

Maximizing Engagement and Academic Performance of Grade 3 Learners Through Cooperative Learning in International Schools in Myanmar

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ABSTRACT

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This study assessed cooperative learning implementation in international schools in Myanmar and examined its relationship with Grade 3 learners' engagement and academic performance. It determined the profile of Grade 3 teachers, the level of collaborative learning implementation, the levels of learner engagement and academic performance, and the significant relationships among these variables. The study used a quantitative descriptive-correlational research design and collected data from 50 Grade 3 teachers using a questionnaire. Findings revealed that collaborative learning practices were highly implemented (grand mean = 4.62), with interpersonal and collaborative skills receiving the highest rating (4.69). Grade 3 learners were highly engaged (grand mean = 4.29), and their academic performance was high (grand mean = 4.16). Emotional engagement obtained the highest rating (4.42), while conceptual understanding ranked highest among academic performance dimensions (4.24). A strong, statistically significant relationship was found between collaborative learning implementation and learner engagement ($r = .642$, $p = .001$), while a moderate, positive, and statistically significant relationship existed between collaborative learning implementation and academic performance ($r = .482$, $p = .001$). The study found no significant relationship between collaborative learning implementation and teacher profile variables. The study proposed a capacity-building program to sustain collaborative learning practices and strengthen learner engagement and academic performance.

Keywords: Cooperative Learning, learner engagement, academic performance, capacity-building program

INTRODUCTION

Education is a fundamental instrument for individual development and national progress. Amid rapid technological advancement, globalization, and cultural diversity, schools are expected to develop not only academic competencies but also collaboration, communication, critical thinking, and other skills needed for contemporary society. Cooperative learning is a learner-centered approach that promotes active participation, shared responsibility, peer interaction, and collaborative problem-solving. Grounded in social interdependence theory, it emphasizes positive interdependence, individual accountability, social skills, and group processing (Johnson & Johnson, 2017).

Research has established the value of cooperative learning in promoting academic and social outcomes. Gillies (2016) noted that cooperative learning supports students' socialization, learning, thinking, and participation when appropriately structured. Similarly, a meta-analysis by Kyndt et al. (2013) found positive effects of face-to-face cooperative learning on achievement, attitudes, and perceptions.

Learner engagement is likewise important because students' participation and involvement in school are associated with their learning experiences and academic outcomes. Fredricks et al. (2019) identified contextual factors, including peer and adult support and opportunities for student choice, as important influences on engagement.

In Myanmar, the National Education Strategic Plan (2021–2030) provides a policy context emphasizing quality learning, twenty-first-century skills, cooperation, responsibility, creativity, and technological development. International schools in Myanmar provide a distinctive setting because of their diverse learners and emphasis on student-centered and collaborative learning. Despite extensive research on cooperative learning, limited evidence specifically addresses its implementation among Grade 3 learners in Myanmar's international schools. This study therefore examines cooperative learning and its relationship with learner engagement and academic performance.

Statement of the Problem

This study assessed cooperative learning in international schools in Myanmar and its possible relationship to the engagement and academic performance of Grade 3 learners. **Specifically, it sought to answer the following questions:**

1. What is the profile of grade 3 teachers in Myanmar?
2. What is the level of implementation of collaborative learning practices employed by grade 3 teachers in Myanmar?
3. What is the level of engagement of grade 3 learners in the classroom as perceived by the teachers?
4. What is the level of academic performance of grade 3 learners as perceived by the teachers?
5. Is there a significant relationship between the level of implementation of collaborative learning practices employed by grade 3 teachers in Myanmar and their profile variables?
6. Is there a significant relationship between the level of implementation of collaborative learning practices employed by grade 3 teachers and the level of engagement of grade 3 learners in the classroom as perceived by the teachers?

7. Is there a significant relationship between the level of implementation of collaborative learning practices employed by grade 3 teachers and the level of academic performance of grade 3 learners as perceived by the teachers?
8. Based on the results of the study, what capacity-building program may be proposed?

Scope and Delimitations

This study determined the implementation of cooperative learning among Grade 3 teachers in selected international schools in Myanmar and examined its relationships with learner engagement, academic performance, and teacher profiles. It focused on specified cooperative learning, engagement, and performance dimensions. Data were obtained from teachers through a structured questionnaire, limiting findings to participating international schools and teacher-perceived learner outcomes.

Review of Related Literature

Cooperative learning is a learner-centered instructional approach in which students work in small groups to achieve shared academic goals while assuming responsibility for individual and group learning. Unlike conventional teacher-centered instruction, it promotes active participation, peer interaction, knowledge construction, communication, and collaborative problem-solving. Effective cooperative learning is distinguished from ordinary group work through five essential elements: positive interdependence, individual accountability, promotive face-to-face interaction, interpersonal and collaborative skills, and group processing (Gillies, 2016; Johnson & Johnson, 2017). These elements encourage learners to contribute meaningfully, support their peers, and reflect on group performance. Research evidence also indicates that cooperative learning can positively influence achievement, attitudes, and perceptions across educational levels (Kyndt et al., 2013).

