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Application Of *Ice Breaking* As A Strategy to Improve Student Participation In Mathematics Learning

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Abstract: *This study was motivated by low student participation in mathematics learning at SD Negeri 15 Langsa, where many students remained passive, lacked focus, and were reluctant to ask questions or express opinions. The study aimed to improve student participation in mathematics learning through the application of ice breaking. This research is a Classroom Action Research (CAR) based on the Kemmis and McTaggart model, conducted in two cycles, each consisting of two meetings with the stages of planning, acting, observing, and reflecting. The subjects were the classroom teacher and 15 fifth-grade students of class V A (9 boys and 6 girls) at SD Negeri 15 Langsa in the 2025/2026 academic year. The instruments were a student participation observation sheet covering five indicators (asking questions, answering questions, expressing opinions, following the lesson well, and completing assignments), an interview guide, and documentation. Quantitative data were analyzed using descriptive percentage statistics and supported by qualitative analysis of interview and documentation data. The results showed that the average student participation increased from 65.0% (good) in Cycle I to 90.0% (very good) in Cycle II, an increase of 25.0 percentage points, exceeding the success criterion of ≥ 76%. In Cycle II, all five indicators reached the very good category, ranging from 87.5% to 100%. Ice breaking in the form of cheers, songs, clapping routines, and simple games integrated with the mathematics content was applied at the beginning, middle, and end of each lesson. It can be concluded that ice breaking effectively improves student participation in mathematics learning in elementary school.*

Keywords: Ice Breaking, Student Participation, Mathematics Learning, Elementary School

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Abstrak: Penelitian ini dilatarbelakangi oleh rendahnya partisipasi siswa dalam pembelajaran matematika di SD Negeri 15 Langsa. Banyak siswa masih pasif, kurang fokus, serta tidak berani bertanya maupun berpendapat selama pembelajaran. Penelitian ini bertujuan meningkatkan partisipasi siswa dalam pembelajaran matematika melalui penerapan *ice breaking*. Jenis penelitian ini adalah Penelitian Tindakan Kelas (PTK) model Kemmis dan McTaggart yang dilaksanakan dalam dua siklus; setiap siklus terdiri atas dua pertemuan dengan tahapan perencanaan, pelaksanaan tindakan, observasi, dan refleksi. Subjek penelitian adalah guru kelas dan 15 siswa kelas V A SD Negeri 15 Langsa (9 laki-laki dan 6 perempuan) tahun pelajaran 2025/2026. Instrumen penelitian meliputi lembar observasi partisipasi siswa dengan lima indikator (bertanya, menjawab pertanyaan, menyampaikan pendapat, mengikuti pelajaran dengan baik, dan mengerjakan tugas), pedoman wawancara, serta dokumentasi. Data kuantitatif dianalisis dengan statistik deskriptif persentase dan didukung analisis kualitatif terhadap data wawancara dan dokumentasi. Hasil penelitian menunjukkan bahwa rata-rata partisipasi siswa meningkat dari 65,0% (kategori baik) pada siklus I menjadi 90,0% (kategori sangat baik) pada siklus II, atau naik 25,0 poin persen, sehingga melampaui indikator keberhasilan ≥ 76%. Pada siklus II seluruh indikator berada pada kategori sangat baik dengan rentang 87,5%–100%. *Ice breaking* berupa yel-yel, lagu, tepuk semangat, dan permainan sederhana yang terintegrasi dengan materi diterapkan pada awal, tengah, dan akhir pembelajaran. Dengan demikian, penerapan *ice breaking* efektif meningkatkan partisipasi siswa dalam pembelajaran matematika di sekolah dasar.

Kata Kunci: ***Ice Breaking, Partisipasi Siswa, Pembelajaran Matematika,Sekolah Dasar***

A. INTRODUCTION

Mathematics is one of the compulsory subjects that students must learn from the primary level of education (Rahmawati et al., 2022). As a deductive science, mathematics requires logical and systematic understanding, ranging from basic concepts to their application in everyday life. It also develops critical, analytical, and organized thinking skills (Kartika, 2023).

