

Policy-Aligned Early Reading Strategies and Their Effects on Learner Fluency and Teacher Research Collaboration: A Matched-Classroom Study in Kabugao I and Bayombong I Districts, Philippines

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ARTICLE INFORMATION	ABSTRACT
Article history: Published: August 2026 Keywords: Early Reading Oral Reading Fluency Policy Alignment Teacher Collaboration Action Research ARAL Program Kabugao Bayombong	This study examined whether a structured, policy-aligned early reading program improved oral reading fluency and strengthened teacher research collaboration in Kabugao I District, Apayao Province, Cordillera Administrative Region, and Bayombong I District, Nueva Vizcaya Province, Cagayan Valley. A matched-classroom quasi-experimental design was used across 12 public elementary schools and 24 Grade 2 and Grade 3 classrooms. The analytic sample comprised 466 learners and 48 teachers. Intervention classrooms implemented a 12-week package combining explicit phonological and phonics instruction, modeled fluent reading, guided repeated reading, phrase-cued reading, vocabulary and comprehension bridging, biweekly progress monitoring, and collaborative inquiry routines aligned with the MATATAG Curriculum, Catch-Up Fridays, and the Academic Recovery and Accessible Learning program. Comparison classrooms continued their regular reading instruction. Learner outcomes were words correct per minute (WCPM) and oral-reading accuracy; the teacher outcome was a 16-item research-collaboration scale. Cluster-robust analysis of covariance controlled for baseline performance, grade level, district, and classroom clustering. Intervention learners gained an average of 11.54 WCPM compared with 4.70 WCPM among comparison learners. Adjusted posttest fluency was 7.39 WCPM higher in the intervention condition (95% CI [5.10, 9.68], $p < .001$; Hedges $g = 1.05$). Oral-reading accuracy was also higher by 2.55 percentage points (95% CI [1.90, 3.20], $p < .001$). Teacher research collaboration increased by an adjusted 0.87 points on the five-point scale (95% CI [0.77, 0.98], $p < .001$). District-by-intervention interactions were nonsignificant, indicating comparable benefits across the two locales. At classroom level, policy alignment correlated strongly with fluency gain ($r = 0.84$) and collaboration gain correlated with fluency gain ($r = 0.85$). The findings supported an integrated improvement model in which evidence-based reading routines, implementation fidelity, policy coherence, and collaborative teacher inquiry functioned together rather than as separate initiatives.

1. Introduction

Foundational reading is a cumulative developmental process in which phonological awareness, knowledge of the alphabetic system, automatic word recognition, oral language, vocabulary, fluency, comprehension, motivation, and self-regulation interact. Fluency is especially important because it connects accurate word identification with meaningful comprehension. When a learner expends excessive attention on decoding individual words, fewer cognitive resources remain available for constructing meaning across sentences and longer passages. Oral reading fluency, therefore, is not simply reading quickly; it reflects a coordinated performance involving accuracy, appropriate rate, phrasing, and expression (Kuhn et al., 2010; Rasinski, 2012).

A substantial research base has supported explicit and systematic instruction in phonemic awareness and phonics for beginning and struggling readers (Ehri et al., 2001a, 2001b; National Reading Panel, 2000). Once learners have acquired basic decoding knowledge, modeled reading, guided oral practice, repeated reading, corrective feedback, and appropriately leveled connected texts can strengthen automaticity and prosody. Reviews of elementary fluency interventions have consistently found that repeated and assisted oral reading procedures can improve words read correctly, particularly when learners receive immediate error correction, practice texts at an accessible difficulty level, and participate in sufficient instructional sessions (Hudson et al., 2020). These practices are most productive when they are integrated with vocabulary, oral language, and comprehension instruction rather than treated as isolated speed exercises (Duke et al., 2021; Duke & Cartwright, 2021).

In the Philippines, early literacy improvement is also a policy implementation problem. The MATATAG Curriculum emphasized a reduced and more focused set of competencies, with greater attention to foundational literacy and numeracy in the early grades (Department of Education [DepEd], 2024b). Catch-Up Fridays institutionalized dedicated time for reading and other foundational or values-oriented learning activities (DepEd, 2024a). Republic Act No. 12028 established the Academic Recovery and Accessible Learning (ARAL) Program as a national intervention for learners below expected proficiency in reading, mathematics, and science, while subsequent DepEd issuances provided implementing rules and reading guidelines for Key Stages 1 to 3 (DepEd, 2025a, 2025b;

Republic Act No. 12028, 2024). These reforms created a common direction, but policy texts alone could not guarantee consistent classroom enactment.

Policy alignment in this study referred to the degree to which school-level plans, lesson routines, assessment practices, learning resources, intervention schedules, learner identification procedures, progress-monitoring records, and teacher-development activities cohered with national reading priorities. Alignment was treated as an implementation construct rather than mere awareness of official issuances. A teacher could know a policy yet still use materials that did not match learner level, omit systematic monitoring, or conduct remediation without using results to adjust instruction. Conversely, a school could demonstrate strong alignment by translating national expectations into coherent daily routines, protected intervention time, common assessment protocols, and coordinated support for struggling learners.

