

Letters to Meaning Pathways for Confident Grade 1 Reading

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ABSTRACT

This study traced how foundational literacy skills progressed toward meaningful and confident reading among Grade 1 learners in Baggao, Cagayan. A multilevel explanatory pathway design was employed involving 24 Grade 1 teachers and 96 Grade 1 learners. Data were gathered through a teacher instructional pathway scale and a learner reading battery measuring letter-sound knowledge, word decoding, meaning construction, and reading confidence. Bayesian multilevel serial mediation analysis was used to estimate direct, indirect, and classroom-level effects. Results showed that learners performed better in letter-sound knowledge than in word decoding and meaning construction, indicating increasing difficulty as reading demands shifted from symbol recognition to comprehension. Letter-sound knowledge strongly predicted decoding, while

decoding contributed substantially to meaning construction. Meaning construction, in turn, positively influenced reading confidence. The direct pathway from letter-sound knowledge to confidence was not supported, suggesting that familiarity with letters alone did not sufficiently strengthen learners' confidence unless it resulted in successful word reading and understanding. Teacher instructional practices also contributed positively to decoding, meaning construction, and confidence. The serial mediation model confirmed that the progression from letter-sound knowledge through decoding and meaning-making provided a credible pathway toward confident reading. The findings underscore the need for Grade 1 instruction that deliberately connects alphabetic knowledge, decoding, comprehension, and confidence-building experiences. Targeted diagnostic support is recommended for learners who demonstrate foundational knowledge but experience difficulty converting these skills into meaningful reading.

Keywords: *alphabetic knowledge, decoding, Grade 1 reading, meaning construction, reading confidence, reading instruction*

INTRODUCTION

Learning to read in Grade 1 marks a critical shift from recognizing print to understanding what written language communicates. At this stage, children begin to connect letters with sounds, combine these sounds into recognizable words, and gradually use those words to construct meaning. When these foundations remain weak, later learning becomes more difficult because reading serves as an entry point to most areas of formal schooling. This concern is particularly significant in the Philippines, where the World Bank reported that 91 percent of ten-year-old children could not read and understand an age-appropriate text, pointing to the need for stronger foundational literacy instruction during the earliest years of schooling (World Bank, 2026).

Beginning readers need more than familiarity with the alphabet. They must understand how written symbols represent spoken sounds and learn to use these relationships efficiently when reading words. Ehri (2020) explained that knowledge of grapheme-phoneme relationships and the ability to decode enable children to connect

the spelling, pronunciation, and meaning of words in memory. As these connections become stronger, word recognition becomes more automatic, allowing learners to devote greater attention to understanding what they read. This progression gives particular value to instruction that deliberately connects letter knowledge, sound awareness, word reading, and meaningful language experiences.

The movement from letters to meaning also depends on language comprehension. A systematic meta-analytic review found that letter knowledge and phonological awareness contribute to later reading comprehension through word recognition, while vocabulary and broader language comprehension provide another pathway toward understanding text (Hjetland et al., 2020). These findings suggest that effective Grade 1 reading instruction should not treat letter identification, decoding, vocabulary, and comprehension as isolated skills. Instead, learners benefit when these elements are developed as connected parts of the reading process. This direction is consistent with the Philippine MATATAG Reading and Literacy Curriculum, which places phonological awareness, letter-sound knowledge, phonics, word study, vocabulary, fluency, and comprehension within the progression of Grade 1 literacy learning (Department of Education, 2023).

Reading development also carries an important personal dimension. Young learners form beliefs about themselves as readers while they experience success, difficulty, encouragement, and feedback in the classroom. Among children at the end of Grade 1, reader self-concept was significantly associated with reading achievement, showing that how children perceive their reading ability is already meaningful during the first year of formal schooling (Jensen et al., 2019). For Grade 1 learners in Baggao, Cagayan, understanding how classroom practices help children move from letters and sounds toward meaningful and increasingly confident reading may therefore provide useful evidence for strengthening early literacy instruction. Anchored on this concern, *Letters to Meaning Pathways for Confident Grade 1 Reading* examines the instructional pathways through which foundational reading skills are developed into meaningful reading experiences while supporting learners' confidence as beginning readers.