Mathematics fosters students' creative thinking and enhances their reasoning abilities. Mathematics is taught to all students from elementary school onward to develop logical, analytical, systematic, critical, and creative thinking, as well as the ability to cooperate (Rahayu et al., 2024). In reality, however, mathematics is often perceived by some students as a difficult and intimidating subject, so their interest and participation in learning tend to be low. Many students struggle to understand the material and lack the confidence to engage actively in class.

Challenges in the learning process are also a concern in Islamic education. Islamic teachings provide motivation and spiritual reinforcement, as stated by Allah SWT in Surah Al-Insyirah, verses 5–6:

فَاِنَّ مَعَ الْعُسْرِ يُسْرًا, اِنَّ مَعَ الْعُسْرِ يُسْرًا

Meaning: “For indeed, with hardship comes ease. Indeed, with hardship comes ease” (QS. Al-Insyirah: 5–6).

The verse above conveys the message that every hardship is accompanied by ease. Therefore, difficulty in understanding mathematics should not be a reason to give up, but rather an encouragement to keep trying with patience and perseverance. Teachers’ competence must be continuously improved, especially in creating a learning environment that is comfortable, enjoyable, and capable of encouraging students’ active participation. Active student participation is essential because it reflects students’ physical, mental, and emotional involvement in learning activities, which ultimately improves their understanding and learning outcomes (Muharrir, 2022).

Meaningful mathematics learning cannot be separated from the teacher’s role in designing and implementing instruction that stimulates thinking and communication skills and gives students opportunities to express ideas and reasons logically. This indicates that students’ active involvement in the mathematics learning process is an important aspect that teachers must attend to (Wahyuni & Zaiyar, 2021).

Student participation is mental, emotional, and physical involvement in responding to various learning activities, supporting the achievement of objectives, and demonstrating responsibility for that involvement (Karnia et al., 2023). Such involvement is not limited to physical presence in the classroom; it also includes students’ contributions to discussions, their ability to ask questions, express personal opinions, and respond to their peers’ ideas (Kholis, 2024). Subagyo (2025) states that “student participation in mathematics learning encourages students to find solutions to the mathematical problems they encounter.”

In this study, student participation refers to students’ active physical, mental, and emotional involvement in mathematics learning activities. This involvement was observed based on five indicators proposed by Jefri (2019),

namely: (1) asking questions, (2) answering questions, (3) expressing opinions, (4) following the lesson well, and (5) completing assignments. In practice, however, many teachers still emphasize one-way delivery of material without considering students' conditions or involving them actively. Without an engaging approach, students tend to become passive listeners and are reluctant to engage in problem solving, discussion, or asking questions (Aje Usman, 2022).

Specifically in mathematics learning, student participation has a broader dimension, involving both cognitive and social engagement simultaneously (Restianasari et al., 2024). Student participation, both verbal and nonverbal, is an important element in creating active and meaningful learning. Verbal participation helps students practice speaking and critical thinking skills and strengthens understanding through interaction and feedback (Pradestina & Agustin, 2020). Nonverbal participation reflects cognitive engagement, maintains focus, and supports an orderly learning atmosphere (Aswaruddin et al., 2025). The two complement each other and play a major role in the success of the learning process.

Student participation is influenced by internal and external factors. Internal factors include learning motivation and interest, physical and mental health, self-confidence, academic ability, and study habits and attitudes that encourage students to be more active and confident in learning (Korompot et al., 2020). Meanwhile, external factors such as family support, the school environment, teachers' teaching methods, and social relationships with peers also play a role in increasing students' engagement in class (Althalbi & Rajab, 2024).

Observations of fifth-grade students at SD Negeri 15 Langsa, located on Jln. Syiah Kuala, Tualang Teungoh Village, Langsa Kota District, Langsa City, revealed that student participation in mathematics learning was not yet optimal. This was evident from some students who did not show active involvement in learning activities, such as remaining silent, paying little attention to the teacher's explanations, or even chatting with friends during lessons. In addition, students tended to be passive when asked questions, did not take the initiative to discuss, and merely waited for instructions. An interview with the homeroom teacher corroborated these findings. She stated that fifth-grade students still found it

difficult to maintain their focus and participation in learning, particularly in mathematics. Students often felt bored when lessons consisted only of explanations on the whiteboard. Therefore, the teacher recognized the need for an approach or strategy that could more fully arouse students' enthusiasm and engagement.

