

Enhancing Students' Active Classroom Participation Through Interactive Teaching Strategies: Think-Pair-Share and Mix-Pair-Share at Damthang Primary School.

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Abstract

This research investigates strategies to enhance students' active classroom participation through interactive teaching strategies, including Think-Pair-Share and Mix-Pair-Share, among grade VIB learners at Damthang Primary School. The study aims to identify students' perceptions about the factors affecting active classroom participation and the students' perceptions about the use of interactive teaching strategies. The study involved 21 students. Using a mixed-method approach, data were collected through survey questionnaires and interviews and were analyzed using Jamovi 2.6.44 software. The results revealed a statistically significant increase in students' perception scores from the pre-intervention phase to the post-intervention phase, $t(20) = -2.27, p = .035$. The thematic analysis of qualitative data of four participants' responses revealed three dominant themes regarding the effectiveness of Think-Pair-Share and Mix-Pair-Share techniques in encouraging active classroom participation. The themes are enhanced participation and active engagement, knowledge sharing and collaborative learning, and confidence and courage building. These themes highlight not just an increase in talking, but a fundamental shift in the classroom learning dynamic and active classroom participation. Overall, the results indicate that students held strongly positive perceptions of the interactive teaching strategies implemented during the intervention. Notably, the highest mean score was for Item, "Interactive teaching improves my classroom interaction skills", indicating that students felt the intervention was most effective in developing their interpersonal and communicative abilities within the classroom. Recommendations include conducting future studies with diverse samples and incorporating teachers' perspectives for a comprehensive understanding of classroom participation and interventions.

Keywords: Active Classroom participation, interactive teaching strategies, classroom management.

Introduction

Active classroom participation is a critical component of effective teaching and learning. It not only fosters deeper understanding and retention of subject matter but also nurtures essential skills such as critical thinking, communication, collaboration, and confidence. Traditional, teacher-centered approaches often result in passive learning, where students may be physically present but cognitively disengaged. To

combat this, action research increasingly emphasizes student-centered, interactive teaching strategies that promote meaningful participation and engagement.

Debele & Kelbisa (2017) found that students' participation in the classroom is an integral element of the learning and teaching process, which promotes the quality of education. Within this framework, interactive strategies like Think-Pair-Share (TPS) and Mix-Pair-Share (MPS) offer powerful tools for transforming the classroom into a dynamic learning environment. Abdullah et al. (2012) supported that an effective learning process occurred when both teachers and students interact and participate in the learning activities. They further suggested that a participatory type of learning process will encourage mutual exchange of information; stimulate interest as well as recognition of respect among the teachers and students. Thus, the researcher's personal view of classroom participation is the active engagement of students in the learning process through various interactive teaching strategies.

Wang and Zhu (2013) defined interactive teaching as a "two-way process in which pupils are expected to play an active part by answering questions, contributing points to discussions, and explaining and demonstrating their methods to the class." Similarly, Tshering et al. (2024) found that after the implementation of active learning strategies students' behaviour and cognitive engagement have significantly improved. Students exhibited improved enthusiasm, motivation, and active participation in the class, consequently leading to a higher level of behavioural engagement. Furthermore, students showed an improved willingness to tackle challenging tasks in the class, thereby improving cognitive engagement. By facilitating better student engagement, students participate in challenging tasks and exhibit motivated attitudes during the teaching and learning process.

Therefore, active participation would encourage a lively learning environment, foster student confidence, and allow teachers to assess comprehension and provide timely feedback. And participation can vary depending on individual students' personalities, classroom culture, teaching methods, and supportive atmosphere. It is often found that most students are reluctant to participate actively in class tasks. The current study is to find out whether the use of interactive strategies can enhance students' active classroom participation or not.

Objectives of the Study

The main objectives of this current action research are:

1. To identify the factors affecting the students' active classroom participation.
2. To ascertain whether the interactive teaching strategies: Think-Pair-Share and Mix-Pair-Share enhance the students' active classroom participation.

Reconnaissance

Damthang Primary School is located 13 Kilometres away from the Dzongkhag Headquarter, Haa. The majority of the students are from Damthang Arm Force Families, followed by a few students from Hatey, under Bji Gewog. The school has 219 students ranging from classes PP to VI. Out of 219 students, 21 are in class VIB from diverse family backgrounds, who are selected as the sample for the current study.