In elementary education, cooperative learning is particularly relevant because learners develop academic, social, and emotional competencies simultaneously. Structured peer interaction provides opportunities to explain concepts, exchange ideas, provide feedback, resolve disagreements, and appreciate diverse perspectives. Such experiences can strengthen communication, confidence, teamwork, and responsibility while supporting academic learning. Cooperative learning is also appropriate for multicultural and international school settings because it provides opportunities for learners from different cultural and linguistic backgrounds to interact, collaborate, and develop mutual respect.

Learner engagement is a multidimensional construct involving behavioral, emotional, cognitive, collaborative, and agentic dimensions. Behavioral engagement refers to participation and persistence in learning activities; emotional engagement involves learners' interest, enjoyment, and sense of belonging; cognitive engagement concerns mental effort, reflection, and higher-order thinking. Collaborative engagement emphasizes teamwork, peer support, communication, and shared responsibility, while agentic engagement reflects learners' proactive contributions through questioning, expressing ideas, seeking clarification, and influencing learning activities (Reeve, 2016). These dimensions are interconnected and collectively support meaningful participation and learner development.

Cooperative learning may strengthen learner engagement by creating supportive environments characterized by interaction, shared responsibility, peer assistance, and active participation. Group activities require learners to contribute ideas, complete responsibilities, communicate with peers, and remain involved in achieving common objectives. Positive peer relationships can also promote emotional engagement, while discussions and collaborative problem-solving encourage cognitive engagement. Moreover, opportunities to ask questions, offer suggestions, and participate in group decisions may strengthen collaborative and agentic engagement.

Academic performance reflects learners' acquisition and application of knowledge and skills. In contemporary elementary education, it extends beyond examination scores to include conceptual understanding, application of knowledge, critical thinking, problem-solving, and the quality of learning outputs. Cooperative learning can contribute to these outcomes by enabling learners to explain concepts, clarify misconceptions, evaluate perspectives, receive peer feedback, and apply knowledge collaboratively. A meta-analysis by Kyndt et al. (2013) found positive effects of cooperative learning on achievement, although the magnitude of effects varied according to factors such as age, academic domain, and cultural context.

Overall, the reviewed literature provides a theoretical and conceptual basis for examining cooperative learning in international elementary schools. The literature indicates that structured collaboration may create conditions conducive to learner engagement and academic development, particularly when teachers intentionally implement the essential elements of cooperative learning. This provides a relevant foundation for examining the implementation of cooperative learning among Grade 3 teachers and its relationship with learner engagement and academic performance in international schools in Myanmar.

Theoretical Framework

The present study is primarily anchored on Social Interdependence Theory, developed from the work of Kurt Lewin and Morton Deutsch and extensively advanced by David W. Johnson and Roger T. Johnson. The theory proposes that the structure of goals determines how individuals interact, and these interaction patterns influence educational outcomes. Positive interdependence occurs when learners perceive that their success is connected to the success of their group members, encouraging cooperation, mutual support, and shared responsibility. Research by Johnson and Johnson confirms that Social Interdependence Theory provides a major theoretical foundation for cooperative learning and has been extensively validated through research.

The theory identifies five essential elements of effective cooperative learning: positive interdependence, individual accountability, promotive interaction, interpersonal and collaborative skills, and group processing. These elements distinguish structured cooperative learning from ordinary group work. Positive interdependence encourages common goals, individual accountability ensures meaningful participation, promotive interaction facilitates peer support and explanation, collaborative skills enable productive teamwork, and group processing allows learners to reflect on group performance.

Social Interdependence Theory further explains how cooperative learning can influence learner engagement and academic performance. Structured interaction encourages learners to participate actively, exchange ideas, solve problems, and support one another. Evidence

summarized by Johnson and Johnson shows that cooperative efforts are associated with stronger achievement, interpersonal relationships, social support, reasoning, and time-on-task compared with competitive or individualistic efforts.

The theory is therefore directly relevant to the present study. Cooperative learning is operationalized through its five essential elements, while learner engagement and academic performance represent important educational outcomes. The framework assumes that stronger implementation of cooperative learning creates conditions that encourage active participation, collaboration, responsibility, and deeper learning. Accordingly, the study examines whether the implementation of cooperative learning among Grade 3 teachers is significantly related to learner engagement and academic performance in international schools in Myanmar.

Conceptual Framework

The present study is anchored on the Input–Process–Output (IPO) Model, which provides a systematic framework for organizing the study variables and research procedures. The model views an investigation as a system in which identified inputs are processed through systematic procedures to produce intended outputs. In educational research, the IPO framework has been applied to examine how resources and conditions are transformed through educational processes into outcomes (Scheerens, 1990).

