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Instructional Outcomes, Implementation Strategies, and Challenges of Reading Programs in Elementary Schools: Evidence from Bagamanoc, Philippines

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Abstract

Persistent literacy gaps at the elementary level remain a critical concern in basic education, particularly in contexts where learners face varied linguistic, socio-economic, and instructional constraints; within this landscape, reading programs play a vital contributory role in strengthening foundational literacy skills, alongside other language and learning interventions. This study examined the instructional outcomes, instructional strategies, and implementation challenges of reading programs in public elementary schools in the Bagamanoc North and South Districts, Philippines. Employing a descriptive correlational research design, data were collected from 83 elementary teachers through proportionate stratified sampling using a validated questionnaire with high reliability (Cronbach's alpha = .897). Weighted means were used to assess teachers' perceptions of instructional outcomes, instructional strategies, and implementation challenges, while Pearson's r determined the relationships among the variables. Findings revealed that reading programs contributed to high instructional outcomes, particularly in reading comprehension, vocabulary development, and learner motivation. Instructional strategies most notably teacher-directed, differentiated, peer-assisted, and technology-supported approaches were frequently utilized and rated highly by teachers. Implementation challenges were experienced at a moderate level, with limited parental support, increased workload, and insufficient access to instructional resources emerging as recurring concerns. Correlation analysis demonstrated a strong positive relationship between instructional strategies and instructional outcomes, a moderate relationship between implementation challenges and instructional outcomes, and no significant relationship between instructional strategies and implementation challenges. These results highlight the central role of effective instructional strategies in enhancing the contribution of reading programs to literacy development despite contextual constraints. An evidence-based action plan is proposed to strengthen teacher capacity, mitigate systemic challenges, and promote the sustainability of elementary reading initiatives in resource-constrained settings.

Keywords: reading programs, literacy development, instructional outcomes, instructional strategies, implementation challenges, elementary education, Bagamanoc, Philippines

INTRODUCTION

Reading proficiency remains a cornerstone of academic success and lifelong learning, positioning elementary reading programs as a central priority in educational systems worldwide (Foorman et al., 2016; Duke & Cartwright, 2021; OECD, 2019). Strong reading skills acquired in the early grades are consistently associated with improved comprehension, vocabulary development, learner motivation, and overall academic achievement across subject areas (Kim et al., 2020; Connor et al., 2021). As a result, governments and school systems increasingly invest in structured reading programs to mitigate early literacy gaps and prevent long-term learning difficulties (UNESCO, 2021).

Despite the widespread implementation of reading programs, growing evidence suggests that program effectiveness is highly contingent on how teachers enact instructional strategies within real classroom contexts (Duke & Cartwright, 2021; Connor et al., 2021). Instructional strategies such as differentiated reading instruction, peer-assisted learning, and the integration of digital tools have been shown to positively influence reading comprehension and learner engagement when implemented with fidelity (Sung et al., 2016). However, the success of these strategies is often mediated by contextual factors, including class size, instructional time, and resource availability, which shape how programs are delivered in practice (Darling-Hammond et al., 2017; Schindler et al., 2017; Kim et al., 2020).

Recent literature highlights a critical limitation in the existing body of research. Much of the empirical work focuses either on learner achievement outcomes or on specific instructional strategies examined in isolation, often within well-resourced educational settings (Foorman et al., 2016; Kim et al., 2020; Connor et al., 2021). In contrast, the present investigation extends prior studies by adopting an integrated analytical lens that concurrently examines instructional outcomes, the strategies employed by teachers, and the implementation challenges they navigate, with particular attention to public elementary schools operating in resource-constrained contexts (Darling-Hammond et al., 2017; UNESCO, 2021).

In the Philippine context, while national education policies strongly emphasize the implementation of literacy and reading programs, empirical studies consistently report that teachers in public elementary schools—particularly those in rural and geographically isolated areas—face persistent constraints related to limited resources, high instructional demands, and contextual inequities (Bernardo, Ganotice, & King, 2018; Alonzo et al., 2020). Despite these documented challenges, research systematically examines teachers lived experiences and implementation realities at the district level remains relatively scarce (Cabardo & Cabardo, 2021). This gap is especially evident in geographically isolated municipalities such as Bagamanoc, Catanduanes, where schools operate within distinct structural and socio-economic constraints that may intensify implementation challenges (Cordial, Villegas, & Bermudo, 2026). Teachers in such contexts often manage large class sizes alongside limited instructional resources, conditions that can directly influence the fidelity and effectiveness of reading program implementation (Schindler et al., 2017; Darling-Hammond et al., 2017).

The present study advances existing research on reading comprehension and instructional strategies by examining how teachers' instructional choices interact with implementation challenges to shape perceived reading outcomes within a specific, resource-constrained public-school context. This relational approach responds to calls for more context-sensitive and practice-oriented investigations that foreground teachers' agency while accounting for structural constraints (Duke & Cartwright, 2021; Connor et al., 2021).

Statement of the Problem. Reading programs are widely implemented in elementary schools as a foundational intervention to address literacy gaps and enhance learners' reading proficiency. However, the effectiveness of these programs largely depends on how teachers implement instructional strategies, navigate contextual challenges, and translate program goals into classroom practices. Despite the growing emphasis on early literacy interventions, empirical evidence remains limited regarding how teachers' instructional strategies and encountered challenges interact with the perceived outcomes of reading programs, particularly in geographically distinct public-school contexts such as Bagamanoc, Catanduanes.

