

Striving Readers Comprehensive Literacy (SRCL) Literacy for Learning, Living, and Leading in Georgia (L4GA)

2017 L4GA Cohort Evaluation Report

Authors

Gary E. Bingham, Ph.D.,

C. Kevin Fortner, Ph.D.,

Rihana S. Mason, Ph.D.

Prepared for:

Georgia Department of Education



Prepared By:

Urban Child Study Center
Georgia State University
College of Education and Human Development

1 Park Place, Suite 835

Atlanta, GA 30303



About the Evaluator

The Urban Child Study Center is an interdisciplinary research center in the College of Education and Human Development (CEHD) at Georgia State University. Researchers from across the CEHD work collaboratively with state and local educational and community agencies to address educational and social issues. The UCSC promotes the overall development and school success of children and youth in urban contexts through innovative, translational research that informs policy and practice. Leveraging the College's and University's talent and resources, UCSC focuses on children, families, school, and communities, particularly those underserved historically. We center racially equitable research and evaluation to address the complex challenges of our many partners. The UCSC uses a Research-Practice-Partnership (RPP) model in working with community and school agencies to support children, families, and teachers. Developing strong RPPs with community and educational entities ensures equitable research that is relevant to mission and goals of our many partners. Our RPP model ensures that we leverage the community and cultural expertise of practice-based partners in developing meaningful research questions, innovative research designs, and a shared power structure for disseminating findings.

Acknowledgments

This report is the outcome of a collaborative effort between numerous individuals serving as part of the Georgia State University external evaluation team at the UCSC and staff at the Georgia Department of Education. The Georgia State University external evaluation team would like to thank every graduate research assistant, LEA administrator, staff, and teacher who participated in our evaluation activities. We would like to express our gratitude for your contributions to the evaluation through surveys, interviews, and focus groups. We would also like to thank students who participated in multiple assessments each year.

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Executive Summary

The **Literacy for Learning, Living, and Leading in Georgia 2017 (L4GA)** program was implemented during the 2018-2019, 2019-2020, and 2020-2021 school years. L4GA Implementation for the 2017 cohort impacted 38 LEAs, 260 schools, and 180,876 students. LEAs engaged in a variety of activities including implementing participating in professional development activities, engaging in literacy instructional activities, assessing students' literacy skills at mandated timepoints, engaging parents in literacy activities, and collaborating with community partners. Data are only available on select LEAs on varying years of implementation due to a host of challenges. Between 2020 and 2021, project activities were severely impacted by the global COVID-19 pandemic.

What was the purpose of the evaluation?

We focused on two broad evaluation questions related to student achievement and L4GA implementation to better understand for whom the intervention was successful and what LEAs were doing to support student literacy learning and achievement.

What were our evaluation data sources?

A variety of data sources were utilized to examine L4GA program implementation and to examine student literacy growth across the PreK to 12th grade bands. Student achievement data, teacher surveys, LEA literacy plans, and interviews with LEA implementation leads provided the bulk of information presented in this report. See this figure for a description of data sources.

What did we learn?

Findings from the multiple data sources from this external evaluation point to key implementation and achievement outcomes for participating LEAs across the state of Georgia. Although data are only available on select LEAs on varying years of implementation, and project activities were severely impacted by the global COVID-19 pandemic, LEAs spent considerable time and energy engaged in activities to meet the literacy needs of their students.

Student Achievement

- Students across varying age ranges showed steady gains on a variety of literacy assessments.
- Student progress was most evident on static achievement benchmarks used to show end of year learning,
- Student progress on measures which use multiple timepoint benchmarks that change in difficulty across the school year, evidenced more limited growth.
- Levels of proficiency tended to decline in the older grades compared to elementary.

Implementation

- The most commonly adopted evidence-based curriculum was Bookworms.
- LEAs chose a variety of supplemental interventions and invested resources in teacher professional development
- LEA leaders discussed how they addressed students' literacy development by organizing experiences around a core number of literacy, mostly reading, routines.
- LEA staff and teacher perceptions of data and its usefulness were generally positive.
- Teachers' perceptions of their technological pedagogical content knowledge aligned with moderate to high levels of competence.

Why are these findings important?

Findings show LEA implementation progress and practices aligned with Georgia Department of Education (GADOE) state literacy plan. LEAs focused on a variety of activities designed to support students' access to literacy experiences at home and at school. LEA description of their work focused on supporting struggling students, a key focus of the grant, and on helping teachers engage in key literacy practices to support student learning. Positive student growth in the first year of implementation suggests progress on key literacy skills, despite the rate of change not keeping pace with suggested performance bands on one assessment. School disruptions because of COVID-19 made it difficult to fully examine implementation and student performance metrics during the later years of implementation.

Project Overview and Timeline

This report summarizes the **Literacy for Learning, Living, and Leading in Georgia 2017 (L4GA)** program for Year 1 (2018-2019), Year 2 (2019-2020), and Year 3 (2020-2021). This report represents analysis updates for student outcomes, teacher instructional practices, and LEA implementation. We summarize previously reported findings related to data utilization by teachers and LEA Planning related to COVID-19.



Note: LEAs are differently represented across the report based upon participation or availability of data sources.

LEA Overview

The LEAs who participated in the **Literacy for Learning, Living, and Leading in Georgia 2017 (L4GA)** program were selected through a competitive application process. LEAs received priority points for applications that included: (1) usage of evidence-based practices with a track record for improving student and teacher learning, (2), programming that includes community partnerships, and (3) the use of evidence-based interventions. LEAs ($n=38$) who were recommended for sub-grantee funding received final scores greater than or equal to 88 ($Min=88$; $Max=108$). This final score included competitive priority points 88 ($Min=2$; $Max=20$). LEAs were given flexibility around their choice of inclusion of schools. LEAs included schools categorized as birth to five, elementary, middle, and high schools. See Appendix A for a listing of deidentified LEAs with the number of corresponding participating schools. L4GA Implementation for the 2017 cohort impacted 38 LEAs, 260 schools, and 180,876 students.

Evaluation Areas of Emphasis & Research Questions

A three-tier evaluation approach was originally proposed to be implemented to investigate the benefits of the state of Georgia's continuous improvement cycle, positive impacts of L4GA on student learning, and to gauge the overall impact of L4GA. This included a regression discontinuity design that was proposed to estimate program effects on student learning. Our execution of the proposed research plan was frustrated by two factors. First, limited student-level data was made available by the GADOE to examine student learning. Hence, student outcome findings in this report are only for the 2018-2019 academic year. Second, the COVID-19 pandemic significantly impacted school functioning in ways that shifted intended evaluation priorities. As a result of the pandemic, surveys and interviews were used to examine implementation in place of in-person data collection. An overview of the multiple sources of data used in our external evaluation are displayed in Figure 1. Despite such challenges, the Georgia State University external evaluation team enacted activities related to two overarching evaluation questions that centered around the themes of student achievement and implementation. Student achievement questions focused on student performance on a number of mandated L4GA assessments and examined for whom the program was most successful (i.e., did certain students appear to benefit more than others?). Implementation questions focused on gaining an understanding of what LEAs were doing to support student literacy learning and achievement. Implementation methods included both surveys and interviews with L4GA LEA implementers. The following research questions were addressed.

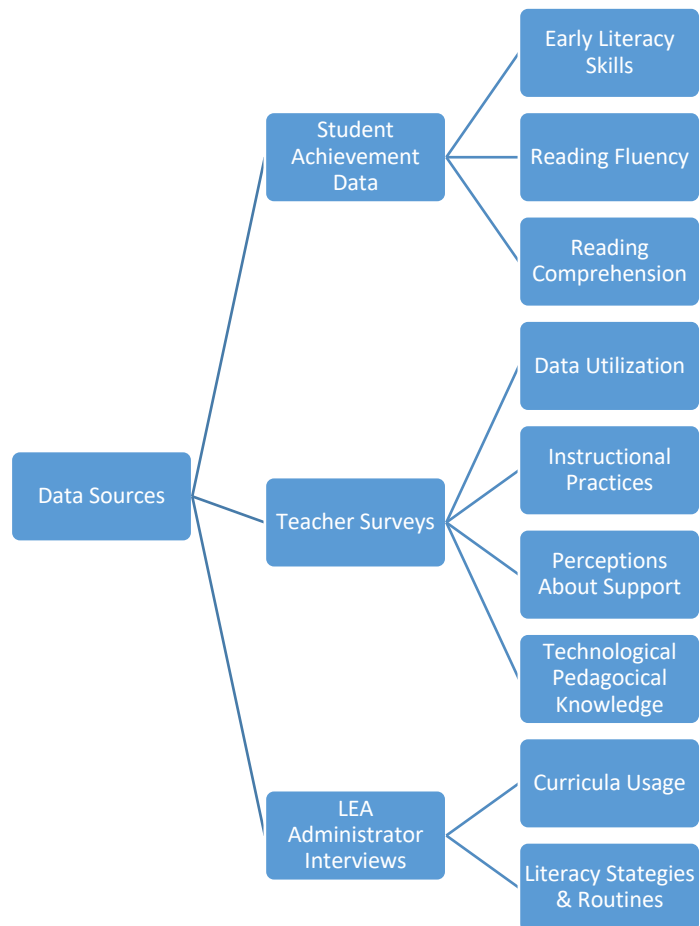
Student Achievement

- To what extent does participation in the L4GA program impact students' literacy achievement outcomes on state assessments in PreK, Kindergarten, and grades 3-8?
- To what extent does student improvement vary as a function of student demographic (i.e., economic disadvantage, race, sex, disability status, ELL status) and achievement (i.e., initial literacy scores) variables? (i.e., For whom was the program most successful?)

Implementation

- If programs improved student achievement, what specific mechanisms, strategies, and resources produced these gains?

Figure 1: Overview of Evaluation Data Sources



Part I: Student Achievement Outcomes

This section of the report discusses L4GA student outcomes data. We report information about the assessments, how this information was collected and analyzed, and present results. Results are disaggregated by assessment, with some further disaggregation by meaningful age band characteristics (i.e., middle vs. high school).