Students' active participation plays a vital role in the success of the teaching and learning process. However, recent observations indicate a noticeable poor in participation levels among Grade VIB learners. Many students appear hesitant to speak up during discussions, rarely volunteer for activities, and show minimal involvement in collaborative tasks.

The factors that contribute to this issue may include low self-confidence, lack of motivation, limited teach-

her-student interaction, overreliance on traditional teacher-centered methods, and insufficient use of interactive or student-led strategies. Additionally, some students may be struggling with comprehension or language barriers, leading to reduced willingness to participate.

This declining trend in students' active participation may negatively impact not only academic performance but also the development of skills such as communication, teamwork, and critical thinking. Recognizing the importance of a participative classroom environment, there is a pressing need to explore and implement interactive strategies that can foster a greater level of students' participation in the learning process.

Therefore, this study aims to examine the current situation, identify key barriers to students' participation, and propose effective interventions to create a more engaging and participatory learning environment through interactive teaching strategies for Grade VIB learners.

Competence

a) Researchers:

The current researcher has a far-fetched experience to the extent of 18 years of dedicated service to the nation, in the field of teaching, with a Bachelor's Degree from Paro College of Education. Moreover, the researcher had acquired a Master's Degree in the field of Teacher Education from SRM University, Chennai, India. Besides those credentials, the researcher also attended a five-day workshop on how to carry out action research under the guidance of the expert ToT, selected by the Dzongkhag Education Sector, Haa.

The co-researcher has 22 years of substantial experience in the field of teaching, with 16 years of that experience serving as principal to date. He updated his qualification to a Bachelor's Degree from RUB, Paro College of Education in 2022. During this period of study, the Action Research Project was carried out in the Action Research module. The researcher had also attended the Basic Action Research Workshop in 2018. Besides many other professional development programs attended in recent years, the researcher had attended the School Leaders Development Programme – SLDP from RIGSS in 2025.

b) Research Participants:

In this study, a set of competent and the most trusted group of students had been selected. All individuals can demonstrate good communication skills to articulate responses clearly during the process of conducting the research.

Moreover, the participants had experience of participating in a few interactive group activities in the process of teaching and learning in the classroom setting. The researcher has full trust in this group of participants to gather the required data and information for the current study.

c) Critical Friend:

Mr. Tandin Dorji, a teacher of Gongzim Ugyen Dorji Higher Secondary School, is the critical friend for the current research. He is competent and has a great array of experiences in conducting Action Research as well as Conventional Research. This seasoned researcher had a good reputation for publishing research papers in national and international journals. In order to keep himself consistent and to be an enduring researcher, he had attended numerous research workshops and seminars.

With all these substantial amounts of experience in research, he has the considerable capacity to support and inspire the researcher both morally and professionally in the field of research.

Literature Review

1. Overview of Classroom Participation

According to study conducted by Ghalley and Rai (2019) showed that the majority of Bhutanese students were involved in passive participation: sitting quietly, writing notes, listening, and paying attention. Interestingly, a good number of students were also actively involved in asking questions, giving opinions, responding to opinions, discussing, making comments, and seeking help. The interview data showed that the factors influencing classroom participation were teachers, friends, classroom size, advanced preparation, and language.

2. Factors Influencing Student Participation

There could be numerous factors that affect the level of students' active participation in the classroom. Based on the study conducted by Debele and Kelbisa (2017), the factors that affect the participation of students in the classroom were a lack of active learning methods, seating arrangement, a lack of incentive methods, silence and shyness, lack of confidence, cultural background, language barriers, instructor's approach, and related factors. Similarly, Worako (2018) opined that the factors affecting the participation of students in the classroom identified were shying and fearing for their friends, language problems, teaching methodology, lack of material accessibility, sitting arrangement, and others.

Additionally, the top three causes are being tensed when forced by teachers to answer a question; getting tensed and nervous to speak in front of the whole class, and having faulty pronunciation in English (Ahmad, 2021). Besides the personalities of the instructor and students, the size of the classroom, and the perception of peers affected the students' willingness to speak up in class (as cited in Rohi & Muslim, 2023).

