

School Literacy Ecosystems for Sustained Reading Participation

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ABSTRACT

This study investigated how school literacy ecosystems supported sustained reading participation among elementary learners in Santo Tomas, Isabela. Using a linked multi-informant ecological design, data were obtained from 42 elementary teachers and 126 Grades 4 to 6 learners. Teacher responses measured reading culture and shared practices, teacher support, access to texts and reading opportunities, and learner choice and voice, while learner responses assessed voluntary engagement, reading consistency, persistence, and participation in reading activities. Data were analyzed through two-level linear mixed-effects modeling to account for learners nested within teacher-linked instructional environments. Results showed a high overall school literacy ecosystem and high sustained reading participation, although access to texts received only a

moderate rating and reading persistence emerged as the weakest learner dimension. The intraclass correlation coefficient of .261 indicated that 26.1% of the variation in reading participation occurred across instructional environments. Teacher support was the strongest predictor of sustained reading participation, followed by reading culture and shared practices and learner choice and voice. Access to texts did not independently predict participation when the other ecosystem dimensions were considered. The fixed effects explained 38.3% of the variance, while the complete model accounted for 51.9%. The findings underscored the importance of strengthening teacher-supported reading routines, meaningful learner choice, access to varied texts, and activities that develop persistence to sustain reading participation in elementary schools.

Keywords: *elementary literacy, learner choice, reading ecosystems, reading participation, reading persistence, teacher support*

INTRODUCTION

Reading participation is shaped not only by a learner's ability to decode and understand text but also by the conditions that make reading meaningful, accessible, and worth sustaining. Schools influence these conditions through classroom instruction, access to reading materials, teacher encouragement, peer interaction, and opportunities to read beyond required academic tasks. Reading literacy therefore extends beyond technical proficiency and includes learners' motivation, enjoyment, frequency of reading, and willingness to engage with different forms of text. The OECD (2019) recognizes reading engagement as an important part of literacy because competent readers are expected not only to understand texts but also to value and use reading for varied purposes.

This broader view places attention on the school as a literacy ecosystem where teachers, learners, resources, routines, and relationships work together. A supportive reading environment can encourage learners to view reading as a regular and socially meaningful activity rather than a task performed only for grades or compliance. Ho and Lau (2018) found that reading enjoyment was a strong predictor of reading performance and

emphasized the contribution of positive school climate, classroom practices, and home-school cooperation to reading engagement. Such findings suggest that sustained participation is more likely when reading is supported across several parts of the learner's experience rather than confined to isolated reading lessons.

Teachers remain central to the formation of this environment because their choices determine how learners encounter texts and how reading becomes part of everyday classroom life. Opportunities for choice, discussion, shared reading, independent reading, and access to appealing materials can strengthen the social and affective dimensions of literacy. Vanden Dool (2021) showed that a classroom culture built around reading for pleasure involves the interaction of teacher knowledge, relationships, and material resources. This highlights the importance of examining literacy practices as connected features of school life and not simply as individual instructional techniques.

The need to strengthen these conditions is particularly important in Philippine elementary education. Findings from the Southeast Asia Primary Learning Metrics showed that Filipino Grade 5 learners obtained an average reading score below the regional average, while only 10 percent reached the minimum reading proficiency expected by the end of primary education under the SDG 4 benchmark (UNICEF & Department of Education, 2021). These results point to a concern that cannot be addressed through remediation alone. Schools also need structures that encourage children to encounter texts regularly, receive appropriate support, participate willingly in reading activities, and gradually develop reading as part of their learning habits.

Philippine literacy policy has likewise moved toward approaches that connect instruction, assessment, learning resources, teacher preparation, family participation, and school-level support. The Department of Education (2025) emphasized these elements in the implementation of ARAL-Reading, including capacity building, appropriate materials, parental and community engagement, assessment, and monitoring of learners' progress. Against this direction, there is value in understanding how such interconnected literacy conditions operate within elementary schools in Santo Tomas, Isabela. School Literacy Ecosystems for Sustained Reading Participation therefore seeks to examine how literacy-supportive conditions within schools contribute to the continuing participation of elementary learners in reading. By considering the perspectives of both teachers and learners, the study aims to identify the features of school literacy ecosystems that can help make reading a sustained, supported, and meaningful part of elementary education.

Literature Review

School Literacy Culture and Shared Reading Practices

A school literacy ecosystem develops when reading becomes visible and valued across classrooms, libraries, routines, and relationships. It requires more than scheduled reading instruction because learners also need spaces, materials, encouragement, and regular opportunities to interact with texts. Merga (2020) found that school libraries can contribute substantially to literacy and reading engagement, yet their effectiveness may be weakened by limited reading time, inadequate resources, low learner motivation, and insufficient collaboration among educators. These findings show that a strong reading culture depends on how different parts of the school work together. When reading is supported by accessible spaces, consistent routines, appropriate materials, and adults who actively promote reading, learners are more likely to encounter literacy as part of everyday school life. This perspective supports the view that sustained reading participation should be examined as an outcome of interconnected school conditions rather than a product of a single literacy activity.

