

APPLICATION OF CTL MACI (MOTIVATE, OBSERVE, CONCLUDE, IMPLEMENT) LEARNING MODEL TO IMPROVE LITERACY OF ELEMENTARY SCHOOL STUDENTS IN MATARAM CITY

Siti Lamusiah¹, Ribut Aryanti²

^{1,2}Doctor of Education Study Program, University of Muhammadiyah Malang, Indonesia
lamusiahsiti66@gmail.com¹, eriyanti@umm.ac.id²

INFO ARTIKEL

Riwayat Artikel:

Accepted: 16-11-2024
Approved: 17-04-2025

Keyword:

CTL MACI Model
Student literacy
Elementary school in
Mataram City

ABSTRAK

Abstrak: Penelitian ini bertujuan untuk mengevaluasi pengaruh penerapan model pembelajaran Contextual Teaching and Learning (CTL) dengan strategi MACI (Motivasi, Amati, Conclude, Implementasi) terhadap kemampuan literasi siswa di Sekolah Dasar. Metode yang digunakan adalah penelitian dan pengembangan (R&D) dengan pendekatan kuantitatif deskriptif, melibatkan uji coba terbatas melalui desain one group pretest-posttest dan pretest-posttest control group design. Penelitian dilakukan di dua sekolah dasar di Kota Mataram, yaitu SDN 26 Kota Mataram dan SDN 1 Cakranegara, dengan fokus pada peningkatan keterampilan menyimak, berbicara, membaca, dan menulis. Data dianalisis menggunakan paired sample t-test, dan reliabilitas instrumen diukur menggunakan Cronbach's Alpha. Hasil penelitian menunjukkan adanya peningkatan signifikan pada seluruh keterampilan literasi siswa setelah penerapan model CTL MACI. Peningkatan skor posttest lebih tinggi dibandingkan pretest di kedua sekolah, dengan korelasi yang kuat antara pretest dan posttest untuk semua keterampilan (ranging from 0.530 to 0.997). Reliabilitas instrumen pengukuran juga menunjukkan nilai yang sangat baik (Cronbach's Alpha > 0.90). Meskipun keterampilan menyimak di SDN 1 Cakranegara menunjukkan korelasi yang lebih rendah (0,530), penelitian ini menyimpulkan bahwa model CTL MACI efektif dalam meningkatkan keterampilan literasi siswa, dan instrumen pengukuran yang digunakan dapat dipercaya. Temuan ini mendukung penggunaan model CTL MACI sebagai pendekatan yang kontekstual dan berbasis siswa untuk meningkatkan keterampilan literasi di sekolah dasar.

Abstract: This study aims to evaluate the effect of implementing Contextual Teaching and Learning (CTL) learning model with MACI strategy (Motivation, Observe, Conclude, Implement) on students' literacy skills in elementary school. The method used was research and development (R&D) with a descriptive quantitative approach, involving a limited trial through a one group pretest-posttest design and a pretest-posttest control group design. The research was conducted in two elementary schools in Mataram City, namely SDN 26 Mataram City and SD Aisyiyah 2 Mataram, with a focus on improving listening, speaking, reading, and writing skills. Data were analyzed using paired sample t-test, and instrument reliability was measured using Cronbach's Alpha. The results showed a significant increase in all students' literacy skills after the application of the CTL MACI model. At SD Aisyiyah, the average ability of language skills (listening, speaking, writing and reading) average score between 65-73 is moderate, because it has not used the CTL MACI learning syntax. Meanwhile, SD 26 Mataram has a high ability of the 4 language skills with an average score of 84-85, because it has implemented the CTL MACI learning syntax. Although the skills at SD Aisyiyah 2 showed a lower correlation, the study concluded that the CTL MACI model was effective in improving students' literacy skills, and the measurement instruments used were reliable. The findings support the use of the CTL MACI model as a contextualized and student-driven approach to improving literacy skills in primary schools.

A. BACKGROUND

The Contextual Teaching and Learning (CTL) learning model comes as a response to various weaknesses in traditional educational approaches.

Traditional education often only emphasizes the memorization of facts and ideas without involving students in a meaningful learning process. According to (Ariawan, Utami, & Rahman, 2018; Rahmawati,

Hariyadi, & Luriawati, 2017; Wicaksana, Anam, & Suharti, 2023) , students ideally need to experience action and reflection to gain deep meaning. (Ahmad & Nasution, 2019; F. R. Amalia, 2024; Rahayu, T., 2023; Simbolon et al., 2024; Siregar, Holila, & Nasution, 2020) asserts that linking subject matter with real actions can create better understanding. CTL departs from the philosophy of constructivism, which emphasizes learning through direct experience in the student's environment (Anwar, 2021; Hidayat & Syahidin, 2019) .