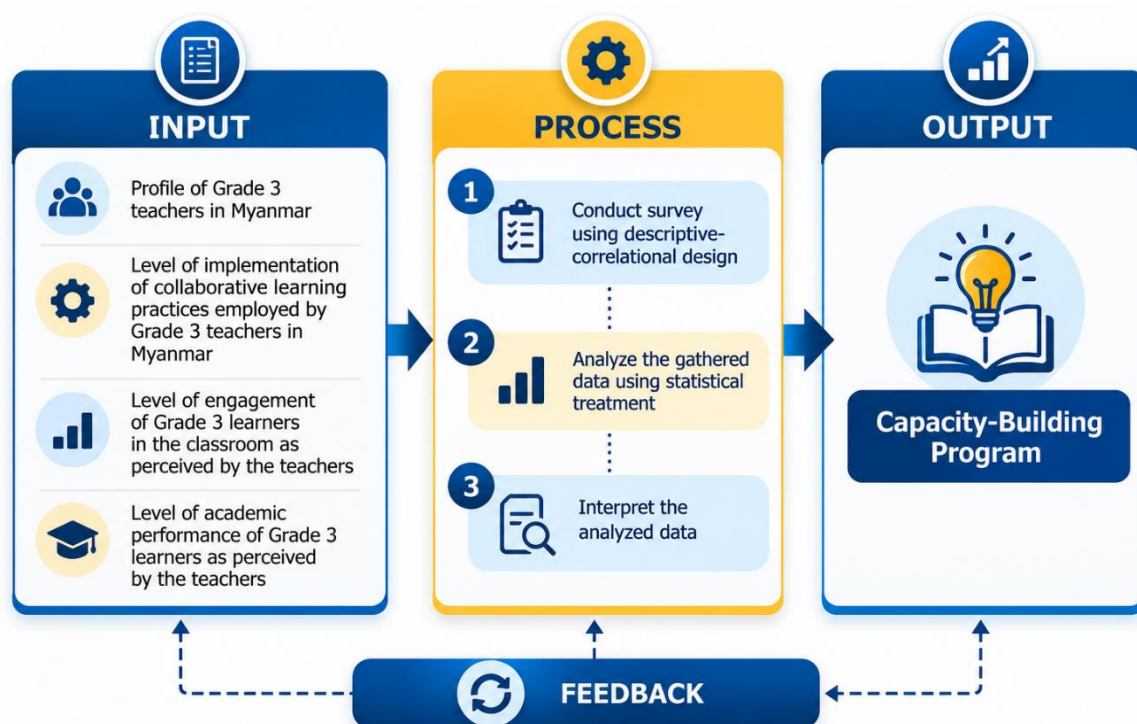


Fig. 1. Paradigm of the Study

The Input component consists of the Grade 3 teachers' profile, implementation of cooperative learning, learner engagement, and academic performance. Cooperative learning is measured through positive interdependence, individual accountability, promotive face-to-face

interaction, interpersonal and collaborative skills, and group processing and reflection. Learner engagement covers behavioral, emotional, cognitive, collaborative, and agentic dimensions, while academic performance includes conceptual understanding, application of knowledge, critical thinking and problem-solving, quality of learning outputs, and classroom assessment achievement.

The Process component involves the descriptive-correlational research design, administration of a structured questionnaire to Grade 3 teachers, statistical analysis, and interpretation of findings. This systematic process enables the researcher to determine the levels of the variables and their significant relationships. The use of IPO as a framework for systematically designing educational programs has also been demonstrated in teacher-development research (Kim et al., 2021).

The Output is a proposed Capacity-Building Program for Grade 3 teachers. Based on identified findings and areas for improvement, the program is intended to strengthen teachers' competencies in cooperative learning and support improved learner engagement and academic performance. The feedback mechanism provides a basis for refining instructional practices and future professional development.

METHODOLOGY

This section presents the research methodology, covering the research design, locale, population, sampling, instrument, data gathering, statistical treatment, and ethical considerations. These procedures support examining cooperative learning, learner engagement, and academic performance and developing an evidence-based capacity-building program.

Research Design

This study employed a quantitative, non-experimental descriptive-correlational research design to describe the study variables and determine the strength and direction of their relationships without manipulating the variables. Such designs are appropriate when researchers examine naturally occurring associations and seek to describe patterns without making causal claims (Cook & Cook, 2008).

The descriptive component was used to determine the profile of Grade 3 teachers, the implementation of cooperative learning practices, learner engagement, and academic performance as perceived by teachers. The correlational component examined whether significant relationships existed between cooperative learning implementation and learner engagement, academic performance, and selected teacher profile variables. Survey data were statistically analyzed to describe the variables and test their associations. Thus, the design was appropriate for addressing the study objectives while recognizing that correlational findings do not establish cause-and-effect relationships.