Data Sources

Several student-level project-specific measures (PSM) were collected as part of the external evaluation to assess literacy performance from preschool through 12th grades. Assessments were mandated by the GADOE as part of the grant award. Each measurement tool is briefly described below:



Peabody Picture Vocabulary Test 4th Edition (PPVT-4; Dunn & Dunn 2007)

The PPVT-4 was used as a measure of receptive vocabulary and was administered to students enrolled in birth to five programs (pre-kindergarten students). Form A was administered in the fall and Form B was administered in the spring. Children are assessed one-on-one by being asked to point to one of four pictures after hearing a verbal prompt. Designated personnel with appropriate credentials administered the PPVT either in classrooms or in designated areas within the school. After hearing a word, children were asked to point to the corresponding picture out of a grid of four pictures. Raw scores were converted into standard scores for all analyses.

Phonological Awareness Literacy Screening (PALS-PreK; Invernizzi, Juel, Swank, & Meir, 2004)

The PALS-PreK was used as a measure of fundamental early literacy skills for students enrolled in birth to five programs, who were primarily pre-kindergarten students. Fundamental skills included: phonological awareness, alphabet knowledge, knowledge of letter sounds, spelling, the concept of a word, name writing, and word recognition in isolation. PALS-PreK includes seven subtests which are listed in Table 1. Subtests were administered either one-on-one or in small groups by LEAs. Raw subtest scores were categorized into benchmark or spring expected scores based upon PALS-PreK recommendations. We spotlight three subtests (Upper Case Letters, Letter-Sounds, and Name Writing) due to their predictive validity with learning outcomes in later grades (January & Kingbell, 2020). Children were administered assessments individually by trained facilitators



Table 1. PALS Subtests By Skill Assessed

PALS Subtest	Basic Early Literacy Skill	Maximum Score	Spring Expected Ranges
*Upper Case Alphabet	Alphabet knowledge	26	12-21
Lower case Alphabet	Alphabet knowledge	26	9-17
Rhyme Awareness	Phonological Awareness	10	5-7
Nursery Rhyme Awareness	Phonological Awareness		
*Beginning Sound Awareness	Phoneme Awareness	10	5-8
Name Writing	Familiarity with Writing	7	5-7
Printed and Word Awareness	Concept of a Word, Word Recognition in Isolation	10	7-9

*We report growth on these measures only

Acadience Reading (Good et al. 2013-2019; formerly known as Dynamic Indicators of Basic Literacy Skills)

Acadience Reading was used as a measure of early literacy and reading skills in kindergarten through third-grade students. The basic early literacy and reading skills assessed by the measure include: phonemic awareness, phonics, accurate and fluent reading, vocabulary, and reading comprehension. Table 2 shows the list of subtests that were used as part of the L4GA Evaluation, subtests that were given to children at different grade bands, and the basic early literacy and/or reading skills it represents.

Table 2. Acadience Reading Subtests By Grade Level and Skill Assessed

Acadience Reading Subtest	Grade Assessed	Early Literacy/ Reading Skill	Fall Benchmark Score Range	Winter Benchmark Score Range	Spring Benchmark Score Range
*First Sound Fluency (FWF)	Kindergarten	Phonemic Awareness	10-15	30-42	
*Phoneme Segmentation Fluency (PSF)	Kindergarten	Phonemic Awareness		20-43	40-55
*Letter naming Fluency	Kindergarten	N/A			
*Nonsense Word Fluency (NWF)	Kindergarten	Phonics-Alphabetic Principle		17-47	28-39
	First Grade		27-33	43-58	58-80
	Second Grade		54-71		
Oral Reading Fluency (ORF)- Correct Words Per Minute (ORFA)	First Grade	Advanced Phonics Word Attack Skills		78%-85%	90%-96%
	Second Grade	Accurate and Fluent Reading of Connected Text		96%-98%	97%-98%
	Third Grade			96%-98%	97%-98%

*These measures were included in the Acadience Composite Score

Houghton Mifflin Harcourt Scholastic Reading Inventory (HMH-SRI, Houghton Mifflin, 2014)

The reading comprehension subtest of the HMH-SRI measures skills used to understand printed materials from a variety of genres. This computer adaptive assessment measures children's ability to (a) understand details about passages, (b) infer, (c) make comparisons, and (d) generalize information. The reading assessment was built using the Lexile Framework. The Lexile framework is a type of readability index for printed materials that consider semantic and syntactic complexity as a part of its formula (Stenner & Smith, 1982). Lexile scores range between 200L-1600L for printed text. We used standard scores and Lexile benchmarks. HMH-SRI was administered to students in grades 3-11.

Research Methodology

The original assessment plan intended to merge student-reported demographic information (already held in administrative records at GADOE) with the assessments implemented above using a unique project-specific id value for these analyses. Problems with consistent project-specific ids across the districts and GaDOE data restricted our ability to merge detailed student-level demographic variables with these assessment data. Included observations were limited to those with achievement data in both the fall and spring LEA data collection windows, reported to GaDOE, de-identified, and then transmitted to the evaluation team for analysis.

Strategy 1: Our initial approach to data reporting provides a standardized measure of student performance that can contextualize where students in the participating districts are scoring across measures relative to established benchmarks based on the full population of children of a given age or grade level. This benchmark is typically established by utilizing the assessment instrument with a normative sample of students. A normative sample is a group of students selected to provide an accurate representation of a specified population of students. For example, a normative sample might be a smaller group of hundreds or thousands of students whose characteristics are weighted to reflect the sample of all third-grade students attending schools in the United States in 2018-2019. A test developer can use assessment data from this normative sample of students to make inferences about the 'average' or typical performance level of students from the specified population on an assessment. These samples are used to establish benchmark performance levels that allow comparisons between individual students or a local population of students to determine how these students perform relative to the overall population.

The PALS subtests, Acadience Reading subtests, and HMH-SRI assessments provided benchmark performance cut-offs that allowed us to calculate the proportion of assessed students within an LEA that were performing at or above the specified cut-off level on each assessment or assessment subtest. The PALS and Acadience Reading benchmark cut-offs consider student's maturation over the course of the time periods assessed (fall, winter, and spring) and alter the expected performance level based on the date of the assessment (the expected performance of students is higher in the spring of the school year compared to the winter). This means that to increase the proportion of students meeting a specific benchmark level, students must be improving their skills at a rate that is faster than the expected average change in student skills over the time period. An apt comparison might be canoeing down a river. The river's current is helping all the canoes move downstream at an expected rate. Increasing proportions of students meeting one of these benchmarks means that the movement downstream is faster than the level obtained just by letting the current carry canoes further down the river.

The PPVT assessment does not provide a specific benchmark performance level for students but does adjust standard scores for student age -- meaning that a standard score of 100 for two students, one

age five years and two months and one age six years and seven months, indicates that their vocabulary knowledge is at the average level for persons of their precise age. For PPVT comparisons we calculated whether a given student’s standardized PPVT score was one standard deviation unit below average or higher than the average standardized PPVT score. (e.g., scores would range from 85-115). Using this standard, a random sample of individuals would have about 66 percent of students meeting this performance level.

For the HMH-SRI assessments, the performance level is fixed by grade over the course of the academic year and is not adjusted for expected students gains over the course of the academic year. This means that improvements in student scores in a specific grade are compared to a standard of performance that is the same in the fall of the school year as the spring. In other words, there is no assumed improvement of student performance on this assessment over the course of the school year. Instead, a higher proportion of students are expected to meet the benchmark performance level across the school year. Tables 1 and 2 in the Data Sources section provides detailed information on the benchmarks for each of the assessments and subtests utilized in this analysis. Data is shown in Figures 3-10.

Strategy 2: As an alternative, the evaluation team conducted a two-stage regression approach to adjust measures of student growth on outcome measures between fall and spring for differences in aggregated LEA demographics. In the first stage, we utilized a fixed-effects regression approach (xtreg using Stata MP 15.1) to regress spring test achievement on fall test achievement, grade level, and an LEA fixed effect to recover an estimate of each LEA’s unique contribution to the average test score growth between the two time periods. Each observation is an individual student achievement outcome. The LEA effects estimates were then used in the second-stage regression model described below. Separate models were executed for each of the student outcomes collected within the participating LEAs described above (PALS subtests, PPVT, Acadience Reading subtests, and HMH-SRI). This resulted in LEA effect estimates for 15 distinct outcomes (8 PALS subscales, the PPVT, 3 Acadience subscales, and 3 HMH-SRI grade level estimates (grades 3-5, 6-8, and 9-11).

After recovering these LEA effects, we executed a second-stage OLS regression with the LEA effect as the outcome variable and measures of aggregate LEA characteristics using school report card data from the 2018-19 school year publicly available from the Governor’s Office of Student Achievement (GOSA) as predictors. In the second-stage model, each LEA has a single effectiveness estimate for the 15 outcomes calculated from stage one which is merged with the LEA characteristics serving as controls. Controls included measures of LEA, teacher, and student characteristics in the districts. See Table 3 below:

Table 3. Control Measures used in Stage 2 OLS Regression Analyses for Student Outcomes

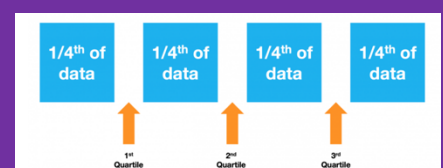
Measure Type	Measure (Proportion, Years, or Dollars)	Measure (Proportion, Years, or Dollars)
Student	Direct Certification (Economic Disadvantage)	Students with Absence rates between five and 15 percent
	Limited English Proficiency	Students with Absence rates above 15%
	Students with Disabilities	Student Mobility
Teacher	Inexperienced Teachers	Holders of Bachelor’s Degrees
	Years of Experience	Emergency Waiver
	Provisional Licensure	Out of Field Teaching
LEA	Per Pupil Expenditures	Average Daily Salary

The results of the stage-two model allow the generation of a predicted LEA effect for each outcome which adjusts these estimates based on the differences in LEAs in student composition (proportions of economically disadvantaged students (Direct Certification), limited English proficient, identified as having a disability, identified as absent between five and 15 percent of school days, identified as absent more than 15 percent of school days, and moved schools during the school year), teacher composition (proportions of inexperienced teachers, holders of bachelor's degrees, holders of provision licenses, holders of emergency waivers, teaching out of the field; and average years of experience), LEA financial resources (average per-pupil expenditures and average daily salary). By comparing the projected LEA effect to the actual LEA effect from our first stage model, we recover the residual regression value to finalize our estimate of LEA effects which is uncorrelated with the included LEA characteristics. For each analysis, the number of observations equals the number of LEAs reporting at least 10 complete student records for a specific outcome. Utilizing aggregated data allowed us to adjust district estimates for the modelled characteristics, but substantially impact the statistical power of models to detect differences in LEA characteristics correlated with student outcome gains. None of the control characteristics included in our models consistently met typical standards for statistical significance ($p < 0.05$), but are included due to their theorized relationships with student outcomes from the research literature. The values presented in this report are these LEA characteristics adjusted estimates of LEA effects on the change in student outcome scores between the fall of 2018 and the spring of 2019. Of note, an LEA effect of zero represents an LEA where student achievement gains on a particular measure are at the *average* of all LEAs reporting results on this measure, controlling for our included LEA covariates, the student's grade level, and the student's initial fall outcome score. LEAs with positive effects had greater test score gains, on average, compared to the other districts participating in L4GA. LEAs with 'negative' effects had lower test score gains, on average, compared to the other districts participating in L4GA. It does not mean that students were not improving their skills on these measures of students' achievement.

