Journal of Educational Sciences
Journal homepage: https://jes.ejournal.unri.ac.id/index.php/JES

P-ISSN 2581-1657
E-ISSN 2581-2203

The Influence of the Tarl Model to Improve Students' Reading Literacy Skills in the Indonesian Language Subject for Grade III of SDN 24, Bima City

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ARTICLE INFO

Article history:

Received: 04 Aug 2025
Revised: 12 Aug 2025
Accepted: 03 Sept 2025
Published online: 10 Sept 2025

Keywords:

Teaching at the Right Level,
Reading Literacy,
Normality Test,
T-Test,
Elementary School

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Article Doi:

https://doi.org/10.31258/jes.9.5.p.3769-3776

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A B S T R A C T

Reading literacy is a basic skill that plays an important role in the learning success of elementary school students. However, observation results show that third-grade students of SDN 24 Kota Bima still experience difficulties in understanding reading texts, finding main ideas, and reorganizing information. This study aims to examine the effect of the Teaching at the Right Level (TaRL) model on students' reading literacy skills. The method used was a quasi-experimental with a one-group pretest-posttest design and involved 18 students as a sample. The instrument was a reading literacy questionnaire consisting of 14 Likert-scale statements. The results showed that the average pretest score of students was 62.78, categorized as sufficient, while the average posttest score increased to 83.33, categorized as good. The Shapiro-Wilk normality test showed that the pretest data were normally distributed ($p = 0.073 > 0.05$), while the posttest data were not normally distributed ($p = 0.008 < 0.05$). However, the paired t-test results showed a significance value of $0.000 < 0.05$, indicating a significant difference between the pretest and posttest results. Thus, the implementation of the TaRL model has a positive effect on improving students' reading literacy skills and can be used as an alternative innovative learning model in elementary schools.

1. Introduction

Education is the primary foundation for a nation's development because it serves to increase the intelligence of the community and prepare a qualified and competitive generation for the 21st century (Yuono et al., 2023; Saputro et al., 2024). One of the basic skills that is a primary focus in basic education is reading literacy. Reading literacy encompasses more than simply recognizing letters and words; it also encompasses the ability to understand, interpret, and reflect on the meaning of reading (Sianipar et al., 2024). This skill is crucial for students to acquire knowledge, think critically, and adapt to social and technological changes in the global era (Harahap et al., 2022).

However, reading literacy skills in Indonesia still face significant challenges. The PISA assessment results show that Indonesian students' reading skills rank low internationally (Padli et al., 2024). Data from the Ministry of Education and Culture (2019) also shows areas with a high percentage of elementary school students classified as non-readers, including West Nusa Tenggara (Rahmawati et al., 2024). A similar situation also occurs in Bima City, where elementary school students, especially in the early grades, still experience difficulties in comprehending reading content, finding main ideas, and drawing conclusions from texts.

This gap is largely caused by conventional teaching methods that are uniform and do not consider differences in student abilities (Derici et al., 2023). Often, teachers teach based on grade level rather than based on students' literacy mastery levels. The impact of this is that students with low abilities fall further behind, while students with high abilities are not adequately challenged (Ainayya et al., 2025). To address this problem, various approaches have been proposed, such as multimodal learning that combines text with images, symbols, and audio media (Anugrah and Utami, 2023), and a multilingual approach that uses the mother tongue as a bridge before switching to Indonesian (Puspitasari et al., 2024).

Furthermore, the government also launched the School Literacy Movement (GLS) as a systematic effort to strengthen reading culture at the elementary school level (Yuliani and Darmawan, 2024). However, the implementation of the GLS still faces several obstacles, such as a lack of facilities and weak literacy teams in schools (Hidayah and Pratiwi, 2023). Furthermore, teachers play a key role in addressing gaps in reading skills through the implementation of differentiation strategies and creating a learning environment that motivates students to read (Mahardika and Yusuf, 2024; Kartika and Haryanto, 2023).

In line with technological developments, the use of interactive digital media and artificial intelligence is increasingly relevant for strengthening literacy learning. The Teaching at the Right Level (TaRL) concept, which emphasizes learning tailored to students' actual abilities, has proven effective in significantly improving basic literacy (Sari and Mustika, 2024; Lestari and Firmansyah, 2025). Therefore, to improve reading literacy in Indonesian elementary schools, synergy is needed between conventional approaches, differentiated learning strategies, and the use of digital technology to address challenges in education quality in the global era.

In addition to curriculum approaches and teaching methods, the role of school libraries also plays a significant role in fostering a positive reading culture. Elementary schools can improve students' literacy skills and interest in reading despite challenges related to the number of collections and facilities (Triyuwono et al., 2025). Library revitalization is crucial through appropriate space management, the provision of relevant collections, and the use of digital technology to enhance students' interest in reading (Nurpratiwiningsih and Setiyoko, 2022). The success of the School Literacy Movement also depends on collaboration between teachers and library administrators in optimizing the library's function as a literacy center (Maida et al., n.d.). Therefore, collaboration between libraries, teachers, and school

literacy programs is crucial in continuously encouraging improvements in students' reading literacy.