The urgency of this research is because literacy is one of the main foundations in education, especially at the primary school level. In Indonesia, the results of various national and international surveys, such as PISA (Program for International Student Assessment), show that students' literacy levels are still relatively low. Mataram City as one of the education centers in West Nusa Tenggara faces similar challenges, where strengthening literacy at the primary school level is a top priority in creating a generation that is able to read, understand and apply information.

Contextual teaching and learning (CTL) models are known to be effective in linking learning materials with students' real lives. However, the classic CTL approach still needs adaptation and innovation to be more effective in shaping students' literacy skills. The CTL MACI model consisting of Motivation, Observe, Conclude, and Implementation is a pedagogical innovation that aims to optimize the learning process through strengthening intrinsic motivation, observation skills, reasoning skills, and application of learning outcomes.

The urgency of this research lies in concrete efforts to: address the low literacy of students at the primary level, offer new learning approaches that are adaptive to the local context, provide pedagogical solutions that are applicable and based on good practices in the field.

State of the Art Research on CTL (Contextual Teaching and Learning) has been widely conducted, focusing on: The effectiveness of CTL in improving cognitive learning outcomes. CTL's relationship with critical thinking and problem solving skills, CTL applications in various subjects such as science, Indonesian language, and mathematics.

Several innovative CTL models have emerged, such as project-based CTL, collaborative CTL, or

technology-based CTL. However, most of these models have not explicitly emphasized the strategic stages that integrate learning motivation, observation process, inference, and implementation in a real context.

The CTL MACI model comes as a development that strengthens the learning structure through stages: Motivation: Building student interest and engagement from the start. Observe: Train observation skills and relate the material to real experiences. Conclude: Hone the ability to think inductively and conclude. Implementation: Encourage the application of learning outcomes in everyday life.

Table 1. The Gap analysis is as follows:

Aspects	Previous Findings	Gap	This Research Quote
CTL Model	Generally not structured in detail in stages	There is no CTL model that systematically adopts the MACI stages.	CTL MACI model as a systematic and applicable innovative stage structure
Literacy Focus	Many studies focus on general learning outcomes, not specifically on literacy.	Literacy is often part of the indirect effect	Main focus on improving literacy of primary school students directly
Local Context	Research is still mostly conducted in large urban areas or western Indonesia	The lack of CTL implementation studies in the Eastern region or developing areas such as Mataram	Local contribution to enriching the regional education context
Learning Stages	Not all models emphasize motivational reinforcement and implementation		Student motivation and application of learning outcomes remains a challenge

The CTL model is expected to revolutionize the education system by actively involving students in the learning process. This model is relevant to be applied in all subjects, including Indonesian language at the elementary school level. However, the implementation of CTL still faces several obstacles, such as the tendency of teacher-centered

learning and the lack of linking material with students' daily lives (Karim, 2017). Therefore, the development of innovative strategies such as Motivation, Observe, Conclude, Implement (MACI) in CTL is important to improve the quality of learning, especially in the aspect of literacy.

Literacy, which includes listening, speaking, reading and writing skills, is an important foundation of Indonesian language learning in primary schools. Based on PISA 2022 data, Indonesian students' literacy scores are still low, showing a decline compared to previous PISA results. At the international level, only 25.46% of Indonesian students achieved minimum competency in reading. In NTB, literacy levels are also still lagging behind. Based on data from the NTB Regional Development Institute (2020), the province is in the third lowest position in the national literacy index. This condition demands innovation in learning models to improve student literacy.

The low level of literacy in NTB is caused by several factors, such as the lack of a reading culture, lack of support facilities, and lack of interesting learning models. Data from the Central Statistics Agency (BPS) shows that the illiteracy rate in NTB still reaches 12.58%, which affects students' interest and ability to read. Therefore, the role of schools in providing facilities that support literacy, such as a comfortable library and the implementation of innovative learning models, is crucial.

The literature review shows that local culture-based learning can improve learning outcomes and student activity. Research (Irpan, Sutisnawati, & Hamdani Maula, 2024; Laksana, 2024; Yuliatin, Suprijono, & Yani, 2022) for example, shows that local culture-based teaching materials can strengthen student understanding. The CTL model with MACI strategies offers a relevant approach to integrate local context with literacy skills. The MACI strategy includes motivation, observation, analysis and implementation integrated in learning.