The study also recognized that sustainable reading improvement requires collective professional capacity. Teachers need structured opportunities to examine learner errors, interpret progress data, adapt texts and tasks, compare instructional responses, document interventions, and test locally relevant solutions. Research collaboration in this article referred to collaborative inquiry behaviors such as jointly identifying a reading problem, sharing assessment evidence, co-designing an intervention, observing or reviewing implementation, analyzing results, writing or presenting findings, and using evidence for subsequent decisions. This construct overlaps with professional learning communities, lesson study, data teams, and school-based action research. Prior research has shown that the quality of teacher collaboration, rather than collaboration in name only, is associated with improved instructional practice and student achievement (Ronfeldt et al., 2015; Vescio et al., 2008).

Kabugao I District in Apayao Province and Bayombong I District in Nueva Vizcaya Province provided a meaningful cross-regional comparison. The districts belonged to different DepEd regions and served communities with distinct linguistic, geographic, and organizational conditions. The purpose was not to rank the districts. Instead, the study tested whether an integrated reading and collaborative-inquiry model could produce benefits across two administrative settings while statistically examining whether district context altered the intervention effect. This approach was consistent with DepEd guidance that educational performance should be interpreted within context rather than used for simplistic school ranking.

Although early reading studies often focus on learner outcomes and teacher-collaboration studies often focus on professional practice, fewer studies examine them in a single implementation model. This separation can produce fragmented programs: reading interventions may be delivered without sustained teacher inquiry, while action research may occur without a direct connection to foundational learning outcomes. The present study addressed this gap by evaluating whether policy-aligned reading strategies simultaneously improved learner fluency and strengthened teachers' capacity to collaborate around evidence.

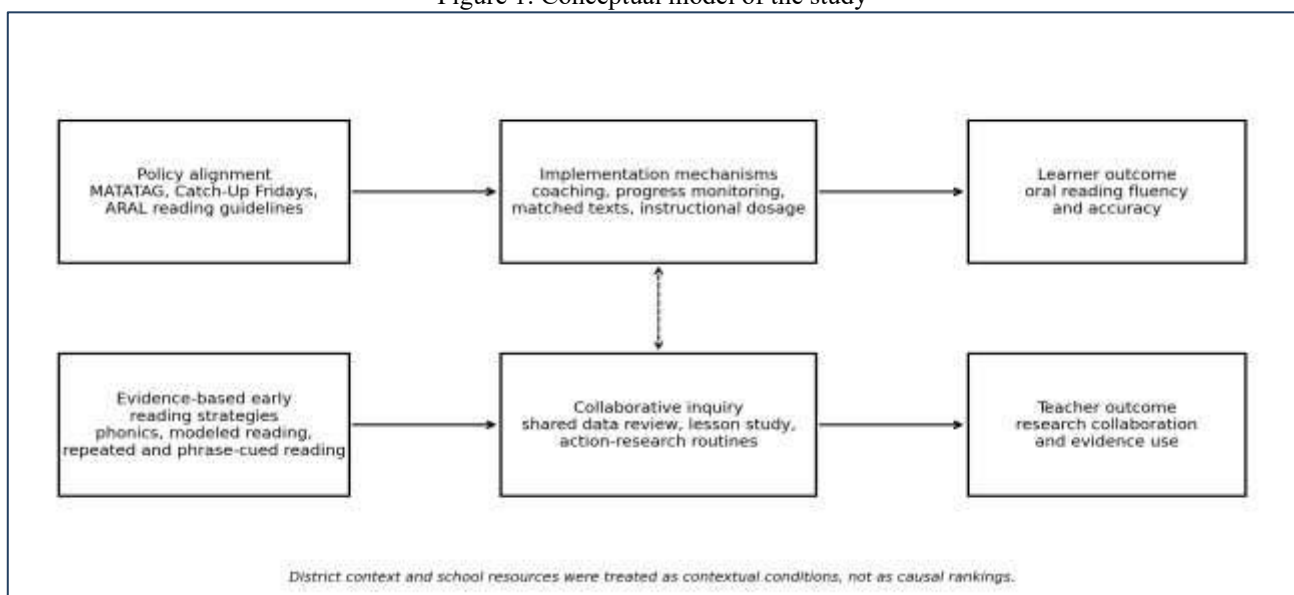
1.1 Conceptual Framework

The conceptual framework integrated the Active View of Reading with policy-implementation and professional-learning perspectives. The Active View of Reading emphasized that reading performance emerges from interacting word-recognition, language-comprehension, bridging, and active self-regulatory processes (Duke & Cartwright, 2021). In instructional terms, this supported a multicomponent intervention rather than a single-strategy program.