Literature Review

Alphabetic Knowledge and Decoding Development

The path toward meaningful reading begins with a learner's ability to understand how printed letters represent the sounds of spoken language. Grade 1 learners need sufficient knowledge of letter forms, letter-sound relationships, and blending processes before they can read unfamiliar words with increasing independence. Castles et al. (2018) emphasized that systematic phonics plays a central role in early reading because it helps beginning readers acquire the alphabetic principle and develop reliable procedures for identifying written words. As learners gain control of these relationships, reading becomes less dependent on guessing or visual memorization and more grounded in accurate decoding. This foundation is important to the present study because the movement from letters to meaning requires learners first to establish dependable connections between print and spoken language.

From Word Recognition to Meaning

Reading development does not end when children learn to pronounce printed words. Meaning emerges when word recognition becomes connected with vocabulary, language knowledge, and understanding of what words communicate within a text. Petscher et al. (2020) explained that strong reading instruction requires systematic attention not only to decoding and foundational skills but also to vocabulary, comprehension processes, and purposeful interaction with text. For Grade 1 learners, this means that exercises involving letters and words become more valuable when children are also guided to connect those words with familiar objects, experiences, ideas, and simple messages. Such connections can help transform mechanical reading into meaningful reading and provide a clearer pathway for children who are still developing control over written language.

Comprehension as an Early Reading Goal

Comprehension should be cultivated from the beginning of reading instruction rather than postponed until learners become fluent readers. Duke et al. (2021) argued that comprehension develops through several interacting processes, including word reading, vocabulary, background knowledge, fluency, understanding of text structures, and active engagement with written material. This view is especially relevant in Grade 1 because children can begin making meaning even from short sentences, simple stories, pictures paired with text, and teacher-supported reading activities. Instruction that asks learners to identify ideas, connect events, explain simple meanings, and respond to texts can therefore complement the teaching of letters and words. A letters-to-meaning pathway should consequently allow decoding and comprehension to grow together instead of treating them as separate stages of literacy development.

Reading Confidence, Motivation, and Persistence

How children feel about reading can influence how willingly they participate in literacy activities and persist when texts become difficult. Toste et al. (2020), through a meta-analysis covering kindergarten to Grade 12 learners, found a significant positive relationship between reading motivation and reading achievement. Their longitudinal findings also indicated that earlier reading achievement can contribute to later motivation, suggesting that successful reading experiences may strengthen learners' willingness to continue engaging with print. For Grade 1 learners, repeated opportunities to recognize letters, decode words successfully, understand short texts, and receive appropriate instructional support may gradually build a stronger sense of competence. Reading confidence can therefore be viewed not as an isolated personal trait, but as an outcome that develops alongside successful and meaningful encounters with reading.

METHODS**Research Design**

The study employed a multilevel explanatory pathway design that examined how foundational reading abilities developed into meaningful and confident reading among Grade 1 learners. The design treated letter-sound knowledge, word decoding, meaning construction, and reading confidence as connected stages rather than isolated outcomes. Teacher instructional practices were incorporated as a classroom-level influence, while learner reading measures were analyzed at the individual level. This structure allowed the study to determine both direct and mediated pathways leading to confident reading and provided a closer representation of how early literacy development occurred within classroom instruction.

Research Locale

The study was conducted in Baggao, Cagayan, an elementary education setting served by public schools under the Schools Division of Cagayan. Official education records identified public elementary institutions operating across the municipality, while the Philippine Statistics Authority listed Baggao as one of the municipalities of Cagayan with a population of 90,723 in its 2026 Philippine Standard Geographic Code database (Philippine Statistics Authority, 2026). The locale provided an appropriate setting because Grade 1 classrooms represented varied literacy experiences in which learners were developing the transition from alphabetic knowledge to meaningful reading.

Participants and Sampling Technique

The participants consisted of 24 Grade 1 teachers and 96 Grade 1 learners, for a total of 120 participants. The sampling frame was prepared from official Grade 1 teaching assignments and class lists available during the conduct of the study. Teachers were selected through criterion-based sampling based on current responsibility for Grade 1 reading instruction. Four learners from each participating teacher's class were then selected through simple random sampling from eligible class lists. This two-stage procedure kept the sample manageable while

preserving learner representation across the participating Grade 1 classes. No participant profile variables were included in the analysis because the inquiry centered on instructional pathways and reading development.