One strategy that can be used to overcome boredom and increase student participation in learning is the application of ice breaking. Ice breaking is a shift from a situation that is boring, drowsy, monotonous, and tense to one that is relaxed and energetic, in which participants are attentive and enjoy listening to or watching the person speaking in front of the class or meeting room (Firdaus & Nuryanti, 2022). This strategy was chosen because the characteristics of mathematics learning, which demand concentration, mental engagement, and the courage to ask and answer questions, often make some students feel tense or lack confidence.

Based on the observations, a learning atmosphere that tended to be monotonous and centered on the teacher's explanations also affected students' level of attention and participation. Therefore, a strategy is needed that can create a more interactive and enjoyable learning atmosphere and encourage students to become more actively involved (Wibowo Sakti, 2023).

Appropriate and well-directed ice breaking is believed to create a livelier classroom atmosphere, motivate students to become more involved, and help them be better prepared to receive learning material, including in mathematics. This technique helps to break the ice in the classroom, making it more interactive, increasing concentration, and strengthening retention of the material (Anggraeni et al., 2020). Ice breaking also serves as a refresher and a means of mental relaxation during the learning process. These activities can be packaged as humor, enjoyable activities, or the delivery of information that involves student participation (Eko Handayani, 2022).

Types of ice breaking in learning include cheers (*yel-yel*), songs, and clapping routines (*tepuk*) (Iqbal, 2024). Cheers are used to raise students' enthusiasm, songs help create an enjoyable learning atmosphere, while clapping routines are effective in increasing concentration and are easy to apply according

to learning needs. Thus, ice breaking can transform a monotonous and boring classroom atmosphere into one that is more dynamic and enjoyable (Firdaus & Nuryanti, 2022).

A study by Sunarni and Ika Sari (2024) showed that ice breaking activities in learning had a significant effect on increasing student participation at SDN Pamindangan. The findings showed that with ice breaking, students became more focused, active, and comfortable during lessons. These activities not only broke the ice in the classroom but also raised students' enthusiasm for learning and made them more confident in responding to questions. Ice breaking applied appropriately, whether spontaneous or planned, proved capable of overcoming boredom and increasing student activity during teaching and learning. A similar study was conducted by Umaningsih et al. (2024), who analyzed the application of ice breaking in mathematics learning in elementary schools. Ice breaking in the form of clapping routines, songs, and games was shown to help students become more focused and enthusiastic and to understand the material in an enjoyable way. Both studies indicate that ice breaking has the potential to increase student engagement in learning, particularly in mathematics.

Unlike previous studies, this study offers novelty in several respects. First, the ice breaking used was not merely intended to break the ice but was designed to be integrated with the mathematics content, specifically the topic of measurement per unit quantity, thereby supporting the achievement of learning objectives. Second, the forms of ice breaking applied were modifications of existing techniques, adapted to the classroom conditions and students' characteristics, and packaged as simple activities such as movements, clapping, and verbal responses. Third, in this study, ice breaking was implemented by the classroom teacher under the researcher's guidance, so its implementation reflects actual classroom conditions. This shows that ice breaking can be applied systematically and contextually to increase student participation in mathematics learning.

Based on this background, concrete action in the classroom is needed to address low student participation. Therefore, this classroom action research was conducted with the aims of: (1) describing the application of ice breaking in

mathematics learning in the fifth grade of SD Negeri 15 Langsa, and (2) determining the improvement in student participation in mathematics learning after the application of ice breaking from Cycle I to Cycle II.

B. METHOD

This study is a Classroom Action Research (CAR). CAR was chosen because the study originated from a real problem faced by the teacher in the classroom, namely low student participation in mathematics learning, and aimed to improve instructional practice through actions that are planned, implemented, observed, and reflected upon in cycles (Arikunto et al., 2015). The research design followed the Kemmis and McTaggart spiral model, in which each cycle consists of four stages: planning, acting, observing, and reflecting (Kemmis & McTaggart, 1988). The study was conducted collaboratively: the action, namely the application of ice breaking, was carried out by the class V A teacher based on a design developed jointly with the researcher, while the researcher acted as the observer.