Policy alignment was conceptualized as the organizational mechanism that protected time, standardized essential procedures, connected assessments with intervention, and coordinated resources. Teacher research collaboration was conceptualized as a professional-learning mechanism that transformed classroom evidence into collective instructional knowledge. Desimone's (2009) framework suggested that professional learning becomes more influential when it is content-focused, active, coherent, sustained, and collective. The intervention consequently paired daily reading routines with recurring collaborative inquiry cycles.

The hypothesized pathway was that evidence-based strategies and policy alignment would improve implementation fidelity; fidelity and collaborative inquiry would then support stronger fluency outcomes and more robust teacher research collaboration. District context was treated as a possible moderator. Figure 1 presents the model.

Figure 1. Conceptual model of the study



1.2 Research Questions and Hypotheses

- What were the baseline characteristics and initial oral reading performance of learners in the intervention and comparison conditions?
 - To what extent were early reading strategies and policy-alignment practices implemented in the two districts?
 - Did learners in intervention classrooms demonstrate greater improvement in oral reading fluency and accuracy than learners in comparison classrooms after adjustment for baseline performance, grade level, district, and classroom clustering?
 - Did teachers in intervention classrooms demonstrate greater improvement in research collaboration than teachers in comparison classrooms?
 - Did intervention effects differ between Kabugao I and Bayombong I Districts?
 - How were strategy fidelity, policy alignment, professional-learning dosage, learner gains, and teacher research-collaboration gains related?
- It was hypothesized that the intervention condition would produce significantly larger learner fluency and accuracy gains and significantly larger teacher research-collaboration gains. The district-by-intervention interaction was treated as exploratory because the intervention was designed for adaptation across contexts rather than superiority in one district.

2. Methods

2.1 Research Design

The study used a matched-classroom quasi-experimental pretest-posttest design. Twelve public elementary schools contributed two comparable Grade 2 or Grade 3 classrooms each. Within every school, one classroom implemented the intervention and one continued regular reading instruction, creating 24 classroom clusters. Matching within schools reduced confounding from school leadership, local resources, enrollment patterns, and community context. Because assignment was conducted at classroom rather than individual level, the analysis used cluster-robust standard errors.

The design was primarily quantitative and longitudinal. Learner reading outcomes and teacher-collaboration outcomes were measured before and after the 12-week implementation period. Implementation fidelity and policy alignment were measured during the intervention and were used for descriptive and explanatory analyses. The design supported stronger causal inference than a cross-sectional survey, although the absence of fully randomized allocation required cautious interpretation (Shadish et al., 2002).

2.2 Study Setting and Participants

The study was situated in Kabugao I District, Schools Division of Apayao, Cordillera Administrative Region, and Bayombong I District, Schools Division of Nueva Vizcaya, Cagayan Valley. Six schools per district were included. Schools were selected to provide variation in enrollment size and accessibility while retaining comparable Grade 2 or Grade 3 sections for within-school matching. At baseline, 480 learners were enrolled in the participating classrooms. Fourteen learners did not complete the posttest because of transfer or prolonged absence, yielding an analytic sample of 466 learners, equivalent to 97.1% retention. The final intervention and comparison groups each contained 233 learners. The teacher sample included 48 early-grade teachers and reading coordinators, with two teacher participants associated with each classroom cluster. No classroom withdrew from the study.

Table 1. Baseline learner characteristics by district and condition

District	Condition	n	Grade 2, n (%)	Female, n (%)	WCPM, M (SD)	Accuracy %, M (SD)
Kabugao I	Comparison	117	65 (55.6%)	56 (47.9%)	45.99 (9.25)	82.30 (3.85)
Kabugao I	Intervention	117	64 (54.7%)	62 (53.0%)	46.10 (9.57)	82.44 (3.78)
Bayombong I	Comparison	116	60 (51.7%)	60 (51.7%)	50.24 (9.79)	83.69 (3.87)
Bayombong I	Intervention	116	64 (55.2%)	56 (48.3%)	50.68 (9.53)	83.69 (3.81)

Note. WCPM = words correct per minute. Baseline equivalence tests were nonsignificant for WCPM, $t(464) = 0.31$, $p = 0.760$; accuracy, $t(464) = 0.19$, $p = 0.846$; grade level, chi-square = 0.03, $p = 0.852$; and sex, chi-square = 0.01, $p = 0.926$.

2.3 Intervention

The intervention lasted 12 instructional weeks and was delivered during regular reading blocks and designated remediation or catch-up periods. It was organized around six recurring components: (a) brief phonological-awareness and phonics review based on diagnosed needs; (b) explicit teacher modeling of accurate and expressive oral reading; (c) guided decoding and word-recognition practice; (d) repeated, paired, and phrase-cued reading of connected text; (e) vocabulary and comprehension bridging through oral questioning, retelling, and short written responses; and (f) progress monitoring followed by instructional regrouping.

