Growth in Reading From the Beginning to the End of the School Year:

A Growth Curve Study of Grade 2 Learners

A Basic Research

[Copy for blind review: the researchers' names, positions, and schools division are removed. The final copy lists them here.]

Conducted May 2025 to May 2026; revised November 2026

Abstract

This basic research followed the Filipino reading fluency of Grade 2 learners through School Year (SY) 2025–2026 in one schools division and asked how much they grew, how much they differed in growth, and how their background related to where they started and how fast they grew. Each of 1,124 Grade 2 learners in the division's 20 public elementary schools read a Grade 2-level Filipino passage aloud for one minute at each of the three Comprehensive Rapid Literacy Assessment (CRLA) windows of the year; each reading was scored as words correct per minute (WCPM) and placed in time by the learner's test date. Mean fluency rose from 17.98 WCPM at the beginning of the year to 26.86 at the middle and 39.65 at the end. A linear mixed-effects growth model with random intercepts and slopes estimated growth of 0.60 WCPM a week, 95% CI [0.57, 0.62], and learners differed widely in growth (SD 0.34 WCPM a week); growth was faster before the middle window than after it, 0.66 against 0.56 WCPM a week. Girls started 4.31 WCPM ahead, and learners from 4Ps households and learners whose home language was not Filipino or Tagalog started 3.53 and 5.36 WCPM behind. Only one background trait went with growth: learners from 4Ps households grew 0.095 WCPM a week more slowly, 95% CI [−0.149, −0.042], so their gap widened over the year. Background explained 8% of the differences in starts and 2% of those in growth. By the end of the year, 48.3% read 40 WCPM or more.

Keywords: reading fluency, growth curve, linear mixed-effects model, random slopes, longitudinal, Grade 2, Filipino, CRLA

Acknowledgment

The researchers thank the Regional Research Committee, which approved the grant; the Schools Division Superintendent, who permitted the study in the division's schools; the school heads and Grade 2 advisers of the 20 public elementary schools, who made room for the readings in the CRLA windows; the parents who consented and the learners who read for us; the two assessors who scored the recordings; and the research ethics committee that reviewed the protocol. The study was funded by the Basic Education Research Fund (BERF) for 2025.

Growth in Reading From the Beginning to the End of the School Year: A Growth Curve Study of Grade 2 Learners

Introduction of the Research

From SY 2025–2026, the medium of instruction from Kindergarten to Grade 3 reverted to Filipino and English (Republic Act No. 12027, 2024, Sec. 1; DepEd, 2025a, para. 11), and in schools that teach in Filipino and English, the Grade 2 CRLA is given in Filipino (DepEd, 2025a, Annex D). The CRLA, "a 15-20 minute standard rapid assessment tool administered in Grades 1 to 3 to determine learners' reading profiles and inform instruction" (DepEd, 2025a, para. 9.4), is now given three times a year: "at the beginning of the school year (BOSY), in the middle of the school year (MOSY), and at the end of the school year (EOSY)" (DepEd, 2025b, Encl. No. 2, item 3.2).

National figures describe levels, not growth. At the end of Grade 3 in 2019, learners read Filipino at 60.9 correct words per minute (Pouezevara et al., 2019, p. 2); at the end of Grade 2, learners in two regions read 36.1 in 2020 (RTI International, 2020, p. 11), and in another two, 39.4 in 2016, against a Grade 2 benchmark of 40 words correct per minute that the Basa Pilipinas project set with DepEd (Education Development Center, 2016, pp. 19, 24). These are snapshots of different children. DepEd itself reads change in CRLA results between the beginning and the end of the year as a sign of need: in late 2025 it identified schools for literacy funds by "the negative difference of the percentage points between their CRLA results for SY 2024–2025, beginning- and end-of-school-year (BOSY-EOSY)" (DepEd, 2025c, item

8). How fast individual learners grow within a year, and whose growth lags, the division did not know.

This study therefore followed every Grade 2 learner of the division's public elementary schools through SY 2025–2026, timing their Filipino reading at the three CRLA windows, and asked how their fluency grew and how their background related to where they started and how fast they grew. It addresses the Teaching and Learning theme of the Basic Education Research Agenda, sub-theme Learning Outcomes, which examines "what drives achievement" by "assessing and comparing the progress of learners" (DepEd, 2016, p. 8).

Literature Review

The literature reviewed here follows the study's questions: how DepEd assesses early reading, what is known about Filipino reading levels, how reading grows within and across learners, and how growth is modeled.

Assessing Early Reading in DepEd Schools

The CRLA is the official reading tool for Grades 1 to 3. Under the Academic Recovery and Accessible Learning (ARAL) Program, it places learners: Grade 2 and 3 learners join ARAL-Reading tutorials on their BOSY results, and "Learners identified as Low and High Emerging shall be asked to participate in ARAL-Reading" (DepEd, 2025b, Encl. No. 2, items 3.3 and 4). The MOSY CRLA "shall be administered two (2) weeks before the second quarter examination" (DepEd, 2025b, Encl. No. 2, item 22). The CRLA reports a profile, from Low Emerging to Reading at Grade Level, not a score on one scale, and its tasks differ by round in its 2023 design: at the beginning of the

year, phonological awareness, alphabet knowledge and decoding; at the middle and end, fluency and comprehension (USAID ABC+, 2023, p. 2). A study of growth across the three rounds therefore needs one measure that is the same each time, such as the words a learner reads correctly in a minute.

