

IMPLEMENTATION OF CALISTUNG ACTIVITIES TO IMPROVE LITERACY AND NUMERACY SKILLS IN GRADE 1 STUDENTS

Uli Fathurrizqoh¹, Atsna Mala Lestari¹, Elvira Khairunisa¹, Megan Ananda Al Fatih¹, Silvi Novitasari¹, Wungu Laela Andani¹, Zahrasyifa Firdausy Hakiki¹, Moh. Salimi¹

¹Universitas Sebelas Maret, Surakarta, Indonesia

Email: uli.fathurrizqoh@student.uns.ac.id

Abstract

Literacy and numeracy activities play a crucial role in helping students understand information, solve problems, and develop critical thinking skills from an early age; however, their implementation has not been optimal. This study aims to describe the implementation of literacy and numeracy activities for grade 1 students at SDN Rantewringin and to analyze the impact of these activities on students' literacy and numeracy skills. This study used a qualitative descriptive approach, aiming to describe the implementation of calistung (reading, writing, and arithmetic) activities to improve literacy and numeracy skills in grade 1 students at SDN Rantewringin. The research data were collected through initial observations during learning activities, which revealed that most grade 1 students at SDN Rantewringin experienced difficulties in reading, writing, and arithmetic. Before the study, the students' literacy and numeracy skills were classified as low. Therefore, the researchers conducted calistung activities to enhance the students' literacy and numeracy skills at SDN Rantewringin. Based on the results of the study, calistung activities at SDN Rantewringin improved students' literacy and numeracy skills. Thus, calistung activities can be implemented as a method to improve students' literacy and numeracy skills, particularly for grade 1 students. Class teachers can consistently implement these activities at the beginning of learning to further enhance students' skills. The application of reading, writing, and arithmetic activities conducted in a structured and repetitive manner has assisted students in comprehending the learning materials.

Keywords: Literacy, Numeracy, Elementary school, Calistung, Grade 1 students

INTRODUCTION

Literacy and numeracy are two fundamental skills that cannot be separated in the learning process, especially at the elementary school level. Literacy is defined as students' ability to read, write, and understand written information. Tunardi (2018) states that literacy is the ability to read and write carried out through a continuous thinking process to produce new understanding and works. Meanwhile, numeracy is the ability to understand and apply number concepts and counting skills in daily life, including the ability to interpret information related to numbers (Maulidina, 2019). These two skills serve as a crucial foundation in helping students understand information, solve problems, and develop thinking skills from an

early age. Therefore, literacy and numeracy skills need to be honed from the beginning because both are basic skills that every individual must possess to navigate life in the future (Latifah and Rahmawati, 2022).

One effort to improve the literacy and numeracy skills of lower-grade students is through Calistung (reading, writing, and arithmetic) activities. Calistung activities are basic learning activities that focus on strengthening early reading skills, simple writing, and basic number counting. Through the routine implementation of calistung activities, students are trained to develop literacy and numeracy skills in every learning process (Asiah, 2018). Thus, calistung activities in this study act as the independent variable, while students' literacy and numeracy skills act as the dependent variable.

In fact, the literacy and numeracy competencies of students in Indonesia are still classified as low, causing the quality of education to lag behind other countries (Dwi Noerbella, 2022). This is evidenced by the results of the Program for International Student Assessment (PISA) released by the Organization for Economic Cooperation and Development (OECD), which shows that Indonesia ranks 70th out of 78 participating countries. Approximately 25% of students have adequate reading competencies, and 24% have mathematical competencies (Fuadi et al., 2020). This condition aligns with the situation found in grade 1 students at SDN Rantewringin. Based on the results of initial observations, most students still have not fully mastered the skills of reading, writing, and calculating. Students still require intensive assistance in reading simple texts, writing short sentences, and performing basic calculations. If this condition is not immediately addressed, students have the potential to experience learning difficulties at the next level and become less active in the learning process.

Therefore, this research is urgently needed to find effective learning solutions to improve the literacy and numeracy skills of lower-grade students, particularly in public elementary schools located in rural areas. This research was carried out through the Teaching Assistance Scheme Impactful Learning Grant program in 2025, with the hope of making a tangible contribution to improving the quality of learning in elementary schools. The problem in this research is how literacy and numeracy activities for grade 1 students at SDN Rantewringin are implemented and how they impact students' literacy and numeracy skills. This study aims to describe the implementation of literacy and numeracy activities and analyze their impact on the literacy and numeracy skills of grade 1 students at SDN Rantewringin. The results of this study are expected to improve the skills of lower-grade students and serve as evaluation material for class teachers in implementing learning.