Analytic Plan

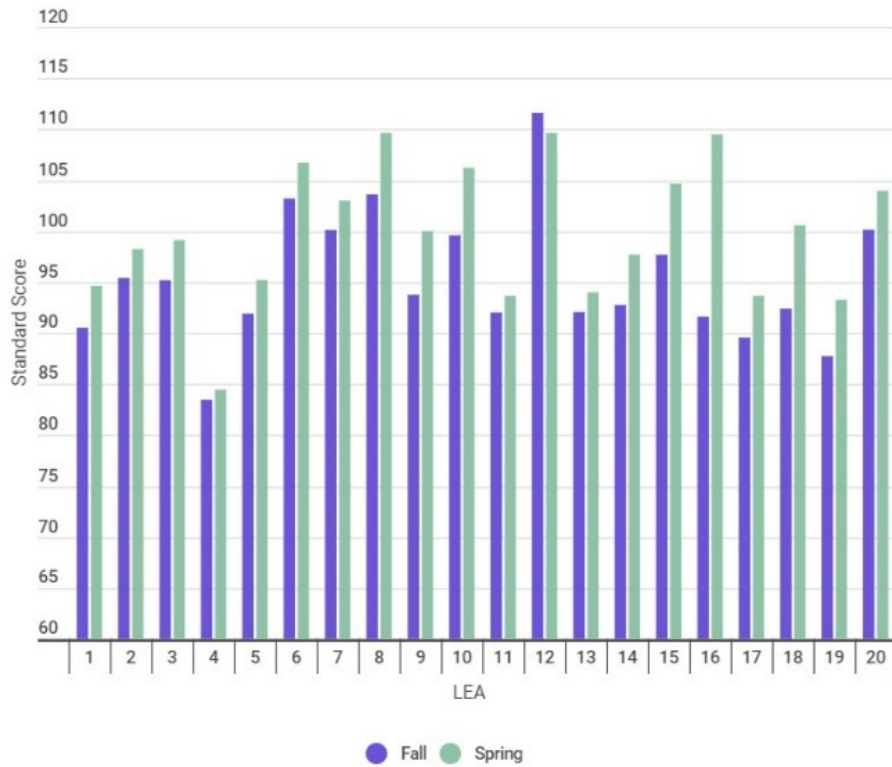
Student level outcome data were analyzed to examine student achievement across the 2018-2019 year. We executed separate analyses for each grade band and student outcome for which data was available. Since no single measure characterizes the literacy performance of all students within an LEA, we needed to develop an approach to combine the various grade band and assessment instrument results into an interpretable and reasonable measure of LEA performance. To identify LEAs which are recording the highest and lowest levels of student test score growth across measures, we placed LEAs into quartiles based on their adjusted lea effect for each measure. This provided a framework for assessing how often a particular LEA appeared in the top or bottom quartiles of student growth across all measures. Since some assessments had differing numbers of subscales within them, we weighted each of the major assessment types equally (i.e., all eight PALS subscales combined were weighted equally with the single PPVT scaled score and the RI scores for elementary grade students). We then calculated the proportion of the time that each LEA appeared in the top quartile of adjusted student growth across the six categories of student outcomes (PPVT PALS, Acadience Reading, RI-Elementary, RI-Middle, and RI-High School). If outcomes were completely randomly distributed, we should expect that any particular LEA would be in the top quartile of LEAs one-quarter of the time and the bottom quartile of LEAs one-quarter of the time. LEAs which far exceeded their expected proportions of appearances in the top or bottom quartile (≥ 50 percent of the time in the top or

Note: The use of quartiles divides the data observations equally into fourths.



bottom quartile) were characterized as over or underperforming relative to all treated LEAs participating in L4GA.

Figure 2: Standard Score Change on PPVT



Note: 3 Things to Keep In Mind When Looking at Figures 2-10.

- Data is from first year of implementation
- Incomplete data from all districts - Changing participants/LEA
- Various Scales and Scaling

Figure 3: The proportion of students meeting benchmark PALS Upper Case Letter Knowledge

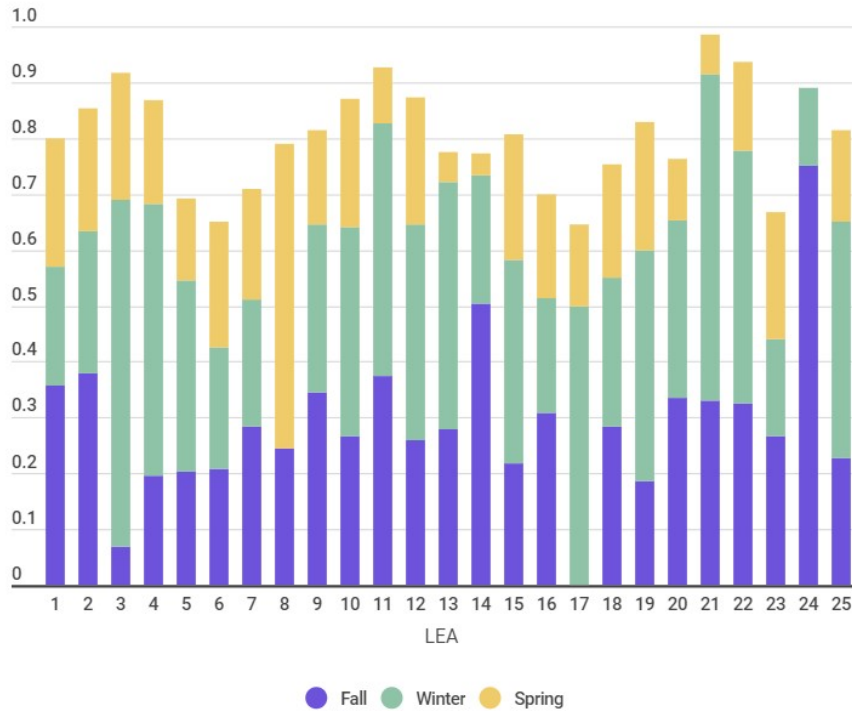


Figure 4. The proportion of students meeting benchmark PALS-Pre-K Letter Sound Awareness

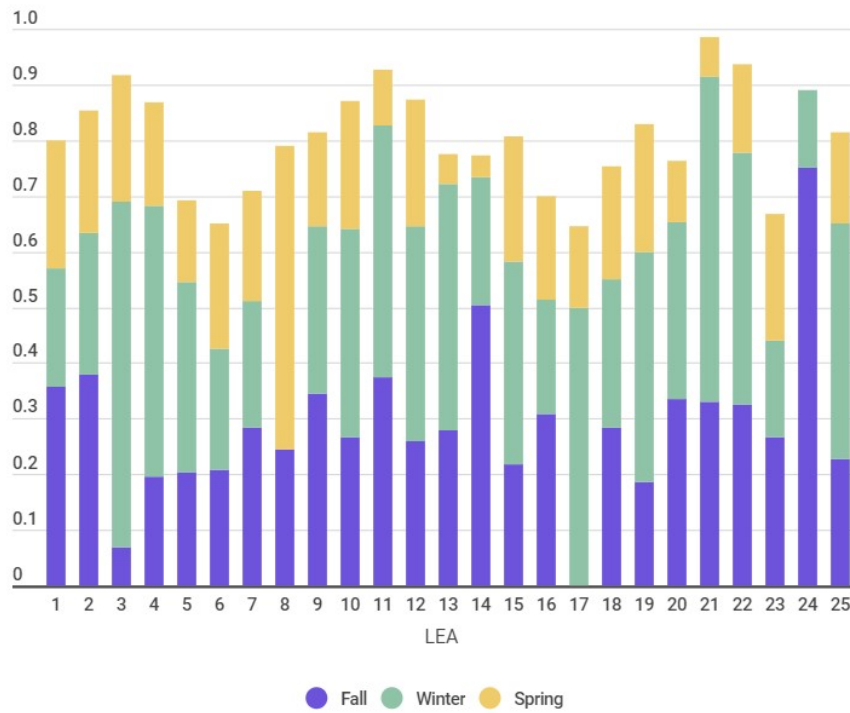


Figure 5. The proportion of students meeting Benchmark on Acadience Composite

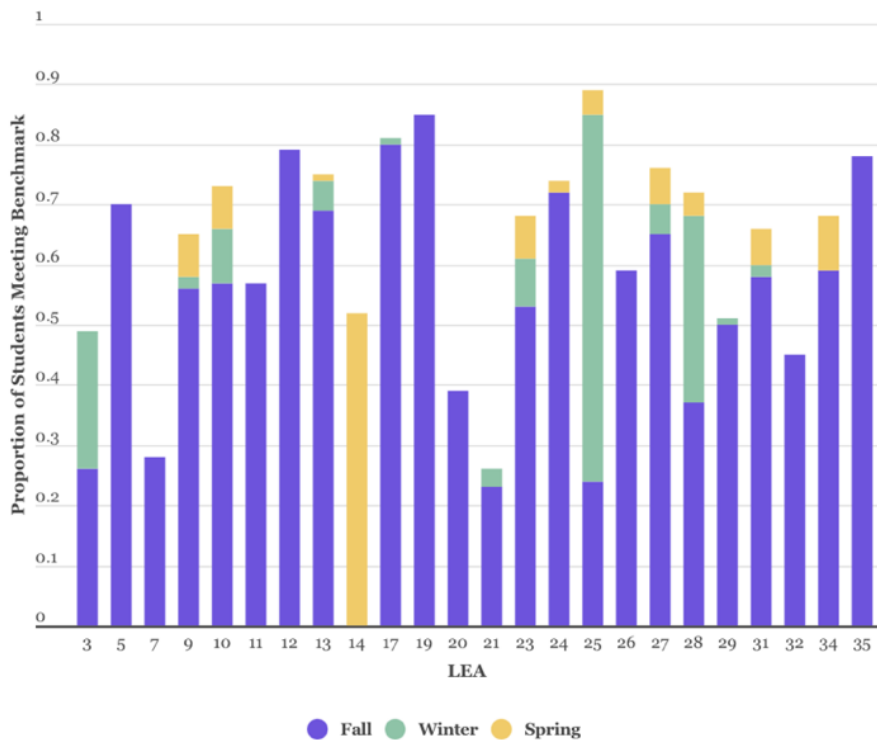


Figure 6. The proportion of students meeting Benchmark on Acadience Oral Reading Fluency (Accuracy)