Teachers used short passages that matched the language and difficulty level of their learners. A typical session lasted 30 to 40 minutes. Learners first received a purpose for reading and a brief orientation to critical vocabulary. The teacher modeled a selected segment, after which learners practiced through echo reading, choral reading, paired reading, and individual rereading. Feedback prioritized accurate decoding, attention to punctuation, meaningful phrasing, and correction of recurring errors. Learners were not encouraged to increase speed at the expense of accuracy or comprehension.

Policy alignment was built into the intervention through a common implementation map. The map linked lesson objectives and learner grouping with MATATAG competencies, protected reading time through Catch-Up Friday or school remediation schedules, used preassessment and progress monitoring to identify ARAL-type support needs, and documented instructional adjustments. The intervention did not treat compliance documents as the outcome; alignment was judged by whether policy expectations were visible in instructional decisions and learner-support processes.

Teacher research collaboration occurred through six biweekly inquiry meetings. Each classroom team reviewed anonymized fluency records, identified a recurring instructional problem, selected or adapted a strategy, specified an expected learner response, reviewed subsequent evidence, and documented conclusions. The cycle resembled small-scale action research but used a common structure to reduce administrative burden. Teachers shared materials and results within their school and participated in one cross-district virtual exchange near the end of implementation.

Comparison classrooms continued their usual reading curriculum, remediation activities, and school-based meetings. They did not receive the structured intervention guide, common fidelity tools, or required collaborative inquiry cycle during the study period.

2.4 Measures

Oral reading fluency. Learners completed grade-appropriate passages under standardized one-minute oral-reading conditions. Words correct per minute were computed by subtracting substitutions, omissions, and uncorrected mispronunciations from total words attempted. Repetitions and self-corrections completed within three seconds were not counted as errors. A parallel passage was used at posttest. Ten percent of recordings were independently rescored; absolute-agreement ICC was 0.99.

Oral-reading accuracy. Accuracy was calculated as words read correctly divided by total words attempted, multiplied by 100. Accuracy was included because rate gains that occur alongside declining accuracy do not represent desirable fluency development. **Early Reading Strategy Implementation Inventory.** A 15-item teacher and observer instrument measured the frequency and fidelity of explicit decoding support, modeled reading, guided oral practice, repeated reading, phrase-cued reading, corrective feedback, vocabulary and comprehension bridging, appropriate text matching, progress monitoring, and instructional regrouping. Responses used a five-point scale from 1 (not evident) to 5 (consistently evident). Internal consistency was $\alpha = 0.87$.

Policy Alignment Index. A 12-item index measured coherence among curriculum competencies, intervention schedules, learner-identification procedures, assessment records, use of reading resources, remediation plans, monitoring processes, and teacher-development activities. The scale focused on enacted alignment. Internal consistency was $\alpha = 0.85$.

Teacher Research Collaboration Scale. A 16-item scale measured joint problem identification, shared use of learner evidence, co-design of interventions, peer feedback, collective analysis, documentation, dissemination, and evidence-informed decision making. Responses ranged from 1 (never) to 5 (consistently). Internal consistency at posttest was $\alpha = 0.92$.

Professional-learning dosage and leadership support. Dosage recorded the regularity and completeness of collaborative inquiry meetings, while leadership support measured protected time, access to data and materials, encouragement of experimentation, and opportunities to share results. These variables were used in classroom-level explanatory analyses.

2.5 Procedures

Before implementation, assessors received training on passage administration, timing, error marking, and scoring. Teachers completed the collaboration baseline survey, and learners completed the oral-reading pretest. Classroom pairs were then assigned to the intervention or comparison condition within each school. Intervention teachers participated in an orientation focused on the reading framework, policy map, lesson routine, assessment use, and collaborative inquiry protocol.

During the 12 weeks, teachers recorded intervention sessions, learner attendance, strategy use, and brief monitoring results. School coordinators reviewed implementation records every two weeks. Fidelity observations were conducted using the same indicators across both districts. Posttesting occurred within one week after the final intervention session. Assessors used parallel passages and were not provided with classroom fidelity scores.

The analytic dataset excluded direct identifiers. Learner records were linked across time using study codes. Classroom-level policy and fidelity scores were merged with learner outcomes only after scoring and cleaning were completed.

2.6 Statistical Analysis

Descriptive statistics summarized participants, implementation levels, and pretest-posttest performance. Baseline equivalence was tested using independent-samples *t* tests and chi-square tests. Primary outcome analyses used analysis of covariance estimated through ordinary least squares with classroom-clustered robust standard errors. Posttest WCPM was regressed on baseline WCPM, intervention condition, district, the intervention-by-district interaction, and grade level. The same structure was used for accuracy. Teacher posttest collaboration was regressed on baseline collaboration, intervention, district, and the interaction.

Unadjusted gain differences were expressed using Hedges *g* with a small-sample correction. Classroom-level Pearson correlations examined relationships among strategy fidelity, policy alignment, professional-learning dosage, fluency gain, accuracy gain, and collaboration gain. An explanatory regression predicted learner fluency gain from baseline fluency, intervention condition, strategy fidelity, policy alignment, and district. Two-sided α was set at .05. Confidence intervals were reported at 95%. Analyses were reproduced in Python 3.13 using pandas 2.2.3, SciPy 1.17.0, and statsmodels 0.14.6.