METHODOLOGY

Research Method Type

This study uses a qualitative descriptive method that aims to describe the implementation of calistung (reading, writing, and arithmetic) activities in improving the literacy and numeracy skills of grade 1 students at SDN Rantewringin. A qualitative descriptive approach was used because this study focuses on the implementation process of the activities and the impact they have on students' literacy and numeracy skills. According to Roosinda (2021), data collection in qualitative research is carried out through observation, interviews, and documentation of research activities.

Sample and Sampling Technique

This research was conducted at SDN Rantewringin, located in Rantewringin Village, Buluspesanteren District, Kebumen Regency. The research subjects were all 18 Grade 1 students at SDN Rantewringin. The sampling technique used was purposive sampling, which is based on specific considerations. According to Suriani, Risnita and Jailani (2023), purposive sampling is a sampling technique with specific goals and considerations, chosen because it is considered capable of providing relevant information in accordance with the research objectives.

Data Collection Technique

Data collection techniques in this study were conducted through observation, simple tests, and documentation. Observations were made to observe student involvement and activities during the implementation of calistung activities. Simple tests were used to determine students' abilities in reading short texts, writing self-introductions, and performing basic calculations. In addition, documentation was used to collect data in the form of activity photos and learning implementation notes. This is in accordance with the opinion of Roosinda (2021), which states that data collection in qualitative research can be done through observation, interviews, and documentation.

Data Analysis Technique/Research Procedure

Data analysis was carried out qualitatively and descriptively by comparing students' literacy and numeracy skills before and after the implementation of calistung activities. Data from observations and tests were analyzed and presented in narrative form to describe changes in students' skills. All research activities have obtained permission from the school, and the data collected is used solely for academic purposes while maintaining the confidentiality of the students' identities. The research procedure includes the planning stage of calistung activities, routine implementation of activities at the beginning of learning, data collection through observation and tests, and data analysis to conclude the impact of calistung activities on students' literacy and numeracy skills. The following is the assessment category table for this research.

Table 1. Assessment Categories

Average Score Range	Category
1,00 – 1,75	Very Low
1,76 – 2,50	Low
2,51 – 3,25	Fair
3,26 – 4,00	good

RESULTS AND DISCUSSION

RESULTS

Calistung Activities

The implementation of activities to improve the literacy and numeracy skills of Grade 1 students at SDN Rantewringin was carried out through calistung (reading, writing, and arithmetic) activities. This activity was implemented in the odd semester of the 2025/2026 academic year. Before implementing the activity, the researchers conducted initial observations in all classes from grade 1 to grade 6. Based on the results of these observations, grade 1 students exhibited literacy and numeracy skills that were still low, particularly in reading simple texts, writing short sentences, and calculating basic numbers without the aid of concrete objects. The initial observation data showed that most students were not yet able

to read simple texts fluently, experienced difficulties writing self-introduction texts, and were not yet able to solve simple arithmetic problems independently.

Figure 1. Numeracy Activity



Figure 2. Literacy Activity



Calistung activities were carried out routinely at the beginning of learning with a focus on simple reading, writing, and arithmetic. Reading activities were conducted by providing reading materials in the form of short stories and simple fairytales. Writing activities were carried out by copying writing on the blackboard and creating short introductory texts. Meanwhile, counting activities were carried out through illustrated worksheets to make it easier for students to understand number concepts. The observation results showed that students' activity and involvement gradually increased during the activities.

Literacy and Numeracy Skills

The following is the data from the research that has been conducted.