Research Steps

Prior to data collection, the researcher secured the required approvals and permission from the administrators of the selected international schools in Myanmar. The study procedures, including voluntary participation, informed consent, confidentiality, anonymity, and the right to withdraw, were explained to participants. These safeguards are essential in online educational survey research (Roberts & Allen, 2015).

After approval, the researcher converted the researcher-made questionnaire into Google Forms and distributed it electronically through official school communication channels. Respondents were given sufficient time to complete the survey. Submitted responses were retrieved, screened for completeness, organized, encoded, and analyzed using appropriate statistical procedures. The findings were interpreted according to the research questions and used as the basis for developing the proposed capacity-building program. Appropriate measures for protecting online survey data and respondent confidentiality were observed (Jamieson et al., 2018).

Data Collection, Sample Selection and Instrument

The study involved 50 Grade 3 teachers from selected international schools in Myanmar, selected through convenience sampling based on accessibility, availability, and willingness to participate. The sample provided data for describing cooperative learning implementation, learner engagement, academic performance, and selected teacher profile variables. As a non-probability technique, convenience sampling facilitated efficient data collection but limited the generalizability of findings beyond the participating respondents (Memon et al., 2025).

Data were collected using a researcher-made, four-part questionnaire covering teacher profile, cooperative learning, learner engagement, and perceived academic performance, using a five-point Likert scale. The instrument underwent content validation by five experts who assessed the items for relevance, clarity, representativeness, and alignment with the study objectives. Expert evaluation is an established approach for obtaining evidence of content validity (Polit et al., 2007). Following revision, the finalized questionnaire was administered electronically through Google Forms. No separate pilot test was conducted.

Data Analysis Methods

Appropriate statistical tools were employed to analyze and interpret the data and address the research problems. For Problem 1, frequency counts and percentages were used to describe the demographic and professional profile of Grade 3 teachers in Myanmar. For Problems 2–4, frequency and percentage distributions were computed for the response categories, while the weighted mean was used to determine the levels of collaborative learning implementation, learner engagement, and academic performance. The resulting means were interpreted using the established five-point scale: 4.51–5.00 as very high, 3.51–4.50 as high, 2.51–3.50 as moderate, 1.51–2.50 as slight/low, and 1.00–1.50 as not implemented/not engaged/very low, as applicable.

For Problems 5 and 6, the Pearson product–moment correlation coefficient (Pearson’s r) was employed to determine the significant relationships between the implementation of collaborative learning practices and learner engagement and between collaborative learning implementation and academic performance. Pearson’s r measures the strength and direction of a linear association between two quantitative variables and is commonly used when the assumptions for correlation analysis are satisfied (Schober et al., 2018). The statistical significance of the obtained correlation coefficients was evaluated using the appropriate significance level.

For Problem 7, Pearson's r was used to examine relationships between collaborative learning implementation and applicable quantitative teacher-profile variables, while the Pearson chi-square test of independence (χ^2) was employed for categorical profile variables. The chi-square test determines whether two categorical variables are statistically associated (McHugh, 2013). These statistical procedures provided an appropriate basis for describing the data and determining significant relationships among the study variables.

Research Hypotheses and Validation

The study formulated three null hypotheses to determine whether significant relationships exist among the variables. These hypotheses were tested at the 0.05 level of significance, a commonly used alpha level in educational research.

Specifically, the study hypothesized that there is no significant relationship between the implementation of collaborative learning practices and the profile variables of Grade 3 teachers in Myanmar. It further hypothesized that there is no significant relationship between collaborative learning implementation and the level of Grade 3 learners' engagement, as perceived by their teachers.

Finally, the study hypothesized that there is no significant relationship between collaborative learning implementation and the academic performance of Grade 3 learners, as perceived by their teachers. The null hypotheses provide a basis for statistical testing, with decisions determined using the appropriate correlation procedure and corresponding p-values. For correlation analysis, a p-value below .05 provides evidence against the null hypothesis.

Study Limitations and Ethical Considerations

The study was limited to 50 Grade 3 teachers from selected international schools in Myanmar and employed convenience sampling; therefore, the findings may not be generalizable to all Grade 3 teachers or other school contexts. Data were collected solely through a structured questionnaire, with learner engagement and academic performance based on teachers' perceptions rather than direct learner assessment or official academic records. The study did not examine other potentially influential factors, including parental involvement, socioeconomic status, school resources, class size, and curriculum differences.

The researcher secured the necessary institutional approvals and obtained permission from participating schools before data collection. Respondents were informed of the study's purpose and procedures, and participation was voluntary. The researcher observed informed consent, confidentiality, anonymity, and the right to withdraw. The questionnaire was administered electronically through Google Forms, and responses were securely retrieved, organized, and stored to protect participants' information.