This study aimed to examine the instructional outcomes, implementation strategies, and challenges associated with reading program implementation in elementary schools in the

Bagamanoc North and South Districts. The study is guided by the following research questions:

1. How do public elementary school teachers in the Bagamanoc North and South Districts perceive the instructional outcomes of school-based reading programs in terms of:
   1.1 students' improvement in reading comprehension skills;
   1.2 enhancement of vocabulary and overall literacy skills;
   1.3 increased learner interest in reading; and
   1.4 development of learner motivation toward reading tasks?

2. What instructional strategies do teachers employ in implementing reading programs in terms of:
   2.1 differentiated reading strategies;
   2.2 peer-assisted learning interventions;
   2.3 teacher-directed reading interventions; and
   2.4 integration of technology and multimedia resources?

3. What challenges do teachers encounter in the implementation of reading programs in elementary schools?

4. Is there a significant relationship between the instructional outcomes of reading programs and the strategies employed by teachers?

5. Is there a significant relationship between the instructional outcomes of reading programs and the challenges encountered during implementation?

6. Is there a significant relationship between the instructional strategies employed and the challenges encountered in the implementation of reading programs?

7. Based on the findings of the study, what evidence-based action plan can be proposed to enhance the implementation of reading programs in elementary schools in the Bagamanoc North and South Districts?

Hypotheses. This study tested the following null hypotheses at the 0.05 level of significance:

H_{01}: There is no significant relationship between the instructional outcomes of reading programs and the instructional strategies employed by teachers.

H_{02}: There is no significant relationship between the instructional outcomes of reading programs and the challenges encountered by teachers during the implementation of reading programs.

H_{03}: There is no significant relationship between the instructional strategies employed by teachers and the challenges encountered in the implementation of reading programs.

Scope of the Study. This study focused on the instructional outcomes, implementation strategies, and challenges of reading program implementation in public elementary schools in the Bagamanoc North and South Districts during School Year 2025–2026. It examined teacher-perceived outcomes in reading comprehension, vocabulary and literacy development, learner interest, and motivation, alongside instructional strategies and encountered challenges. The respondents were limited to public elementary school teachers directly involved in reading programs. The study excluded private schools, learners, parents, and districts outside Bagamanoc, and did not involve direct assessment of students' reading performance. Despite these delimitations, the study aimed to generate context-specific, evidence-based recommendations for strengthening elementary reading programs.

Theoretical and Conceptual Framework. This study is anchored on Self Determination Theory (SDT) proposed by Ryan and Deci (2017), which explains learner motivation and engagement as outcomes of instructional environments that support autonomy, competence, and relatedness. In the context of school-based reading programs, teachers play a pivotal role in shaping learning experiences that foster students' interest in reading, sustain motivation, and promote active engagement. Instructional

strategies that offer meaningful learning choices, appropriate academic support, and positive teacher learner relationships contribute to the development of these motivational conditions. SDT therefore provides a valuable theoretical lens for examining how teachers' instructional practices influence reading outcomes and how implementation challenges may affect their ability to support student learning effectively.

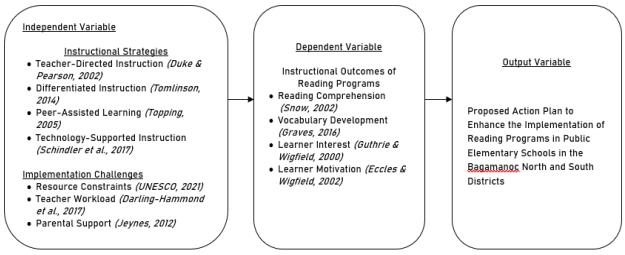

Figure 1
Instructional Framework Linking Strategies and Challenges to Reading Outcomes

The study is further grounded in the Theory of Effective Literacy Instruction articulated by Duke, Pearson, Strachan, and Billman (2019), which emphasizes the strategic alignment of instructional approaches, differentiated practices, and contextual supports to enhance reading comprehension and overall literacy development. Guided by these theories, the conceptual framework presented in Figure 1 illustrates the relationships among teachers' instructional strategies and implementation challenges as key factors influencing the instructional outcomes of reading programs. Drawing from established theories of reading comprehension, motivation, and differentiated instruction (Snow, 2002; Tomlinson, 2014; Guthrie & Wigfield, 2000), the framework conceptualizes instructional strategies and contextual constraints as interacting elements that shape learners' reading development. The inclusion of an output component in the form of a proposed action plan extends the framework toward practical application by translating empirical findings into context responsive strategies aimed at strengthening the implementation and sustainability of reading programs in public elementary schools in the Bagamanoc North and South Districts.

LITERATURE REVIEW

The literature on elementary reading programs emphasizes that literacy development is a multidimensional process shaped by instructional practices, teacher capacity, and contextual conditions within schools. Contemporary research increasingly highlights that reading outcomes are not solely determined by the presence of structured programs, but by how teachers implement instructional strategies, respond to learner diversity, and navigate implementation challenges in real classroom settings (Duke et al., 2011; Darling-Hammond et al., 2017; Cordial, Villegas, & Bermudo, 2026). As educational systems place growing emphasis on early literacy interventions, scholarly attention has shifted toward examining the interaction between pedagogical approaches, contextual constraints, and perceived instructional outcomes. This review synthesizes Scopus-indexed studies on instructional strategies, implementation challenges, and technology-supported practices in reading instruction, complemented by localized empirical evidence from Catanduanes, to establish a theoretical and empirical foundation for examining reading program effectiveness in geographically distinct and resource-constrained elementary school contexts (Cordial, Valledor, & Bermudo, 2025; Cordial, 2025b; Cordial, 2025a).