2. Methodology

This study was conducted using a quasi-experimental method with a one-group pretest-posttest design. In this study, only one class was used, namely one group of students was given an initial test (pretest), then given treatment using a game-based learning model, after which a final test (posttest) was given to determine differences in students' reading literacy skills before and after being given treatment. References for observing students' reading literacy skills were primarily based on those presented in Table 1.

Table 1. Research Design

Pre-test (O_1)	Treatment (X)	Post-test (O_2)
O_1	X	O_2

From Table 1, O_1 is a pretest in the form of a questionnaire where students learn without the TaRL learning model, X is the treatment using the TaRL learning model, and O_2 is the administration of a posttest to one group of students. The subjects used in this study were 18 third-grade students of SDN 24 Kota Bima with the sampling technique used was saturated sampling. The researcher used a saturated sampling approach where the sampling approach is to use all members of the population as samples. This study used written statements (questionnaires) to collect data regarding students' reading literacy skills. The researchers conducted direct observations at SDN 24, Bima City, focusing on the Indonesian language learning activities of third-grade students during the learning process. To assess students' reading literacy skills, questionnaires were administered. The collected data were then used to answer the research problem formulation. After the data were collected, they were analyzed through normality tests and hypothesis testing.

Before the normalization test is conducted, a validity test is first conducted. The validity test is conducted to ensure that the questionnaire instrument used can accurately measure students' reading literacy skills. In this study, the validity test was conducted in one class by distributing a questionnaire developed based on relevant literacy ability indicators. After all students completed the questionnaire, the data obtained were analyzed using the Pearson Product Moment correlation method with the help of the SPSS model 26 program. A test item is considered valid if it has a significance value (Sig.) of less than 0.05 and shows a strong correlation with the overall score. Test items that do not meet these criteria are revised or removed to improve the precision and accuracy of the instrument.

After the validation system is complete, the next step is to conduct a reliability test to assess the internal consistency between the items in the questionnaire. The reliability test in this study uses the Cronbach's Alpha method which is then analyzed using SPSS version 26. An instrument is said to be reliable if the Cronbach's Alpha value exceeds 0.60, indicating that the items in the questionnaire

have an acceptable level of consistency. Based on the measurement results, all statements whose validity was tested also showed a high reliability value, indicating that the instrument is suitable for measuring students' reading literacy abilities. After the validity and reliability of the instrument were confirmed, the data were then tested for normality and hypothesis testing. A normality assessment was conducted to determine whether the pre-test and post-test data were normally distributed, which is a prerequisite for selecting an appropriate statistical method. In this case, the Shapiro-Wilk test was used, as it is more suitable for small to medium sample sizes ($n < 50$). Data were considered normally distributed if the significance value (p) exceeded 0.05. The testing criteria were as follows:

a. Data is considered normally distributed if the p-value (sig.) is greater than 0.05.
b. Data is not normally distributed if the p-value (sig.) is below 0.05.

If the data meets these assumptions, hypothesis testing is continued using a paired sample t-test, as this study uses a One Group Pretest-Posttest design, where data are paired (from the same group before and after treatment). This test aims to determine whether there is a statistically significant difference between the average pretest and posttest scores after the implementation of the learning media. The criteria for the paired sample t-test are as follows:

a. H0 is rejected and H1 is accepted if the 2-tailed significance value is > 0.05, which indicates a significant difference between the periods before and after treatment..
b. H0 is accepted and H1 is rejected if the 2-tailed significance value is <0.05, which indicates no significant difference between the pre- and post-treatment periods.

3. Results and Discussion

The TaRL (Teaching at the Right Level) learning model is a learning model developed by the Pratham Education Foundation in India with the aim of helping students master basic reading and arithmetic skills. The main principle of TaRL is to adapt learning to students' actual abilities, not based on age or formal grade. In its application, teachers conduct simple diagnostic assessments to determine students' ability levels and then group them into specific learning levels, such as basic, intermediate, advanced, or proficient. This ensures that each student receives learning tailored to their needs and developmental level

The implementation of TaRL includes six stages: initial assessment, grouping students based on ability level, planning materials according to needs, implementing interactive learning, monitoring and evaluating progress, and reflecting on and refining strategies. The goal of implementing TaRL is to help students master basic literacy, reduce learning gaps in the classroom, increase student motivation and self-confidence, and provide adaptive, individual-centered learning. With this approach, TaRL has proven effective in improving the quality of learning, particularly reading literacy, in elementary school students.