Research Instrument

Data were obtained through two complementary instruments. The Letters-to-Meaning Instructional Pathway Scale contained 24 statements covering letter-sound scaffolding, decoding support, meaning-focused reading, and confidence-supportive instruction. Teachers responded using a five-point frequency scale. Learners completed the Grade 1 Reading Pathway Battery, which measured letter-sound recognition, word decoding, sentence and short-text meaning, followed by an eight-item pictorial reading-confidence scale appropriate for young children.

Five specialists in early literacy, elementary education, and educational measurement reviewed the instruments for content relevance, clarity, developmental suitability, and alignment with the study constructs. The item-level content validity indices ranged from 0.80 to 1.00, while the scale-level content validity index based on average agreement was 0.95. Pilot administration involved 12 Grade 1 teachers and 36 Grade 1 learners from a municipality outside the research locale. The teacher scale yielded a Cronbach's alpha of 0.92, with dimension coefficients ranging from 0.84 to 0.90. The learner reading-confidence scale produced a Cronbach's alpha of 0.88, while the dichotomously scored reading skills component obtained a KR-20 coefficient of 0.89. Item analysis resulted in minor wording adjustments but no removal of measured domains.

Data Gathering

Permission to conduct the research was secured from the appropriate education authorities before participant recruitment. Teachers received the questionnaire after informed consent had been obtained. Learner assessments were administered individually in a quiet area during agreed school hours so that reading responses could be recorded without disrupting regular instruction. Each learner first completed the foundational reading tasks, followed by the meaning-making items and pictorial confidence scale. Parental consent and child assent were obtained before learner participation. Teacher and learner records were linked through coded identifiers rather than names, allowing classroom-level instructional data to be connected with learner outcomes while maintaining confidentiality. Completed instruments were checked, encoded, and screened before analysis.

Data Analysis

The data were analyzed through Bayesian multilevel serial mediation analysis. The model specified letter-sound knowledge as the initial learner-level predictor, word decoding as the first mediator, meaning construction as the second mediator, and reading confidence as the final outcome. Teacher instructional pathway scores were entered as classroom-level predictors to determine whether instructional practices contributed to variation in learner reading development. Random intercepts accounted for the clustering of learners under participating teachers.

Four Markov chain Monte Carlo chains were estimated with 4,000 iterations per chain, including 2,000 warm-up iterations. Weakly informative priors were used to stabilize estimation with the compact sample. Posterior means, standardized path coefficients, and 95% credible intervals were reported for direct and indirect effects. Model convergence was accepted when the potential scale reduction statistic was $\hat{R}$ below 1.01, effective sample sizes were satisfactory, and posterior predictive checks showed adequate agreement between observed and replicated data. An effect was interpreted as credibly supported when its 95% credible interval did not include zero. This approach allowed the analysis to determine not only whether the variables were associated, but also how reading development progressed through the proposed letters-to-meaning pathway.

Ethical Consideration

The study protected voluntary participation, informed consent, child assent, confidentiality, and the right to withdraw without consequence. No learner names appeared in the working dataset or research report. Reading

tasks were administered in a supportive manner and were not used for grading or ranking. Electronic records were password-protected, access was limited to the research team, and findings were presented only in aggregated form.

RESULTS AND DISCUSSION

Table 1. *Descriptive Results for the Letters-to-Meaning Pathway Variables*

Variable	n	Mean	SD	Observed Range
Teacher instructional pathway practices	24	3.68	0.43	2.79–4.42
Letter-sound knowledge (%)	96	76.40	11.60	45–95
Word decoding (%)	96	67.10	13.70	33–93
Meaning construction (%)	96	60.80	14.50	25–90
Reading confidence	96	3.29	0.61	2.00–4.63

Note. Teacher instructional practices and reading confidence were measured on five-point scales.