Filipino Reading in the Early Grades

Philippine studies give levels at the end of a grade. In the 2019 national Early Grade Reading Assessment, Grade 3 learners read Filipino at 60.9 correct words per minute, with a standard deviation of 32.8 (Pouezevara et al., 2019, pp. 2, 42); holding region constant, "children who speak Tagalog at home have an advantage of about 7.8 cwpm in Filipino" (p. 15), and girls had 2.14 times the odds of reading at least one word (p. 29). In the Basa Pilipinas evaluation, Grade 2 learners read Filipino at 37.0 to 48.1 words correct per minute in three years, and Grade 3 learners at 57.8 (Education Development Center, 2016, pp. 37, A22); about half of Grade 2 learners met the 40-word benchmark (p. 24). In mother-tongue reading in 2014, learners in the top socioeconomic quartile read 12.5 more words per minute than those in the bottom (DeStefano et al., 2014, p. 48). None of these followed the same learners through a year.

How Reading Grows

Whether early differences widen or narrow is an old question. Stanovich (1986) described "rich-get-richer and poor-get-poorer patterns of reading achievement" (p. 360). A review of 25 years of studies "did not find strong support for the general validity of a pattern of widening achievement differences or for a pattern of decreasing achievement differences", and found

"a small, negative mean correlation (r = -0.214)" between starting level and growth (Pfost et al., 2014, abstract). Growth within a year is not always even: in benchmark data collected three times a year, "more growth occurs in the fall than the spring season", especially in the early grades (Christ et al., 2010, abstract), and growth rates were "much lower" for learners at the bottom and the top of the starting distribution (Silberglitt & Hintze, 2007, abstract). For learners reading in a language not their own, differences in growth were largely "attributable to economic disadvantage and classroom effects" (Richardson et al., 2020, abstract), and trajectories converged with those of peers "from similar socioeconomic backgrounds" (Kieffer, 2011, abstract).

Modeling Growth With Three Measurements

A study of change needs "Three or more waves of data", an outcome that changes systematically, and "A sensible metric for clocking time" (Singer & Willett, 2003, p. 9). With only three waves, "you must fit simpler models with stricter assumptions—usually assuming that individual growth is linear over time" (p. 10). Time should be the actual time of each measurement: a wave number "cannot contribute to a meaningful level-1 submodel" (p. 140). The multilevel model for change gives each learner an intercept and a slope drawn from a population with their own variances and covariance (p. 97). A one-minute reading carries error: the most likely standard error of measurement is "in the range of 5-9 WRCM" (Christ & Silberglitt, 2007, abstract), which is why a single learner's line through three readings is less trustworthy than the model's estimate of it.

Synthesis

Filipino reading in the early grades has been described at single points. A within-year growth study can show how much learners gain, whether the gain is even, and which learners fall further behind, using a measure that is the same at each CRLA window, each learner's own test dates, and a model that separates real differences in growth from the error of a one-minute reading.

Research Questions

This study sought to answer the following questions:

1. How did the Filipino reading fluency of Grade 2 learners change from the beginning to the end of SY 2025–2026, and how much did learners differ in where they started and how fast they grew?
2. Was growth even over the year, or faster before the middle of the year than after it?
3. How were sex, 4Ps membership, home language, Kindergarten attendance, and age for grade related to the start and to the rate of growth?
4. How many learners reached 40 words correct per minute by the end of the year, and how did their CRLA profiles change?

Hypotheses

The following null hypotheses were tested at the .05 level of significance:

1. H01: Learners do not differ in their rate of growth.
2. H02: Growth is the same before and after the middle window.
3. H03: The five background traits are not related to the start.

4. H04: The five background traits are not related to the rate of growth.

Scope and Limitation

The study covered the Grade 2 learners of the division's 20 public elementary schools in SY 2025–2026, all of which teach in Filipino and English, so the Grade 2 CRLA is in Filipino (DepEd, 2025a, Annex D). It did not cover Grades 1 and 3, private schools, or schools that teach in a learner's first language.

The study has limits. First, it is observational: background traits that go with slower growth are not causes of it. Second, learners who were Low or High Emerging at the beginning of the year joined ARAL-Reading tutorials, so tutoring and a low start cannot be told apart. Third, a fifth of the learners read no word correctly at the beginning of the year; a reading measure cannot show differences below zero, and this floor can bend growth estimates at the bottom. Fourth, each window had one passage, and the three passages were not equated; a difference in their difficulty would look like growth. Fifth, with three readings per learner, only straight-line growth can be modeled for each learner.