Teacher Support and Reading Engagement

Teachers shape learners' willingness to participate in reading through the academic, emotional, and motivational support they provide. Zhao et al. (2019), studying primary school pupils, found that teacher support positively influenced reading engagement, with reading interest serving as an important pathway through which such support operated. This relationship suggests that learners participate more readily when teachers create conditions that make reading manageable, encouraging, and personally meaningful. Philippine evidence also

supports the value of supportive teaching. Haw et al. (2021) reported that need-supportive teaching was positively associated with reading achievement among Filipino learners across school types and socioeconomic groups. Together, these findings place teachers at the center of the literacy ecosystem because their interactions with learners can strengthen interest, confidence, and continued participation. Sustained reading therefore depends partly on whether classroom practices allow learners to experience guidance while still developing ownership of their reading activities.

Access to Reading Materials and Opportunities

Consistent participation in reading becomes difficult when learners have limited access to texts that suit their interests and abilities. A literacy-supportive school must therefore consider both the availability of reading materials and the opportunities learners receive to use them. Zucker et al. (2022) examined elementary learners from economically disadvantaged schools and found that children with access to a greater number of books reported more reading outside school, even after reading motivation was statistically considered. The finding indicates that motivation alone may not sustain reading when materials are scarce or difficult to obtain. Within schools, access can be strengthened through classroom collections, libraries, book-sharing systems, varied genres, and scheduled opportunities for independent reading. For elementary schools, this dimension is especially important because repeated contact with appealing and appropriate texts can help transform reading from an occasional academic requirement into a familiar activity that learners can choose and continue.

Learner Motivation, Choice, and Sustained Reading

Sustained reading participation also depends on what learners themselves find meaningful about reading. Children do not read for a single reason, and differences in interests, purposes, emotions, and preferred texts influence whether they choose to continue. McGeown et al. (2020) found that primary school children reported varied motivations for reading, including enjoyment, relaxation, excitement, learning, challenge, social interaction, and immersion in stories. Their motivations also differed according to the type of text being read. This suggests that schools may encourage stronger participation when learners are given meaningful choices and access to reading materials that reflect diverse interests rather than being exposed only to prescribed texts. Listening to learners' reading preferences is therefore an important feature of a functioning literacy ecosystem. When teachers understand why children read and what attracts them to particular texts, reading activities can become more responsive to learners and more capable of supporting participation over time.

METHODS

Research Design

The study employed a linked multi-informant ecological design, a quantitative approach that connected teacher-reported characteristics of the school literacy environment with learner-reported patterns of sustained reading participation. Rather than treating teacher and learner responses as independent datasets, the design linked a small set of learners to each participating teacher, allowing reading participation to be examined within the instructional environments in which it occurred. The predictor construct covered reading culture and shared practices, teacher support, access to reading resources and opportunities, and learner choice in reading. Sustained reading participation served as the outcome construct and reflected voluntary reading, consistency, persistence, and active involvement in reading activities. No respondent profile variables were included in the investigation.

Research Locale

The study was conducted in Santo Tomas, Isabela, within the public elementary education setting. The municipality provided an appropriate setting because its elementary schools served learners from communities with varying access to literacy resources and learning opportunities. The investigation concentrated on the

everyday literacy conditions experienced by teachers and learners rather than identifying or comparing individual schools.

Participants and Sampling Technique

The participants consisted of 42 elementary teachers and 126 learners from Grades 4 to 6, for a total of 168 respondents. The teacher sample was drawn from the documented teaching population of Santo Tomas District. A district-wide study published through the Schools Division of Isabela Research Portal reported 99 teachers in Santo Tomas District, providing a local basis for determining a moderate and feasible teacher sample (Acson et al., 2024). Stratified random sampling was used to obtain teacher participants across the upper elementary grade levels. Three learners were then randomly selected from the official class list associated with each participating teacher, resulting in 126 learner participants. Grades 4 to 6 learners were selected because they could provide direct and meaningful reports of their reading routines, choices, persistence, and participation.

Research Instrument

Two corresponding survey forms were developed for the study. The Teacher Literacy Ecosystem Scale contained 24 statements distributed across four domains: reading culture and shared practices, teacher support for reading, access to texts and reading opportunities, and learner choice and voice. The Learner Sustained Reading Participation Scale contained 16 statements measuring voluntary engagement, reading consistency, persistence with texts, and active participation in reading activities. Responses were recorded using a five-point scale.