3. Role of Teaching Style in Participation

A comparable study carried out by Xinqi He (2024) explored the relationship between primary school teachers' teaching styles and classroom participation, as well as several factors that affect classroom participation. The results show that teachers' teaching styles have a significant impact on classroom participation, and students' preferences for teachers' teaching styles in different situations have an impact on classroom participation. Knowing those prominent factors can help both teachers and learners to have interactive teaching and learning sessions, and for meaningful engagement through relevant strategies.

4. Benefits of an Interactive Classroom Environment

Choeda and Chophel (2021) considered that an interactive classroom learning environment is one of the effective methods of learning, which helps the students' learning process. Teachers' main role is to design and plan his/her lessons in such a way that students love sharing their learning with others because all learning development takes place in classrooms.

Thus, interactive learning activities include opportunities for reflection, where students focus on their thinking processes. Reflective practices encourage learners to evaluate their own understanding, identify areas for improvement, and refine their critical thinking strategies (as cited in Blyznyuk, & Kachak, 2024).

5. Cooperative Learning and Student Participation

Aldosari (2016) stated that one of the most powerful ways to increase student participation in class is through the creation of a cooperative learning environment. Research into the general effectiveness of cooperative learning techniques suggests that cooperative learning is superior to traditional learning in terms of academic achievement.

6. Effectiveness of Specific Interactive Strategies

The study conducted by Singh et al. (2020) declared that Think-Pair-Share improves learners' speaking

abilities and has a huge impact in boosting learners' confidence level to speak in English. Mahmudah and Rosyid (2022) discovered that using the Numbered Head Together (NHT) strategy could help students enhance their reading comprehension skills. Furthermore, group discussions may impact students' attention and encourage them to participate in learning activities. Students were able to participate in the teaching-learning process using the Numbered Head Together (NHT) technique. They became more receptive to the teacher's explanations and collaborated with their peers in groups. They were also more engaged, enthusiastic, and confident in class activities, resulting in a livelier and more interesting classroom environment.

Moreover, a study by Phuntsho (2024) indicated that motivation, open-ended questions, favorable learning environments, and group discussions emerged as effective strategies for promoting participation.

7. Interactive Teaching vs. Traditional Methods

The current study focuses on interactive teaching strategies that can enhance the students' active participation in the classroom. The study conducted by Tetiana (2018) examined that interactive teaching methods are the actual way of teachers' work in the classroom, group, or any educational institution. Interactive teaching methods, in contrast to the traditional ones, are based on the active interaction of participants in the educational process, and special attention is paid to students' interaction with each other.

Therefore, interactive teaching and learning strategies can be an effective tool to overcome the low level of students' participation and to enhance the academic performance.

Research Question

How can I enhance students' active classroom participation through interactive teaching strategies: Think-Pair-Share and Mix-Pair-Share?

Data Collection and Analysis

Research Design

A mixed-method approach was employed in this study to provide a balanced and holistic view, strengthens the validity of results, fits well with cyclical inquiry, supports collaborative and reflective practice, and adapts to complex real-world problems. It allowed the researcher to measure change, capture both measurable and descriptive data to explore student experiences, and continuously improve teaching practices.

The design emphasizes collaboration, real-time intervention, and continuous assessment. Interactive strategies such as group discussions, mix-pair-share, think-pair-share, and the use of multimedia were integrated into daily lessons over a set period. Data were gathered through a combination of qualitative and quantitative methods, including interviews and survey questionnaires.

Participants

The population for this action research consisted of primary children enrolled at Damthang Primary School, Haa. These students represented a broader group of learners who were typically engaged in traditional classroom settings where teacher-centered instruction is dominant, and student participation was limited.

Sampling Technique

A convenient sampling technique was used for this study because it enabled the researcher to work with participants who were easily accessible, directly involved, and relevant to the problem being studied. It

supported the practical, contextual, and improvement-oriented goals of action research within the manageable time and resources.

Sample Size

The sample size for this action research consisted of 21 students from class VIB at Damthang Primary School, Haa. These students were selected using a convenient sampling technique, as they were the class directly taught by the teacher-researcher and were readily accessible for the implementation of the intervention. The selected students represented a diverse range of learning abilities, participation levels, and communication skills.