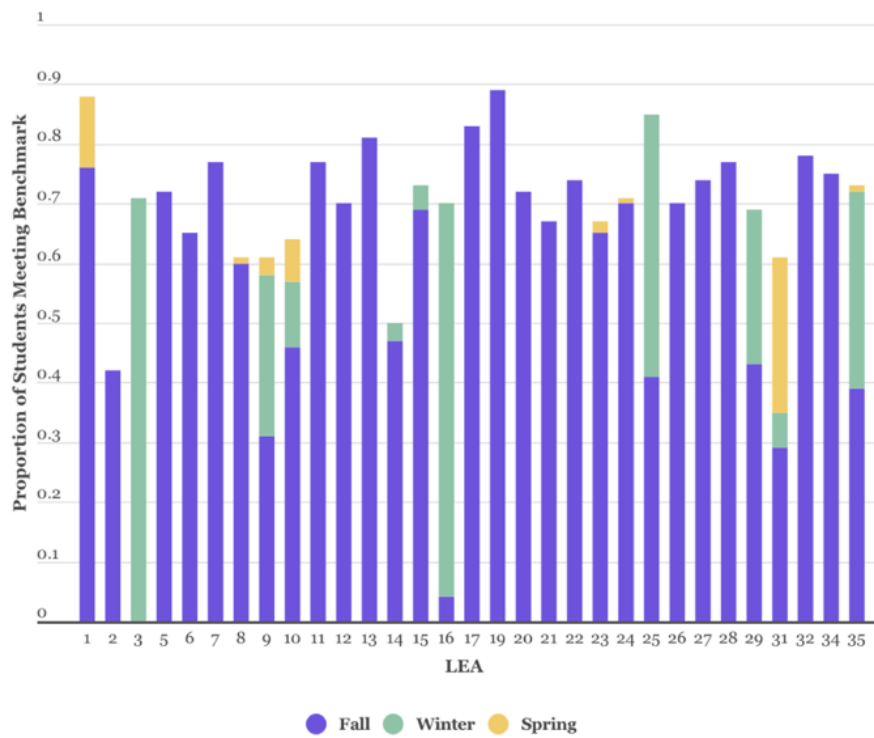


Figure 7. The proportion of students meeting Benchmark on Acadience Oral Reading Fluency

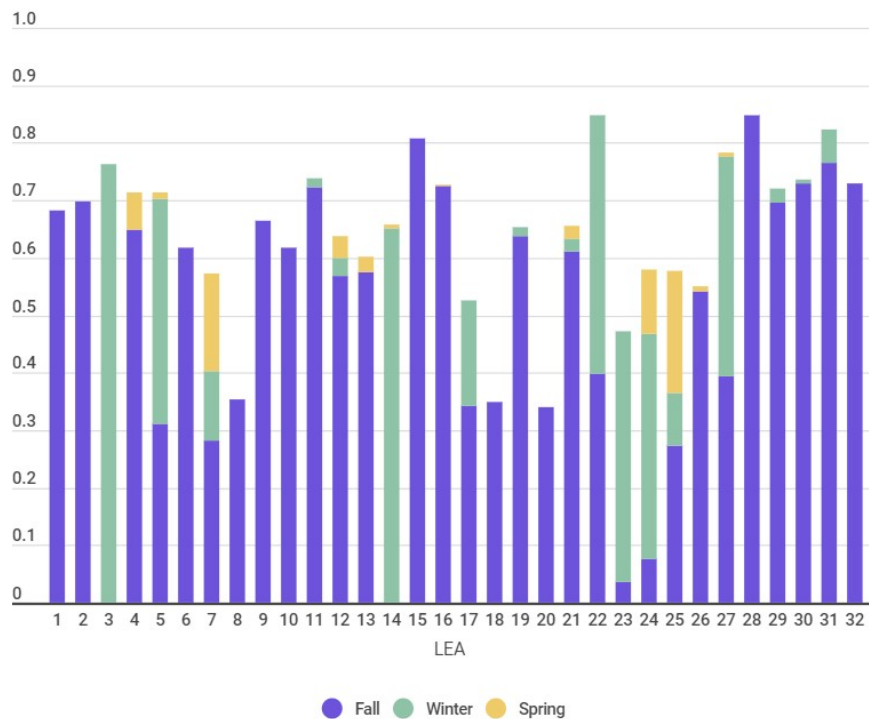


Figure 8. The proportion of third-grade students meeting benchmark on RI

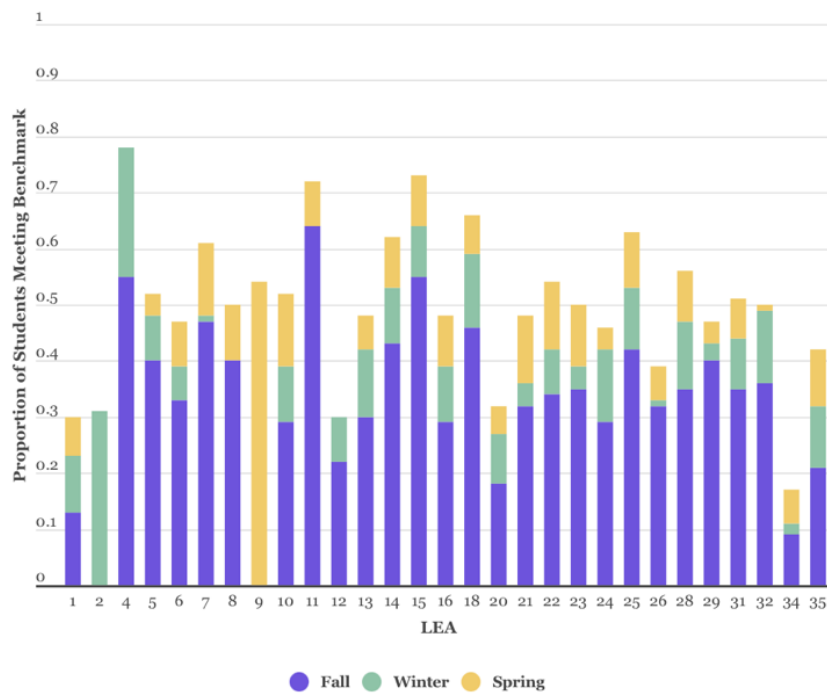


Figure 9. The proportion of Middle School students meeting benchmark on RI

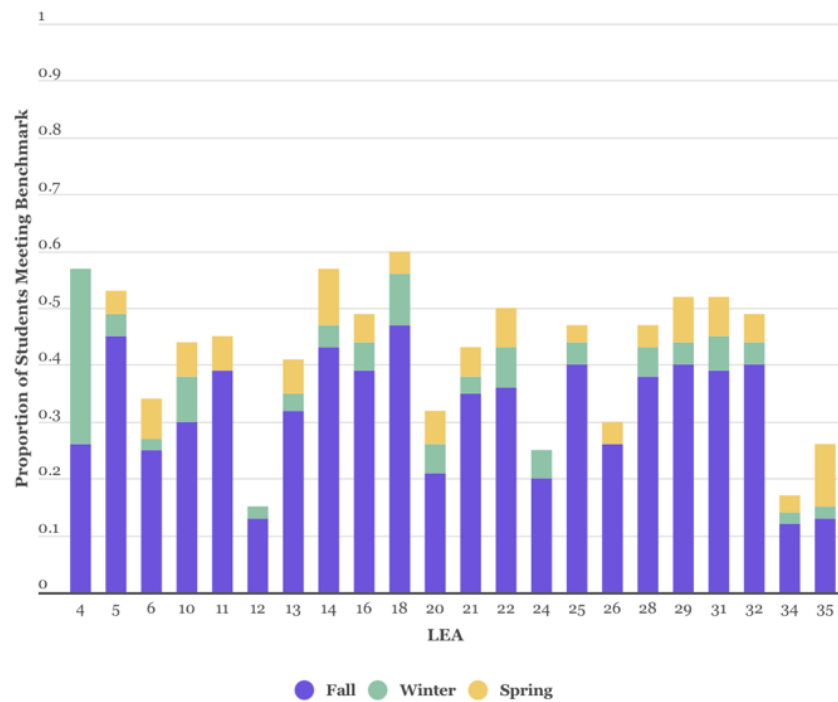
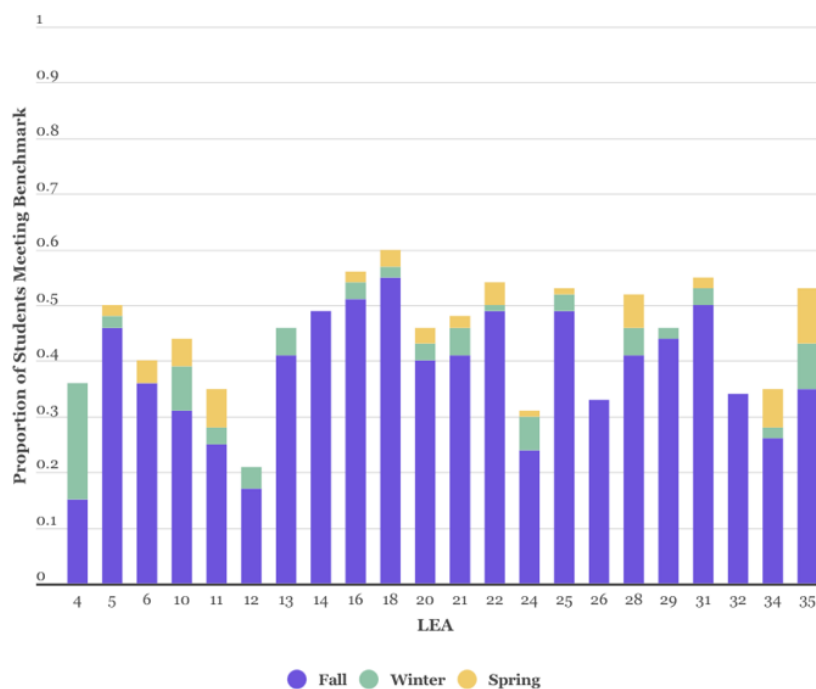


Figure 10. The proportion of High School students meeting the benchmark on RI



Note: Georgia’s Striving Readers grant (2011-2016) resulted in growth across 100% of participating pre-schools, elementary schools, and middle schools and 87%+ participating high schools

Finding 1: Preschool student performance showed gains from fall to spring.