Instructional Strategies and Reading Outcomes. A robust body of Scopus-indexed research confirms that instructional strategies play a critical role in shaping elementary learners' reading outcomes, particularly in comprehension, fluency, and vocabulary development (Duke et al., 2011; Graham et al., 2018; Cordial, Villegas, & Bermudo, 2026). Explicit and systematic reading instruction, including guided reading, phonics-based instruction, and scaffolded comprehension activities, has been consistently associated with significant gains in students' reading achievement (Foorman et al., 2016; Duke & Cartwright, 2021). Similarly, differentiated reading instruction that responds to learners' varying abilities and needs has been shown to

enhance engagement and improve reading proficiency in heterogeneous classrooms (Tomlinson et al., 2017; Cordial, Valledor, & Bermudo, 2025).

Recent studies also demonstrate that blended and technology-supported instructional strategies can positively influence reading outcomes when aligned with sound pedagogical principles (Sung et al., 2016; Cheung & Slavin, 2013; Cordial, Evangelista, & Bermudo, 2025). Technology-enhanced reading programs that integrate multimedia texts, interactive feedback, and adaptive scaffolding yield moderate but significant improvements in students' reading performance, particularly among struggling readers (Cheung & Slavin, 2013; Schindler et al., 2017; Cordial, Valledor, & Bermudo, 2025). Moreover, peer-assisted instructional approaches have been empirically validated as effective in improving reading fluency and comprehension through structured learner interaction and reciprocal support (Fuchs et al., 2001; Vaughn et al., 2011; Cordial, Valledor, & Bermudo, 2025). Collectively, these findings underscore that instructional strategies are central determinants of reading outcomes, provided they are implemented with fidelity and pedagogical coherence.

However, evidence also suggests that the effectiveness of instructional strategies depends heavily on teachers' instructional competence and contextual conditions (Duke & Cartwright, 2021; Cordial, Evangelista, & Bermudo, 2025). Inconsistent implementation limited instructional knowledge, and insufficient instructional support can weaken the impact of even evidence-based strategies, indicating that strategy quality and execution are as important as strategy selection (Foorman et al., 2016; Cordial, Evangelista, & Bermudo, 2025; Cordial, Villegas, & Bermudo, 2026).

Teacher Challenges in Reading Program Implementation. Beyond instructional strategies, Scopus-indexed literature highlights persistent challenges that teachers face in implementing reading programs effectively. Studies consistently report that insufficient instructional materials, limited access to professional development, and inadequate technological infrastructure constrain teachers' capacity to deliver high-quality reading instruction (Darling-Hammond et al., 2017; Schindler et al., 2017; Cordial, 2025b). These challenges are particularly pronounced in resource-constrained and rural school contexts, where teachers must address diverse learner needs with minimal instructional support (Vaughn et al., 2018; Cordial, 2025a).

Teacher-related challenges such as large class sizes, time constraints, and limited training in literacy pedagogy further complicate the implementation of differentiated and learner-centered reading strategies (Graham et al., 2018; Duke et al., 2011; Cordial, Valledor, & Bermudo, 2025). Research also indicates that systemic constraints, including curriculum rigidity and accountability pressures, influence teachers' instructional decisions and reduce flexibility in adapting reading strategies to learner needs (Darling-Hammond et al., 2017; Cordial, 2025a). These findings suggest that implementation challenges do not merely hinder instruction but actively shape how teachers select, adapt, and sustain reading strategies in classroom practice (Cordial, Villegas, & Bermudo, 2026).

Importantly, literature emphasizes that professional development focused on instructional coherence, reflective practice, and contextual responsiveness is essential for mitigating these challenges and improving reading instruction outcomes (Desimone & Garet, 2015; Cordial, Evangelista, & Bermudo, 2025; Cordial, 2025a). Without such support, teachers may struggle to translate evidence-based reading strategies into effective classroom practice.

Technology and Multimodal Strategies. Scopus-indexed meta-analyses and empirical studies indicate that technology-supported and multimodal reading instruction can enhance literacy outcomes when integrated purposefully into classroom instruction (Sung et al., 2016; Schindler et al., 2017; Cordial, Evangelista, &

Bermudo, 2025). Interactive digital texts, adaptive reading platforms, and multimedia-enhanced lessons have been shown to support vocabulary acquisition, comprehension monitoring, and learner engagement (Cheung & Slavin, 2013; Sung et al., 2016; Cordial, Evangelista, & Bermudo, 2025; Cordial, 2025b). These tools allow for differentiated pacing and immediate feedback, which are critical for supporting diverse learners.

However, the literature also cautions that technology integration alone does not guarantee improved reading outcomes. Teacher preparedness, instructional design, and access to reliable resources significantly moderate the effectiveness of technology-based reading instruction (Schindler et al., 2017; Darling-Hammond et al., 2017; Cordial, Evangelista, & Bermudo, 2025; Cordial, 2025a). Studies emphasize that technology must be embedded within coherent instructional frameworks that align with learners' cognitive and motivational needs (Duke & Cartwright, 2021; Cordial, Villegas, & Bermudo, 2026).