RESULTS AND DISCUSSION

Profile of Grade 3 Teachers in Myanmar

Table 1: *Profile of Grade 3 Teachers in Myanmar*

n=63

Variables	Categories	Frequencies	Percentage
Age	21-30 years old	4	8.00%
	31-40 years old	15	30.00%
	41-50 years old	17	34.00%
	51 years old and above	14	28.00%
Sex	Female	38	76.00%
	Male	12	24.00%
Marital Status	Single	19	38.00%
	Married	23	46.00%
	Separated	2	4.00%
	Widowed	4	8.00%
	Others	2	4.00%
Highest Educational Attainment	With Doctorate	1	2.00%
	With Doctorate Units	4	8.00%
	With Masters	8	16.00%
	With Master's Units	19	38.00%
Bachelors Degree	Bachelors	18	36.00%
	Elementary Education	31	62.00%
	Secondary Education	17	34.00%
	Non-Education	2	4.00%
Length of teaching experience in Myanmar	Less than 5	15	30.00%
	5-10	13	26.00%
	11-15	9	18.00%
	16-20	4	8.00%
	21-25	5	10.00%
	More than 25	4	8.00%
Seminars and Trainings	Less than 5	7	14.00%
	5-10	19	38.00%
	11-15	9	18.00%
	16-20	8	16.00%
	21-25	1	2.00%
	More than 25	6	12.00%
Monthly Income	Less than 50,000	14	28.00%
	50,001-70,000	8	16.00%
	70,001-90,000	7	14.00%
	90,001-110,000	7	14.00%
	110,001 and above	14	28.00%

The profile shows a predominantly mature teaching workforce, with 92% of respondents aged 31 years and above. However, 56% had 10 years or less of teaching experience in Myanmar, indicating varied professional backgrounds. Age and experience may influence perceptions of cooperative learning, but continuing professional training appears more important for successful implementation (Prieto Saborit et al., 2016).

Female teachers comprised 76% of the sample, while 46% were married and 38% were single. These characteristics describe the respondents but should not be interpreted as direct indicators of teaching effectiveness. Similarly, 64% had completed or pursued graduate studies, and 62% held Elementary Education degrees, providing relevant preparation for teaching young learners.

Professional development was evident, with 86% having attended at least five collaborative-learning seminars or trainings. Nevertheless, sustained, school-based professional development and teacher collaboration are more meaningful than training frequency alone (Alansari & Rubie-Davies, 2021; Goodyear, 2017).

Income variation also reflects differences in teachers' employment conditions. Overall, the findings support continuous professional development, mentoring, collaboration, and supportive working environments to strengthen the implementation of cooperative learning.

Level of Implementation of Collaborative Learning Practices Employed by Grade 3 Teachers in Myanmar

Table 2: *Level of Implementation of Collaborative Learning Practices Employed by Grade 3 Teachers in Myanmar*

Summary Table	AWM	DM
A. Positive Interdependence	4.58	Very Highly Implemented
B. Individual Accountability	4.64	Very Highly Implemented
C. Promotive Face-to-Face Interaction	4.60	Very Highly Implemented
D. Interpersonal and Collaborative Skills	4.69	Very Highly Implemented
E. Group Processing and Reflection	4.59	Very Highly Implemented
GRAND MEAN	4.62	Very Highly Implemented

Note: Highest Frequencies are in boldface.

WM = Weighted Mean DM = Descriptive Meaning

Legend:

1.00-1.50	Not Implemented
1.51-2.50	Slightly Implemented
2.51-3.50	Moderately Implemented
3.51-4.50	Highly Implemented
4.51-5.00	Very Highly Implemented

Table 2 shows a very high level of implementation of collaborative learning practices, with a grand mean of 4.62. All five dimensions—positive interdependence, individual accountability, promotive interaction, interpersonal and collaborative skills, and group processing—were rated Very Highly Implemented. These dimensions are essential components of effective cooperative learning and indicate that teachers implement structured, purposeful collaborative activities rather than simply assigning learners to groups (Adl-Amini et al., 2024).

Interpersonal and collaborative skills obtained the highest mean (4.69), highlighting teachers' emphasis on communication, teamwork, respectful interaction, and mutual support. Similarly, individual accountability (4.64) and promotive interaction (4.60) indicate that learners are expected to contribute individually while supporting and learning from peers. Karmina et al. (2021) likewise found that teachers implemented cooperative learning through accountability, peer interaction, group roles, and teacher supervision.

Group processing (4.59) and positive interdependence (4.58) also received very high ratings, demonstrating consistency across the five dimensions. This level of implementation may support learner engagement and academic outcomes when teachers' professional competencies support it (Geletu, 2022). Continued professional development, collaborative planning, and reflective practice may therefore help sustain these practices.