Data Collection Methods

Survey Questionnaire

A Likert scale survey questionnaire was used to collect data at different stages: identifying problems, setting a baseline, measuring change, and gathering participants' feedback. It was efficient, flexible, and supported the reflective, participatory, and improvement-focused goals of the current action research.

Semi-Structured Interview

A semi-structured interviews were conducted with 4 students selected from the total sample size of 21 students to gain a deeper understanding of students' experiences and perceptions regarding the use of Think-Pair-Share and Mix-Pair-Share strategies in the classroom. The sample size was deliberately kept small and manageable to allow for in-depth, meaningful conversations and capturing a range of perspectives.

While a survey questionnaire provided useful quantitative and behavioral data, the interviews allowed the teacher-researcher to explore the personal reflections and feelings of students in greater depth.

Data Interpretation/Analysis

The quantitative data obtained from surveys were analyzed using Jamovi 2.6.44 Software, employing descriptive statistics to quantify the prevalence of students' active classroom participation through interactive teaching strategies, including Think-Pair-Share and Mix-Pair-Share.

On the other hand, the qualitative data gathered from interviews was subjected to thematic analysis. This approach aims to identify recurring patterns, themes, and key factors influencing students' perceptions about the factors affecting active classroom participation and the students' perceptions about the use of interactive teaching strategies: Think-Pair-Share and Mix-Pair-Share.

Table 1. Descriptive statistics of students' perception about the factors affecting the active classroom participation before the intervention.

Items	N	Mean	Median	SD	Minimum	Maximum
1. A friendly teacher's attitude inspires me to participate actively in the classroom.	21	3.00	3	0.949	1	4
2. The teacher's teaching styles make me participate actively in the classroom.	21	3.52	4	0.512	3	4

Table 1. Descriptive statistics of students’ perception about the factors affecting the active classroom participation before the intervention.

Items	N	Mean	Median	SD	Minimum	Maximum
3. I enjoy participating in the classroom when working on group activities.	21	3.05	3	0.669	2	4
4. I like to participate more in whole-class discussions.	21	3.33	3	0.730	2	4
5. I love learning through video lessons and gamification.	21	3.33	3	0.796	1	4
6. I like to participate more in small group work.	21	2.81	3	1.030	1	4
7. The role-playing helps to participate actively in class.	21	3.14	3	0.727	1	4
8. I like to participate more in pair work.	21	3.10	3	0.831	1	4
9. Rewards and motivation help me to participate in class	21	3.19	3	0.814	1	4
10. The fear of making a mistake discourages me from participating in the classroom.	21	3.00	3	0.894	1	4
11. I feel shy when speaking in front of my friends in class.	21	2.81	3	0.928	1	4
12. I am poor in language to express in class.	21	3.00	3	0.837	1	4
13. I lack in confidence to speak in class.	21	2.71	3	0.845	1	4
14. The negative peer reaction discourages me from participating in class.	21	2.86	3	0.910	1	4
15. I feel nervous about sharing and talking in class.	21	2.71	3	1.007	1	4

Note. *N* = Number of respondents; *M* = Mean; *Mdn* = Median; *SD* = Standard Deviation; *Min* = Minimum; *Max* = Maximum.

Table 1 presents the descriptive statistics of students’ perceptions regarding the factors influencing their active classroom participation before the intervention. The sample consisted of 21 students. The means

for the items ranged from 2.71 to 3.52, indicating that students generally reported moderate agreement with most statements.

The highest mean score was observed for “The teacher’s teaching styles make me participate actively in the classroom” (M = 3.52, SD = 0.51), suggesting that teaching style was perceived as the most influential factor in encouraging active participation. Conversely, the lowest mean scores were found for “I lack in confidence to speak in class” (M = 2.71, SD = 0.85) and “I feel nervous about sharing and talking in class” (M = 2.71, SD = 1.01), indicating that lack of confidence and nervousness were the least influential or least agreed-upon factors discouraging participation.

The standard deviations ranged from 0.51 to 1.03, showing a moderate variability in students’ responses across items. Overall, these findings suggest that while students were moderately engaged in classroom participation, teacher-related factors (e.g., attitude and teaching style) were perceived as stronger motivators compared to peer pressure or self-confidence issues.

Table 2. Descriptive Statistics of Students’ perception about the factors affecting the active classroom Participation after the intervention.