Gaps in the Literature. Although studies provide strong evidence linking instructional strategies and reading outcomes and document the challenges teachers encounter, limited research examines the combined and interactive effects of instructional strategies and implementation challenges on perceived reading program outcomes. Most studies focus on either instructional effectiveness or implementation barriers in isolation, leaving a gap in understanding how these factors jointly influence reading program success in real-world school contexts (Vaughn et al., 2018; Cordial, Villegas, & Bermudo, 2026).

Furthermore, there is a notable lack of context-specific evidence from geographically distinct and resource-constrained public-school districts, where instructional challenges may uniquely shape strategy use and outcomes (Cordial, Valledor, & Bermudo, 2025; Cordial, 2025a). This study addresses these gaps by empirically examining the relationships among instructional strategies, implementation challenges, and instructional outcomes of reading programs within the public elementary schools of Bagamanoc North and South Districts, thereby contributing localized and policy-relevant evidence to the broader literacy research literature.

METHODS

Research Design. This study employed a descriptive–correlational research design to examine the instructional outcomes, implementation strategies, and challenges associated with reading program implementation in elementary schools. The descriptive component was utilized to determine the levels of instructional outcomes, instructional strategies, and implementation challenges as perceived by teachers, allowing for a systematic characterization of existing conditions without manipulating variables (Creswell & Creswell, 2018). The correlational component examined the significant relationships among instructional outcomes, instructional strategies, and encountered challenges to identify patterns of association among naturally occurring variables (Fraenkel et al., 2019). This research design is particularly appropriate for educational settings where experimental manipulation is impractical or unethical and where the primary objective is to generate empirical evidence that can inform program improvement, instructional planning, and policy formulation (Cohen et al., 2018).

Population, Samples and Sampling Technique. The population of this study comprised all public elementary school teachers involved in the implementation of reading programs in the Bagamanoc North and South Districts during School Year 2025–2026, totaling 105 teachers distributed across 13 public elementary schools, as shown in Table 1. Of this population, a sample of 83 teachers was determined using Slovin's formula at a 5% margin of error to ensure sufficient representation while maintaining the feasibility of data collection. The resulting sample reflects the proportional distribution of teachers across schools and districts, with 39 respondents drawn from the

Bagamanoc North District and 44 from the Bagamanoc South District.

Following sample size determination, proportionate stratified sampling was employed by grouping teachers according to school and district and selecting respondents proportionally from each stratum to mirror the population structure accurately (Creswell & Creswell, 2018). This procedure ensured that schools with larger teacher populations contributed more respondents, while smaller schools were still adequately represented, thereby minimizing sampling bias. Such an approach enhances the representativeness and generalizability of the findings and is considered appropriate for descriptive correlational research designs (Fraenkel et al., 2019; Cohen et al., 2018).

Table 1
Population and Sample Distribution of Respondents by School and District

District	School	Total Population	Sample Size
Bagamanoc North District	Cahan Barrio School	4	3
	Hinipaan Elementary School	8	6
	Mavil Elementary School	8	6
	Sagrada Elementary School	8	6
	San Vicente Elementary School	7	6
	Bugao Central Elementary School	15	12
Subtotal		50	39
Bagamanoc South District	Bagamanoc Central Elementary School	21	16
	Bacak Elementary School	7	6
	Pancayanan Elementary School	4	3
	Quigaray Elementary School	3	2
	Salvacion Elementary School	7	6
	San Rafael Elementary School	6	5
	Suchan Elementary School	7	6
Subtotal		55	44
Total		105	83

Note. *The sample size was determined using proportionate stratified sampling to ensure equitable representation of teachers from both Bagamanoc North and South Districts.*

Instrumentation. A researcher-developed questionnaire was employed to examine teachers' perceptions of the instructional outcomes, implementation strategies, and challenges related to reading program implementation in elementary schools in the Bagamanoc North and South Districts. Anchored on the study objectives and Statement of the Problem, the instrument was designed to ensure content relevance and construct validity and was organized into three sections: perceived instructional outcomes (reading comprehension, vocabulary and literacy development, learner interest, and motivation), instructional strategies (differentiated instruction, peer-assisted learning, teacher-directed interventions, and technology integration), and challenges in reading program implementation. All items were rated on a four-point Likert-type scale, with mean score ranges used for interpretation. Content and face validity were established through expert review by five specialists in literacy education and educational research, and a pilot test involving 15 non-participating teachers confirmed item clarity. Internal consistency reliability was assessed on a per-variable basis using Cronbach's alpha, with instructional outcomes demonstrating acceptable to excellent reliability (α = .612–1.000), instructional strategies yielding very good to excellent reliability coefficients (α = .896–1.000), and challenges in reading program implementation exhibiting excellent internal consistency (α = .990). The overall instrument achieved a Cronbach's alpha of α = .897, indicating very good internal consistency and supporting its suitability for relational analysis (DeVellis, 2017; Taber, 2018).

Data Analysis. The study employed a descriptive–correlational research design, making use of both descriptive statistics and inferential techniques to analyze the data. Weighted mean was utilized to summarize teachers' perceptions across instructional outcomes, instructional strategies, and implementation challenges, providing a clear measure of central tendency for Likert-scale responses. To examine the relationships among these variables, Pearson's correlation coefficient was applied, allowing the study to determine the strength and direction of associations. These tools were appropriate for the research design, as they enabled systematic description of perceptions while also testing

hypotheses regarding the interconnections among outcomes, strategies, and challenges.