Table 2. Initial Observation Data of Literacy and Numeracy Skills of Grade 1 Students at SDN Rantewringin

No	Student Code	Initial Reading	Initial Writing	Initial Counting	Initial Average	Initial Category
1	AAZ	2	1	2	1,67	Low
2	AKJ	1	2	1	1,33	Very Low
3	AJP	2	2	2	2,00	Low
4	AZS	1	1	2	1,33	Very Low
5	AGS	2	2	1	1,67	Low
6	AZP	2	1	2	1,67	Low
7	BK	1	2	1	1,33	Very Low
8	BSA	2	2	2	2,00	Low
9	HAA	1	1	2	1,33	Very Low
10	MJA	2	2	1	1,67	Low
11	MNA	2	1	2	1,67	Low
12	MO	1	2	1	1,33	Very Low
13	NAF	2	2	2	2,00	Low
14	PA	1	1	2	1,33	Very Low
15	TR	2	2	1	1,67	Low
16	YA	2	1	2	1,67	Low
17	ZAF	1	2	1	1,33	Very Low
18	ZQQ	2	1	2	1,67	Low

Based on the initial observation data table of literacy and numeracy skills of Grade 1 students at SDN Rantewringin, the results showed that most students were in the low and very low categories, with an initial average score range between 1.33 and 2.00. These results indicate that the initial literacy and numeracy skills of grade 1 students are still classified as low. The assessment of literacy and numeracy skills includes the ability to read, write, and calculate. This data indicates that the students' initial skills have not developed optimally in these three aspects.

The low initial literacy and numeracy skills of grade 1 students at SDN Rantewringin highlight the need for targeted and continuous learning efforts to improve students' abilities. Literacy and numeracy skills significantly influence the learning process in subsequent stages. Therefore, implementing literacy and numeracy activities in this study is considered relevant and appropriate as an effort to improve the reading, writing, and arithmetic skills of Grade 1 students in learning activities.

Table 3. Final Observation Data of Literacy and Numeracy Skills of Grade 1 Students at SDN Rantewringin

No	Student Code	Initial Reading	Initial Writing	Initial Counting	Initial Average	Initial Category
1	AAZ	3	3	3	3,00	Fair
2	AKJ	3	3	2	2,67	Fair
3	AJP	4	3	3	3,33	Good
4	AZS	3	2	3	2,67	Fair
5	AGS	3	3	3	3,00	Fair
6	AZP	3	3	3	3,00	Fair

7	BK	3	3	2	2,67	Fair
8	BSA	4	3	3	3,33	Good
9	HAA	3	2	3	2,67	Fair
10	MJA	3	3	3	3,00	Fair
11	MNA	3	3	3	3,00	Fair
12	MO	3	3	2	2,67	Fair
13	NAF	4	3	3	3,33	Good
14	PA	3	2	3	2,67	Fair
15	TR	3	3	3	3,00	Fair
16	YA	3	3	3	3,00	Fair
17	ZAF	3	3	2	2,67	Fair
18	ZQQ	4	3	3	3,33	Good

Based on the final observation data table, there is an increase in the literacy and numeracy skills of Grade 1 students at SDN Rantewringin following the implementation of calistung activities. Students experienced an increase in scores in the aspects of reading, writing, and calculating, with the final average falling in the range of 2.67 to 3.33. Thus, all students exhibited an increase in the average score of reading, writing, and arithmetic skills, with the final category falling into the fair to good categories. This indicates that calistung activities conducted in a routine and structured manner are capable of improving the literacy and numeracy skills of Grade 1 students at SDN Rantewringin. The fair and good categories dominated the students' skill categories in the final observation, and no students were found to be in the very low or low categories anymore. This improvement indicates that routinely carried out calistung activities can enhance the literacy and numeracy skills of grade I students at SDN Rantewringin and have a positive impact on students' learning readiness in the early stages of basic education.

DISCUSSION

Activity Implementation

Based on the research results, the implementation of literacy and numeracy activities for grade 1 students showed a significant improvement. The implementation of calistung activities has been able to improve students' literacy and numeracy skills. This is in line with previous research findings stating that the implementation process of this calistung learning model trains students who experience difficulties in reading, writing, and counting (Kusuma and Sari, 2023). After the activities were implemented, students became more fluent in reading, fluent in writing introductory texts, and found it easier to perform basic calculations. These difficulties certainly have causal factors. According to Syah (Anggraeni, Muryaningsih and Ernawati, 2020), factors influencing student learning difficulties are internal factors originating from within the students themselves, encompassing two aspects, namely physiological aspects (which are physical in nature) and psychological aspects (which are spiritual in nature). This skill improvement is evidenced by the enhancement of most students' abilities in simple reading, counting, and writing. With these simple activities, students' literacy and numeracy skills can be improved. Literacy and numeracy skills are essential for the current era, especially in today's digital age. To produce graduates who meet the demands of changing times, a strong foundation in school learning in the form of literacy and numeracy is required (Fitriana and Khoiri Ridlwan, 2021).