Level of Engagement of Grade 3 Learners in the Classroom

Table 3: *Level of Engagement of Grade 3 Learners in the Classroom*

Summary Table	AWM	DM
A. Behavioral Engagement	4.29	Highly Engaged
B. Emotional Engagement	4.42	Highly Engaged
C. Cognitive Engagement	4.12	Highly Engaged
D. Collaborative Engagement	4.33	Highly Engaged
E. Agentic Engagement	4.28	Highly Engaged
GRAND MEAN	4.29	Highly Engaged

Note: Highest Frequencies are in boldface.

WM = Weighted Mean

DM = Descriptive Meaning

Legend:

1.00-1.50	Not Engaged
1.51-2.50	Slightly Engaged
2.51-3.50	Moderately Engaged
3.51-4.50	Highly Engaged
4.51-5.00	Very Highly Engaged

Table 13 shows that Grade 3 learners were Highly Engaged in classroom learning, with a grand mean of 4.29. All five dimensions—behavioral, emotional, cognitive, collaborative, and agentic engagement—received high ratings, indicating that learner engagement was evident through participation, positive emotions, mental effort, peer interaction, and proactive involvement. This supports the multidimensional view of engagement in which different forms of engagement are interconnected.

Emotional engagement obtained the highest AWM (4.42), followed by collaborative (4.33), behavioral (4.29), agentic (4.28), and cognitive engagement (4.12). The high emotional and collaborative ratings suggest that learners experienced positive classroom interactions and actively participated in peer activities. Research among elementary learners similarly found greater engagement during collaborative learning, particularly when learners interacted with one another.

Although cognitive engagement received the lowest rating, it remained Highly Engaged. This suggests an opportunity to strengthen inquiry, problem-solving, reflection, and tasks requiring learners to explain and justify their thinking. Azevedo et al. (2023) likewise

demonstrated that school-based interventions can enhance cognitive, emotional, and behavioral engagement among elementary learners.

Overall, the consistently high ratings provide a favorable foundation for classroom learning. Teachers may sustain the strong social and emotional dimensions while providing more opportunities for deeper thinking and learner initiative. Evidence also indicates meaningful relationships between the four engagement dimensions and learning outcomes.

Level of Academic Performance of Grade 3 Learners

Table 4: *Level of Academic Performance of Grade 3 Learners*

Categories	AWM	DM
A. Conceptual Understanding	4.24	High
B. Application of Knowledge	4.21	High
C. Critical Thinking and Problem-Solving	4.13	High
D. Quality of Learning Outputs	4.18	High
E. Achievement in Classroom Assessments	4.06	High
GRAND MEAN	4.16	High

Note: Highest Frequencies are in boldface.

WM = Weighted Mean DM = Descriptive Meaning

Legend:

1.00-1.50	Very Low
1.51-2.50	Low
2.51-3.50	Average
3.51-4.50	High
4.51-5.00	Very High

Table 4 shows that Grade 3 learners demonstrated a High level of academic performance, with a grand mean of 4.16. All five dimensions—conceptual understanding, application of knowledge, critical thinking and problem-solving, quality of learning outputs, and classroom assessments—were rated High, indicating generally favorable and well-rounded academic performance.

Conceptual understanding obtained the highest AWM (4.24), followed by application of knowledge (4.21) and quality of learning outputs (4.18). These results suggest that learners have a sound grasp of classroom concepts and can apply their knowledge in learning activities. This finding is consistent with Shin (2018), whose meta-analysis found a positive effect of cooperative learning on elementary students' academic achievement.

Critical thinking and problem-solving (4.13) was also rated High, although slightly lower than conceptual understanding and application. This may indicate the need for continued opportunities for inquiry, analysis, problem-solving, and higher-order thinking. Recent evidence from a second-order meta-analysis found that cooperative learning has a moderate positive effect on learning outcomes, including academic achievement and higher-order thinking.

The lowest dimension was achievement in classroom assessments (4.06), although it remained High. Teachers may therefore strengthen formative assessment, feedback,

remediation, and varied opportunities for demonstrating mastery. Supporting this, Torrego-Seijo et al. (2021), involving 692 primary learners, found that cooperative learning improved academic achievement in Mathematics and Spanish. Overall, the findings indicate that structured cooperative learning can provide a supportive foundation for sustaining and further developing learners' academic performance.