The study was conducted at SD Negeri 15 Langsa, Jln. Syiah Kuala, Tualang Teungoh Village, Langsa Kota District, Langsa City, in the odd semester of the 2025/2026 academic year, from 25 August to 4 September 2025. The research subjects were the class V A teacher and the 15 students of class V A, consisting of 9 boys and 6 girls. The object of the study was student participation in mathematics learning on the topic of Measurement per Unit Quantity through the application of ice breaking.

The action was carried out in two cycles, each consisting of two meetings with a time allocation of 2 × 35 minutes per meeting. Cycle I comprised meetings 1 and 2, while Cycle II comprised meetings 3 and 4. The stages of each cycle were as follows.

a. Planning: developing a teaching module containing ice breaking scenarios for the beginning, middle, and end of the lesson; preparing cheers, songs with content-related lyrics, clapping routines, and simple games related to the material; and preparing the research instruments.
b. Acting: the teacher conducted the lessons according to the teaching module by applying ice breaking at the beginning of the lesson to raise enthusiasm,

in the middle of the lesson to restore focus when students began to feel bored, and at the end of the lesson to close it in an enjoyable atmosphere.

c. Observing: the researcher observed student participation using an observation sheet at each meeting and recorded students' responses in field notes.
d. Reflecting: the researcher and the teacher analyzed the observation and interview results to assess the achievement of the success criterion. The results of the Cycle I reflection were used as the basis for improving the actions in Cycle II.

The research instruments consisted of: (1) a student participation observation sheet, (2) an interview guide for the teacher and students, and (3) documentation in the form of activity photographs and field notes. The observation sheet was developed based on the five participation indicators proposed by Jefri (2019), with a rating scale of 1–4 for each indicator: 1 (poor), 2 (fair), 3 (good), and 4 (very good). The blueprint of the observation sheet is presented in Table 1.

Table 1. Blueprint of the Student Participation Observation Sheet

No	Indicator	Observed Descriptors
1	Asking questions	Students ask the teacher or peers questions related to the lesson material.
2	Answering questions	Students respond to and answer the teacher's questions, whether when called upon or voluntarily.
3	Expressing opinions	Students put forward ideas, responses, or reasons in class or group discussions.
4	Following the lesson well	Students pay attention to the teacher's explanations, follow instructions, and take part in ice breaking and learning activities.
5	Completing assignments	Students work on and complete the tasks or exercises given by the teacher.

Source: adapted from Jefri (2019).

The observation data were analyzed quantitatively using descriptive percentage statistics (Sugiyono, 2023) with the following formula.

$$P = (f / N) \times 100\%$$

Notes: P = percentage of student participation for each indicator; f = score obtained; N = maximum score (4).

The average participation for each meeting was obtained from the mean percentage of the five indicators, while the average for each cycle was obtained from the mean of the two meetings in that cycle. The percentages were then categorized according to the criteria in Table 2.

Table 2. Criteria for Student Participation Percentages

Percentage (%)	Category
0–25	Poor
26–50	Fair
51–75	Good
76–100	Very Good

The action was considered successful if the average percentage of student participation in a cycle reached ≥ 76% (very good category). Qualitative data from interviews, field notes, and documentation were analyzed using the interactive model of Miles, Huberman, and Saldaña, which comprises data condensation, data display, and conclusion drawing and verification (Miles et al., 2014). The qualitative data were used to explain and strengthen the quantitative findings.

C. RESULTS AND DISCUSSION

RESULTS

Initial Conditions (Pre-Action)

Initial observations before the action showed that the atmosphere in class V A tended to be passive. Some students were hesitant to answer the teacher's questions, too shy to ask questions, paid little attention to explanations, and spent more time chatting with friends. The homeroom teacher also stated that students easily became bored when lessons consisted only of explanations on the whiteboard. These conditions formed the basis for planning the action, namely the application of ice breaking in Cycle I.

Implementation of the Action

The action was carried out over four meetings on the topic of Measurement per Unit Quantity, each from 09.45 to 10.55 WIB (2 × 35 minutes). At each meeting, the teacher applied ice breaking at the beginning of the lesson (cheers and songs), in the middle of the lesson when students began to get noisy or bored (clapping routines), and through simple games related to the material. A summary of the implementation is presented in Table 3.