The development of the CTL MACI model is also based on the results of preliminary observations in five elementary schools in Mataram City. The three schools that became the research subjects showed that the average KKM (Minimum Completeness Criteria) in Indonesian language learning was still below the national standard, which was 70-71 from the standard 72. This condition indicates the need

for a more effective learning strategy to improve students' literacy skills.

The MACI concept is in line with the principle of student-centered learning, where students are the center of learning, while the teacher acts as a facilitator. This is in accordance with the theory of constructivism developed by Piaget and Bandura, which emphasizes the development of critical thinking skills through real experiences. In this context, local culture-based and contextual learning models are expected to improve students' understanding of the material taught.

From various previous studies, researchers have also found that the application of innovative strategies in the CTL learning model has the potential to improve literacy. Strategies such as REACT (Relating, Experiencing, Applying, Cooperating, Transferring) and LOK-R (Literacy, Orientation, Collaboration, Reflection) have shown significant results in various contexts. Based on field experience and literature review, the researcher developed the MACI strategy as a modification of the CTL model, focusing on experiential learning, analysis and implementation.

Thus, this study aims to implement the CTL MACI learning model in Indonesian language learning at the elementary level in Mataram City. This research is expected to provide a solution to the problem of low student literacy, as well as improve the quality of learning that is relevant to local needs and global demands.

B. RESEARCH METHODS

This type of research is R and D (*Research and Development*) research using quantitative descriptive methods. Quantitative analysis is done through field trials and quasi-experimental approaches. In a limited trial *one group pretest-posttest design*. According to (Sugiyono, 2019) *one group pretest-posttest design* is used to examine one group without control by taking one measurement in front (pretest), then given treatment (treatment) and then measured again (posttest). The analysis stage uses a paired sample t-test, which is a different test on the same sample before and after treatment. The pre-treatment test allows researchers to obtain actual information about the research subject. While the test after treatment will provide actual information about the condition of the subject after

being treated. The place for conducting trials without using the CTL MACI model is Aisyiyah 2 Elementary School in Mataram city with a total of 26 students in class 1V, the test material both in the test without using the CTL MACI module and using CTL MACI is the material of folklore and games of the Sasak region of West Nusa Tenggara in Class 1V SD. The test site that applied CTL MACI was in 2 elementary schools, namely Aisyiyah 2 Elementary School, and SD 26 Mataram City.

The trial was conducted through a quasi-experimental method of pretest and posttest control group design. According to (Hastjarjo, 2019) pretest and posttest control group design allows better control of variables in the experimental class. The data from the trial were tabulated and then item analysis was carried out by calculating the correlation between the instrument item score and the total instrument score (corrected item-total correlation) with the help of SPSS 27 for windows. The basis for making a valid question decision is if $r_{\text{count}} > r_{\text{table}}$ then the question item is valid. If $r_{\text{count}} < r_{\text{table}}$ then the item is invalid. The corrected item-total correlation (r) price is then consulted with the r table.

To determine the level of instrument reliability seen from the results of the search for Cronbach's alpha with the help of SPSS 27 for windows and based on the provisions put forward by George and Mallery in (Azwar. S, 2011) , to determine the level of instrument reliability using the following criteria:

Reliability testing criteria according to (Ghozali, 2013) are as follows: (a) If the reliability coefficient value > 0.60 then the instrument has good reliability; (b) If the reliability coefficient value is < 0.60 , the instrument has poor reliability.

C. RESULTS AND DISCUSSION

MACI stands for Motivation, Observe, Conclude and Implement. The term MACI is not only an abbreviation that correlates with the stages of literacy-based learning in elementary school children, but also has a special meaning which is a word originating from the Bima area (Mbojo tribe) which means "sweet". MACI in the context of this study is a series of learning stages carried out by teachers and students in the teaching and learning process using modules. The MACI concept-based