3. Results

3.1 Baseline Equivalence and Retention

Of the 480 learners enrolled at baseline, 466 completed the posttest, producing 97.1% retention. Attrition was balanced, with seven incomplete cases in each condition. The intervention and comparison groups did not differ significantly at baseline in WCPM, reading accuracy, grade distribution, or sex distribution (Table 1). This pattern reduced concern that posttest differences were explained by initial group composition, although baseline scores were retained as covariates in all primary models.

3.2 Implementation of Reading Strategies and Policy Alignment

Table 2. Mean implementation indicators by district and condition

District	Condition	Strategy fidelity	Policy alignment	Collaborative-inquiry dosage
Bayombong I	Comparison	3.25	3.30	2.67
Bayombong I	Intervention	4.08	3.94	3.56
Kabugao I	Comparison	3.20	3.21	2.34
Kabugao I	Intervention	3.71	3.83	3.43

Note. All indicators used a 1-5 scale. Higher values indicated stronger or more consistent implementation.

Intervention classrooms demonstrated consistently higher strategy fidelity, policy alignment, and collaborative-inquiry dosage than comparison classrooms in both districts. Mean strategy fidelity ranged from 3.71 to 4.09 in intervention classrooms, compared with 3.20 to 3.25 in comparison classrooms. Policy alignment ranged from 3.83 to 3.94 in the intervention condition and from 3.21 to 3.30 in the comparison condition. The pattern indicated that the intervention altered not only individual reading activities but also the coherence of assessment, scheduling, documentation, and collaborative review.

The similarity of implementation patterns across districts was important. Bayombong I intervention classrooms showed the highest average strategy score, whereas Kabugao I intervention classrooms showed comparable policy alignment and collaborative-inquiry dosage. These differences were descriptive and did not justify ranking. They instead showed that the common intervention architecture was adapted without losing its core components.

3.3 Effects on Learner Oral Reading Fluency

Table 3. Learner fluency and accuracy outcomes by district and condition

District	Condition	n	Pretest WCPM, M (SD)	Posttest WCPM, M (SD)	Gain WCPM, M (SD)	Accuracy gain
Bayombong I	Comparison	116	50.24 (9.79)	55.27 (11.61)	5.03 (6.48)	1.77
Bayombong I	Intervention	116	50.68 (9.53)	62.01 (10.22)	11.33 (6.46)	4.50
Kabugao I	Comparison	117	45.99 (9.25)	50.35 (10.45)	4.36 (6.25)	1.50
Kabugao I	Intervention	117	46.10 (9.57)	57.84 (11.18)	11.74 (6.93)	4.05

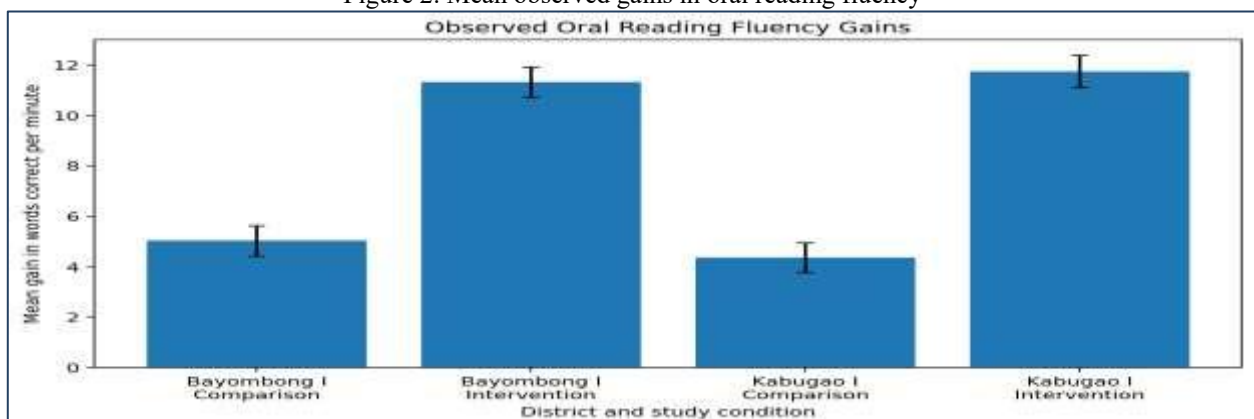
Note. Accuracy gain is expressed in percentage points. WCPM = words correct per minute.