Research Methodology

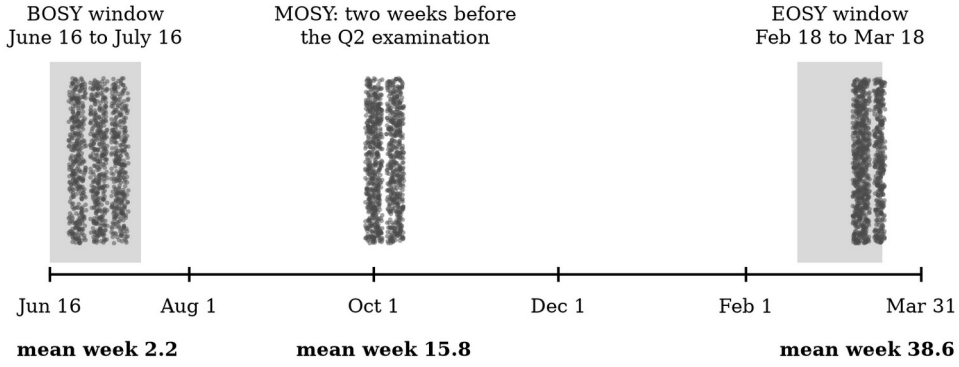
Research Design

The study used a longitudinal design: the same learners were measured three times in one school year, at the CRLA windows of SY 2025–2026. The year opened on June 16, 2025, and its beginning-of-year testing window ran to July 16 (DepEd, 2025d, Encl. No. 2); the middle-of-year CRLA came "two (2) weeks before the second quarter examination" (DepEd, 2025b, Encl. No.

2, item 22), which fell on October 23 and 24, 2025; and the end-of-year CRLA was administered from March 9 to 20, 2026 (DepEd, 2025d, Encl. No. 2). The study timed each learner within these windows: from June 23 to July 11, from September 29 to October 10, and from March 9 to 18 (Figure 1). Time was measured as the weeks from the first day of classes to each learner's own test date, not as the window's number (Singer & Willett, 2003, p. 140).

Figure 1

The Three Readings on the School Year



Note. Each dot is a learner's test date. The shaded areas are DepEd's beginning- and end-of-year testing windows.

The outcome was oral reading fluency: the words a learner read correctly in one minute from a Grade 2-level Filipino passage, a different passage at each window. The learner's CRLA profile at the beginning and the end of the year, from the school's records, was a second outcome.

A. Sampling

The study did not sample. Its population was every Grade 2 learner enrolled in the division's 20 public elementary schools in SY 2025–2026, 1,167 learners in schools with 13 to 120 Grade 2 learners each. The parents

of 43 declined; the remaining 1,124 learners took part, 532 girls and 592 boys.

The number of learners was fixed by enrollment; the question was whether it was enough. Before any learner was timed, the proposal simulated the planned model 200 times for each of three numbers of learners and four true differences in weekly growth between learners from 4Ps households and others, from planning values: a starting mean of about 18 WCPM with a standard deviation of 16, growth of 0.6 WCPM a week with a standard deviation of 0.33, a correlation of −0.2 between start and growth (Pfost et al., 2014), a reading error of 7 WCPM (Christ & Silberglitt, 2007), and about a third of learners from 4Ps households. With 1,200 learners, the simulated studies found a difference of 0.07 WCPM a week, about 2.5 words a minute over the year, 92.9% of the time; with 600, 66.1% (the 4% to 11% of simulated fits that did not converge were left out). From the simulations' average standard error, the smallest difference detectable with 80% power was 0.071 WCPM a week with 1,200 learners and 0.101 with 600; the simulated studies found differences more often than that, because the floor pushed the estimated difference away from zero (a true 0.07 was estimated at 0.085 on average). The simulation also showed a cost of the floor at zero: with no true difference, the model found one in 8.1% of the studies with 1,200 learners, not 5%, so the plan added a check without the learners who read nothing at the beginning of the year.

B. Data Collection

Recruitment of Participants

The Regional Research Committee approved the study's grant in April 2025, and the Schools Division Superintendent permitted the study in the division's schools; the memorandum of agreement was signed in May 2025, before the school year began. Parents received a letter in Filipino and their home language explaining the study, the three one-minute readings, and the recording of each reading, and returned a consent form; each learner was asked, in Filipino, whether they wanted to read for the study, and could stop at any time.

Data Collection Instruments

Oral reading passages. Three Grade 2-level Filipino passages, one for each window, taken from different sets of the Philippine Informal Reading Inventory's graded passages, which come in "four sets (Sets A, B, C, and D) … which can be used for both pre-testing and post-testing" (DepEd, 2018, Encl., para. 5[c]). The learner read aloud for one minute; the assessor marked each error and counted the words read correctly. Each reading was recorded on a phone for the record check.

Records. From each school's records: the learner's sex, date of birth, 4Ps membership (from the enrollment form), home language, Kindergarten attendance, CRLA profile at the beginning and the end of the year, and ARAL-Reading participation.

Derived variables. For each reading, the weeks from June 16, 2025 to the test date. Overage: two or more years older than the official age for Grade 2.

Validity and Reliability

Words correct per minute is the fluency measure of the national Early Grade Reading Assessment (Pouezevara et al., 2019). A second assessor scored a random 10% of the recordings (330 readings) without seeing the first score. The two scores agreed exactly for 51.5% of the readings and within two words for all of them, ICC(A,1) = .998. Across learners, words correct per minute agreed with the CRLA profile, Spearman's ρ = .83 at the beginning of the year and .83 at the end.

Data Collection Setting

The readings took place in a quiet room in each school, during the CRLA windows, on a school day, one learner at a time.