- Many LEAs with reported data showed significant changes in the preschool children’s receptive vocabulary performance (>4 PPVT standard score points) from fall to spring.
- Many LEAs with reported data showed changes in letter knowledge and sound awareness across the year with rapid growth from fall to winter and some growth from winter to spring.

Finding 2: Elementary students showed gains in reading performance with a few exceptions.

- Most LEAs with reported data maintained elementary students entering levels oral reading fluency performance. A few LEAs demonstrated sizeable gains from fall to winter and winter to spring. However, because Acadience changes the benchmarks across the school year to keep pace with anticipated growth, many LEAs did not show growth in the number of proficient students across the winter and spring timepoints.
- Among third-graders, gains were observed from fall to winter and winter to spring. LEAs improved with reported data from 44% of students meeting the proficiency benchmark on RI to an average of 60% meeting the benchmark on RI in the spring.

Finding 3: Middle and high school showed small gains in reading performance.

- Among middle and high school students with reported data gains were small from fall to spring.
- Among middle school students the percentage of students meeting the proficiency benchmark on RI increased from 36 to 46 percent across all LEAs.
- For high school students the increase was from about 43 to 48 percent.
- On average, less than half of students in grades six through 11 met the proficiency standard for reading performance on RI at the end of the school year. At the end of spring, 77 percent of middle school students and 74 percent of high school students met the basic benchmark on the RI assessment.

Part II: Data Utilization

Full implementation of a continuous improvement model with multiple tiered systems of support relies on effective data use by administrators, teachers, and support staff within LEAs. Data driven decision-making can be advantageous for supporting organizational learning and capacity when guided by the consideration of multiple data sources (Datnow & Hubbard 2016). Since L4GA includes a number of formative and summative assessments and data utilization is at the heart of effective instruction, we examined attitudes related to these assessments and their usefulness among LEA personnel. Mandinach's and Gunmer's (2016) framework was used to inform the creation of survey items. Their framework is based on the assumptions that beliefs guide the actions involved in data driven decision making and beliefs and actions are related to student-level outcomes.

Data Sources

The Data Utilization Survey (DUS) was designed to explore educators' attitudes about using data, resources, and professional support related to L4GA mandated and other assessments adopted to inform instructional practices. The Teacher Data Use Survey from the Appalachia Regional Educational Laboratory Program (REL) (Wayman, Wilkerson, Cho, Mandinach & Supovitz, 2014) was adapted and used as the L4GA Data Utilization Survey. The DUS is a self-report measure of four components related to how data is used across educational settings:

- Educators' attitudes towards data
- Educators' attitudes and actions related to L4GA assessment data
- Educators' collaboration around data
- Organizational supports available to teachers



Research Methodology

The DUS was created and administered to 37 local education agencies (LEAs) using the online survey platform Qualtrics. Participants ($n=1,061$) included teachers and school staff with the greatest number of respondents identifying as teachers (67.5 percent). To learn more about the survey methodology and characteristics of respondents, please refer to the published report online titled, *Living, Learning, Leading for Life Evaluation (L4GA) Data Utilization Report* (Bingham, Mason, & Fortner, 2019)



Analytic Plan

The evaluation team adapted the survey and modified survey items to reflect the specific needs of L4GA implementation (i.e., adding L4GA specific assessments and data for respondents to reflect on) and to align with one of these five components. In addition, the survey was modified to be relevant for a wide range of L4GA respondents beyond simply classroom teachers. Hence, it was made applicable to district central-office staff, school administrators and school support staff to complete. The survey assessed the frequency of certain data-related activities, the degree to which respondents found organizational support useful, and the degree to which respondents agreed with statements related to components of the framework. We also analyzed differences in attitudes towards data between prior and new grantees. The intent of this last analysis was to determine if districts that had previously been using L4GA related assessments were implementing at a higher level than districts who were implementing for the first time. Figures 11 to 14 visually display these data.

Figure 11: Respondents' Attitudes Towards Data By Role

Percent of respondents who strongly agree or moderately agree with the statement

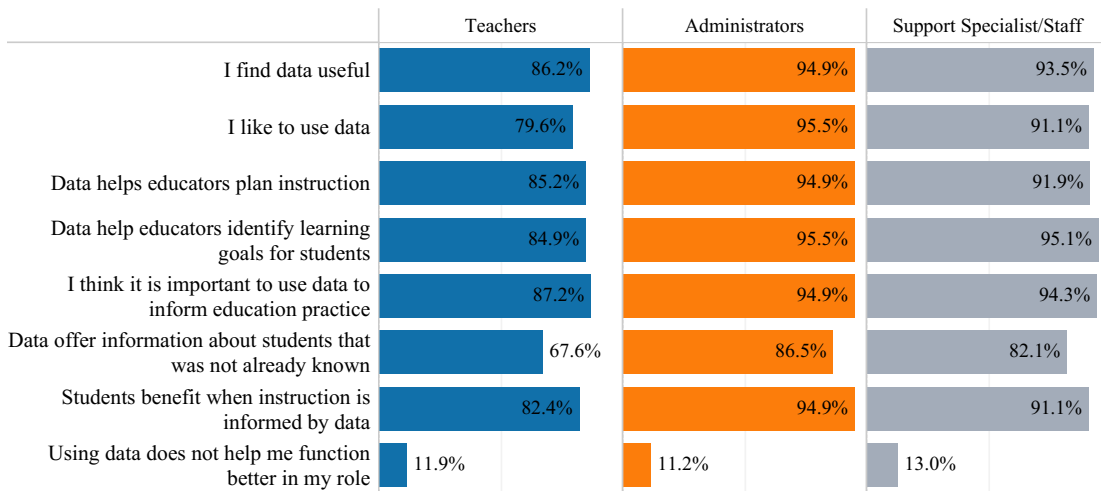


Figure 12: Teachers' Attitudes Towards Data by Grade Level

Percent of respondents who strongly agree or moderately agree with the statement

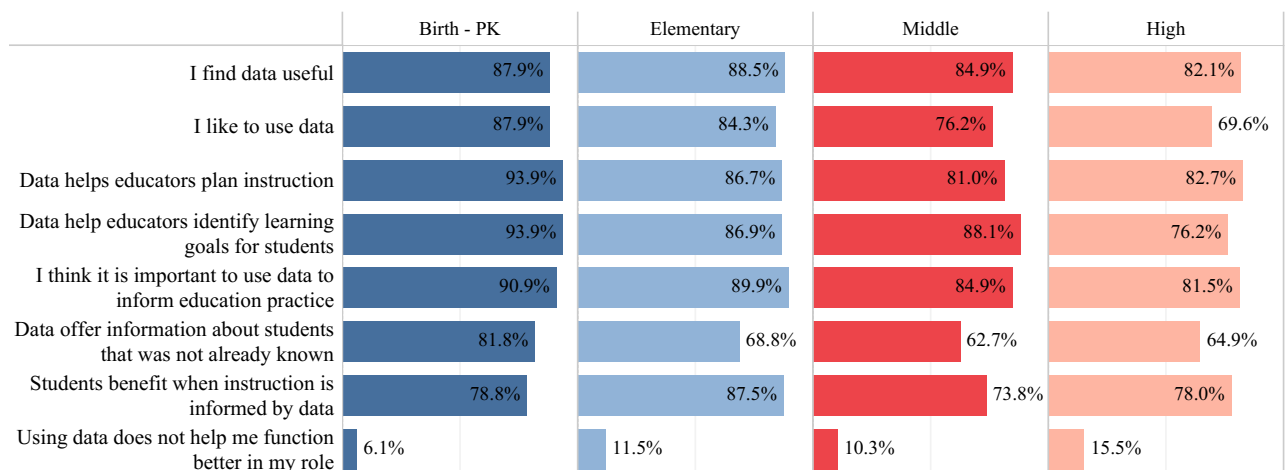


Figure 13: Frequency of L4GA Data Use in the Past Year

Percent of respondents who report doing each activity at least once a month

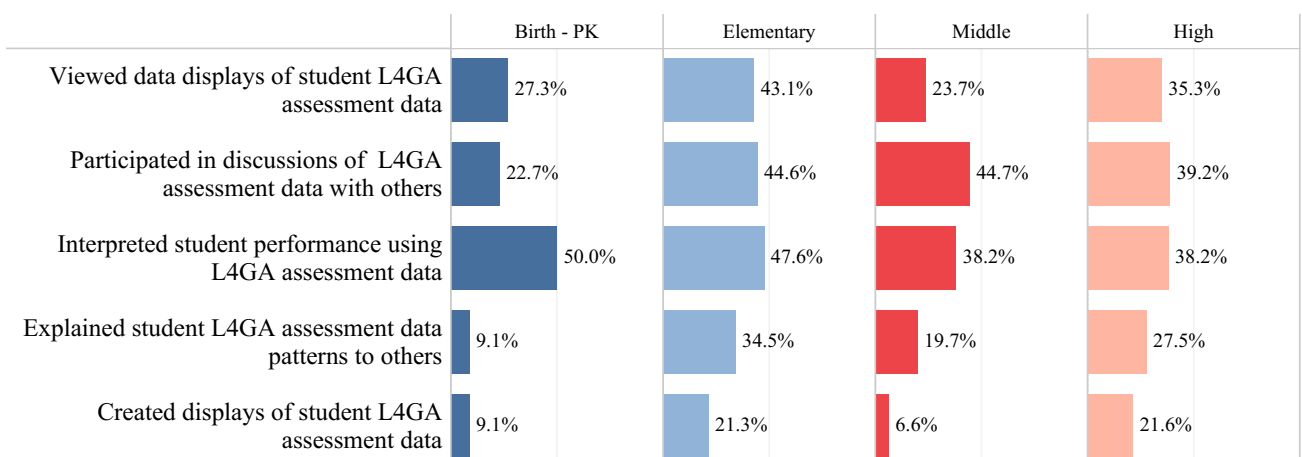


Figure 14: Usefulness of Supports provided by LEA of School By Grade Levels

Percent of respondents who find support extremely useful or very useful

	Birth - PK	Elementary	Middle	High
District or school provides someone who can help me access the L4GA assessment data I need	81.8%	63.7%	74.3%	58.2%
District or school provides someone who helps me address the needs of individual students by connecting L4GA assessment data to practice	76.2%	61.6%	48.6%	54.8%
District or school provides someone who models effective techniques on how to adjust instruction based upon my L4GA assessment data	75.0%	58.8%	60.3%	56.5%
School created policies for when teachers should work with L4GA data	66.7%	56.0%	47.1%	54.2%
School created policies that indicate what should occur during time dedicated to using L4GA assessment data	50.0%	61.3%	56.1%	55.6%

Finding 1: Generally, LEA staff have positive attitudes regarding the use of data and data’s role in supporting pedagogical practices.