Items	N	Mean	Median	SD	Minimum	Maximum
1. A friendly teacher's attitude inspires me to participate actively in the classroom.	21	3.19	3	0.680	1	4
2. The teacher's teaching styles make me participate actively in the classroom.	21	3.57	4	0.507	3	4
3. I enjoy participating in the classroom when working on group activities.	21	3.52	4	0.512	3	4
4. I like to participate more in whole-class discussions.	21	3.14	3	0.727	1	4
5. I love learning through video lessons and gamification.	21	3.33	3	0.658	2	4
6. I like to participate more in small group work.	21	3.00	3	1.095	1	4
7. The role-playing helps to participate actively in class.	21	3.00	3	0.775	1	4
8. I like to participate more in pair work.	21	3.10	3	0.944	1	4
9. Rewards and motivation help me to participate in class	21	3.24	3	0.539	2	4

Table 2. Descriptive Statistics of Students’ perception about the factors affecting the active classroom Participation after the intervention.

Items	N	Mean	Median	SD	Minimum	Maximum
10. The fear of making a mistake discourages me from participating in the classroom.	21	2.76	3	0.831	1	4
11. I feel shy when speaking in front of my friends in class.	21	2.71	3	0.956	1	4
12. I am poor in language to express in class.	21	2.81	3	0.981	1	4
13. I lack in confidence to speak in class.	21	2.81	3	0.928	1	4
14. The negative peer reaction discourages me from participating in class.	21	3.00	3	0.707	1	4
15. I feel nervous about sharing and talking in class.	21	2.71	3	1.102	1	4

Note. Note. *N* = Number of respondents; *M* = Mean; *Mdn* = Median; *SD* = Standard Deviation; Min = Minimum; Max = Maximum.

Table 2 presents the descriptive statistics of students’ perceptions regarding factors that influence active classroom participation after the intervention. Responses were collected from 21 students. Overall, the results indicated that students held moderately positive perceptions of factors encouraging classroom participation. Among the motivational factors, *the teacher’s teaching style* had the highest mean rating ($M = 3.57, SD = 0.51$), followed by *enjoying participation during group activities* ($M = 3.52, SD = 0.51$) and *learning through video lessons and gamification* ($M = 3.33, SD = 0.66$). Likewise, *a friendly teacher’s attitude* ($M = 3.19, SD = 0.68$) and *rewards and motivation* ($M = 3.24, SD = 0.54$) also contributed positively to students’ engagement.

On the other hand, lower mean scores were found for affective and confidence-related factors. Specifically, *fear of making a mistake* ($M = 2.76, SD = 0.83$), *shyness when speaking in front of peers* ($M = 2.71, SD = 0.96$), *lack of language proficiency* ($M = 2.81, SD = 0.98$), *lack of confidence to speak* ($M = 2.81, SD = 0.93$), and *nervousness about sharing and talking in class* ($M = 2.71, SD = 1.10$) were reported as common barriers to participation. The standard deviations ranged from 0.51 to 1.10, indicating a relatively consistent pattern of responses among the participants.

Overall, these findings suggest that students are more likely to participate actively in the classroom when teachers employ engaging teaching methods, promote group activities, and provide supportive and motivating learning environments. However, factors such as fear, shyness, and lack of confidence continue to inhibit some students’ active engagement.

Table 3. Paired Samples T-Test of Students’ perception about the factors affecting the active classroom Participation Pre and Post intervention.

			statistic	df	p	Mean difference	SE difference
Pre	Post	Student's t	-0.180	20.0	0.859	-0.333	1.85

Note. $H_a \mu_{\text{Measure 1}} - \mu_{\text{Measure 2}} \neq 0$

A paired samples *t*-test was conducted to examine whether there was a significant difference in students’ perceptions of factors affecting active classroom participation before and after the intervention. The analysis revealed no statistically significant difference between the pre-intervention (M_1) and post-intervention (M_2) perceptions, $t(20) = -0.18, p = .859$, with a mean difference of -0.33 ($SE = 1.85$). This result indicated that there was a slight increase in post-test scores, but this difference was not statistically significant. This suggests that although students’ perceptions improved slightly after the intervention, the change was minimal and not statistically meaningful.