Data Collection Timeline

Table 1

Data Collection Timeline

Activity	Dates
Approval of the grant	April 2025
Memorandum of agreement and consent letters	May to June 13, 2025
Beginning-of-year readings	June 23 to July 11, 2025
Middle-of-year readings	September 29 to October 10, 2025
End-of-year readings	March 9 to 18, 2026
Records and record check	March 23 to April 17, 2026
Data analysis	April 20 to May 15, 2026
Report submitted	May 2026
Report revised after the committee's comments	November 2026

Note. The beginning- and end-of-year readings fell within DepEd's testing windows for SY 2025–2026 (DepEd, 2025d). A division-level study may run a maximum of one year (DepEd, 2017, Sec. V.C.i, item 2); the revision falls outside the research work plan (Sec. V.B.vii).

Data Recording and Storage

Readings were recorded on a sheet that carried a code, not the learner's name. The key linking codes to learners stayed with each school. The recordings and the data were kept on an encrypted drive; the recordings were deleted after the record check, and the data will be destroyed three years after the study ends.

C. Ethical Issues

The study followed DepEd's Research Management Guidelines, which ask researchers to observe "the highest ethical standards", "ensuring confidentiality in handling data of respondents and providing consent forms where necessary", and to refer to the DepEd Child Protection Policy when interacting with learners (DepEd, 2017, Sec. VI.C). Because the participants were children, the study obtained "assent from these participants and consent from their parents and/or legal guardians" (DepEd, 2022, Encl., guide to item 15). A learner's reading, health and family information are personal information under the Data Privacy Act of 2012; the study used codes, kept only the variables it needed, and held them "under strict confidentiality" for "the declared purpose" (Data Privacy Act of 2012, 2012, Sec. 19). No reading was used to grade a learner or to decide anything about one. The protocol was reviewed by a research ethics committee. The researchers declared their use of an artificial intelligence (AI) tool in Appendix D (DepEd, 2026).

D. Plan for Data Analysis

The first question was answered by the means, standard deviations, and shares at zero at each window, and by linear mixed-effects growth models

(Singer & Willett, 2003): an unconditional means model, whose intraclass correlation gives the share of the variance between learners; and an unconditional growth model, in which each learner has an intercept, the expected fluency on the first day of classes, and a slope, the growth in words correct per minute a week, with their variances and correlation. The test that learners differ in growth compared models with and without the random slope by a likelihood-ratio test. The second question was answered by adding a bend at the middle window's mean week and testing it the same way, and by refitting with time coded as the window's number, to show what that coding would conclude. The third question was answered by a conditional growth model with the five traits on the intercept and on the slope; estimates came from restricted maximum likelihood, and models that differ in fixed effects were compared by maximum likelihood (Singer & Willett, 2003, p. 118). Three checks followed: school fixed effects; schools as a third level, with each school's own intercept and slope; and the model without the learners who read no word correctly at the beginning of the year. The fourth question was answered by the share of learners at 40 words correct per minute or more at the end of the year and by the CRLA profiles at the beginning and the end. The final run of the analysis, for the report revised in November 2026, used Python 3.13 with statsmodels 0.15.0 (Seabold & Perktold, 2010); statsmodels' default optimizer stopped short of the maximum on the growth models, so each model was fitted with L-BFGS, BFGS and Powell, and the converged fit with the highest likelihood was kept. The workbook recomputes every statistic Excel can.

Discussion of Results and Recommendations

Reading at the Three Windows

Table 2 gives the readings at each window. Mean fluency rose from 17.98 words correct per minute at the beginning of the year to 26.86 at the middle and 39.65 at the end, and the spread grew with it. A fifth of the learners (20.2%) read no word correctly at the beginning of the year; by the end, 2.4% did. Of the 1,124 learners, 1,055 read at all three windows; the models used every reading.

Table 2

Readings at the Three Windows

Window	Test dates	Mean week	Learners	Mean WCPM	SD	Read no word correctly
Beginning of the year (BOSY)	June 23 to July 11, 2025	2.25	1,124	17.98	15.21	20.2%
Middle of the year (MOSY)	September 29 to October 10, 2025	15.76	1,094	26.86	17.21	7.6%
End of the year (EOSY)	March 9 to 18, 2026	38.58	1,085	39.65	20.46	2.4%

Note. WCPM: words correct per minute on a Grade 2-level Filipino passage. Mean week: weeks from June 16, 2025 to the test date.

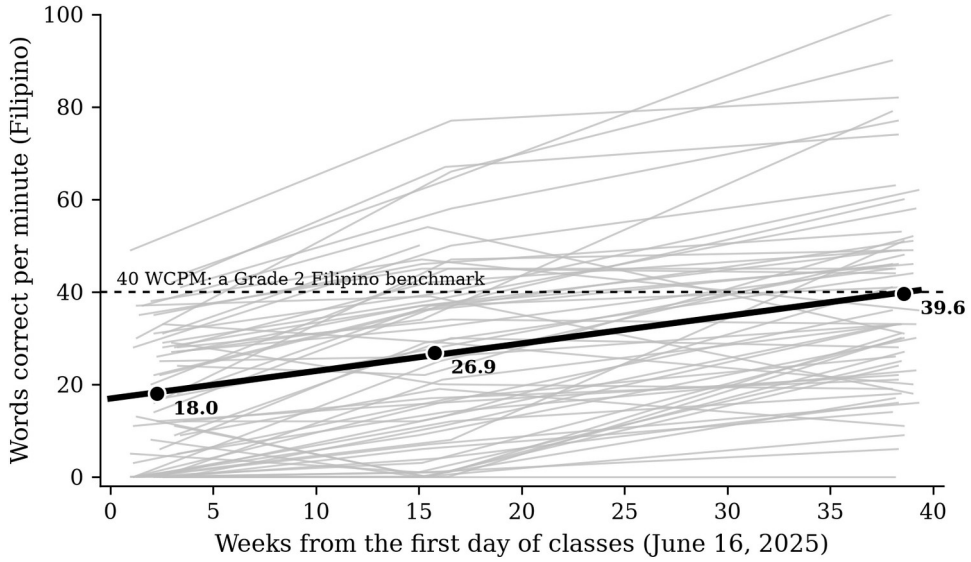
How Much Learners Grew, and How Differently