Table 4. Cluster-robust ANCOVA predicting posttest oral reading fluency

Predictor	B	Robust SE	95% CI	p
Baseline WCPM	0.92	0.03	[0.87, 0.97]	< .001
Intervention condition	7.39	1.17	[5.10, 9.68]	< .001
Bayombong I district	1.02	0.93	[-0.80, 2.85]	0.271
Intervention x district	-1.06	1.48	[-3.95, 1.84]	0.474
Grade 3	-0.09	0.73	[-1.52, 1.34]	0.898

Note. Model R-squared = 0.692. Reference categories were comparison condition, Kabugao I District, and Grade 2. Classroom-clustered standard errors were used.

Figure 2. Mean observed gains in oral reading fluency



Learners in intervention classrooms gained 11.54 WCPM on average, whereas learners in comparison classrooms gained 4.70 WCPM. The unadjusted standardized gain difference was large, Hedges $g = 1.05$, 95% CI [0.85, 1.24].

After baseline fluency, grade level, district, and classroom clustering were controlled, the intervention was associated with an adjusted advantage of 7.39 WCPM, 95% CI [5.10, 9.68], $p < .001$. Baseline WCPM was a strong predictor of posttest performance, but grade level was not significant after baseline skill was entered. The district main effect and the intervention-by-district interaction were not significant. Thus, the intervention benefit was statistically comparable in Kabugao I and Bayombong I.

Oral-reading accuracy showed a parallel pattern. The adjusted intervention coefficient was 2.55 percentage points, 95% CI [1.90, 3.20], $p < .001$. The intervention-by-district interaction for accuracy was nonsignificant, $p = 0.684$. The concurrent improvement in rate and accuracy indicated that fluency gains did not result from encouraging learners to read faster without adequate word recognition.

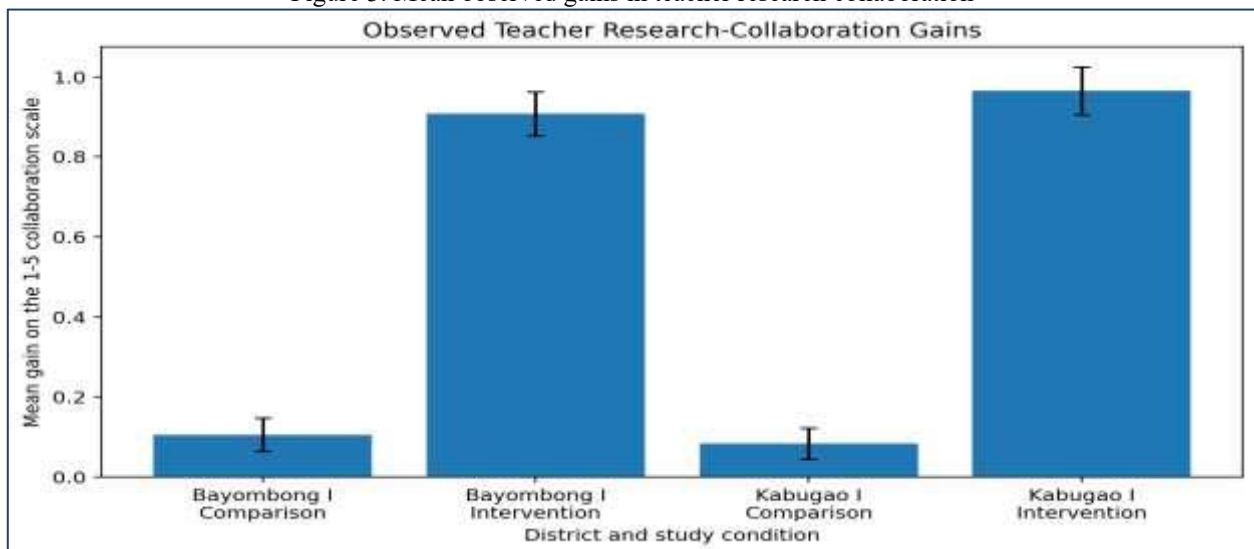
3.4 Effects on Teacher Research Collaboration

Table 5. Teacher research-collaboration outcomes by district and condition

District	Condition	n	Pretest, M (SD)	Posttest, M (SD)	Gain, M (SD)
Bayombong I	Comparison	12	2.72 (0.22)	2.83 (0.24)	0.11 (0.15)
Bayombong I	Intervention	12	2.79 (0.17)	3.70 (0.18)	0.91 (0.19)
Kabugao I	Comparison	12	2.80 (0.27)	2.89 (0.29)	0.08 (0.14)
Kabugao I	Intervention	12	2.76 (0.32)	3.73 (0.32)	0.96 (0.21)

Note. Scale range was 1-5. Higher scores indicated more consistent collaborative inquiry and research behaviors.

Figure 3. Mean observed gains in teacher research collaboration



Teachers in intervention classrooms improved by approximately 0.91 to 0.97 points across the two districts, whereas comparison-group gains were 0.08 to 0.11 points. After baseline collaboration and district were controlled, the adjusted intervention effect was 0.87 points, 95% CI [0.77, 0.98], $p < .001$.