Table 3. Summary of Ice Breaking Implementation at Each Meeting

Cycle/ Meeting	Cheers and Songs (Opening)	Clapping (Middle)	Games	Student Responses
Cycle I M1 (25/08/2025) Present: 12	Cheer "Mana Semangatmu?" (Where Is Your Spirit?); song "Rata-rata" (Average) to the tune of "Balonku Ada Lima"	Focus clap	"Lempar Kartu Rata-rata" (Average Card Toss)	Some students were still shy; some joined in singing; students were eager to calculate, although some still made errors.
Cycle I M2 (28/08/2025) Present: 15	Cheer "Kelas 5A" (Class 5A); average song to the tune of "Potong Bebek Angsa"	Spirit clap	"Berburu Ubur-ubur" (Jellyfish Hunt; group game)	Almost all students joined in singing; the class was lively but under control.
Cycle II M3 (02/09/2025) Present: 14	Cheer "Ini Kelasku" (This Is My Class); population density song to the tune of "Naik-naik ke Puncak Gunung"	Focus clap	"Kepadatan Lantai – Tebak Cepat" (Floor Density – Quick Guess)	Quiet students joined in singing; students competed to answer while raising their hands.
Cycle II M4 (04/09/2025) Present: 15	Cheer "Kami Siswa Kelas 5A" (We Are Class 5A Students); song "Aku Anak Cerdas" (I Am a Smart Child)	Spirit clap (new variation)	"Tebak Per Unit" (Guess per Unit)	Almost all students tried to answer, including those who were usually quiet.

Cycle I Observation Results

The results of the observation of student participation in Cycle I are presented in Table 4. The percentage for each indicator was calculated using the formula P = (f / N) × 100%. For example, the asking questions indicator in meeting 1 obtained a score of 2, so P = (2 / 4) × 100% = 50%.

Table 4. Student Participation Observation Results in Cycle I

No	Indicator	M1 Score	M1 (%)	M2 Score	M2 (%)	Mean (%)	Category
1	Asking questions	2	50.0	3	75.0	62.5	Good
2	Answering questions	2	50.0	3	75.0	62.5	Good
3	Expressing opinions	2	50.0	3	75.0	62.5	Good
4	Following the lesson well	2	50.0	3	75.0	62.5	Good
5	Completing assignments	3	75.0	3	75.0	75.0	Good
	Average	**2.2**	**55.0**	**3.0**	**75.0**	**65.0**	**Good**

Table 4 shows that the average student participation increased from 55.0% in meeting 1 to 75.0% in meeting 2, giving a Cycle I average of 65.0% in the good category. In meeting 1, four indicators (asking questions, answering questions, expressing opinions, and following the lesson well) were still in the fair category (50.0%), while the completing assignments indicator was already in the good category (75.0%). In meeting 2, all indicators reached 75.0% (good). Despite this

increase, the Cycle I average had not yet reached the success criterion of ≥ 76%, and no indicator had reached the very good category.

Cycle I Reflection

The Cycle I reflection revealed several obstacles: (1) some students were still shy, so verbal participation (asking, answering, and expressing opinions) was not yet evenly distributed; (2) the games in Cycle I did not yet give every student the opportunity to respond individually; and (3) the duration of ice breaking risked reducing the time for core activities. Based on this reflection, Cycle II was improved by: (1) varying the cheers, songs, and clapping routines so that students would not get bored; (2) using quick question-and-answer games that encouraged every student to answer; and (3) managing the duration of ice breaking so that it did not reduce the time for core activities.

Cycle II Observation Results

The results of the observation of student participation in Cycle II are presented in Table 5.

Table 5. Student Participation Observation Results in Cycle II

No	Indicator	M1 Score	M1 (%)	M2 Score	M2 (%)	Mean (%)	Category
1	Asking questions	3	75.0	4	100.0	87.5	Very Good
2	Answering questions	3	75.0	4	100.0	87.5	Very Good
3	Expressing opinions	3	75.0	4	100.0	87.5	Very Good
4	Following the lesson well	3	75.0	4	100.0	87.5	Very Good
5	Completing assignments	4	100.0	4	100.0	100.0	Very Good
	Average	**3.2**	**80.0**	**4.0**	**100.0**	**90.0**	**Very Good**

Based on Table 5, the average student participation was 80.0% in meeting 3 and increased to 100% in meeting 4, giving a Cycle II average of 90.0% in the very good category. All indicators in Cycle II were in the very good category: 87.5% for asking questions, answering questions, expressing opinions, and following the lesson well, and 100% for completing assignments.