Ethical Considerations. This study involved human participants; however, formal ethical clearance was not sought from the authors' institution, as the research was classified as minimal-risk educational research involving voluntary participation, non-invasive procedures, and anonymous self-report data collection, with no experimental manipulation or procedures posing physical, psychological, or social harm. Despite the absence of formal institutional approval, the study strictly adhered to established ethical principles in educational research, including informed consent, voluntary participation, confidentiality, and respect for participants' rights (American Psychological Association [APA], 2017; Creswell & Creswell, 2018). No personally identifiable information was collected, all responses were anonymized and stored in password-protected files accessible only to the researchers, and the data will be securely retained and permanently deleted five years after publication in accordance with responsible data management practices.

RESULTS

The following section presents a detailed discussion of the study's findings, highlighting teachers' perceptions of instructional outcomes, the strategies employed in reading program implementation, and the challenges encountered. Furthermore, the analysis examines the relationships among instructional strategies, outcomes, and implementation challenges, culminating in the formulation of an evidence-based action plan to enhance reading program effectiveness in elementary schools.

Teachers' Perceived Instructional Outcomes of Reading Programs. To begin with, the results presented in Table 2 indicate that elementary reading programs are perceived by teachers as having a consistently strong and meaningful instructional impact. The overall rating of "highly beneficial" suggests that these programs do more than support basic literacy; rather, they actively enhance learners' cognitive and affective engagement with reading. The strongest perceived outcome, improvement in reading comprehension, implies that the programs effectively help learners construct meaning from texts, a core foundation of academic success across subject areas. Likewise, high ratings for vocabulary and literacy development reflect teachers' recognition that reading programs contribute to language growth essential for comprehension, communication, and critical thinking. At the same time, the equally strong perception of increased learner interest highlights the role of these programs in making reading engaging rather than purely instructional. Moreover, the positive influence on learner motivation suggests that sustained exposure to structured reading activities fosters positive reading attitudes and habits. Collectively, the findings in Table 2 underscore that well implemented reading programs function as holistic interventions, strengthening both skill acquisition and learners' intrinsic disposition toward reading.

Table 2

Perceived Instructional Outcomes of Reading Programs among Elementary School Teachers (n=83)

Variables of Instructional Outcomes	Weighted Mean	Verbal Interpretation	Rank
Improvement in Reading Comprehension	3.54	Highly Beneficial	1
Enhancement of Vocabulary and Literacy Skills	3.53	Highly Beneficial	2.5
Increased Learner Interest in Reading	3.53	Highly Beneficial	2.5
Development of Learner Motivation toward Reading	3.51	Highly Beneficial	4
Overall Weighted Mean	3.53	Highly Beneficial	

Legend: 3.25–4.00 (Highly Beneficial); 2.50–3.24 (Beneficial); 1.75–2.49 (Less Beneficial); 1.00–1.74 (Strongly Disagree/Least Beneficial).

Instructional Strategies Utilized in Reading Program Implementation. Building on these outcomes, the findings presented in Table 3, *Instructional Strategies Employed by Teachers in the Implementation of Reading Programs*, indicate that teachers consistently apply a range of highly effective instructional

approaches to support reading development. The overall rating of highly effective reflects a strong alignment between instructional practices and learners' reading needs. In particular, the prominence of teacher directed reading interventions suggests that structured guidance, explicit instruction, and close monitoring remain central to improving learners' reading skills, especially in foundational and remedial contexts. Furthermore, high ratings for differentiated reading strategies imply that teachers are responsive to learner diversity, adjusting instruction to address varying abilities and learning paces. Similarly, the effectiveness of peer assisted learning interventions highlights the value of collaborative learning in promoting engagement, comprehension, and shared responsibility for learning. Meanwhile, the positive evaluation of technology and multimedia integration suggests that digital resources are increasingly used to enrich instruction and sustain learner interest. Overall, the results in Table 3 demonstrate that the combined use of structured, adaptive, collaborative, and technology supported strategies contributes to a balanced and effective implementation of reading programs.

Table 3
Instructional Strategies Employed by Teachers in the Implementation of Reading Programs (n=83)

Instructional Strategies	Weighted Mean	Verbal Interpretation	Rank
Teacher-Directed Reading Interventions	3.79	Highly Effective	1
Differentiated Reading Strategies	3.77	Highly Effective	2
Peer-Assisted Learning Interventions	3.65	Highly Effective	3
Integration of Technology and Multimedia Resources	3.51	Highly Effective	4
Overall Weighted Mean	3.68	Highly Effective	

Legend: 3.25–4.00 (Highly Effective); 2.50–3.24 (Effective); 1.75–2.49 (Less Effective); 1.00–1.74 (Least Effective).

Implementation Challenges in Elementary Reading Programs. Despite these strengths, the results presented in Table 4 reveal that teachers face several meaningful constraints that affect program delivery. Although reading initiatives are actively implemented, the overall interpretation of occasionally encountered suggests that challenges are present but not pervasive across all contexts. Notably, the most frequently encountered issues relate to limited parental support and teacher workload, indicating that effective reading development extends beyond the classroom and requires shared responsibility with families, as well as sufficient time for instructional planning.

