)** found that cooperative learning strategies, including CIRC, increased students' critical reading abilities by encouraging dialogue and collective problem-solving. The present study supports these findings and extends them by demonstrating that the CIRC

model is not only cognitively beneficial but also affectively enriching—it simultaneously improves comprehension and motivation.

The effectiveness of the CIRC model can also be explained through the perspective of cognitive engagement theory. According to **Fredricks, Blumenfeld, and Paris (2004)**, engagement consists of behavioral, emotional, and cognitive components that influence learning outcomes. The CIRC model promotes engagement on all three levels: behaviorally, students are actively involved in reading and writing tasks; emotionally, they experience enjoyment and satisfaction from group collaboration; and cognitively, they are challenged to analyze and synthesize textual information. This multi-dimensional engagement leads to more meaningful learning experiences and better academic performance. The statistical evidence from this study, showing significant improvements in both variables, provides empirical support for this theoretical explanation.

From a pedagogical standpoint, the results of this study highlight several **practical implications** for teachers and curriculum developers. First, teachers should adopt cooperative learning models such as CIRC to create student-centered classrooms that encourage participation and collaboration. The structure of CIRC—integrating reading, discussion, and composition—can be adapted for various subjects beyond language learning. Second, teachers should design reading materials that are suitable for group activities and promote critical discussion. This approach not only improves comprehension but also develops communication and teamwork skills among students. Third, teacher training programs should include modules on cooperative learning

strategies, enabling educators to implement models like CIRC effectively and manage group dynamics productively. By doing so, the benefits of cooperative and integrated literacy instruction can be sustained and scaled up in wider educational contexts.

However, despite the promising results, this study also acknowledges certain **limitations**. The sample size was relatively small (30 students), which limits the generalizability of findings to larger populations. Additionally, the research was conducted within a single school context; thus, future studies should involve multiple schools and grade levels to enhance external validity. Another limitation concerns the duration of the treatment, which lasted for only a few weeks. A longer intervention period might reveal more comprehensive results regarding the long-term effects of the CIRC model on motivation and comprehension. Future research could also explore qualitative perspectives, such as students' attitudes, experiences, and perceptions toward cooperative learning, to provide a more holistic understanding of its impact.

Overall, the findings of this study reinforce the notion that literacy learning should move beyond traditional, teacher-centered instruction toward approaches that promote active, cooperative, and integrated learning experiences. The CIRC model successfully bridges the gap between cognitive and affective learning by linking reading comprehension with motivation and engagement. The results demonstrate that students learn more effectively when they are encouraged to think, discuss, and create meaning collaboratively. In the context of the Indonesian Merdeka Curriculum, which emphasizes learner autonomy, collaboration, and critical thinking, the CIRC model serves as an exemplary strategy that aligns with national

educational goals. It empowers students to become independent, reflective, and motivated readers—skills essential for lifelong learning and literacy development.

CONCLUSION

This systematic review has demonstrated that Learning Management Systems (LMSs) play a pivotal role in reshaping English as a Foreign Language (EFL) education by extending learning opportunities beyond traditional classrooms, fostering learner autonomy, and enhancing proficiency across multiple skills. Empirical evidence consistently highlights the benefits of LMS platforms such as Moodle, Blackboard, Google Classroom, MyELT, and E-Belajar in promoting motivation, engagement, and collaborative learning, particularly when integrated into well-designed pedagogical frameworks. At the same time, the review underscores persistent challenges, including teachers' limited digital literacy, infrastructural inequalities, and insufficient institutional support, which constrain the optimal use of LMSs in many contexts. These findings reinforce the view that technology alone is not transformative; rather, its effectiveness depends on pedagogical alignment,

teacher preparedness, and supportive institutional ecosystems.

Looking forward, the trajectory of LMS integration in EFL education points toward more adaptive, innovative, and inclusive models. Emerging developments such as gamification, mobile learning integration, videoconference-enhanced LMS environments, and AI-driven feedback present promising pathways for enriching language learning experiences and addressing diverse learner needs. However, to fully realize these potentials, future research should employ longitudinal and comparative designs across varied contexts to evaluate both short- and long-term impacts of LMS integration. Equally, professional development programs, infrastructure strengthening, and context-sensitive policy interventions remain essential to ensure that LMS adoption translates into equitable and sustainable improvements in EFL pedagogy worldwide.