- Staff perceptions of the usefulness of data vary across role; generally, administrators and support staff had higher perceptions of data’s usefulness compared to teachers.

Finding 2: Organizational supports were helpful across LEAS with a few exceptions.

- While most teachers reported receiving organizational support on L4GA assessment data, teachers did not find the support or professional development to be useful.
- Respondents suggest that a culture of collaboration on data use exists within their team, however, administrators were more likely than teachers to report such collaboration exists.

Finding 3: Teachers in earlier grade bands (B-5 and elementary) have positive perceptions of data.

- Among teachers, those working with older students report less confidence in the usefulness of data; generally, early childhood and elementary teachers have a more positive perception of data and data’s role in influencing student outcomes.

Finding 4: Participation in past Striving Reading funding initiatives impacted perceptions of the usefulness of data.

- Among teachers, those working at schools that previously participated in the Striving Readers Grant had higher perceptions of data’s usefulness when compared to teachers at schools that did not participate in the grant.

Part III: Teacher Instructional Practices

A survey was designed and administered online through Qualtrics to assess teachers' self-reported instructional practices. Teachers were asked to respond to a variety of questions that were organized by age band. Once teachers indicated their respective age band, they were presented with a series of questions that were designed to examine literacy routines and practices.

Respondents

The online survey was distributed to LEA L4GA leaders. LEA leaders were asked to distribute the survey to their respective schools. LEA leaders were instructed to share with staff who were involved with the L4GA project (i.e., instructional coaches, teachers). A total of 2,083 teachers completed the online survey during the Spring and Summer of 2021. Figure 15a gives a breakdown of all participating teachers while Figure 15b provides the experience level of those who completed the survey. As indicated by the figure, most respondents were elementary school teachers while there was a relatively even split between middle and high school. A smaller percent of early childhood education teachers completed the survey. Teachers were quite experienced in providing instruction in their current age band.

Figure 15A: Grade Level bands for Teachers participating in the survey

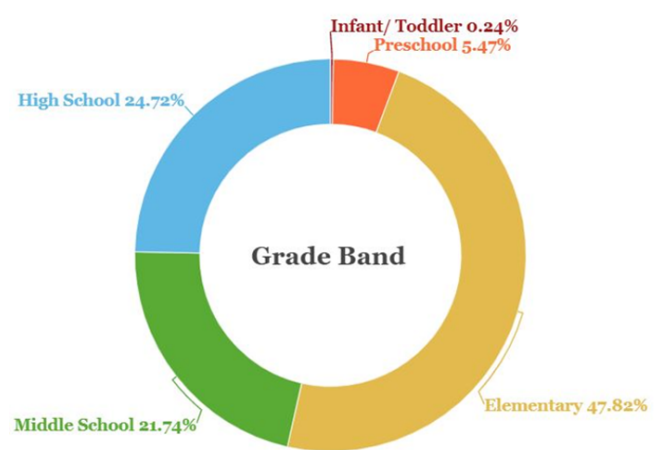


Figure 15 B. Teachers' Level of Experience



The survey was structured to elicit teachers' perceptions about several areas focused on L4GA implementation and in relation to COVID-19. The following areas were assessed.



- Modality of instruction (2020-2021 Academic Year) & Impacts of COVID-19
- Instructional Routines and Practices
- Use of Assessment to Inform Instructional Practice
- Administrative Supports
- Teacher Self-Efficacy

Survey questions relating to perceptions were asked using varying scales. Table 4. shows the question types, scales, and published sources used in the survey.

Table 4. Teacher Survey Item Category and Scale Description

Item Category	Scale	Published Source
Modality of Instruction (2020-2021 Academic Year)	Fully in-person, hybrid instruction, fully online instruction, none (on-leave, retired), other	Hanover Research (2020)
Modality of Instruction (Satisfaction)	Dissatisfied, somewhat dissatisfied, neither dissatisfied or satisfied, somewhat satisfied, satisfied	
Instructional Practices Frequency (dosage)	No time, half hour or less, about one hour, about two hours, about three hours or more	Graham et al., 2012, 2016; Hamilton et al., 2009; Lee et al., 2020; Kamil et al., 2008
Instructional Routines Frequency (dosage)	Never, Several times/year, monthly, several times/month, weekly, several times/week, daily, several times/day	
Assessment to Inform Instruction	Never, once a year, a few times a year, once a month, 2-3 times a month, once a week, once daily	Wayman, Wilkerson, Cho, Mandinach & Supovitz, 2014
Administrative Supports	Strongly disagree, moderately disagree, slightly disagree, slightly agree, moderately agree, strongly agree	Evaluator-designed
Teacher Self-Efficacy	Never, very rarely, rarely, occasionally, very frequently, always	Tschannen-Moran & Johnson (2011)

Analytic Plan

Survey data was examined descriptively for both global and grade level trends for instructional modality and administrative supports are reported for all teachers globally. Instructional practices and routines were disaggregated by grade level to draw attention to the developmentally appropriate instructional practices. Results are presented by construct or area of focus.

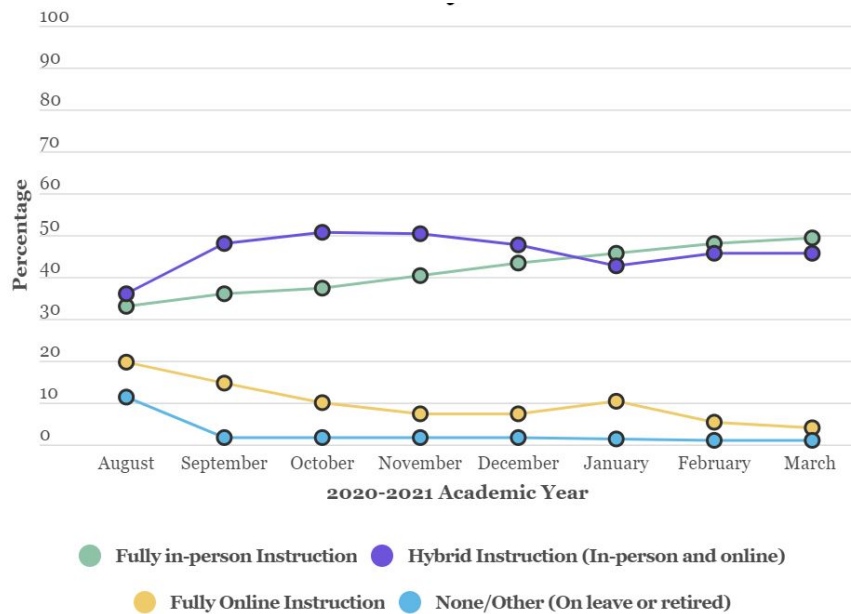
Modality of Instruction

Teachers were asked about their modality of instruction during the 2020-2021 academic year. Figure 16 shows that during August through December 2020, the most common instructional modality was hybrid instruction, a combination of in-person and online teaching. Throughout the first half of the school year, the usage of hybrid instruction ranged from around 35% to 50% of teachers. From January to March 2021, fully in-person instruction became slightly more frequent compared to hybrid instruction, with hybrid instruction decreasing slightly in intensity. Throughout the entire school year, the use of fully in-person instruction steadily increased over time, from less than 35% in August to about 50% in March. This trend is consistent with the rise in positive coronavirus cases and LEA decisions to reduce the likelihood of community spread via in-person instruction.

The top two most used modalities of instruction were fully in-person instruction and hybrid instruction. Both types of instruction were used by at least 30% of teachers at any given time throughout the academic year. Fully online instruction was less popular and decreased in use over

time from about 20% of teachers in August to about 5% of teachers in March. In August of the school year, approximately 10% of teachers reported being on leave or retiring and this fell to 1% in subsequent months.

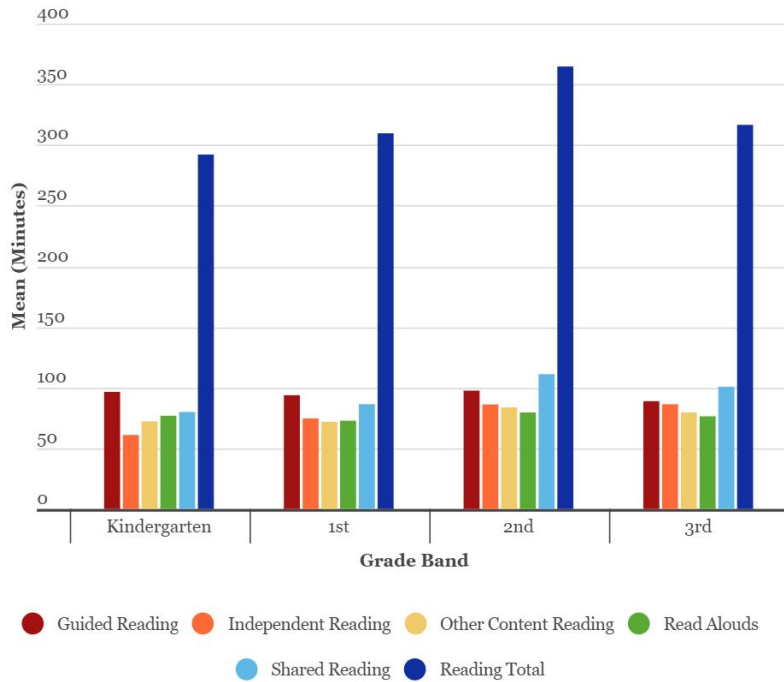
Figure 16. Teacher Self-Reported Modality of Instruction 2020-2021 Academic Year: 2017 Cohort



Instructional Practices

Teachers were asked to respond to a series of questions that asked about how frequently they engaged in commonplace literacy instructional routines. These routines are common in the elementary English Language Arts classrooms and tend to remain relatively constant despite differences in terminology (i.e., differentiated reading versus guided reading). Data are presented separately for reading-focused routines and writing-focused routines in Figures 17-18. As evidenced in these figures, self-reported reading-related activities heavily outweighed writing-focused instructional routines, a finding that aligns with previous research (Bingham & Hall-Kenyon, 2013). The heavy emphasis on reading-focused instructional practices is understandable given the focus of L4GA but unfortunate given ample research demonstrating the important connection between reading and writing development (Graham, 2020).