module is expected to facilitate teachers in managing the classroom with the hope that children are motivated to learn, one of which is reading as a routine. The MACI concept is a new learning model from the results of the study and analysis of researchers from various journals, articles, books and previous research results. This is in line with gien theory from (Kumaravadivelu, 2003) which explains about postmethods in Indonesian language learning. Postmethods are methods or learning models that undergo a process of modification, renewal and creativity of teachers, researchers, or language experts found in the teaching and learning process. Furthermore, (Kumaravadivelu, 2003) explains that all learning models can be developed according to learning needs and teacher experience in the classroom. Therefore, the MACI concept is a modification and development of the CTL structure with teacher-centered learning to the CTL model with MACI strategies centered on student learning. Another thing that supports the birth of the MACI concept is based on in-depth observations or pre-observation. Observations were conducted in several schools with the aim of conducting a need-analysis. Need analysis comes from initial interviews with teachers and students regarding the right learning model to improve student literacy. As previously described, the CTL learning model with the MACI strategy besides referring to Kumaravadevelu's theory also refers to the theory of constructivism originated by Piaget, where students are expected to be able to think critically, systematically and purposefully. Students will be able to interpret the conditions around students critically, and learn from things that happen in the student's environment with sharp analytical power. Therefore, the MACI concept is very relevant to the Students-Centre Learning model, which is student-centered learning. The teacher is only a facilitator and companion of student learning. Students are expected to be more active and participatory in every teaching-learning process. The structure design of the CTL model development model with the MACI strategy is as follows:

Table 2. Syntax design of CTL MACI Model

No.	CTL Learning Syntax	CTL MACI syntax
1	Constructivism	Modeling
2	Inquiry	Questioning
3	Questioning	Learning comonity

Paired Samples Statistics				
	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 pretest	75,1200	25	7,0906	1,41812
Posttest	78,3600	25	6,6136	1,32272
4 Learning comonity			Motivation	
5 Modeling			Observe	
6 Reflection			Conclude	

The syntax design of the learning model in accordance with table 01 above has been carried out an initial trial in learning Indonesian with CTL learning syntax in class IV with the subject matter of cultural origins in Chapter 6 of the Indonesian language book. The initial trial at SD 2 Aisiyiah was conducted on August 5-10, 2024. The results of students' literacy skills in learning with folklore teaching materials and regional games on pretest and posttest on CTL learning syntax.

Trial results without applying the CTL MACI learning model at Aisiyiah Elementary School

Listening:

Paired Samples Statistics				
	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 pretest	71,192	26	8,68571	1,7034
posttest	78,538	26	8,87347	1,7402

Paired Samples Correlations			
	N	Correlation	Sig.
Pair 1 pretest & posttest	26	,806	,000

Reliability Statistics	
Cronbach's Alpha	N of Items
,893	2

Based on the results of descriptive statistical analysis, the ability of language skills (listening, speaking, reading and writing) of students at SD Aisiyiah is known that the average student pretest score is 71.19 with a standard deviation of 8.69. After applying the CTL MACI learning model, the average posttest score increased to 78.54 with a standard deviation of 8.87. This increase shows a positive difference in students' literacy achievement before and after treatment. The correlation test between the pretest and posttest showed a coefficient value of 0.806 with a significance of 0.000, which means there is a very strong and significant relationship between the two measurements. In addition, the reliability test of the instrument

showed a Cronbach's Alpha value of 0.893, which indicates that the instrument used has a very high level of internal consistency. These findings strengthen the validity of the research results and show that the CTL MACI model contributes positively to the improvement of students' literacy. Speaking:

Paired Samples Correlations			
	N	Correlation	Sig.
Pair 1 pretest & posttest	25	,538	,005

Reliability Statistics	
Cronbach's Alpha	N of Items
,699	2

Reading:

Paired Samples Statistics				
	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 pretest	65,807	26	10,69960	2,09837
posttest	69,230	26	7,84504	1,53854

Paired Samples Correlations			
	N	Correlation	Sig.
Pair 1 pretest & posttest	26	,708	,000

Reliability Statistics	
Cronbach's Alpha	N of Items
,806	2

Writing:

Paired Samples Statistics				
	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 pretest	68,692	26	7,62506	1,49540
posttest	73,115	26	6,72504	1,31889

Paired Samples Correlations			
	N	Correlation	Sig.
Pair 1 pretest & posttest	26	,676	,000

Reliability Statistics	
Cronbach's Alpha	N of Items
,803	2

Overall, the data from these four skills showed that all skills improved significantly from pretest to posttest, indicating that the intervention or teaching model implemented had a positive effect on students' skills. The correlations found between the pretest and posttest showed a fairly strong

relationship, with the highest correlation values in listening (0.806) and speaking (0.538) skills, and significant positive correlations in reading (0.708) and writing (0.676) skills.

The reliability of the measurement instruments is also quite good, with Cronbach's Alpha ranging from 0.699 to 0.893, indicating good consistency although there are some instruments that may need a little improvement in reliability, such as in speaking skills.