Learners differed: in the unconditional means model, 48.1% of the variance in readings lay between learners. The unconditional growth model put the average learner at 16.93 words correct per minute on the first day of classes, 95% CI [16.03, 17.83], growing by 0.60 a week [0.57, 0.62], about 21.6 words a minute between the mean weeks of the first and last windows (Figure 2). Around these averages, learners' starts varied with a standard deviation of 14.04 words a minute and their growth with a standard deviation of 0.34 a week: a learner one standard deviation below the average grew about

0.25 words a minute a week, one above about 0.94. Learners who started higher did not grow faster or slower, r = .02. The model without differences in growth fitted much worse, $x^2(2) = 413.92$, $p < .001$; since a variance cannot be below zero, this test is conservative (Singer & Willett, 2003, p. 608). The first null hypothesis is rejected.

Figure 2

Individual Readings and the Average Growth Line



Note. Gray: 60 learners drawn at random. The line is the growth model's average; the points are the windows' means.

Table 3

The Growth Models' Variance Components

Model	SD of starts (WCPM)	SD of growth (WCPM a week)	Correlation of start and growth	Residual SD (WCPM)
Unconditional growth	14.04	0.345	.02	6.65
Conditional growth (five traits)	13.49	0.342	.00	6.64

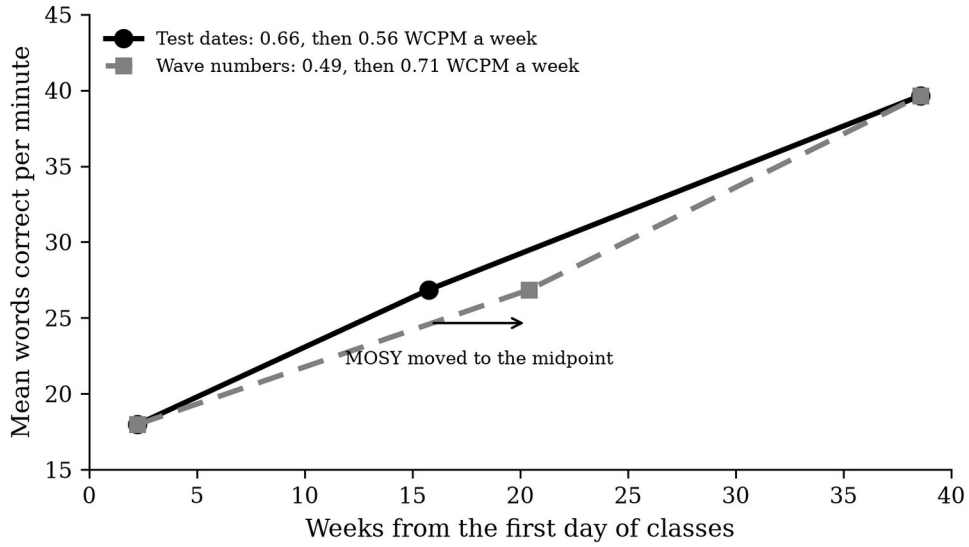
Note. Restricted maximum likelihood. The residual SD is the variation of a learner's readings around their own line, which includes the error of a one-minute reading.

Was Growth Even Over the Year?

Growth was faster in the first part of the year. With a bend at the middle window's mean week, learners grew 0.66 words a minute a week from the beginning to the middle of the year and 0.56 after it, a difference of −0.10 [−0.15, −0.04]; the bend improved the model, $x^2(1) = 9.97$, $p = .002$. The second null hypothesis is rejected. Coding time as the window's number would have reversed this (Figure 3): the middle window would have sat at the midpoint of the year, week 20.4, instead of week 15.8, and growth would have seemed to speed up, from 0.49 to 0.71 words a minute a week. With test dates, the straight-line model fitted better than with window numbers (AIC 26,080.8 against 26,170.1), and so did the model with the bend (26,072.9 against 26,110.7).

Figure 3

The Same Means With Time as Test Dates or as Window Numbers



Note. Solid: each window's mean placed at its mean test week; dashed: the middle window placed at the midpoint of the year, as window numbers would place it. Slopes from growth models with a bend at the middle window, maximum likelihood.

Background, Start, and Growth

Table 4 gives the conditional growth model. At the start, girls read 4.31 words a minute more than boys [2.57, 6.05], learners from 4Ps households 3.53 fewer [−5.36, −1.71], and learners whose home language was not Filipino or Tagalog 5.36 fewer [−7.15, −3.58]; Kindergarten attendance and age for grade were not significantly related to the start. The third null hypothesis is rejected for sex, 4Ps membership, and home language.