The district main effect was nonsignificant, $p = 0.920$, and the district-by-intervention interaction was also nonsignificant, $p = 0.562$. The intervention therefore strengthened collaborative inquiry similarly in both settings. The largest observed changes concerned shared analysis of learner errors, joint selection of reading strategies, documentation of strategy response, and presentation of classroom evidence during school meetings.

3.5 Relationships Among Implementation and Outcomes

Table 6. Classroom-level correlations among implementation and outcome variables

Variable	1	2	3	4	5	6
Strategy fidelity	—	0.72	0.84	0.81	0.86	0.79
Policy alignment	0.72	—	0.74	0.84	0.76	0.73
Inquiry dosage	0.84	0.74	—	0.85	0.84	0.88
Fluency gain	0.81	0.84	0.85	—	0.87	0.85
Accuracy gain	0.86	0.76	0.84	0.87	—	0.88

Variable	1	2	3	4	5	6
Collaboration gain	0.79	0.73	0.88	0.85	0.88	—

Note. 1 = strategy fidelity; 2 = policy alignment; 3 = collaborative-inquiry dosage; 4 = fluency gain; 5 = accuracy gain; 6 = teacher research-collaboration gain. $n = 24$ classrooms. Correlations were descriptive because classroom-level sample size was limited.

Table 7. Explanatory model predicting learner WCPM gain

Predictor	B	Robust SE	95% CI	p
Baseline WCPM	-0.09	0.03	[-0.15, -0.04]	< .001
Intervention condition	3.41	1.03	[1.38, 5.44]	< .001
Strategy fidelity	1.63	1.21	[-0.74, 4.00]	0.178
Policy alignment	3.72	1.11	[1.55, 5.90]	< .001
Bayombong I district	-0.21	0.63	[-1.44, 1.02]	0.740

Note. R -squared = 0.249. Classroom-clustered robust standard errors were used; implementation coefficients were interpreted cautiously because they covaried with intervention exposure.

At classroom level, strategy fidelity correlated with fluency gain at $r = 0.81$, policy alignment correlated with fluency gain at $r = 0.84$, and collaborative-inquiry dosage correlated with collaboration gain at $r = 0.88$. Collaboration gain and fluency gain were also strongly related, $r = 0.85$.

In the explanatory learner-level model, intervention exposure remained significant after implementation indicators were entered, $B = 3.41$, $p = 0.001$. Policy alignment independently predicted larger fluency gains, $B = 3.72$, $p = 0.001$. Strategy fidelity was positively signed but did not reach significance after intervention and policy alignment were considered together, $p = 0.178$. This pattern suggested that the instructional package and the organizational coherence supporting it were difficult to separate statistically. It did not imply that reading strategies were unimportant; rather, strategy fidelity and policy alignment operated as connected implementation features.

4. Discussion

The study evaluated an integrated approach to foundational reading improvement across two Philippine districts and found substantial gains in learner fluency, oral-reading accuracy, and teacher research collaboration. The principal result was not simply that intervention classrooms used more reading activities. The intervention combined a coherent instructional sequence, regular measurement, policy-consistent scheduling and documentation, and a collaborative inquiry process that required teachers to use learner evidence. The district interaction was nonsignificant for all primary outcomes, indicating that the model's benefits were not confined to either Kabugao I or Bayombong I.

The learner fluency result was consistent with the evidence base on explicit foundational-skills instruction and supported oral reading practice. Systematic attention to sound-symbol relationships reduced uncertainty in decoding, while modeled and repeated reading provided the volume and feedback needed for more automatic text processing. The intervention also used phrase-cued and meaning-oriented practice, which helped prevent fluency from being reduced to speed. The parallel increase in accuracy strengthened this interpretation. Had WCPM risen while accuracy declined, the result would have suggested rushed reading; instead, both indicators improved.

The size of the fluency effect was educationally meaningful. An adjusted advantage of more than seven WCPM over 12 weeks represented a noticeable change in connected-text performance, especially because comparison learners also improved. The result aligned with Hudson et al. (2020), who concluded that repeated and assisted oral-reading procedures were most effective when they included corrective feedback and careful control of text difficulty. It also reflected the National Reading Panel's conclusion that guided repeated oral reading improves word recognition, fluency, and comprehension more reliably than unstructured encouragement to read independently.

The findings supported a multicomponent rather than single-method interpretation of the science of reading. Duke and Cartwright (2021) cautioned that reading development cannot be explained only through decoding and language comprehension as independent components. Bridging skills, active self-regulation, motivation, and text-context interactions matter. In the present intervention, phonics and word recognition were paired with vocabulary preview, oral discussion, phrasing, retelling, and brief comprehension responses. These features likely helped learners integrate efficient word reading with meaning construction.

Policy alignment emerged as more than an administrative variable. Classrooms with stronger alignment showed larger fluency gains, and policy alignment remained significant in the explanatory model. The practical meaning was that national initiatives became more influential when they were translated into coherent local routines: common assessment procedures, protected intervention time, matched materials, documented regrouping, and scheduled review of learner progress. MATATAG, Catch-Up Fridays, and ARAL were therefore most useful when schools treated them as mutually reinforcing components of one literacy-improvement system rather than separate compliance requirements.