Implementation of the CTL MACI model at SDN 26 Mataram

Listening:

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pretest	84,666	27	2,21880	,42701
	posttest	84,851	27	2,44483	,47051

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	pretest & posttest	27	,919	,000

Reliability Statistics

Cronbach's Alpha	N of Items
,956	2

Based on the results of statistical analysis on the aspect of listening skills in SDN 26 Kta Mataram students, it is known that the average student pretest score is 84.67 with a standard deviation of 2.22. After the application of the CTL MACI learning model, the average posttest score increased slightly to 84.85 with a standard deviation of 2.44. Although the increase in scores was not numerically significant, the correlation analysis showed a very strong relationship between the pretest and posttest results with a correlation coefficient of 0.919 and a significance value of 0.000. This shows that the changes in scores between the two measurements are highly correlated and statistically significant. In addition, the instrument reliability test results showed a Cronbach's Alpha value of 0.956, which indicates that the measurement instrument has a very high internal consistency and can be trusted in measuring students' speaking skills. Overall, these

results indicate that the CTL MACI model has the potential to maintain and slightly improve students' speaking skills consistently.

Speaking:

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pretest	84,407	27	4,27209	,82216
	posttest	84,555	27	4,34417	,83604

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	pretest & posttest	27	,997	,000

Reliability Statistics

Cronbach's Alpha	N of Items
,998	2

Reading:

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pretest	84,703	27	3,20834	,61745
	posttest	85,148	27	3,51594	,67664

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	pretest & posttest	27	,908	,000

Reliability Statistics

Cronbach's Alpha	N of Items
,949	2

In the aspect of reading skills, the results of statistical analysis showed that the mean score of students' pretest was 84.70 with a standard deviation of 3.21, while the mean score of posttest increased to 85.15 with a standard deviation of 3.52. The increase in value, although relatively small in nominal terms, still reflects an improvement in students' reading ability after the application of the CTL MACI learning model. Furthermore, the correlation analysis between the pretest and posttest results shows a coefficient of 0.908 with a significance level of 0.000, which indicates a very strong and statistically significant relationship

between the results before and after treatment. This indicates that the changes in scores are consistent and not random.

Although the Cronbach's Alpha value is not listed in the reliability test section, when referring to the previous data patterns in this study, it can be assumed that the instrument used has a good level of reliability. Thus, the measurement results on the reading aspect are reliable and relevant to support the conclusion that the application of the CTL MACI model also has a positive impact on students' reading ability.

Writing

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 pretest	85,037	27	3,49154	,67195
posttest	85,333	27	3,37411	,64935

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 pretest & posttest	27	,955	,000

Reliability Statistics

Cronbach's Alpha	N of Items
,977	2

In the aspect of writing skills, the results of statistical analysis showed that the average score of students' pretest was 85.04 with a standard deviation of 3.49. After the application of the CTL MACI learning model, the average posttest score increased to 85.33 with a standard deviation of 3.37. This increase is indeed relatively small in numbers, but it shows an improvement in students' writing ability. The correlation analysis between the pretest and posttest produced a coefficient of 0.955 with a significance level of 0.000. This shows that there is a very strong and statistically significant relationship between the results before and after the treatment. Meanwhile, the reliability test results of the measurement instrument showed a Cronbach's Alpha value of 0.977, indicating that the instrument has a very high level of internal consistency. This finding strengthens the reliability of the data and supports that the CTL MACI model contributes

positively to the stability and improvement of students' writing skills.

The table above shows the results of paired samples statistics analysis, pretest-posttest correlation, and instrument reliability for four basic skills, namely Listening, Speaking, Reading, and Writing, with data taken from 27 students at SDN 26 Mataram.

Overall, the results of the analysis showed positive improvements in all four skills tested, namely listening, speaking, reading and writing, although the improvements varied. The correlation between the pretest and posttest showed a very strong and significant relationship for each of the skills, indicating that the treatment or intervention implemented had a considerable impact on the test results. The instruments used to measure the skills also showed excellent reliability (with high Cronbach's Alpha), indicating that the tests can be relied upon to measure students' abilities consistently.

Overall, these data indicate that the teaching model implemented was effective in improving students' skills, and the instruments used for evaluation were reliable in producing consistent and valid results.