Table 4
Challenges Encountered by Teachers in the Implementation of Elementary School Reading Programs (n=83)

Indicators of Implementation Challenges	Weighted Mean	Verbal Interpretation	Rank
1. Limited parental support in reinforcing reading at home	3.51	Frequently Encountered	1
2. Teacher workload and time constraints for planning	3.43	Frequently Encountered	2
3. Learner lack of access to digital tools and internet	3.28	Frequently Encountered	3
4. Inadequate supply of instructional reading materials	3.22	Occasionally Encountered	4
5. Insufficient time for direct reading instruction	3.19	Occasionally Encountered	5
6. Learner disinterest or low engagement in activities	3.18	Occasionally Encountered	6
7. Addressing diverse reading abilities in a single class	3.02	Occasionally Encountered	7
8. Scarcity of classroom resources and reading corners	2.96	Occasionally Encountered	8
9. Large class sizes hindering personalized support	2.91	Occasionally Encountered	9
10. Lack of specialized training on intervention strategies	2.84	Occasionally Encountered	10
Overall Weighted Mean	3.15	Occasionally Encountered	

Legend: 3.25–4.00 (Frequently Encountered); 2.50–3.24 (Occasionally Encountered); 1.75–2.49 (Rarely Encountered); 1.00–1.74 (Not Encountered).

In addition, constraints in learner access to digital tools reflect persistent inequities that limit the full utilization of technology supported reading interventions. Challenges rated as occasionally encountered, such as insufficient instructional materials, limited instructional time, and learner engagement, suggest situational barriers rather than systemic failure. Moreover, difficulties in addressing diverse reading abilities and managing large class sizes point to structural conditions that complicate individualized support. Overall, the findings in Table 4 highlight that strengthening

home school collaboration, resource provision, and teacher capacity building may significantly enhance the sustained effectiveness of elementary reading programs.

Relationship Between Instructional Strategies and Reading Outcomes. Further analysis of relationships among variables provides additional insights. As shown in Table 5, there is a strong and meaningful association between the instructional strategies used by teachers and the reading outcomes observed among learners. This strong positive relationship indicates that improvements in reading performance are closely linked to how effectively and consistently instructional strategies are applied. Accordingly, instructional outcomes appear not to be incidental but are largely shaped by deliberate pedagogical choices made in the classroom.

Table 5
Correlation Analysis Between Teacher-Perceived Instructional Outcomes and Employed Reading Strategies

Variables	Statistical Test	Computed r-value	Critical Value (@ .05)	Decision on Ho	Interpretation
Relationship Between Instructional Outcomes and Instructional Strategies	Pearson r	0.882	0.216	Reject Ho	Significant Relationship (Strong Positive)

When teachers employ structured, differentiated, collaborative, and technology supported strategies, learners are more likely to demonstrate gains in comprehension, vocabulary, interest, and motivation toward reading. The rejection of the null hypothesis further confirms that this relationship is statistically significant. More importantly, the strength of the association underscores the central role of instructional quality in determining program success. Overall, the findings in Table 5 emphasize that enhancing instructional strategies is a critical pathway for achieving sustained and meaningful improvements in elementary reading outcomes.

Relationship Between Implementation Challenges and Reading Outcomes. In contrast, the findings presented in Table 6, indicate a statistically significant but moderately positive relationship between implementation challenges and reading outcomes. This result suggests that challenges encountered during program implementation are meaningfully associated with variations in instructional outcomes. However, rather than indicating program failure, the moderate positive relationship implies that reading outcomes remain responsive even in the presence of constraints, reflecting teachers' adaptive efforts to sustain instructional quality despite obstacles. As challenges such as limited resources, time constraints, and learner engagement issues increase, instructional outcomes may fluctuate, highlighting the sensitivity of reading performance to contextual and operational conditions. Importantly, while challenges matter, they do not fully determine outcomes, indicating room for mitigation through targeted support and intervention. Overall, the results in Table 6 emphasize the importance of addressing implementation barriers to stabilize and further enhance the effectiveness of elementary reading programs.

Table 6
Correlation Analysis between Instructional Outcomes of Reading Programs and Implementation Challenges

Variables	Statistical Test	Computed r-value	Critical Value (@ .05)	Decision	Interpretation
Relationship between Instructional Outcomes and Implementation Challenges	Pearson r	0.435	0.216	Reject Ho	Significant Relationship (Moderate Positive)

Relationship Between Instructional Strategies and Implementation Challenges. Finally, Table 7 indicates that there is no significant relationship between the instructional strategies used by teachers and the challenges they encounter. The negligible association suggests that teachers' selection and use of instructional strategies operate independently of the constraints present in their teaching contexts. In practical terms, this finding implies that teachers continue to employ effective and varied reading strategies regardless of limitations related to resources, time, class size, or learner diversity. The failure to reject the null hypothesis reinforces the interpretation that implementation challenges do not substantially influence pedagogical decision making. This pattern reflects teacher resilience

and professional commitment, as instructional choices appear guided more by learner needs and curricular goals than by situational barriers. Overall, the findings in Table 7, highlight the need for parallel efforts that address systemic challenges while sustaining effective instructional practices in elementary reading programs.

Table 7

Correlation Analysis Between Instructional Strategies Employed and Implementation Challenges

Variables	Statistical Test	Computed r-value	Critical Value (@ .05)	Decision	Interpretation
Realtionship between Instructional Strategies and Implementation Challenges	Pearson r	0.099	0.216	Fail to Reject Ho	No Significant Relationship (Negligible)

Towards an Evidence-Based Action Plan for Strengthening Reading Programs

Rationale. The Schools Division of Catanduanes holds a critical mandate to ensure the effective implementation of reading programs across elementary schools. However, teachers in Bagamanoc North and South Districts encounter multifaceted challenges that impede the consistent delivery of high-quality reading instruction and may negatively affect student literacy outcomes. These challenges include limited parental support, heavy teacher workloads, insufficient reading materials, and restricted access to digital resources, all of which constrain instructional efficacy.