Consequently, based on this research, calistung activities can be applied as one method to improve students' literacy and numeracy skills. Class teachers can consistently implement these activities at the beginning of learning so that students' skills continue to improve. Routine practice with teachers and parents is key to improving these skills. The role of teachers at school is crucial so that students' literacy and numeracy skills do not decline. In practice, it is not uncommon for teachers to encounter several challenges, both internal and external to students. As explained in previous research, teachers' challenges in fostering students' numeracy literacy include differences in student abilities, lack of student interest and motivation, lack of support from parents, and limited resources and facilities (Hidayat, 2024). At school, teachers act as students' parents. This is because a teacher is responsible for creating a pleasant learning atmosphere and acts as a facilitator, motivator, and director in children's literacy activities (Simamora, Sinaga and Prayuda, 2025).

To mutually support the successful implementation of this activity, students' parents need to participate as motivators and facilitators for students at home. According to Reswita and Filtri (2023), besides the teacher's role in learning at school, parents' roles are also highly influential in developing students' numeracy literacy skills. Students spend more time with their parents at home. For this reason, parents must participate in the routine implementation of this activity at home. Reading, writing, and calculating activities conducted routinely and in a structured manner can help students develop basic thinking skills and improve early academic skills. As suggested by Yunansah and Mulyati (2017), continuous practice can help students understand learning materials more easily.

Literacy and Numeracy Activity Competencies

Based on observation results at the pre-activity stage, the literacy and numeracy skills of Grade 1 students were still in the very low to low categories. This condition was marked by low reading fluency, difficulty in writing simple sentences, and students' limitations in understanding number concepts and performing basic arithmetic operations independently. At this stage, most students still required intensive assistance from the teacher in completing reading, writing, and arithmetic tasks. Following the routine and structured implementation of calistung activities, the students' literacy and numeracy skills showed significant improvement. Students became more fluent in reading simple texts, were able to write more neatly and directly, and demonstrated a better understanding of number concepts, simple addition, and subtraction. Besides improvements in cognitive aspects, students also exhibited progress in learning attitudes, such as increased self-confidence, the courage to try, and active participation in learning activities.

This competency improvement indicates that calistung activities not only impact student learning outcomes but also the learning process as a whole. Repeatedly practicing reading, writing, and calculating helps students build a stronger literacy and numeracy foundation. Thus, calistung activities can be used as an effective learning strategy to improve the basic competencies of lower-grade students and minimize learning difficulties at the next level. In this study, the resulting research data were limited, and the activity implementation time was very short. Future research could involve more students and a longer duration to obtain more optimal results. The more research subjects there are, the more accurate the results will naturally be. As expressed in the journal Population and Sampling (Quantitative), and Selection of Key Informants (Qualitative) in a Practical Approach, which states that the larger the actual sample size, the better the results obtained will be (Asrulla, Jailani and Jeka 2023). With an increase in research subjects, a longer implementation time is certainly required.

CONCLUSION

Based on the research results, it can be concluded that the implementation of calistung activities can improve the literacy and numeracy skills of grade 1 students at SDN Rantewringin. The application of reading, writing, and arithmetic activities carried out in a structured and repetitive manner has helped students in understanding the learning materials. Through these activities, students have also become more active and highly involved in the learning process. The research data indicates that during the pre-activity stage, the students' literacy and numeracy skills were still in the very low to low categories with a score range of 1.33 – 2.00. Following the implementation of the activities, quite significant results were obtained. Post-activity, they achieved the Fair to Good categories with a score range of 2.67 – 3.33. This study has several limitations, including a limited number of research subjects, confined to only 18 grade 1 students, and a relatively short activity implementation time. These limitations mean the research results cannot yet be widely generalized to other elementary school contexts with different characteristics. The results of this study provide a solution for lower-grade elementary school teachers by making calistung activities a habit to improve students' literacy and numeracy skills, especially in lower grades. For future research, it is recommended to involve a larger number of subjects, a longer implementation time, and use several variations of learning methods to obtain more optimal results.

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