Table 1 presents a clear decline as learners moved from recognizing letter-sound relationships toward decoding and constructing meaning. Letter-sound knowledge obtained the highest learner mean at 76.40%, followed by word decoding at 67.10%, while meaning construction fell to 60.80%. Reading confidence was moderate at 3.29. The pattern suggests that many learners had begun to establish the alphabetic foundation but had not developed the same level of control when letters had to be blended into words and words had to be interpreted within meaningful text. The wide ranges in decoding and meaning scores also revealed substantial differences among Grade 1 readers. Thus, the principal difficulty was not simple letter recognition. It appeared when learners were required to convert foundational knowledge into increasingly efficient and meaningful reading. This pattern is consistent with evidence that early attainment of accurate word recognition provides an important foundation for subsequent reading comprehension development (Karageorgos et al., 2020).

Table 2. *Variance Decomposition of Learner Reading Outcomes*

Learner Outcome	Between-Class Variance	Within-Class Variance	ICC	95% CrI
Letter-sound knowledge	0.07	0.51	0.12	[0.04, 0.24]
Word decoding	0.10	0.46	0.18	[0.07, 0.31]
Meaning construction	0.13	0.43	0.23	[0.10, 0.37]
Reading confidence	0.08	0.39	0.17	[0.06, 0.30]

Note. ICC = intraclass correlation coefficient; CrI = credible interval.

Table 2 shows that learner outcomes varied meaningfully across participating Grade 1 classes. Classroom clustering accounted for 12% of the variation in letter-sound knowledge, 18% in decoding, 23% in meaning construction, and 17% in reading confidence. The strongest classroom component appeared in meaning construction. This finding indicates that learners' ability to understand what they read was influenced not only by individual skill differences but also by conditions associated with their instructional setting. The result justified the use of a multilevel model rather than treating all 96 learners as independent observations. It also points to an instructional concern. Learners exposed to different patterns of reading support may not experience the same opportunities to progress from decoding toward comprehension. Graham et al. (2020) similarly documented differences in early word-level reading trajectories and emphasized the importance of aligning instructional support with the specific reading difficulties experienced by children.

Table 3. *Bayesian Multilevel Estimates of Direct Reading Pathways*

Path	Standardized β	95% CrI	P($\beta > 0$)	Result
Letter-sound knowledge $\rightarrow$ Word decoding	0.62	[0.51, 0.72]	>.999	Supported
Word decoding $\rightarrow$ Meaning construction	0.55	[0.42, 0.67]	>.999	Supported
Meaning construction $\rightarrow$ Reading confidence	0.39	[0.24, 0.53]	.999	Supported
Letter-sound knowledge $\rightarrow$ Meaning construction	0.14	[0.02, 0.27]	.985	Supported
Word decoding $\rightarrow$ Reading confidence	0.17	[0.03, 0.31]	.991	Supported
Letter-sound knowledge $\rightarrow$ Reading confidence	0.05	[-0.08, 0.18]	.773	Not supported
Teacher practices $\rightarrow$ Word decoding	0.25	[0.09, 0.40]	.997	Supported
Teacher practices $\rightarrow$ Meaning construction	0.22	[0.06, 0.37]	.994	Supported
Teacher practices $\rightarrow$ Reading confidence	0.27	[0.11, 0.43]	.998	Supported

Note. β = standardized posterior coefficient. An effect was supported when the 95% credible interval excluded zero.

Table 3 provides the strongest evidence for the proposed letters-to-meaning pathway. Letter-sound knowledge strongly predicted decoding ($\beta = 0.62$), and decoding subsequently predicted meaning construction ($\beta = 0.55$). Meaning construction also made a credible contribution to reading confidence ($\beta = 0.39$). In contrast, letter-sound knowledge had no credible direct effect on confidence once decoding and meaning were considered. This result is important because knowing letters alone did not appear sufficient to make a child feel capable as a reader. Confidence was more closely connected with being able to use foundational knowledge successfully to read and understand text. Teacher practices also contributed positively to decoding, meaning, and confidence, with their strongest direct contribution appearing in reading confidence ($\beta = 0.27$). Evidence from beginning readers likewise shows that decoding plays a substantial role in reading comprehension and that accurate and efficient word reading contributes to later understanding (Wawire et al., 2021).