Content validation was conducted by five specialists in elementary education, literacy instruction, educational measurement, and research. The Teacher Literacy Ecosystem Scale obtained an S-CVI/Ave of .95, while the Learner Sustained Reading Participation Scale obtained an S-CVI/Ave of .96, indicating strong agreement among the validators regarding item relevance, clarity, and construct alignment. The instruments were pilot-tested with 30 elementary teachers and 40 upper-elementary learners who were not included in the main study. Reliability analysis produced a Cronbach's alpha of .93 for the Teacher Literacy Ecosystem Scale and .91 for the Learner Sustained Reading Participation Scale. Domain-level coefficients ranged from .84 to .92 for the teacher scale and from .83 to .90 for the learner scale. Corrected item-total correlations ranged from .46 to .78, and no item fell below the .30 retention criterion. Minor revisions were made to wording and sequencing before the final administration.

Data Gathering Procedure

Permission to conduct the study was secured from the appropriate education authorities before data collection. After approval, the researcher coordinated the distribution of the instruments without identifying individual schools in the research report. Teacher participants first completed the literacy ecosystem scale. Learner participants subsequently answered the reading participation scale during an arranged period that did not interfere with regular instruction. Directions were explained using age-appropriate language, and learners completed the instrument independently with assistance limited to clarification of instructions. Teacher and learner responses were assigned coded identifiers so that the datasets could be linked for statistical analysis without recording names. Completed instruments were checked for completeness, encoded, and prepared for analysis.

Data Analysis

The data were analyzed using two-level linear mixed-effects modeling, which accounted for the clustering of learners within the instructional environments represented by participating teachers. An unconditional random-intercept model was first estimated to determine the intraclass correlation coefficient and establish how much variation in sustained reading participation occurred between instructional environments. Teacher-level literacy ecosystem scores were then entered as Level 2 predictors of learner-level sustained reading participation. Reading culture and shared practices, teacher support, access and opportunities, and learner choice were examined simultaneously to determine their unique contributions. Standardized fixed-effect coefficients, 95% confidence

intervals, and exact probability values were reported. Marginal (R^2) was used to indicate variance explained by the literacy ecosystem predictors, while conditional (R^2) represented variance explained by both the fixed effects and the clustering structure. This treatment was selected because it preserved the linked nature of teacher and learner data instead of treating all observations as statistically independent.

Ethical Considerations

Participation remained voluntary throughout the study. Teachers provided informed consent, while parental or guardian consent and learner assent were secured for participating children. Respondents were informed of the purpose of the research, their right to decline or withdraw, and the confidential handling of their responses. Names and identifying information were excluded from the dataset, coded records were used solely for research purposes, and findings were reported only in aggregate form.

RESULTS AND DISCUSSION

Table 1. *School Literacy Ecosystem as Assessed by Elementary Teachers*

Dimension	Mean	SD	Interpretation
Reading Culture and Shared Practices	4.08	0.46	High
Teacher Support for Reading	4.24	0.41	Very High
Access to Texts and Reading Opportunities	3.39	0.58	Moderate
Learner Choice and Voice	3.87	0.49	High
Overall	3.90	0.39	High

Table 1 presents the teachers' assessment of the school literacy ecosystem. The overall mean of 3.90 indicated that literacy-supportive conditions were generally evident, although they were not equally strong across all dimensions. Teacher support for reading obtained the highest mean of 4.24, suggesting that teachers consistently encouraged learners, guided reading activities, and provided assistance when difficulties arose. Reading culture and shared practices also received a high rating, showing that reading had an established place in classroom routines.

The main concern emerged in access to texts and reading opportunities, which obtained a mean of 3.39 and was interpreted as moderate. This result suggested that learners did not consistently encounter a sufficient range of appealing, accessible, and level-appropriate materials. Thus, the ecosystem appeared stronger in interpersonal support than in material provision. The finding points to a practical imbalance because strong teacher encouragement may not fully sustain participation when learners have limited opportunities to select and regularly encounter varied reading materials.

Table 2. *Sustained Reading Participation among Elementary Learners*

Dimension	Mean	SD	Interpretation
Voluntary Reading Engagement	3.62	0.61	High
Reading Consistency	3.44	0.64	High
Reading Persistence	3.28	0.67	Moderate
Active Participation in Reading Activities	3.79	0.56	High
Overall	3.53	0.52	High

Table 2 shows that learners demonstrated an overall high level of sustained reading participation, with a mean of 3.53. Active participation in organized reading activities received the highest mean of 3.79, indicating that learners generally responded well when reading was structured, guided, or socially supported. Voluntary

reading engagement was also high, suggesting that many learners were willing to read beyond strictly required tasks.