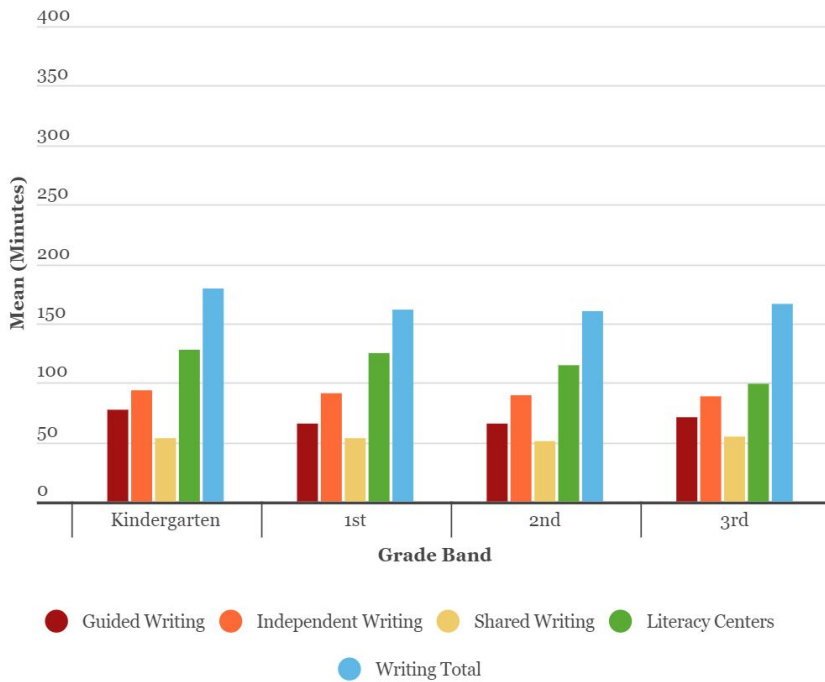
Figure 17. Amount of Time Spent Weekly on Reading Instructional Activities



Note: Teachers reported that students grade 1-3 received more than 300 total minutes (5 hours) of reading instructional time across the week.



Figure 18. Amount of Time Spent Weekly on Writing Instructional Activities



Note: Teachers reported that students grades K-3 received more than 150 minutes of writing instructional time across the week.



Finding 1: Elementary teachers spent more time engaged in reading-related activities compared to writing-related instructional activities.

- Elementary teachers spent the most time engaged in shared, guided reading, and independent reading.
- Elementary teachers spent the most time engaged in writing related literacy centers.

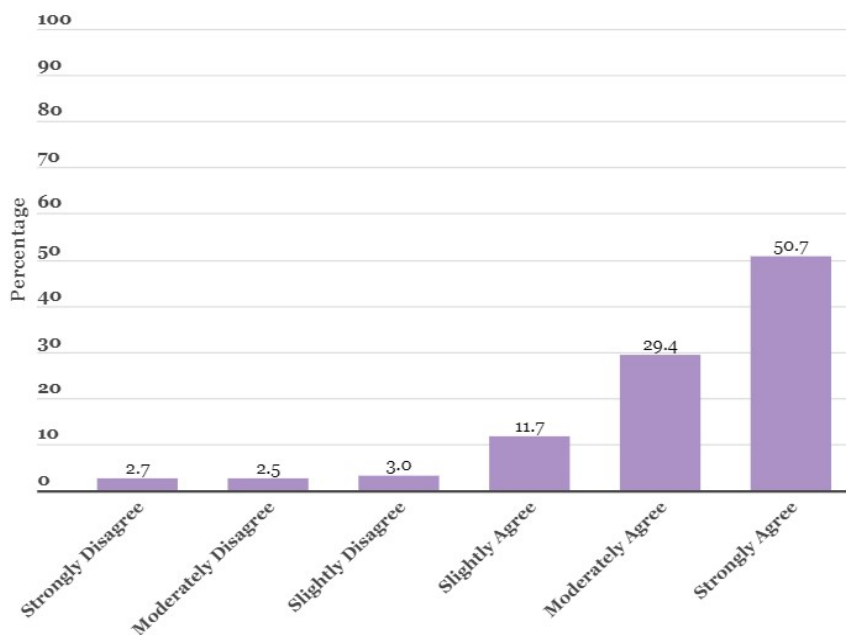
Finding 2: Elementary teachers spent more time engaged in reading-related activities compared to writing-related instructional activities.

- Teachers spent twice as much time on reading instructional activities (>300 minutes weekly) compared to writing instructional activities (>150 minutes weekly). These findings align with national trends showing much less time is dedicated to writing instruction in US schools.

Perceptions of Administrative Support

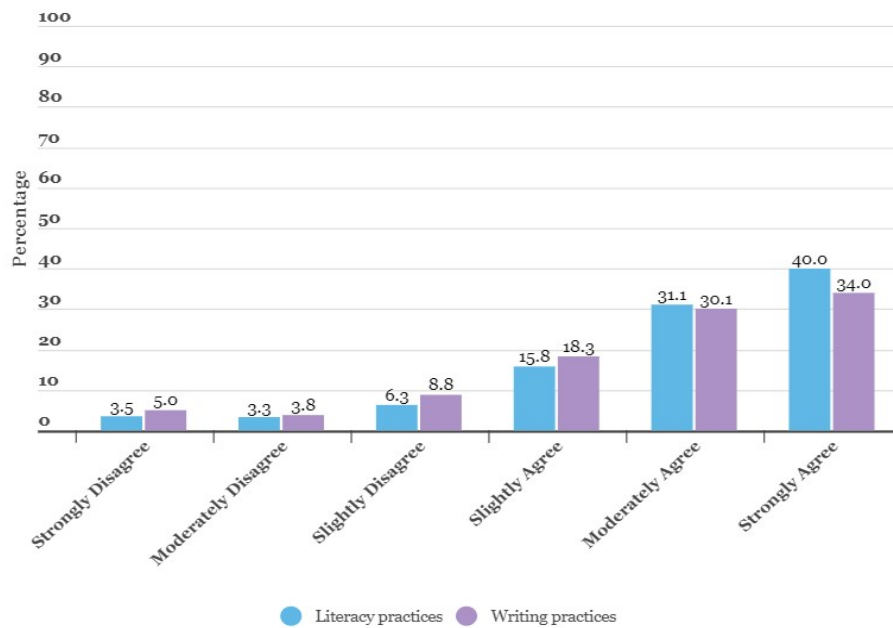
Teachers were also asked to respond to questions about the nature of professional supports they received to implement literacy instructional practices. Three questions focused on their (a) perceived support from school administrators, (b) adequate professional learning opportunities to engage in evidenced-based practices, and adequate time to implement reading and writing activities. As can be seen by Figures 19-22, teachers generally strongly or moderately agreed with these statements, suggesting that they felt they had adequate levels of support to learn new approaches. It is important to note that there is some variation in responses, suggesting that some teachers felt relatively unsupported or felt like they did not have adequate time to address the literacy needs of their students.

Figure 19. Teachers' Self-Reported Perception of Support from School Administrators to Implement Evidence-Based Literacy Practices



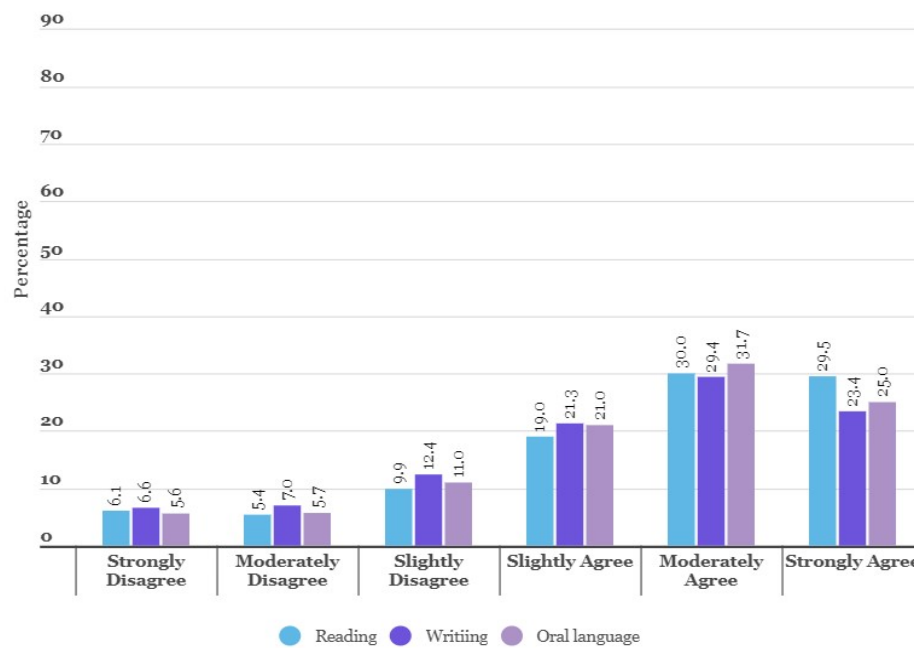
80% of teachers moderately or strongly agreed with the statement "I have had adequate support from my school-level administrators to implement evidenced based literacy practices."