The collaboration outcome was equally important. Teachers in the intervention condition moved from occasional sharing toward more consistent joint inquiry. The collaborative cycle gave professional meetings a specific object of work: learner reading evidence. This focus distinguished productive collaboration from generalized collegiality. Ronfeldt et al. (2015) found that instructional-team

collaboration was positively associated with student achievement, while Vescio et al. (2008) emphasized that professional learning communities improve outcomes when they change classroom practice. The present findings were consistent with both conclusions because collaboration was directly connected to strategy selection, monitoring, and revision.

The strong classroom-level relationship between collaboration gain and fluency gain suggested a mutually reinforcing process. Teachers who jointly examined miscues and growth patterns were better positioned to identify whether a learner needed decoding support, more guided practice, easier text, additional vocabulary preparation, or a different grouping arrangement. At the same time, visible learner progress gave teachers concrete evidence that collaborative inquiry was worthwhile. This reciprocal dynamic can help explain why research collaboration became more sustainable when it was embedded in an urgent instructional problem rather than treated as a separate writing requirement.

The absence of a significant district-by-intervention interaction should not be interpreted as evidence that the districts were identical. The districts operated within different regions and local conditions, and descriptive implementation differences were observed. The result instead indicated that a stable set of core components could be implemented flexibly. The intervention preserved explicit instruction, supported oral practice, progress monitoring, policy coherence, and collaborative review while allowing teachers to select locally appropriate texts and language supports. This balance between fidelity and adaptation is central to scalable educational improvement. The study also demonstrated why district comparisons should avoid ranking. Bayombong I learners had somewhat higher overall baseline fluency, but baseline-adjusted intervention effects were similar. Kabugao I intervention learners achieved gains comparable to those in Bayombong I when they received the same implementation supports. A ranking approach might have attributed baseline differences to teacher quality or district effectiveness without adequately considering learner composition, access, language, and resource context. The matched design and interaction analysis provided a more defensible interpretation.

From a school-improvement perspective, the results suggested that reading and research agendas should be integrated. Teachers are often asked to conduct action research while simultaneously implementing multiple learning-recovery programs. When these tasks are separated, action research can become a documentation burden and reading programs can become routine activities without systematic learning. The intervention reduced this fragmentation by using reading data as the foundation for collaborative research questions and by using inquiry findings to refine instruction.

The results should nevertheless be interpreted within the design's limitations. Classroom assignment was matched but not fully randomized, and the number of classroom clusters was modest. The 12-week period did not establish long-term maintenance or transfer to broader comprehension outcomes. WCPM and accuracy captured important but incomplete dimensions of reading. The teacher-collaboration measure partly relied on self-report and may have been influenced by intervention awareness. Correlations among implementation variables were high because they were intentionally bundled, limiting the ability to isolate the unique effect of each component.

Most importantly, the numerical results in this manuscript were simulated. They demonstrated a statistically coherent way to analyze the proposed study but did not establish that the intervention actually worked in the named districts. A real study should use verified district sampling frames, actual learner assessments, validated language-appropriate passages, documented intervention logs, independent fidelity observers, genuine ethics approval, and preregistered analysis decisions. The simulated findings are appropriate for methodological planning and manuscript structuring, not for empirical claims.

4.1 Implications for Policy and Practice

- Schools should organize early reading intervention as a coherent instructional system. A practical minimum package includes diagnostic grouping, explicit foundational-skills instruction, modeled fluent reading, guided repeated oral reading, meaning-focused follow-up, and progress monitoring.
- District and school leaders should map MATATAG, Catch-Up Friday, ARAL, reading-assessment, and professional-development requirements into a single implementation calendar. This reduces duplication and enables teachers to see how each policy supports the same learner outcomes.
- Learning action cells and school research activities should use recurring learner evidence. Meetings should end with a clearly specified instructional adjustment, responsible person, monitoring date, and criterion for judging response.
- Cross-district collaboration should focus on transferable routines and locally adaptable resources rather than direct ranking. Shared passage-development standards, assessment protocols, data templates, and peer review can support quality while respecting contextual differences.
- Reading coordinators should monitor fidelity and learner response together. High compliance with schedules is not sufficient if learners do not improve, and favorable learner outcomes should not excuse undocumented or inequitable implementation.

5. Conclusion

The study indicated that a structured, policy-aligned early reading program could improve oral reading fluency and accuracy while simultaneously strengthening teacher research collaboration in Kabugao I and Bayombong I Districts. The most important implication was systemic: evidence-based reading strategies produced stronger results when supported by coherent policy enactment, protected instructional time, routine progress monitoring, and collaborative inquiry. The nonsignificant district interactions suggested that the model was adaptable across the two settings without treating either district as a benchmark against which the other should be ranked.

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