However, reading persistence registered the lowest mean at 3.28. This result revealed an important weakness within otherwise favorable participation patterns. Learners appeared more willing to begin or join reading activities than to continue reading when texts became lengthy, difficult, or less immediately engaging. The pattern suggests that sustained participation should not be judged solely by willingness to take part. Persistence represented a more demanding aspect of literacy engagement and remained an area requiring focused support.

Table 3. Null Model and Variance Distribution of Sustained Reading Participation

Model Component	Estimate
Grand Mean of Reading Participation	3.53
Between-Teacher Variance	0.071
Learner-Level Residual Variance	0.201
Intraclass Correlation Coefficient	0.261

Table 3 presents the unconditional mixed-effects model used to determine whether learners' reading participation varied across the instructional environments represented by participating teachers. The intraclass correlation coefficient was 0.261, indicating that 26.1% of the variation in sustained reading participation occurred between teacher-linked instructional environments, while 73.9% occurred among learners within those environments.

This result supported the use of a multilevel approach because learner responses were not fully independent of the environments in which reading occurred. The proportion of between-environment variation also reinforced the ecological premise of the study. Although individual learner differences remained substantial, more than one fourth of the variation in sustained reading participation was associated with shared literacy conditions connected to teachers and their instructional settings. Reading participation therefore appeared to be partly shaped by the environment surrounding the learner rather than by personal motivation alone.

Table 4. Two-Level Mixed-Effects Model Predicting Sustained Reading Participation

School Literacy Ecosystem Predictor	Standardized β	SE	95% CI	p-value
Reading Culture and Shared Practices	0.24	0.10	0.04 to 0.44	.020
Teacher Support for Reading	0.34	0.10	0.14 to 0.54	.002
Access to Texts and Reading Opportunities	0.12	0.09	-0.07 to 0.31	.193
Learner Choice and Voice	0.21	0.10	0.01 to 0.41	.041
Model Statistics				
Indicator	Value			
Marginal R^2	0.383			
Conditional R^2	0.519			
Remaining Between-Teacher Variance	0.039			
Remaining Learner-Level Variance	0.183			

Table 4 presents the final two-level mixed-effects model. Teacher support for reading emerged as the strongest predictor of sustained reading participation, with a standardized coefficient of $\beta = 0.34$, $p = .002$. This indicated that instructional environments characterized by stronger encouragement, guidance, feedback, and responsiveness were associated with higher learner participation in reading. Reading culture and shared practices

also contributed significantly, $\beta = 0.24$, $p = .020$, showing that regular and visible reading routines helped strengthen continuing participation.

Learner choice and voice produced a smaller but significant effect, $\beta = 0.21$, $p = .041$. Learners appeared more likely to maintain participation when they were allowed some influence over the texts they read and the ways they participated. In contrast, access to texts and reading opportunities did not independently predict participation after the other ecosystem dimensions were considered, $\beta = 0.12$, $p = .193$. This should not be interpreted as evidence that resources were unimportant. The descriptive findings showed that access was already the weakest component of the literacy ecosystem. Its nonsignificant unique effect suggests that the presence of materials alone may not be sufficient unless teachers actively integrate them into supportive reading practices and provide learners with meaningful opportunities to use them.

The fixed effects explained 38.3% of the variance in sustained reading participation, while the complete model, including differences across teacher-linked environments, accounted for 51.9%. The reduction in between-teacher variance from 0.071 to 0.039 further indicated that the identified literacy ecosystem dimensions explained a meaningful part of the differences among instructional environments. Taken together, the results showed that sustained reading participation was strongest where learners experienced consistent teacher support, established reading practices, and meaningful choice. At the same time, moderate access to texts and weaker reading persistence revealed that the literacy ecosystem remained uneven. Strengthening material access while deliberately building persistence may therefore be necessary to convert positive reading participation into a more durable reading habit.

CONCLUSION

The findings led to the conclusion that sustained reading participation among elementary learners was supported by the quality of the school literacy ecosystem, particularly through teacher support, established reading practices, and opportunities for learner choice. Although overall participation was high, weaker reading persistence and only moderate access to varied texts indicated that participation was not yet equally strong across all aspects of reading. The multilevel results further showed that a meaningful portion of learner participation was associated with differences in teacher-linked instructional environments, confirming that reading engagement was shaped not only by individual learner characteristics but also by the literacy conditions surrounding them. It is therefore recommended that elementary schools in Santo Tomas, Isabela strengthen classroom and school-based reading systems by expanding access to diverse and level-appropriate materials, sustaining structured reading routines, increasing learner choice, and providing activities that gradually build persistence with more demanding texts. Teachers should also continue using responsive encouragement, guided reading support, and meaningful reading interactions, while school leaders may use the identified ecosystem dimensions as a basis for literacy planning, resource allocation, and monitoring of reading participation.

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