Table 8

Proposed action plan to enhance the implementation of reading programs in elementary schools in the Bagamanoc North and South Districts

Challenge	Strategic Objective	Activities / Strategies	Persons Involved	Time Frame	Resources Needed	Expected Outcomes
Limited parental support in reinforcing reading at home	Increase parental involvement in reading programs	- Conduct parent literacy workshops and orientation sessions - Provide home reading kits and implementation guidelines - Establish regular teacher-parent communication via online groups or SMS	School Heads, Teachers, PTA, LGU	Q1–Q4 2026	Reading kits, training materials, communication tools	Increased parental support, higher student engagement, improved reading performance
Teachers' workload reduces time for planning reading sessions	Optimize teacher time for effective reading instruction	- Allocate dedicated reading periods in the school schedule - Conduct collaborative planning sessions for teachers - Employ teacher aides or volunteers to support reading interventions	School Heads, Teachers, SDS	Q1–Q3 2026	Scheduling tools, teaching aides, planning modules	More focused reading instruction, improved instructional quality, reduced teacher stress
Pupils lack access to digital tools and internet	Enhance access to digital reading resources	- Procure tablets, e-readers, or computer lab access for students - Integrate educational apps and online reading programs - Train teachers to effectively use digital tools in reading lessons	School Heads, Teachers, ICT Team, SDS	Q2–Q4 2026	Tablets/computers, internet connectivity, digital learning subscriptions	Increased student engagement, improved digital literacy, enhanced reading outcomes
Inadequate supply of reading materials	Ensure sufficient learning materials for all students	- Acquire leveled readers, storybooks, and instructional modules - Establish reading corners or classroom libraries - Implement a book-sharing program among schools	School Heads, Teachers, SDS, LGU	Q1–Q4 2026	Books, shelves, reading corners, funding	Better access to reading materials, increased reading frequency, improved literacy skills
Insufficient time for reading instruction	Maximize instructional time for reading	- Review and adjust school timetables to prioritize reading sessions - Integrate reading across subjects (cross-curricular reading) - Monitor lesson delivery and adjust for effectiveness	School Heads, Teachers	Q1–Q4 2026	Timetables, lesson monitoring tools	Increased instructional time, improved comprehension, higher literacy achievement
Learner disinterest or refusal to engage in reading activities	Improve student motivation and engagement	- Introduce gamified reading activities and reading challenges - Recognize and reward reading achievements - Incorporate culturally relevant and age-appropriate texts	Teachers, School Heads, Librarians	Q1–Q4 2026	Reward system, age-appropriate books, gamification tools	Higher student motivation, more active participation, improved reading fluency
Difficulty in addressing diverse reading abilities	Strengthen differentiated reading instruction	- Conduct teacher training on differentiated instruction and reading strategies - Use leveled reading materials and group students by proficiency - Implement peer-assisted learning for struggling readers	Teachers, Literacy Coordinators, SDS	Q1–Q3 2026	Training modules, leveled books, peer tutoring guides	Improved ability to address diverse learning needs, higher literacy outcomes
Lack of classroom resources (bookshelves, reading corners, technology)	Improve classroom learning environment	- Set up reading corners, mobile libraries, and literacy stations - Install and maintain classroom technology for reading activities - Encourage teacher creativity in resource utilization	School Heads, Teachers, SDS	Q1–Q4 2026	Bookshelves, literacy corners, technology kits	Better learning environment, increased reading engagement, enhanced reading habits
Large class sizes prevent personalized reading support	Facilitate small group or individualized instruction	- Implement small group rotations for reading lessons - Utilize teacher aides, volunteers, or peer tutors - Apply flexible grouping strategies based on reading levels	Teachers, School Heads, SDS	Q1–Q3 2026	Classroom space, aides, peer tutoring materials	More personalized attention, improved comprehension, higher student progress
Lack of teacher training on reading interventions	Enhance teacher capacity and professional development	- Organize workshops on reading strategies, assessment, and intervention - Provide mentoring and coaching from literacy specialists - Encourage participation in online courses and professional networks	SDS, Teachers, Literacy Experts	Q1–Q4 2026	Training modules, online courses, mentor support	Improved teaching competency, effective reading interventions, higher student literacy

Classroom management issues, such as large class sizes and heterogeneous learner abilities, further complicate program delivery, reducing opportunities for individualized support and sustained reading practice. Inadequate professional development on evidence-based reading strategies exacerbates these difficulties, limiting teachers' capacity to adapt instruction to learners' diverse needs.

Environmental and contextual factors, including logistical constraints, technological gaps, and low community participation, also present significant barriers, particularly in remote barangays. Addressing these interrelated challenges necessitates a comprehensive, multi-level action plan focused on strengthening teacher capacity, optimizing resources, fostering parental and community engagement, and enhancing instructional practices to achieve sustainable improvements in student literacy outcomes.