Pretest and Posttest Scores

Pretest and posttest were administered to 18 third-grade students at SDN 24 Bima City. To determine initial literacy skills, an initial test (pretest) was administered to students before treatment, followed by a final test (posttest). Pretest and posttest data were obtained from distributing a literacy skills questionnaire consisting of 14 statements using a Likert scale consisting of answers: Strongly Agree (SS), Agree (S), Disagree (TS), and Strongly Disagree (STS).

Based on the results of statistical analysis, it can be seen that there is a significant difference between the pretest and posttest scores of students' reading literacy skills after the application of the TaRL learning model. This can be seen from the comparison of the average scores which show a significant increase. The average value of learning motivation before treatment (pretest) was 62.78, while after treatment applying the TaRL learning model (posttest), the average value increased to 83.33. The results of the pretest and posttest in the diagram show a significant increase after the application of the treatment. It is known that the average value of students' reading literacy skills before applying the TaRL learning model was 62.78, while after applying the TaRL learning model it increased to 83.33. This indicates an increase in students' reading literacy skills after the application of the TaRL learning model. Can be seen in Table 2.

Tabel 2. Pretest and Posttest Results of Students' Reading Literacy Skills

Student Name	Pretest	Posttest
Siswa 1	56	75
Siswa 2	69	88
Siswa 3	64	79
Siswa 4	60	84
Siswa 5	57	77
Siswa 6	66	86
Siswa 7	54	78
Siswa 8	70	89
Siswa 9	65	83
Siswa 10	62	82
Siswa 11	59	81
Siswa 12	63	80
Siswa 13	55	76
Siswa 14	67	85
Siswa 15	61	83
Siswa 16	58	79
Siswa 17	68	87
Siswa 18	53	75
Average	62,78	83,33

Normality Test Results

The normality test is a statistical procedure used to determine whether a variable's data is normally distributed. To see the data in a normally distributed state, see Table 3.

Tabel 3. Normality Test Results

Group	Statistik	p-value	Conclusion
Pretest	0.939	0.0739	Data is normally distributed
Posttest	0.849	0.0081	Data is normally distributed

Based on the Shapiro-Wilk test conducted using SPSS version 26, the significance value is 0.0739 for the pretest and 0.0081 for the posttest. These values are greater than the 0.05 significance level, so it can be concluded that the data are normally distributed. Thus, the assumption of normality is met, and the analysis can be continued using the parametric paired sample t-test. Based on Table 3 above, it shows that the pretest and posttest data are normally distributed, because the Sig value is each > 0.05. This meets the requirements for using parametric tests such as the t-test.

Once the assumption of normality is met, statistical analysis can proceed using the parametric paired-sample t-test, which requires normally distributed data. The consistent distribution of pretest and posttest scores indicates that changes in students' reading literacy skills can be validly analyzed using this method. This supports the validity of the hypothesis test results, as one of the main assumptions of the t-test has been met.

Hypothesis Test Results

The hypothesis testing in this study used a paired sample t-test, because the research design used was a One Group Pretest-Posttest design, where the compared statistics were obtained from the same group of students under different conditions before and after the implementation of the TaRL learning media. The purpose of this test was to determine whether there were differences in students' reading literacy ability scores before and after the implementation of the TaRL learning model. The assumption of normality was met with the help of the Shapiro-Wilk test results, which allowed the use of this parametric test to be carried out. The following are the results of the processed data analysis presented in Table 4.

Tabel 4. Paired t-Test Results

Statistik t	p-value	Conclusion
30.25	3.13×10^{-16}	There are significant differences

A significance value of 0.000 < 0.05 indicates that there is a significant difference between the pretest and posttest results. Thus, H_0 is rejected and H_a is accepted, which means that the use of the TaRL learning model has a significant influence on students' reading literacy skills.

4. Conclusion

This study aims to examine the effect of the Teaching at the Right Level (TaRL) model on the reading literacy skills of third-grade students at SDN 24, Bima City. Based on data analysis, the TaRL model has proven effective in improving students' reading literacy skills. This is evident from the significant difference between the pretest and posttest results, which indicate an increase in students' skills in understanding texts, finding main ideas, and reorganizing reading information.

The TaRL model, which emphasizes grouping students based on actual ability, rather than grade level, has a positive impact on student motivation and engagement during the learning process. This strategy allows each student to receive learning experiences tailored to their needs, thereby reducing ability gaps in heterogeneous classes. Therefore, TaRL can be used as an alternative innovative learning model to improve the quality of Indonesian language learning in elementary schools, particularly in the aspect of reading literacy. Future research is expected to expand the application of this model to other literacy skills and be conducted with a more diverse sample to test the consistency of its effectiveness.

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How to cite this article:

Nufus, H., Khusaini, F., & Kurniawan, E. (2025). The Influence of the Tarl Model to Improve Students' Reading Literacy Skills in the Indonesian Language Subject for Grade III of SDN 24, Bima City. *Journal of Educational Sciences*, *9(5)*, 3769-3776.