Cycle II Reflection

The Cycle II reflection showed that the average student participation (90.0%) exceeded the success criterion of ≥ 76%, and every indicator was also above 76%. Previously quiet students began to join in singing and try to answer,

and the classroom atmosphere became livelier and more interactive. Since the success criterion had been achieved, the study was concluded at Cycle II.

Improvement in Student Participation Across Cycles

A comparison of student participation in Cycle I and Cycle II is presented in Table 6 and Figure 1.

Table 6. Comparison of Student Participation in Cycle I and Cycle II

No	Indicator	Cycle I (%)	Cycle II (%)	Increase (percentage points)
1	Asking questions	62.5	87.5	25.0
2	Answering questions	62.5	87.5	25.0
3	Expressing opinions	62.5	87.5	25.0
4	Following the lesson well	62.5	87.5	25.0
5	Completing assignments	75.0	100.0	25.0
	Average	**65.0**	**90.0**	**25.0**
	Category	**Good**	**Very Good**	**–**

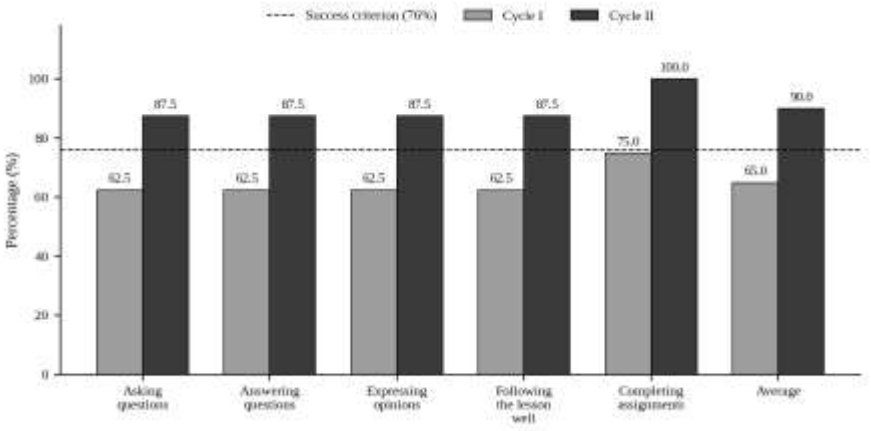


Figure 1. Comparison of Student Participation Percentages in Cycle I and Cycle II

Table 6 and Figure 1 show that all participation indicators increased by 25.0 percentage points from Cycle I to Cycle II. The average student participation rose from 65.0% (good) to 90.0% (very good). Viewed by meeting, the average participation also increased consistently: 55.0%, 75.0%, 80.0%, and 100%. Thus, the application of ice breaking through Cycle II successfully increased student participation beyond the established success criterion.

Interview and Documentation Results

Interview and documentation data were used to strengthen the observation results. The class V homeroom teacher, Mrs. Dewi Anggriani, stated that the

application of ice breaking had a positive impact. Students appeared better prepared for lessons, easier to direct, and more confident in asking and answering questions. She said:

"In my opinion, the children are indeed more enthusiastic when there is ice breaking. Before the lesson starts, they are usually still noisy, and some are still chatting with their friends. But once they are given a clapping routine or a song, their attention is immediately focused. So it is easier to teach."
She further added:

"The children have also become braver. Usually some of them just stay quiet, but after a game or a spirit clap, they laugh along and try to answer. So the classroom atmosphere is not rigid; it is actually livelier. The only obstacle is that if the game takes too long, it can cut into the lesson time. So you have to manage the time well."

Thus, the teacher considered that varied ice breaking greatly helped maintain students' concentration, reduce boredom, and encourage students' confidence to participate. Documentation in the form of photographs and field notes supported the observation results. Students were seen performing cheers together, singing, and actively taking part in group games. Several students appeared to be smiling, laughing, and eagerly raising their hands to answer. This confirms that the classroom atmosphere was more conducive and enjoyable with ice breaking.