Objectives

1. To enhance teacher capacity in delivering differentiated and evidence-based reading interventions.

2. To improve access to instructional materials, digital reading tools, and literacy resources.

3. To strengthen parental and community engagement in supporting reading at home.

4. To optimize instructional time and classroom management for effective reading sessions.

DISCUSSION

The findings of this study provide a nuanced understanding of the interplay between instructional strategies, perceived outcomes, and implementation challenges in elementary reading programs within the Bagamanoc North and South Districts of Catanduanes. Teachers consistently perceive reading programs as highly beneficial, indicating that these interventions do more than support basic literacy—they actively enhance learners' cognitive, linguistic, and motivational engagement. The strongest perceived outcome, improvement in reading comprehension, aligns with prior research emphasizing comprehension as the cornerstone of literacy development and academic success (Duke et al., 2011; Foorman et al., 2016). Likewise, the recognition of vocabulary growth, increased learner interest, and enhanced motivation underscores the holistic impact of structured reading programs, reinforcing the notion that well-designed literacy interventions address both cognitive and affective domains (Cordial, Villegas, & Bermudo, 2026). These findings confirm that early literacy programs are most effective when they promote skill acquisition alongside positive reading attitudes (Darling-Hammond et al., 2017).

The analysis of instructional strategies reveals a deliberate and multifaceted approach to program delivery. Teacher-directed interventions, such as guided reading and explicit instruction, remain central to developing foundational literacy skills, reflecting the importance of structured pedagogical guidance in early literacy (Duke & Cartwright, 2021; Cordial, Villegas, & Bermudo, 2026). Differentiated instruction demonstrates responsiveness to learner diversity, enabling teaching to accommodate varied abilities and learning paces (Tomlinson et al., 2017; Cordial, Valledor, & Bermudo, 2025). Peer-assisted learning highlights the effectiveness of collaborative approaches in enhancing engagement and comprehension, aligning with evidence on cooperative learning in literacy education (Vaughn et al., 2011; Cordial, Valledor, & Bermudo, 2025). The integration of technology and multimedia resources illustrates that digital tool, when purposefully employed, can enrich instruction, scaffold learning, and sustain motivation, particularly for struggling readers (Sung et al., 2016; Cheung & Slavin, 2013; Cordial, Evangelista, & Bermudo, 2025). Collectively, these results emphasize that combining structured, adaptive, collaborative, and technology-supported strategies creates a balanced instructional environment that maximizes reading development and learner engagement.

Despite these positive outcomes, teachers face meaningful implementation challenges. Limited parental support and heavy workloads are the most frequently encountered barriers, indicating that literacy development requires shared responsibility beyond the classroom (Cordial, 2025a). Inequities in access to digital tools and instructional materials constrain the full utilization of technology-supported interventions (Darling-Hammond et al., 2017; Schindler et al., 2017; Cordial, 2025b). Situational challenges, including insufficient instructional time, learner disinterest, and large class sizes, highlight structural and operational conditions that affect program delivery. These findings align with literature emphasizing the influence of contextual and systemic factors on instructional quality and program fidelity (Cordial, Villegas, & Bermudo, 2026).

Correlation analysis further clarifies program dynamics. A strong positive relationship between instructional strategies and perceived outcomes indicates that reading improvements are closely linked to deliberate pedagogical decisions (Table 5). This underscores the central role of teacher competence, strategy quality, and fidelity in achieving meaningful reading outcomes (Duke & Cartwright, 2021; Cordial, Villegas, & Bermudo, 2026). The moderate positive association between implementation challenges and outcomes (Table 6) suggests that while constraints affect performance variability, they do not entirely hinder reading success, highlighting teachers' adaptive capacity and professional resilience (Cordial, 2025a; Cordial, 2025b). Conversely, the negligible relationship between strategies and challenges (Table 7) indicates that effective instructional choices persist regardless of barriers, reinforcing that teacher agency and adherence to curriculum objectives drive classroom decision-making (Cordial, Evangelista, & Bermudo, 2025).

Based on these findings, several conclusions can be drawn. First, well-implemented reading programs effectively support literacy growth across cognitive, linguistic, and motivational domains. Second, instructional strategies that are structured, differentiated, collaborative, and technology-supported are central to achieving positive reading outcomes. Third, implementation challenges, while impactful, can be mitigated through teacher adaptability, targeted professional development, and systemic support. Finally, sustainable program effectiveness requires parallel efforts to enhance home-school collaboration, resource provision, and instructional optimization.

Accordingly, this study recommends the following actions. Schools should provide targeted professional development on differentiated instruction, technology integration, and peer-assisted learning to strengthen teacher capacity and instructional quality. Educational stakeholders should improve access to reading materials, digital tools, and learning resources to reduce inequities. Parent engagement initiatives, such as literacy workshops, home reading kits, and regular teacher-parent communication, should be implemented to foster shared responsibility for reading development. Additionally, schools should optimize instructional schedules, integrate cross-curricular reading activities, and employ flexible grouping strategies to maximize learning time and address diverse learner needs. Finally, continuous monitoring, mentoring, and supportive feedback mechanisms should be established to sustain instructional fidelity and program effectiveness (Cordial, Valledor, & Bermudo, 2025; Cordial, Villegas, & Bermudo, 2026; Desimone & Garet, 2015).

In conclusion, elementary reading programs in Bagamanoc North and South Districts are highly effective when supported by competent, adaptive, and committed teachers. While structural and contextual challenges persist, targeted interventions that combine professional development, resource enhancement, parental engagement, and optimized instructional practices can further strengthen program impact. These findings provide actionable, policy-relevant insights that can guide the design, implementation, and scaling of early literacy interventions in

geographically distinct and resource-constrained elementary school settings.

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