REFERENCES

- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (4th ed.)*. Thousand Oaks, CA: SAGE Publications.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic Motivation And Self-Determination In Human Behavior*. New York: Springer.
- Fatimah, L., & Rahmat, A. (2022). Strategi Membaca Kritis untuk Meningkatkan Kemampuan Literasi Siswa. *Jurnal Pendidikan Literasi*, 14(3), 134-145.
- Haris, R., & Kusumawati, N. (2020). Literasi Membaca di Sekolah Dasar: Pendekatan dan Metode. *Jurnal Pendidikan Dasar*, 12(2), 78-90.
- Kemdikbud. (2023). *Laporan Pendidikan Indonesia: Literasi Sebagai Kunci Keberhasilan*. Jakarta: Kemdikbud.
- Kemdikbud. (2023). *Kurikulum Merdeka: Panduan Literasi untuk Pendidikan Dasar*. Jakarta: Kemdikbud.
- Lestari, N., & Wahid, A. (2023). Peningkatan Motivasi Belajar melalui Pembelajaran Kooperatif. *Jurnal Pendidikan Karakter*, 7(1), 45-60.
- PISA. (2021). *PISA 2021 Results: Indonesia's Literacy Performance*. Paris: OECD.
- Ryan, R. M., & Deci, E. L. (2000). Self-Determination Theory And The Facilitation Of Intrinsic Motivation. *American Psychologist*, 55(1), 68-78.

Samsul, F. (2022). Model Pembelajaran Kooperatif dalam Meningkatkan Literasi Membaca Siswa. *Jurnal Inovasi Pendidikan*, 9(2), 56-68.

Sain, Y., & Hermansyah, S. (2025). Exploring the Language Attitudes of the Tolaki Community in Kendari: A Comprehensive Sociolinguistic Analysis. *Journal of Languages and Language Teaching*, 13(2), 983–993.
<https://doi.org/10.33394/jollt.v13i2.14415>

Sam Hermansyah, Buhari, Ibrahim Manda, Andi Sadapotto, Muhammad Hanafi, Andi Asrifan, ... Muliani. (2024). Reflection on Learning in Teacher Professional Education (PPG) Strategies to Enhance the Competence of Novice Teachers at Universitas Muhammadiyah Sidenreng Rappang. *INTERACTION: Jurnal Pendidikan Bahasa*, 11(2), 727–734.
<https://doi.org/10.36232/interactionjournal.v11i2.628>

Sari, M., & Dewi, L. (2023). Peningkatan Kemampuan Membaca Pemahaman Melalui Pendekatan Berbasis Proyek. *Jurnal Ilmu Pendidikan*, 15(1), 98- 110.

Sardiman, A. (2018). *Interaksi & Motivasi Belajar Mengajar*. Depok: Rajawali Pers

Slavin, R. E. (1995). *Cooperative Learning: Theory, Research, And Practice*. New York: Allyn & Bacon.

Sugiyono. (2015). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung: Alfabeta.

Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.

Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, Dan R&D*. Bandung: Alfabeta.

Suryani, T., & Aini, R. (2022). Pengaruh Strategi Membaca Aktif Terhadap Kemampuan Literasi Siswa. *Jurnal Pendidikan Dasar*, 14(2), 134-147.

Triana, D., & Zulkifli, M. (2023). Implementasi Model Pembelajaran CIRC dalam Pembelajaran Membaca Pemahaman. *Jurnal Pendidikan Literasi*, 12(1), 45-57.

Wahid, M., & Lestari, R. (2023). Hubungan Antara Motivasi Belajar dan Hasil Belajar Membaca. *Jurnal Psikologi Pendidikan*, 15(3), 212-225.

Widodo, T., & Ningsih, A. (2021). Membaca Pemahaman dalam Konteks Pembelajaran Modern. *Jurnal Pendidikan Inovasi*, 10(4), 56-70.

Yulia, F., & Saputra, D. (2021). Peran Literasi Membaca dalam Mendukung Keterampilan Abad 21. *Jurnal Pendidikan Karakter*, 9(2), 45-60.

Zainuddin, I. (2023). Pengaruh Model Pembelajaran CIRC Terhadap Minat Baca Siswa. *Jurnal Pendidikan Inovatif*, 18(4), 98-110.