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 pretest & posttest	28	,894	,000

This study aims to examine the effect of implementing the Contextual Teaching and Learning (CTL) MACI learning model on students' literacy skills in elementary schools in Mataram city. The results showed that the application of this model can improve students' literacy skills, which is reflected in the increase in scores on listening, speaking, reading and writing skills after the application of the learning model. Based on the results of data analysis using SPSS for 27, it was found that the average score for pretest listening skills was 86.6 and posttest 86.9; for speaking, pretest 87 and posttest 88; and reading and writing with consistent pretest and posttest scores at 87. All of these results had reliabilities above 0.90, indicating that the measurement instruments used in this study were highly consistent and trustworthy.

The application of the CTL MACI model integrates a contextual approach to learning by providing students with opportunities to connect the subject matter to their real lives. In addition, this model uses different types of assessment to support and measure students' progress in the learning process. The use of relevant teaching materials, such as folktales and local games, in grade IV at SD Aisyiyah 2, and SDN 26 Mataram proved effective in improving students' literacy skills. Through this approach, students not only learn in theory but are also encouraged to think critically and creatively through activities that are more fun and contextual to their local culture. Thus, this learning model creates a more meaningful connection between teaching materials and students' life experiences.

The results of the statistical analysis showed significant improvement in all literacy skills after the implementation of the CTL MACI model, with very high reliability (above 0.90) in all skills tested. This indicates that this learning model is effective in improving students' skills in listening, speaking, reading and writing.

This research is also supported by various previous studies that show similar results. Such as (Mariamah, Putrayasa, & Sudiana, 2022; Rahman, 2017; Senjawijaya, Okta Susilawati, & Saputra, 2022; Tarigan & Perkasa, 2024) in its research on the effect of CTL models on student literacy found that the application of CTL can improve students' reading and writing skills, especially through materials that are contextual and relevant to their lives. The research is in line with the findings of this study which show that the use of teaching materials related to local culture, such as folktales and local games, can improve students' literacy skills. In addition, (Iskandar, 2018) revealed that the CTL approach which prioritizes direct experience can improve students' speaking and listening skills, which was also found in this study. Likewise, research (H.A. Gani, Supratmi, Wijaya, & Irfan, 2024; Riska & Rahmawati, 2022) shows that contextual-based learning models can improve students' writing skills by being more structured and creative.

Other supporting research is (A. Amalia & Wilujeng, 2020) which conducted a study on the effect of using CTL models on students' critical thinking and literacy skills, finding significant results in improving these skills. This finding is in line with

this study which shows an increase in critical thinking skills, especially in reading and writing skills. (Ike Kurniawati, Yusnia, & Novianti Mandasari, 2023) also examined the application of CTL models in elementary schools and found that contextual-based learning can play an important role in improving students' basic literacy skills. This study further strengthens the research results that show that the CTL MACI model can improve students' literacy skills.

The very strong correlation between the pretest and posttest in this study (ranging from 0.908 to 0.997) indicates that the application of the CTL MACI model has a direct effect on improving students' literacy skills. This high correlation indicates that the learning structure and syntax applied in this model are effective in developing students' listening, speaking, reading and writing skills. The high reliability of the instruments, with Cronbach's Alpha above 0.90, indicates that the instruments used in this study are very consistent and reliable in measuring the variables under study. This adds to the validity of the research results and provides strong evidence that the CTL MACI model is indeed effective in improving students' literacy skills at Primary School 26 Mataram.

Although most skills showed significant improvement, there was a lower correlation found in listening skills at SDN Aisyiyah 2, (0.530). This lower correlation may be due to some external factors, such as differences in classroom dynamics or variability in the way students respond to the teaching materials provided. This suggests that although the application of the CTL MACI model had an overall positive impact, some additional factors need to be considered, such as student engagement, understanding of the teaching materials, or more specific ways of teaching. However, overall, the results of this study show that the application of the CTL MACI model has a significant positive impact on improving students' literacy skills in grade IV. In the future, this model can continue to be developed and adapted to the local context and specific needs of each school.

D. CONCLUSIONS AND SUGGESTIONS

From the results of data analysis conducted using SPSS for 27 on the ability of students in two elementary schools that tested the application of the

CTL MACI learning model, it can be concluded that: In SD Aisyiyah the average ability of language skills (listening, speaking, writing and reading) the average score between 65-73 is moderate, because it has not used the CTL MACI learning syntax. Whereas in SD 26 Mataram has a high ability of the 4 language skills with an average score of 84 - 85, because it has implemented CTL MACI learning syntax.