Table 4. *Bayesian Estimates of Indirect and Total Effects*

Pathway	Standardized Effect	95% CrI	P(Effect > 0)
Letter-sound $\rightarrow$ Decoding $\rightarrow$ Meaning	0.34	[0.24, 0.45]	>.999
Decoding $\rightarrow$ Meaning $\rightarrow$ Confidence	0.21	[0.12, 0.31]	>.999
Letter-sound $\rightarrow$ Decoding $\rightarrow$ Confidence	0.11	[0.02, 0.20]	.992
Letter-sound $\rightarrow$ Decoding $\rightarrow$ Meaning $\rightarrow$ Confidence	0.13	[0.07, 0.20]	>.999
Teacher practices $\rightarrow$ Meaning $\rightarrow$ Confidence	0.09	[0.02, 0.16]	.993
Teacher practices $\rightarrow$ Decoding $\rightarrow$ Meaning $\rightarrow$ Confidence	0.05	[0.02, 0.10]	.998
Total effect of letter-sound knowledge on confidence	0.24	[0.11, 0.37]	>.999

Table 4 confirms the central mechanism of the study. The complete serial pathway from letter-sound knowledge to decoding, meaning construction, and reading confidence produced a credible indirect effect of $\beta = 0.13$. Approximately 79% of the total association between letter-sound knowledge and confidence operated through the intervening reading processes. The finding explains why some learners who could identify letters and sounds still displayed hesitation during actual reading. Foundational knowledge became more consequential for confidence when learners could turn it into successful word reading and, subsequently, understanding. Teacher practices also worked indirectly through the same developmental sequence, suggesting that confidence was partly built through instructional experiences that enabled children to experience genuine reading success. This interpretation corresponds with evidence that reading-related self-beliefs and comprehension are connected through intermediate motivational and literacy processes rather than functioning as completely separate aspects of reading development (Locher et al., 2021).

Table 5. *Model Convergence and Explained Variance*

Diagnostic/Outcome	Result
R-hat range	1.000–1.005
Bulk effective sample size	2,340–6,120
Divergent transitions	0
Posterior predictive p, decoding	0.51
Posterior predictive p, meaning construction	0.46
Posterior predictive p, confidence	0.49
Bayesian R ² , decoding	0.47 [0.36, 0.58]
Bayesian R ² , meaning construction	0.49 [0.37, 0.60]
Bayesian R ² , reading confidence	0.41 [0.28, 0.53]

Table 5 indicates satisfactory convergence and predictive performance of the multilevel model. All R-hat values remained close to 1.00, effective sample sizes were adequate, and no divergent transitions were detected. Posterior predictive values also showed reasonable agreement between the observed patterns and those reproduced by the model. The explanatory strength was substantial for an educational pathway model, accounting for 47% of the variation in decoding, 49% in meaning construction, and 41% in reading confidence. Taken together, the results supported the proposed developmental sequence while revealing a clear instructional concern. Grade 1 learners showed stronger foundational letter knowledge than meaning construction, and reading confidence depended more strongly on successful movement through decoding and comprehension than on alphabet knowledge alone. The findings therefore positioned the transition from letters to words and from words to meaning as the critical point for strengthening confident Grade 1 reading.

CONCLUSION

The findings showed that confident Grade 1 reading developed through a connected pathway in which letter-sound knowledge supported word decoding, decoding strengthened meaning construction, and successful meaning-making contributed to reading confidence. Learners demonstrated stronger foundational knowledge than comprehension performance, indicating that the major instructional challenge emerged when they were required to transform letters and sounds into meaningful understanding. Teacher instructional practices also contributed to decoding, comprehension, and confidence, confirming the importance of classroom support in sustaining early reading development. Based on these findings, Grade 1 reading instruction should strengthen the progression from explicit letter-sound teaching to guided decoding, vocabulary development, sentence understanding, and short-text comprehension rather than treating these skills separately. Teachers should provide repeated opportunities for successful reading, immediate corrective feedback, meaningful text engagement, and confidence-building activities suited to beginning readers. Schools may also use brief diagnostic reading checks to identify learners who can recognize letters but continue to struggle with decoding or comprehension so that targeted support can be provided before difficulties become persistent.

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