DISCUSSION

Application of Ice Breaking in Mathematics Learning

The application of ice breaking in class V A of SD Negeri 15 Langsa increased average student participation from 65.0% (good) in Cycle I to 90.0% (very good) in Cycle II. The classroom became livelier and more enjoyable, and teacher–student interaction became closer and more communicative, with students appearing more open and enthusiastic. The teacher applied ice breaking at three planned stages. At the opening, spirit claps, songs, or short games raised enthusiasm and prepared students psychologically. In the middle of the lesson, it restored declining concentration when the material demanded intense focus, consistent with Soenarno's view that ice breaking turns a tense and boring atmosphere into a relaxed and enjoyable one (Firdaus & Nuryanti, 2022). At the closing, it ended the lesson on a positive note so that students remained motivated for the next meeting. Applied in this way, ice breaking functions not merely as

entertainment but as a pedagogical strategy that increases motivation and readiness to receive the material (Sakti, 2023).

Improvement in Student Participation

Interviews corroborated the observation results. The homeroom teacher noted that "the children used to be a bit shy to ask questions, but after ice breaking the atmosphere became more relaxed and they seemed braver," while a student stated, "after a spirit clap first, I feel braver to ask; I don't feel embarrassed." These accounts indicate that ice breaking reduces psychological barriers and builds self-confidence, in line with Sunarni and Sari (2024).

All five participation indicators increased from Cycle I to Cycle II. Asking questions, answering questions, expressing opinions, and following the lesson well each rose from 62.5% to 87.5%, while completing assignments rose from 75.0% to 100%, the highest achievement. The relaxed atmosphere made students less afraid of making mistakes when asking questions, consistent with Zakiyyah et al. (2022), who found that ice breaking reduces awkwardness and encourages positive teacher–student interaction. Students who were previously reluctant began competing to answer, and discussions became more dynamic as they shared ideas more openly, reflecting the two-way communication climate described by Sunarni and Sari (2024). Improved focus made the class more orderly and conducive, supporting Hamzah's (2021) view that positive emotions strongly influence learning effectiveness. Students also completed tasks faster and more enthusiastically, suggesting that ice breaking at the start of the lesson prepared them to face academic challenges.

Overall, ice breaking acts as an emotional transition from a monotonous to an enthusiastic atmosphere. Stable emotions and enjoyment appear to help students absorb the material, indicating that affective conditions matter for cognitive learning in high-concentration subjects such as mathematics. This is in line with Umaningsih et al. (2024), who emphasize the role of ice breaking in creating a conducive learning environment and increasing active engagement in the exact sciences.

Supporting and Inhibiting Factors

The main supporting factors were the teacher's commitment to designing activities suited to classroom conditions and the active, responsive character of the students. The inhibiting factors were limited lesson time, which required balancing ice breaking with the core material; the persistent shyness of some students; and the demand for teacher creativity in varying activities. The teacher stressed that ice breaking "should be done routinely, but the type should not always be the same, so the children don't get bored," consistent with Muharrir (2022), who argues that its success depends on the teacher's ability to select and vary activities according to students' characteristics.

Implications of the Study

These findings suggest that teachers should treat ice breaking as an integral part of active learning strategies rather than an additional activity. When carefully planned, it can prepare students psychologically for complex material, strengthen interaction, build self-confidence, and foster a collaborative classroom. Schools should support teachers through training and learning resources so that ice breaking can be applied creatively and sustainably to improve the overall quality of learning.

CONCLUSION

Based on the two-cycle classroom action research in class V A of SD Negeri 15 Langsa, Ice breaking was applied at three stages of learning, namely the beginning, middle, and end, in the form of cheers, songs with content-related lyrics, spirit claps and focus claps, and simple games integrated with the topic of Measurement per Unit Quantity. The improvements in Cycle II, namely varied ice breaking and quick question-and-answer games that encouraged every student to respond, proved effective in increasing the engagement of previously passive students. The application of ice breaking improved student participation in mathematics learning. The average student participation increased from 65.0% (good category) in Cycle I to 90.0% (very good category) in Cycle II, an increase of 25.0 percentage points, exceeding the success criterion of ≥ 76%. In Cycle II, all indicators asking

questions, answering questions, expressing opinions, following the lesson well, and completing assignments were in the very good category.

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