A thematic analysis of qualitative data of students’ responses on students’ perception about the factors affecting the active classroom Participation after the intervention revealed three key themes: (1) collaborative learning enhances engagement, (2) group activities promote knowledge sharing and teamwork, and (3) familiarity with peers and the use of multimedia support influence engagement preferences. Overall, students valued interactive and cooperative learning environments that encouraged communication, participation, and shared understanding. These findings align with constructivist perspectives on learning, which emphasize active participation and social interaction as central to engagement and knowledge construction.

Table 4. Descriptive Statistics on students’ perceptions about the use of interactive teaching strategies before the intervention.

	N	Mean	Median	SD	Minimum	Maximum
1. I am familiar with interactive teaching strategies.	21	3.10	3	0.700	1	4
2. I have participated in interactive activities (e.g., Think-Pair-Share and Mix-Pair-Share).	21	3.00	3	0.949	1	4
3. My teachers use interactive teaching methods in the teaching and learning process.	21	3.24	3	0.768	1	4
4. I feel free to speak when interacting with my friends in class.	21	3.10	3	0.768	1	4
5. Interactive strategies help build better relationships among students.	21	3.14	3	0.727	1	4

Table 4. Descriptive Statistics on students’ perceptions about the use of interactive teaching strategies before the intervention.

	N	Mean	Median	SD	Minimum	Maximum
6. It keeps me active and focused during an interactive lesson.	21	3.14	3	0.854	1	4
7. I feel more inspired when classes use interactive strategies.	21	3.00	3	0.775	1	4
8. Interactive teaching helps me learn better than lectures.	21	2.76	3	0.995	1	4
9. Interactive teaching improves my classroom interaction skills.	21	3.05	3	0.740	1	4
10. I prefer interactive teaching because it helps build communication and social skills.	21	3.33	3	0.730	1	4
11. Interactive strategies are more enjoyable, fun learning, and increase motivation and interest.	21	3.43	4	0.676	2	4

Note. N = number of respondents; M = mean; Mdn = median; SD = standard deviation. Responses were rated on a 4-point Likert scale (1 = Strongly Disagree, 4 = Strongly Agree).

Table 4 presents the descriptive statistics on students’ perceptions regarding the use of interactive teaching strategies before the intervention. Results revealed that students generally held a moderately positive perception toward interactive teaching strategies, with mean scores ranging from 2.76 to 3.43 on a 4-point scale. The highest mean score (M = 3.43, SD = 0.676) was recorded for the statement, “*Interactive strategies are more enjoyable, fun learning, and increase motivation and interest,*” indicating that students found such strategies engaging and motivating. Similarly, students agreed that interactive teaching helps build communication and social skills (M = 3.33, SD = 0.730) and that their teachers used interactive methods in class (M = 3.24, SD = 0.768).

On the other hand, the lowest mean score (M = 2.76, SD = 0.995) was observed for the statement, “*Interactive teaching helps me learn better than lectures,*” suggesting that while students appreciated the social and motivational aspects of interactive strategies, they were less certain about their academic effectiveness compared to traditional lectures. Overall, the findings indicate that before the intervention, students exhibited a generally favorable yet moderate perception of interactive teaching strategies, emphasizing enjoyment, participation, and communication benefits more than academic impact.

Table 5. Descriptive statistics on students’ perceptions about the use of interactive teaching strategies after the intervention.

	N	Mean	Median	SD	Minimum	Maximum
1. I am familiar with interactive teaching strategies.	21	3.29	4	0.956	1	4
2. I have participated in interactive activities (e.g., Think-Pair-Share and Mix-Pair-Share).	21	3.19	3	0.928	1	4
3. My teachers use interactive teaching methods in the teaching and learning process.	21	3.38	4	0.921	1	4
4. I feel free to speak when interacting with my friends in class.	21	3.33	3	0.796	1	4
5. Interactive strategies help build better relationships among students.	21	3.48	4	0.814	1	4
6. It keeps me active and focused during an interactive lesson.	21	3.52	4	0.814	1	4
7. I feel more inspired when classes use interactive strategies.	21	3.48	4	0.814	1	4
8. Interactive teaching helps me learn better than lectures.	21	3.33	4	0.913	1	4
9. Interactive teaching improves my classroom interaction skills.	21	3.57	4	0.598	2	4
10. I prefer interactive teaching because it helps build communication and social skills.	21	3.38	3	0.740	1	4
11. Interactive strategies are more enjoyable, fun learning, and increase motivation and interest.	21	3.38	4	0.805	1	4

The descriptive statistics presented in Table 5 summarizes post-intervention data from 21 students regarding their perceptions of interactive teaching strategies. The data were collected using a Likert-scale instrument, where a higher score indicates a more positive perception.