In growth, only 4Ps membership differed: learners from 4Ps households grew 0.095 words a minute a week more slowly than others [−0.149, −0.042], about 3.5 words a minute less over the year, so their gap widened (Figure 4). Learners with another home language grew 0.044 a week faster, which did not reach significance [−0.008, 0.096], p = .097, and girls' growth did not differ from boys', p = .255. A Wald test of the five growth terms together was significant, $x^2(5) = 17.45$, p = .004. The fourth null hypothesis is rejected for 4Ps membership only. Background explained 7.8% of the variance in starts and 1.7% of the variance in growth: most of the difference in how fast learners grew lay in something the records did not hold.

Table 4

The Conditional Growth Model

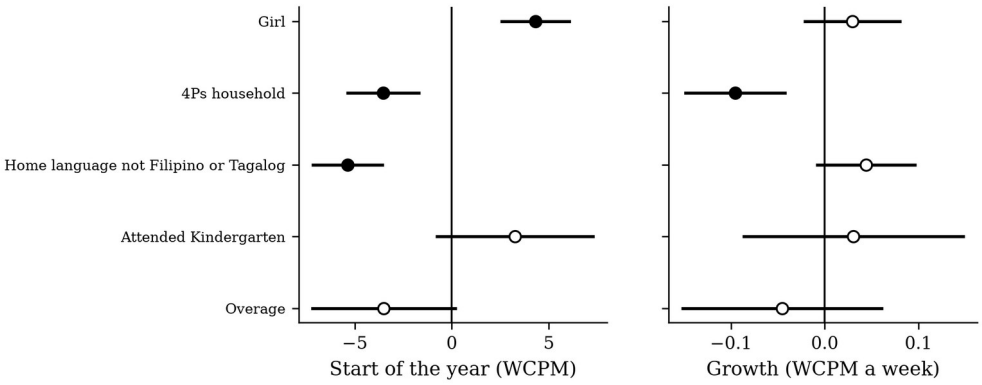
Term	Start (WCPM) [95% CI]	*p*	Growth (WCPM a week) [95% CI]	*p*
Average (boy, not 4Ps, Filipino or Tagalog at home, no Kindergarten, not overage)	15.30 [11.17, 19.43]	< .001	0.571 [0.451, 0.691]	< .001
Girl	4.31 [2.57, 6.05]	< .001	0.029 [−0.021, 0.080]	.255
4Ps household	−3.53 [−5.36, −1.71]	< .001	−0.095 [−0.149, −0.042]	< .001

Term	Start (WCPM) [95% CI]	*p*	Growth (WCPM a week) [95% CI]	*p*
Home language not Filipino or Tagalog	−5.36 [−7.15, −3.58]	< .001	0.044 [−0.008, 0.096]	.097
Attended Kindergarten	3.26 [−0.77, 7.28]	.113	0.031 [−0.086, 0.148]	.607
Overage	−3.50 [−7.16, 0.17]	.061	−0.045 [−0.151, 0.061]	.403

Note. 3,303 readings of 1,124 learners. Random intercepts and slopes for learners; restricted maximum likelihood. "Start" is the expected WCPM on the first day of classes; "Growth" changes the weekly rate.

Figure 4

Background and the Start and Growth of Reading



Note. Points and 95% intervals from the conditional growth model. Left: the start, in WCPM; right: growth, in WCPM a week.

Checks

The estimates held in the three checks (Table 5). With school fixed effects, or with schools as a third level, the 4Ps growth term stayed at −0.095 and −0.093 a week; schools held 9.5% of the variance in learners' starts (7.6% of the variance in readings on the first day of classes). Without the 227 learners who read no word correctly at the beginning of the year, the 4Ps growth term grew to −0.119 [−0.180, −0.058], and learners with another home language grew 0.077 a week faster [0.017, 0.137], a difference that the floor had hidden in the full model.

Table 5

The Growth Terms in Three Checks

Model	Girl	4Ps household	Home language not Filipino or Tagalog
Conditional growth model	0.029 [−0.021, 0.080]	−0.095 [−0.149, −0.042]	0.044 [−0.008, 0.096]
With school fixed effects	0.030 [−0.021, 0.080]	−0.095 [−0.148, −0.042]	0.044 [−0.008, 0.096]
Schools as a third level	0.028 [−0.021, 0.077]	−0.093 [−0.145, −0.041]	0.043 [−0.008, 0.095]
Without the 227 learners at zero at the beginning	0.032 [−0.026, 0.089]	−0.119 [−0.180, −0.058]	0.077 [0.017, 0.137]

Note. Growth terms in WCPM a week, with 95% intervals.

The Benchmark and the CRLA Profiles

By the end of the year, 48.3% of the learners read 40 words correct per minute or more: 53.7% of girls and 43.4% of boys, 38.2% of learners from 4Ps households and 53.7% of others. Their CRLA profiles moved up (Table 6): 11.4% read at grade level at the beginning of the year and 47.9% at the end, and 69.3% of the 1,085 learners with both profiles moved up at least one profile.

Table 6

CRLA Profiles at the Beginning and the End of the Year

Profile	Beginning of the year	End of the year
Low Emerging	22.2%	4.6%
High Emerging	16.0%	4.7%
Developing	23.8%	12.6%
Transitioning	26.7%	30.1%
Reading at Grade Level	11.4%	47.9%

Note. 1,124 learners at the beginning and 1,085 at the end. Profiles from the schools' CRLA records.