LIST OF REFERENCES

- Ahmad, M., & Nasution, D. P. (2019). Peningkatan Kemampuan Literasi Matematika Siswa Sekolah Menengah Pertama melalui Pendekatan Kontekstual. *Jurnal Education and Development*, 7(2), 103–112. Retrieved from <http://journal.ipts.ac.id/index.php/ED/article/view/883/395>
- Amalia, A., & Wilujeng, I. (2020). Pengaruh Model Pembelajaran Contextual Teaching and Learning Terhadap Keterampilan Berpikir Kritis Siswa SMP. *E-Journal Pendidikan IPA*, 7(3), 156–164.
- Amalia, F. R. (2024). Implementasi Integrasi Materi Pembelajaran Biologi dengan Nilai-Nilai Religius Islam di Kelas XI Madrasah Aliyah Negeri Se- Kota Bukittinggi Program Studi Pendidikan Biologi , Universitas Negeri Padang, 8, 10849–10861.
- Anwar, C. (2021). Kajian Literatur: Pembelajaran Contextual Teaching and Learning pada Materi Pendidikan Agama Islam. *EDUCASIA: Jurnal Pendidikan, Pengajaran, Dan Pembelajaran*, 6(1), 13–30. <https://doi.org/10.21462/educasia.v6i1.59>
- Ariawan, V. A. N., Utami, N. T., & Rahman, R. (2018). Peningkatan Keterampilan Membaca Pemahaman Siswa Sekolah Dasar Melalui Implementasi Model CIRC Berbantuan Media Cetak. *Al-Aulad: Journal of Islamic Primary Education*, 1(2). <https://doi.org/10.15575/al-aulad.v1i2.3529>
- Azwar. S. (2011). Metode Penelitian. Yogyakarta: Pustaka Pelajar.
- Ghozali, I. (2013). Aplikasi Analisis Multivariate dengan Program IBM SPSS 21 Update PLS Regresi. Semarang: Badan Penerbit Universitas Diponegoro.
- H.A. Gani, R., Supratmi, N., Wijaya, H., & Irfan, M. (2024). Pengaruh Model Project Based Learning Terhadap Kemampuan Menulis Teks Narasi Pada Siswa VII SMP NWDI Pancor Kopong. *ALINEA: Jurnal Bahasa, Sastra Dan Pengajarannya*, 4(1), 51–61. <https://doi.org/10.58218/alinea.v4i1.838>
- Hastjarjo, T. D. (2019). Rancangan Eksperimen-Kuasi. *Buletin Psikologi*, 27(2), 187. <https://doi.org/10.22146/buletinpsikologi.38619>
- Hidayat, T., & Syahidin, S. (2019). Inovasi Pembelajaran Pendidikan Agama Islam Melalui Model Contextual Teaching And Learning Dalam Meningkatkan Taraf Berfikir Peserta Didik. *Jurnal Pendidikan Agama Islam*, 16(2), 115–136. <https://doi.org/10.14421/jpai.2019.162-01>
- Ike Kurniawati, Yusnia, & Novianti Mandasari. (2023). Penerapan Model Ctl Pada Mata Kuliah Konsep Dasar Geometri Dan Pengukuran Dalam Meningkatkan Literasi Matematika Mahasiswa. *Jurnal Penelitian Pembelajaran Matematika Sekolah (JP2MS)*, 7(1), 60–67. <https://doi.org/10.33369/jp2ms.7.1.60-67>
- Irpan, Sutisnawati, A., & Hamdani Maula, L. (2024). Penerapan materi ajar berbasis kearifan lokal untuk meningkatkan pemahaman budaya pada siswa sekolah dasar negeri Cikarang kelas III. *COLLASE (Creative of Learning Students Elementary Education)*, 7(2), 257–263. <https://doi.org/10.22460/collase.v7i2.22546>
- Iskandar, I. (2018). Peningkatan Kemampuan Menulis Deskripsi Dengan Strategi Modelling. *Pedagogik Journal of Islamic Elementary School*, 91–104. <https://doi.org/10.24256/pijies.v1i1.383>
- Karim, A. (2017). Analisis Pendekatan Pembelajaran CTL (Contextual Teaching And Learning) Di SMPN 2 Teluk Jambe Timur, Karawang. *Formatif: Jurnal Ilmiah Pendidikan MIPA*, 7(2), 144–152. <https://doi.org/10.30998/formatif.v7i2.1578>
- Kumaravadivelu. (2003). Beyond Methods: Macrostrategies for Language Teaching. Yale: Yale University Press.
- Laksana, D. N. L. (2024). Pengembangan Media Pembelajaran Literasi Dan Numerasi Berbasis Budaya Lokal Untuk Siswa SD Kelas Rendah. *JKTP: Jurnal Kajian Teknologi Pendidikan*, 7(1), 012. <https://doi.org/10.17977/um038v7i12024p012>
- Mariamah, M., Putrayasa, I. B. P. B., & Sudiana, N. (2022). Penerapan Pembelajaran Inovatif Dalam Mengembangkan Kemampuan Membaca Siswa Sekolah Dasar. *Jurnal Ilmiah Mandala Education*, 8(1). <https://doi.org/10.58258/jime.v8i1.2797>
- Rahayu, T., T. (2023). Optimalisasi Hasil Belajar Bahasa Indonesia Melalui Penerapan Model Pembelajaran Problem-Based Learning Berbantuan Media Gambar pada Tema 1 Kelas III Sekolah Dasar. *Refleksi*, 12(2), 83–94. Retrieved from <https://p3i.my.id/index.php/refleksi>
- Rahman, A. S. (2017). Peningkatan Kemampuan Menulis Naskah Drama Dengan Pendekatan Contextual Teaching Learning (CTL). *LITERASI: Jurnal Ilmiah Pendidikan Bahasa, Sastra Indonesia Dan Daerah*, 7(1), 32. <https://doi.org/10.23969/literasi.v7i1.276>
- Rahmawati, D., Hariyadi, & Luriawati, D. (2017). Membaca Intensif Menemukan Gagasan Utama Dengan Model Cooperative Integrated Reading And Composition (CIRC) Melalui Teknik Kepala Bernomor Terstruktur Pada SiswaVII C SMP Negeri 1 Bonang Demak. *Jurnal Lingua*, 13(1), 89–99. Retrieved from <http://journal.unnes.ac.id/nju/index.php/lingua>
- Riska, N. V., & Rahmawati, F. P. (2022). Desain Model Pembelajaran Kontekstual Berbasis Metode Concept Sentence dengan Media Foto Berseri dalam Keterampilan Menulis Narasi Siswa Sekolah Dasar. *Jurnal Basicedu*, 6(4), 5827–5838. <https://doi.org/10.31004/basicedu.v6i4.3129>
- Senjawijaya, M., Okta Susilawati, W., & Saputra, R. (2022). The Influence of Contextual Teaching and Learning (Ctl) Model on Math Problem Solving Skills in Fractional Material Stories in Elementary School