Significant Relationship Between the Level of Implementation of Collaborative Learning Practices and the Level of Engagement of Grade 3 Learners in the Classroom

Table 5: *Significant Relationship Between the Level of Implementation of Collaborative Learning Practices and the Level of Engagement of Grade 3 Learners in the Classroom*

Profile	Correlation Coefficient (σ)	Sig.	interpretation
Level of engagement of Grade 3 learners in the classroom as perceived by the teachers	0.642*	0.001	significant
Level of implementation of collaborative learning practices employed by Grade 3 teachers			

Note:

* significant at 0.05 alpha level

correlation coefficient values:

0.00 – 0.19: Very weak or negligible

0.20 – 0.39: Weak

0.40 – 0.59: Moderate

0.60 – 0.79: Strong

0.80 – 1.00: Very strong

Table 5 shows a strong and statistically significant positive relationship between the implementation of collaborative learning practices and Grade 3 learners' classroom engagement. The correlation coefficient was $r = 0.642$, with $p = 0.001$, which is below the 0.05 significance level. This indicates that higher implementation of collaborative learning practices was associated with higher learner engagement. The finding is consistent with Sun et al. (2022), who found greater cognitive-behavioral and emotional engagement during collaborative learning than direct instruction.

The result suggests that structured practices such as positive interdependence, individual accountability, promotive interaction, collaborative skills, and group processing may be associated with learners' active participation, emotional involvement, cognitive effort, peer collaboration, and initiative. Karmina et al. (2021) likewise emphasized that effective cooperative learning requires teachers to deliberately implement cooperative learning principles and structures, not merely organize learners into groups.

The finding also has practical implications for teacher development. Professional learning may focus on designing structured group activities, ensuring equitable participation,

facilitating peer interaction, and incorporating reflection and feedback. However, because the analysis is correlational, the significant relationship should not be interpreted as evidence that collaborative learning implementation directly causes increased engagement.

Significant Relationship Between the Level of Implementation of Collaborative Learning Practices and the Level of Academic Performance of Grade 3 Learners

Table 6: *Significant Relationship Between the Level of Implementation of Collaborative Learning Practices and the Level of Academic Performance of Grade 3 Learners*

Profile	Correlation Coefficient (σ)	Sig.	interpretation
Level of academic performance of grade 3 learners as perceived by the teachers	.482*	0.001	significant
Level of implementation of collaborative learning practices employed by grade 3 teachers			

Note:

* significant at 0.05 alpha level

Correlation coefficient values:

0.00 – 0.19: Very weak or negligible

0.20 – 0.39: Weak

0.40 – 0.59: Moderate

0.60 – 0.79: Strong

0.80 – 1.00: Very strong

Table 6 shows a moderate and statistically significant positive relationship between the implementation of collaborative learning practices and the academic performance of Grade 3 learners. The correlation coefficient was $r = 0.482$, with $p = 0.001$, which is below the 0.05 significance level. This indicates that higher implementation of collaborative learning practices was associated with higher perceived academic performance.

The finding suggests that structured collaborative practices—including positive interdependence, individual accountability, promotive interaction, collaborative skills, and group processing—may give learners opportunities to explain concepts, exchange ideas, solve problems, and apply knowledge. Karmina et al. (2021) emphasized that effective cooperative learning requires teachers to deliberately incorporate appropriate structures and principles into classroom practice.

The result is consistent with evidence involving primary learners. Torrego-Seijo et al. (2021), in a quasi-experimental study of 692 primary students, found that cooperative learning improved academic achievement in Mathematics and Spanish. A recent meta-analysis of 30 studies likewise reported a positive effect of cooperative learning on primary students' mathematics achievement.

These findings support continued use of structured collaborative learning activities, particularly those involving peer explanation, shared problem-solving, individual responsibilities, and reflection. However, this correlational result shows association rather than causation. Thus, the findings provide empirical support for the relationship between collaborative learning implementation and academic performance without establishing that one directly causes the other.

Significant Relationship Between the Level of Implementation of Collaborative Learning Practices Employed by Grade 3 Teachers in Myanmar and Their Profile Variables

Table 7: *Significant Relationship Between the Level of Implementation of Collaborative Learning Practices Employed By Grade 3 Teachers in Myanmar and Their Profile Variables*

Profile	Correlation Coefficient (σ)	Sig.	interpretation
Age	0.128	0.378	not significant
Highest Educational Attainment	-0.141	0.33	not significant
Length if teaching experience in Myanmar	0.042	0.772	not significant
Seminars and Trainings	0.133	0.357	not significant
Average Monthly Income	0.069	0.633	not significant

Note:

correlation coefficient values:

0.00 – 0.19: Very weak or negligible

0.20 – 0.39: Weak

0.40 – 0.59: Moderate

0.60 – 0.79: Strong

0.80 – 1.00: Very strong

Profile	Chi-square Statistic (χ^2)	df	Sig.	interpretation	Cramer's V	Interpretation
Sex	3.95	2	0.139	Not Significant	0.281	Moderate
Marital Status	4.41	8	0.818	Not Significant	0.21	Moderate
Bachelor's Degree	3.5	4	0.478	Not Significant	0.187	Moderate

Note:

*significant at .05 level

**significant at .01 level

Cohen's (1988)

Cramer's V

<.1 (small-weak relationship); .3 (medium/moderate relationship) >.5 large (large/strong relationship)

Table 7 shows that none of the teachers' profile variables had a statistically significant relationship with the implementation of collaborative learning practices at the 0.05 level. Age ($r = 0.128$, $p = .378$), educational attainment ($r = -0.141$, $p = .330$), teaching experience ($r = 0.042$, $p = .772$), seminars and trainings ($r = 0.133$, $p = .357$), and monthly income ($r = 0.069$, $p = .633$) were all nonsignificant. Likewise, sex, marital status, and bachelor's degree specialization showed no significant associations.