Discussion

Grade 2 learners in this division gained about 22 words a minute in Filipino over the year, from below 20 to about 40, the level the Basa Pilipinas evaluation found at the end of Grade 2 (Education Development Center, 2016, p. A22). The averages hide wide differences: some learners grew three to four times as fast as others, and background explained little of it. The growth was faster in the first months, as benchmark studies elsewhere found (Christ et al., 2010), and it took each learner's own test date to see it; window numbers would have shown the opposite.

The study found no sign that early differences shrank on their own. Learners who started higher grew at about the same rate as the rest, a correlation near zero, weaker than the small negative mean correlation a review of 25 years of studies reports (Pfost et al., 2014), and learners from 4Ps households, who started behind, also grew more slowly, so their gap widened over the year, the pattern Stanovich (1986) described. Learners whose home language was not Filipino or Tagalog started furthest behind but grew no slower, and, once the learners at the floor were set aside, faster, as language-minority learners' trajectories converged with those of their peers in a U.S. study (Kieffer, 2011). That the poverty marker, not the language, went with slower growth agrees with findings that economic disadvantage explains much of the growth gap attributed to language (Richardson et al., 2020).

Two cautions apply. The learners who started lowest joined ARAL-Reading tutorials, so their growth reflects tutoring as well as their start. And a fifth of the learners read nothing at the beginning; at zero, a fluency measure

cannot tell learners apart, and the check without them changed two growth terms.

Recommendations

1. **Read each learner's growth, not only the end-of-year profile.** The CRLA windows already give three points a year. Schools can record a one-minute reading at each window and look at each learner's gain, as DepEd already does for schools' CRLA results (DepEd, 2025c).
2. **Use the first half of the year.** Growth was fastest from June to October. Reading support that starts after the middle window misses the months when learners gained most.
3. **Watch learners from 4Ps households.** They started behind and fell further behind. Schools can check their progress at the middle window, alongside the ARAL-Reading list.
4. **Give non-readers a different measure.** A fifth of the learners read no word correctly at the beginning; the CRLA's beginning-of-year tasks (letters, sounds, decoding) describe them better than a passage.
5. **Study it further.** A study with four or more readings a year would show whether growth curves; one with classroom observations would show what lies behind the large differences in growth that background did not explain; and a trial would show whether ARAL-Reading changes growth.

Dissemination and Advocacy Plans

The findings will be shared with those who can act on them, in the forms each can use (Table 7).

Table 7

Dissemination and Advocacy Plan

Audience	Purpose	Channel	Timeline
School heads and reading coordinators	Use the CRLA windows to track each learner's growth; plan support in the first half of the year	Division school heads' conference; a two-page policy brief	November 2026
Grade 1 to 3 teachers	Time a one-minute reading at each window and read the gain	Learning action cell sessions in each school	January to February 2027
Division curriculum and ARAL focal persons	Watch learners from 4Ps households at the middle window	Division management committee meeting	December 2026
Researchers in the region	Share the method and the findings	Regional research congress; the division's research journal	March to June 2027

Note. The policy brief was paid from the grant's dissemination line (Financial Report).

References

An Act discontinuing the use of the mother tongue as medium of instruction from kindergarten to grade 3, providing for its optional implementation in monolingual classes, and amending for the purpose Sections 4 and 5 of Republic Act No. 10533, Republic Act No. 12027 (2024).

Christ, T. J., & Silberglitt, B. (2007). Estimates of the standard error of measurement for curriculum-based measures of oral reading fluency. *School Psychology Review, 36*(1), 130–146. https://doi.org/10.1080/02796015.2007.12087956

Christ, T. J., Silberglitt, B., Yeo, S., & Cormier, D. (2010). Curriculum-based measurement of oral reading: An evaluation of growth rates and seasonal effects among students served in general and special education. *School Psychology Review, 39*(3), 447–462. https://doi.org/10.1080/02796015.2010.12087765

Data Privacy Act of 2012, Republic Act No. 10173 (2012).

Department of Education. (2016). *Adoption of the Basic Education Research Agenda* (DepEd Order No. 39, s. 2016).

Department of Education. (2017). *Research management guidelines* (DepEd Order No. 16, s. 2017).

Department of Education. (2018). *Policy guidelines on the administration of the revised Philippine Informal Reading Inventory* (DepEd Order No. 14, s. 2018).

Department of Education. (2022). *Adopting tools to improve quality management of completed research at the Department of Education* (DepEd Memorandum No. 028, s. 2022).

Department of Education. (2025a). *Policy on the medium of instruction for Kindergarten to Grade 3 effective school year 2025-2026* (DepEd Order No. 020, s. 2025).

Department of Education. (2025b). *Implementing guidelines for the Academic Recovery and Accessible Learning Program in reading for key stages 1 to 3* (DepEd Memorandum No. 064, s. 2025).

Department of Education. (2025c). *Guidelines for the implementation of the 2025 Needs-Based Program Support Funds under the Bayang Bumabasa initiative* (DepEd Memorandum No. 111, s. 2025).

Department of Education. (2025d). *Multi-year implementing guidelines on the school calendar and activities* (DepEd Order No. 012, s. 2025).

Department of Education. (2026). *Foundational guidelines on artificial intelligence in basic education* (DepEd Order No. 003, s. 2026).

DeStefano, J., Cummiskey, C., & Pressley, J. (2014). *PhilEd Data II: Early grade reading assessment results: A cross-language look at MTB-MLE implementation in the Philippines*. RTI International.