Overall, the results indicate that students held strongly positive perceptions of the interactive teaching strategies implemented during the intervention. The mean scores for all 11 items ranged from 3.19 to 3.57

on a 4-point scale, clustering in the upper quartile of the measurement range. This suggests a consistent and favorable view across all measured constructs.

Notably, the highest mean score was for Item 9 ("Interactive teaching improves my classroom interaction skills," $M = 3.57, SD = 0.60$), indicating that students felt the intervention was most effective in developing their interpersonal and communicative abilities within the classroom. This is closely followed by Item 6 ("It keeps me active and focused during an interactive lesson," $M = 3.52, SD = 0.81$) and Items 5 and 7 ($M = 3.48, SD = 0.81$), which relate to relationship-building and inspiration. The concentration of median scores at 4 (the scale maximum) for most items further confirms a strong central tendency toward agreement.

While still positive, the lowest mean score was for Item 2 ("I have participated in interactive activities," $M = 3.19, SD = 0.93$), suggesting that some students may have been less certain about their level of participation or that familiarity with specific strategy names (e.g., Think-Pair-Share) varied. The standard deviations (ranging from 0.60 to 0.96) show a moderate spread of responses around the mean, with Item 1 ("I am familiar with interactive teaching strategies") exhibiting the most variability ($SD = 0.96$).

In conclusion, the descriptive data provide robust initial evidence that the intervention was successful in fostering a positive learning environment. Students perceived the interactive strategies as beneficial for enhancing their focus, learning, communication skills, and overall engagement, thereby supporting the efficacy of the intervention's approach.

Table 6. Paired Samples T-Test statistics on students' perceptions about the use of interactive teaching strategies of Pre and Post intervention.

			statistic	df	p	Mean difference	SE difference
Pre	Post	Student's t	-2.27	20.0	0.035	-3.05	1.34

Note. $H_a \mu_{\text{Measure 1}} - \mu_{\text{Measure 2}} \neq 0$.

A paired-samples *t*-test was conducted to evaluate whether the implementation of interactive teaching strategies led to a significant change in students' perceptions. The results revealed a statistically significant increase in students' perception scores from the pre-intervention phase to the post-intervention phase, $t(20) = -2.27, p = .035$.

The negative mean difference ($M = -3.05$) indicates that the post-intervention scores were systematically higher than the pre-intervention scores when calculating the difference as (Pre - Post). In other words, there was an average improvement of 3.05 points on the perception scale following the intervention. This positive change suggests that the use of interactive teaching strategies was effective in fostering more favorable student perceptions regarding their learning experience, aligning with the positive post-intervention descriptive statistics reported in Table 5.

The analysis confirms that the positive shift in student perceptions after the interventions was not due to random chance. The intervention is associated with a statistically significant and substantial improvement in how students view interactive teaching methods.

To enhance the clarity and high validity, the thematic analysis of qualitative data of four participants' responses revealed three dominant themes regarding the effectiveness of Think-Pair-Share and Mix-Pair-

Share techniques in encouraging active participation. These themes highlight not just an increase in talking, but a fundamental shift in the classroom learning dynamic.

Theme 1: Enhanced Participation and Active Engagement

All participants expressed that *Think-Pair-Share* and *Mix-Pair-Share* strategies encouraged them to participate more in classroom discussions and activities. Participant 1 stated that “*it helped me to participate more,*” while Participant 3 similarly mentioned that these activities “*helpful to learn better*” and “*participate in the learning.*” These responses suggest that interactive strategies promote a sense of involvement and help students overcome passivity during lessons.