The findings suggest that collaborative learning implementation was relatively consistent across teachers regardless of their demographic, educational, professional, and economic characteristics. Although educational attainment showed the largest correlation among the continuous variables, its relationship was very weak and negative. Similarly, teaching experience had virtually no association with implementation, indicating that longer experience did not necessarily correspond to greater use of collaborative learning.

These results are generally consistent with Prieto Saborit et al. (2016), who found that continuing teacher training was a stronger predictor of cooperative-learning implementation than educational stage or subject area, although age and experience were associated with some differences in perceptions. Alansari and Rubie-Davies (2021) likewise found that professional learning and development can support changes in teachers' cooperative-learning practices.

Thus, schools may focus less on teachers' demographic characteristics and more on sustained professional development, mentoring, collaborative planning, and instructional support. However, the nonsignificant results should be interpreted within the study sample and design and should not be generalized beyond the participating teachers without further evidence.

Capacity-Building Program

The findings provide a strong basis for COLLAB-3 Myanmar, a capacity-building program designed to strengthen collaborative learning among Grade 3 teachers in international schools in Myanmar. Teachers demonstrated very high implementation of collaborative learning (GM = 4.62), while learners were highly engaged (GM = 4.29) and demonstrated high academic performance (GM = 4.16). Collaborative learning was also significantly related to learner engagement ($r = .642$, $p = .001$) and academic performance ($r = .482$, $p = .001$).

The program therefore focuses on sustaining existing strengths while addressing areas requiring further development, particularly cognitive engagement, critical thinking, problem-solving, and classroom assessment. Key activities include intensive training in collaborative learning elements, social skills, individual accountability, higher-order thinking, learner voice, formative assessment, peer observation, and collaborative problem-solving.

Sustainability will be supported through professional learning communities, peer coaching, collaborative lesson planning, demonstration teaching, classroom observation, and action research.

Monitoring will use baseline and post-program assessments, classroom observations, lesson-plan reviews, reflection logs, and learner outcome data. This approach is intended to ensure that capacity building becomes a continuing school-based process rather than a one-time training activity.

CONCLUSIONS

From the preceding findings, the following conclusions are drawn:

1. Grade 3 teachers in Myanmar were generally mature, predominantly female, married, and academically qualified, with many holding graduate-level qualifications and degrees in Elementary Education.
2. Collaborative learning practices were very highly implemented, particularly interpersonal and collaborative skills, individual accountability, promotive interaction, group processing, and positive interdependence.
3. Grade 3 learners were highly engaged, with emotional engagement highest and cognitive engagement comparatively lowest, indicating a need to strengthen deeper thinking.
4. Grade 3 learners demonstrated high academic performance, particularly in conceptual understanding and knowledge application, while classroom assessment achievement was comparatively lowest.
5. Collaborative learning implementation had a strong, positive, and significant relationship with learner engagement.
6. Collaborative learning implementation had a moderate, positive, and significant relationship with learners' academic performance.
7. Collaborative learning implementation had no significant relationship with teachers' demographic or professional profile variables.
8. A capacity-building program is warranted to sustain collaborative learning and further strengthen cognitive engagement, critical thinking, problem-solving, formative assessment, learner agency, and academic performance.

RECOMMENDATIONS

Based on the above-mentioned findings and conclusions, the following recommendations are hereby presented:

1. Schools may provide equitable professional development opportunities based on teachers' instructional needs and professional growth areas.
2. Teachers may sustain collaborative learning through regular lesson planning, peer sharing, demonstrations, and reflection.
3. Teachers may strengthen cognitive and agentic engagement through open-ended questions, problem-solving, reflection, learner choice, and group decision-making.
4. Teachers may enhance critical thinking, problem-solving, formative assessment, feedback, and individualized learning support.
5. Teachers may sustain structured collaborative activities and regularly monitor learner participation, interaction, and initiative.
6. Teachers may integrate collaborative learning into activities involving conceptual understanding, knowledge application, problem-solving, and learning outputs.

7. Schools may provide equitable professional development while using differentiated coaching based on observed classroom needs and instructional challenges.
8. Schools may adopt COLLAB-3 Myanmar as a continuing professional development program focusing on higher-order thinking, learner engagement, formative assessment, peer coaching, collaborative planning, classroom observation, and action research.

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