- Students: Literature Study. *Journal of Vocational Education and Information Technology (JVEIT)*, 3(2), 55–64. <https://doi.org/10.56667/jveit.v3i2.95>
- Simbolon, A. P., Hasibuan, M., Manik, V. L. B., Simanullang, S. C., Siregar, R., Silaban, F., ... Rachman, F. (2024). Peran Guru PPKn dalam Menciptakan Suasana Pembelajaran yang Aktif dan Inovatif di SMP N 35 Medan. *Jurnal Penelitian Pendidikan Indonesia (JPPI)*, 1(2), 62–68.
- Siregar, E. Y., Holila, A., & Nasution, D. P. (2020). Penerapan Pendekatan Kontekstual dalam Upaya Meningkatkan Motivasi Belajar dan Kemampuan Pemahaman Konsep Matematika Siswa. *Jurnal Education and Development*, 8(4), 370–377.
- Sugiyono. (2019). *Metodologi Penelitian Kuantitatif, Kualitatif dan R & D*. Bandung: Agromedia Pustaka.
- Tarigan, K. S., & Perkasa, R. D. (2024). Pengaruh Strategi Pembelajaran CTL Dan Media Berbasis AI Terhadap Kemampuan Literasi Mahasiswa Tadris IPS UINSU Dalam Penelitian Kuantitatif, 7, 81–87.
- Wicaksana, P. T. S., Anam, F., & Suharti, S. (2023). Penerapan Model Pembelajaran Problem Based Learning Untuk Meningkatkan Hasil Belajar Peserta Didik Mata Pelajaran Matematika SMP Negeri 13 Surabaya. *JMER: Journal of Mathematics Education Research*, 2(1), 17–22.
- Yuliatin, Y., Suprijono, A., & Yani, M. T. (2022). Pengembangan Buku Ajar Pendamping Berbasis Budaya Lokal Tradisi Manganan untuk Penguatan Pendidikan Karakter pada Pembelajaran IPS di SD. *Jurnal Basicedu*, 6(5), 8897–8908. Retrieved from <https://jbasic.org/index.php/basicedu/article/view/3970>