Theme 2: Knowledge Sharing and Collaborative Learning

Participants emphasized that these strategies facilitate the exchange of ideas and collaborative learning. Participant 2 commented that “*ideas and feelings that are there in the mind can be shared and known to each other,*” and that students can “*learn from others and make known and shared learning.*” This indicates that *Think-Pair-Share* and *Mix-Pair-Share* create an environment where students learn through peer interaction and collective understanding.

Theme 3: Confidence and Courage Building

Several participants reported that these strategies helped them gain confidence and courage to express their thoughts. Participant 4 stated that the activities “*help gain confident and can help able to share what I know and learn from what others know.*” Participant 3 also highlighted that these methods “*help to gain confident and participate in the learning.*” This reflects that structured peer interaction not only enhances academic engagement but also supports affective growth—particularly self-confidence and communication skills.

A thematic analysis of students’ responses revealed three primary themes: (1) enhanced participation and active engagement, (2) knowledge sharing and collaborative learning, and (3) confidence and courage building. Overall, participants viewed *Think-Pair-Share* and *Mix-Pair-Share* as effective interactive strategies that promote both cognitive and emotional engagement in the classroom. Students reported that these activities allowed them to share ideas, learn from peers, and participate more actively. Additionally, the sense of collaboration and encouragement fostered through these strategies appeared to boost students’ confidence and willingness to contribute during lessons.

Ethical Considerations

To address the ethical considerations of this study, prior permission from the school administration, with its consent form, and a dated signature of the research committee on the ethics clearance form was obtained. Consent forms were signed by both students and parents, ensuring their voluntary participation. The confidentiality of all participants were maintained throughout the study.

Intervention Strategies

Intervention Period

The intervention strategies were implemented over a period of 8 weeks during regular class hours with a Grade VIB at Damthang Primary School, Haa, by integrating two interactive teaching strategies: *Think-Pair-Share* and *Mix-Pair-Share*.

Think-Pair-Share

Think-Pair-Share was used regularly after key lesson points to encourage students to reflect individually (Think), discussed their thoughts with a partner (Pair), and then shared their ideas with the whole class (Share).

Mix-Pair-Share

Mix-Pair-Share, on the other hand, was added to a dynamic movement component. Students had move around the classroom with the rhythm of music, finding a new partner, and responding to teacher prompts together, encouraging greater peer interaction and engagement. These strategies were embedded in class activities and discussions to foster a safe, interactive, and student-centered learning environment.

Result

The study explored how interactive teaching strategies: Think-Pair-Share and Mix-Pair-Share enhances the active classroom participation. The thematic analysis of interview data revealed that when students are taught using interactive teaching strategies such as Think-Pair-Share and Mix-Pair-Share, they were more engaged through collaboration, interaction, and sharing of ideas with peers. Likewise, a significant difference between pretest and posttest indicated that the interactive teaching strategies were effective in engaging students, resulting to high posttest scores in terms of active classroom participation. Similarly, survey analysis notably showed that, the highest mean score was for Item 9 ("Interactive teaching improves my classroom interaction skills," $M = 3.57, SD = 0.60$), indicating that students felt the intervention was most effective in developing their interpersonal and communicative abilities within the classroom. This was closely followed by Item 6 ("It keeps me active and focused during an interactive lesson," $M = 3.52, SD = 0.81$) and Items 5 and 7 ($M = 3.48, SD = 0.81$), which related to relationship-building and inspiration. The concentration of median scores at 4 (the scale maximum) for most items further confirms a strong central tendency toward agreement and they feel actively engaged during group activities. These findings showed that the interactive teaching strategies were successful in enhancing students' active classroom participation.

Discussion

The study explored strategies to enhance students' active classroom participation and the study revealed that interactive teaching strategies enhanced active classroom participation of the students. This finding concurs with findings of Tetiana (2018) examined that interactive teaching methods are the actual way of teachers' work in the classroom, group, or any educational institution. Interactive teaching methods, in contrast to the traditional ones, are based on the active interaction of participants in the educational process, and special attention is paid to students' interaction with each other.

The current study was conducted in only one school in Bhutan with a small sample size; therefore, the findings of the study may not be able to generalized to a larger population. To overcome this limitation, other multi-site studies on the effectiveness of the interactive teaching strategies in enhancing students' active classroom participation can be carried out. However, since the study was carried out in a real classroom situation, its findings can inform the choice of instructions and strategies in the real classroom teaching.

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