Education Development Center. (2016). *USAID/Philippines Basa Pilipinas Program final outcome evaluation report: 2013-2016*. U.S. Agency for International Development.

Kieffer, M. J. (2011). Converging trajectories: Reading growth in language minority learners and their classmates, kindergarten to grade 8.

American Educational Research Journal, 48(5), 1187–1225. https://doi.org/10.3102/0002831211419490

Pfost, M., Hattie, J., Dörfler, T., & Artelt, C. (2014). Individual differences in reading development: A review of 25 years of empirical research on Matthew effects in reading. *Review of Educational Research, 84*(2), 203–244. https://doi.org/10.3102/0034654313509492

Pouezevara, S., Pressley, J., & Cummiskey, C. (2019). *2019 National Early Grade Reading Assessment (EGRA): English and Filipino, Grade 3 findings report*. RTI International for the U.S. Agency for International Development.

Richardson, R. D., Rocconi, L. M., & Crewdson, M. A. (2020). Evaluating English learner progress in reading: How much growth can we expect? *School Psychology Review, 49*(4), 480–492. https://doi.org/10.1080/2372966X.2020.1787080

RTI International. (2020). *ABC+: Advancing Basic Education in the Philippines baseline report*. U.S. Agency for International Development.

Seabold, S., & Perktold, J. (2010). Statsmodels: Econometric and statistical modeling with Python. In *Proceedings of the 9th Python in Science Conference* (pp. 92–96). https://doi.org/10.25080/Majora-92bf1922-011

Silberglitt, B., & Hintze, J. M. (2007). How much growth can we expect? A conditional analysis of R—CBM growth rates by level of performance. *Exceptional Children, 74*(1), 71–84. https://doi.org/10.1177/001440290707400104

Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780195152968.001.0001

Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly, 21*(4), 360–407. https://doi.org/10.1598/RRQ.21.4.1

USAID ABC+: Advancing Basic Education in the Philippines. (2023). *Comprehensive Rapid Literacy Assessment (CRLA)* [Briefer]. RTI International.

Financial Report

The study received a division-level Basic Education Research Fund grant of PhP 15,000.00, released in tranches: 40% (PhP 6,000.00) on the submission of the work plan and the instruments and 40% (PhP 6,000.00) on the submission of the data collection and initial findings; the last 20% (PhP 3,000.00) is released on the acceptance of this report (DepEd, 2017). Expenses totaled PhP 14,700.00, PhP 300.00 less than the grant. The analysis used free software, and the record check was done by the researchers' two assessors without honoraria.

Table 8

Statement of Expenses

Date	Particulars	Receipt or document	Amount (PhP)	Category
2025-05-09	Printing of the passages, score sheets and consent letters (2,600 pages)	OR 0472	2,600.00	Reproduction
2025-06-23 to 2026-03-18	Transportation to the 20 schools for the three windows (60 trips)	Itinerary and receipts	4,500.00	Transportation
2025-06-23 to 2026-03-18	Snacks for the reading days (assessors, three windows)	Receipts	2,400.00	Food
2025-05-15 to 2026-05-15	Mobile data for the three researchers	Receipts	3,000.00	Communication
2025-06-13	Stopwatches, folders, and an encrypted flash drive	OR 3310	1,000.00	Supplies
2026-11-09	Printing of the policy brief (60 copies)	OR 7704	1,200.00	Dissemination
	Total		14,700.00	

Note. Summary by category: transportation, PhP 4,500.00; communication, PhP 3,000.00; reproduction, PhP 2,600.00; food, PhP 2,400.00; dissemination, PhP 1,200.00; supplies, PhP 1,000.00.

Appendices

Appendix A. The Variables and Their Sources

Learner code (assigned by the school); sex, date of birth and home language (School Form 1 and the enrollment form); 4Ps membership (the enrollment form); Kindergarten attendance (the learner's permanent record); CRLA profile at the beginning and the end of the year and ARAL-Reading participation (the school's records); words correct per minute at each window and the test date (the study's score sheet). Derived: weeks from June 16, 2025 to each test date; overage (two or more years older than the official age for Grade 2).

Appendix B. The Score Sheet

For each learner, by code, at each window: the date; the passage (its set); the words read in one minute, the errors marked (omissions, substitutions, mispronunciations, and words the assessor supplied after three seconds), and the words correct per minute; the recording's file number. Self-corrections were counted as correct.

Appendix C. The CRLA Windows of SY 2025–2026

Beginning of the year: testing window June 16 to July 16, 2025 (DepEd, 2025d); the study read from June 23 to July 11. Middle of the year: "two (2) weeks before the second quarter examination" (DepEd, 2025b, Encl. No. 2, item 22), October 23 and 24, 2025; the study read from September 29 to October 10. End of the year: testing window February 18 to March 18, 2026, with the CRLA administered from March 9 to 20 (DepEd, 2025d); the study read from March 9 to 18.

Appendix D. Declaration of AI Use

We, the researchers, declare that we used [the name of the AI tool, as the researchers would give it] only to check the grammar of the English text of this report, for the purpose of finalizing the research study. The prompt used was: "Check the grammar of this paragraph. Do not change its meaning or add content." We have reviewed, edited, and understood all the content, and we take full accountability for it. No codes, records, or other data from the study were entered into the AI tool.