Figure 20. Teachers' Self-Reported Perception of Professional Development to Support Evidenced Based Practices



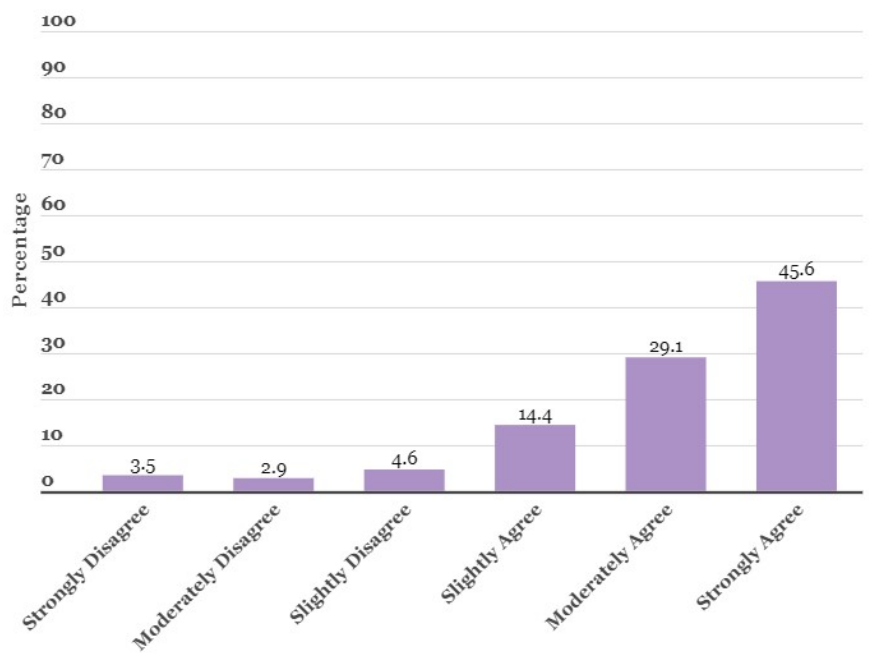
71.1% and 64.1% of teacher moderately or strongly agreed with the statement "I have had adequate professional development to successfully implement evidenced based reading/writing practices."

Figure 21. Teachers' Self-Reported Perception of Time to Address Literacy Related Needs of Students



The majority of teachers agreed that they had adequate time to address the reading/writing/ oral language needs of their students.

Figure 22. Teachers’ Self-Reported of Support from School Administrators to Address Literacy Related Needs of Students who are *not* Reading on Grade Level



74.7% of teachers moderately or strongly agreed with the statement, “I have had adequate support from my school-level administrators to meet the needs of students who are not reading on grade level.”

Finding 1: Teachers’ perceptions of administrative support to implement evidenced-based literacy practices were favorable (i.e. ratings of moderately agree and strongly agree)

- Teachers overwhelmingly agreed (79.4%) that they received support from school-level administrators to implement evidenced-based literacy practices.
- Teachers also overwhelmingly agreed (74.7%) that they received support to meet the needs of students who not reading on grade level.
- Teachers’ perceptions of support for meeting the needs of students who were not writing on grade level were favourable (68.8%) but slightly less than reading.

Finding 2: More than half of teachers self-reported that they had professional development support

- Teachers generally agreed that they had professional development support to address both reading and writing related needs of students.
- Teachers more strongly agreed that they had support to implement literacy strategies (71%) compared to writing strategies (64%).

Finding 3: More than half of teachers self-reported that they had time to address the literacy needs of their students.

- The highest level of agreement (i.e., moderately and strongly agree) by teachers was related to the time given to address reading (59.5%) compared to oral language (56.7%) and writing (52.8%).
- Teachers generally agreed (74.7%) that they have administrative support to address the literacy needs of students who are not reading on grade level.

Part IV: Teacher Technological Pedagogical Knowledge

Data Sources

The global COVID-19 pandemic prompted school closures and virtual adaptations to instructional formats. As teachers' virtual instructional capabilities and comfort became key to delivering instruction during the 2020-2021 school year for many LEAS, we asked teachers to respond to items from the *Technological Pedagogical Content Knowledge Scale* (TPACK-deep; Yurdakul, et al., 2012). The original scale contained 33 items with total responses ranging from 33-165 ($M=128.53$, $SD=18.17$). Our adapted scale contained 31 items which measured 4 dimensions. The four TPACK dimensions assessed were the design, proficiency, exertion, and ethics of instructional technology. Teachers responded to each item using a five-point Likert scale ranging from "I certainly can't do it to "I can easily do it". Example items from each dimension are included in Table 5 to illustrate the types of prompts that teachers responded to. Internal consistency for each dimension was high with alphas ranging from .77-. 93. See Appendix B for descriptive statistics and reliability statistics for each dimension.

Table 5. TPACK-DEEP Adapted Example Questions

Design	Ethics	Exertion	Proficiency
I can update an instructional material (paper based, electronic, or multimedia materials, etc.) based on the needs (students, environment, duration, etc.) by using technology.	I can follow the teaching progression's codes of ethics in online education environments (WebCT, Moodle, Infinite Campus, Clever, etc.)	I can implement effective classroom management in the teaching and learning process in which technology is used.	I can troubleshoot problems that could be encountered with online environments
I can use technology to develop activities based on student needs to enrich the teaching and learning process.	I can behave ethically regarding the appropriate use of technology in educational environments	I can assess whether students have the appropriate content knowledge by using technology	I can become a leader in spreading the use of technological innovations in my future teaching community.

Research Methodology

Teachers were asked about their level of competence with instructional technology. Teachers responded to each item using a five-point Likert scale ranging from “ I certainly can’t do it to “ I can easily do it”.

Analytic Plan

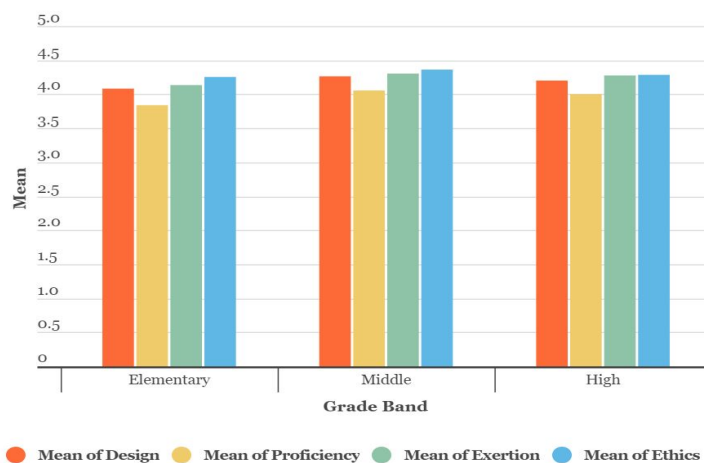
A series of descriptive analyses were conducted. We also confirmed the validity of the measure for this population by conducting a confirmatory factor analysis. Confirmatory factor analysis (CFA) was conducted to ensure that we maintained factor structure in our adapted version of the scale. The CFA ($n=2842$) was conducted with SPSS v.21. As a result of the CFA. The Root Mean Square Error of Approximation (RMSEA) was found as .065. and Comparative Fit Index (CFI) was found as .96. In addition, the value of X^2/df was calculated as $X^2/df=91035/465= 195.77$. We explored the relation among teachers’ performance and several demographic variables such as: teacher’s years of experience teaching that their current grade level, teacher’s overall years of teaching, LEA urbanicity, LEA’s per-pupil expenditures, LEA’s percentage of students of color, and LEA’s percentage of English Language Learners.



Study Results & Findings

The mean for our sample of teachers ($n=2842$) fell within the average level ($M=125.05$, $SD=24.31$). Figure 23. shows the means for teachers’ instructional pedagogical knowledge grouped by instructional grade level: elementary, middle, and high school. Higher mean scores, indicate better competency in each domain. The shape of the score distributions looked similar across grade bands. Overall, the means for each of the four categories ranged from around 3.75 to about 4.4.

Figure 23. Overall Performance on the Adapted TPACK



Finding 1: Teachers’ TPACK scores were similar across all grade bands.

- Generally, performance indicated that teachers’ competencies aligned with the “ I can do it” o the Likert Scale.
- All teachers had the highest mean scores for ethics and the lowest mean scores for proficiency.
- The second highest mean values were for the exertion category.

Finding 2: Prior participation in Striving Readers was not related to TPACK scores.

- There were no differences between teachers who participated in prior Striving Reader initiatives and teachers who had not previously participated.

Finding 3: Teachers' TPACK scores was related to certain LEA characteristics.

- The percentage of students of color in LEAs was positively associated with TPACK total scores ($r=.04, p<.01$) and proficiency ($r=.07, p<.001$) and design ($r=.06, p, .001$).
- Per pupil expenditures were also positively associated with TPACK total scores ($r=.06, p<.01$) and proficiency ($r=.08, p<.001$) and design ($r=.06, p, .001$) subscale scores.

Part V: LEA L4GA Implementation

LEA Plans

Each LEA submitted plans describing how they would utilize L4GA funds across each grade level they served. Plans that LEAs submitted as part of the competitive funding process were used as documents to determine the nature of evidence-based programs and curricula adopted by each LEA.

Analysis of LEA Plans

We identified several commonly used curricula. In fact, there are times when those same curricula were used across multiple grade bands. We identified a common set of 11 curricula that were used across elementary, middle, and high school grade bands. These curricula are found below in Table 8: The other curricula are listed in Appendix C.

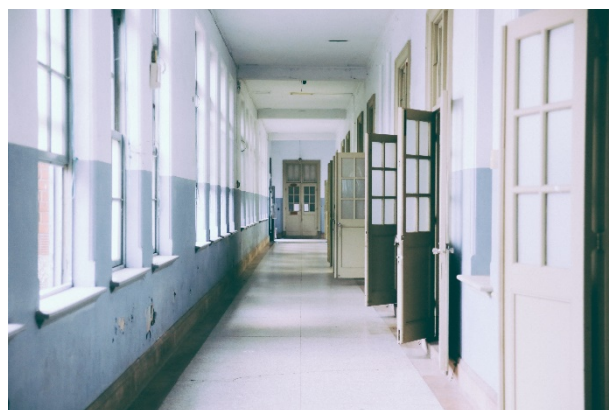


Table 6. Common Resources Adopted by LEAs

Resource Title	% LEAs Adopted	B-5	Elem	Middle	High
Curricula					
Bookworms	32		✓		
Journeys	8		✓	✓	
Lexia	8		✓	✓	✓
Reading Plus	8		✓	✓	✓
Curriculum + Intervention					
Read 180 & System 44	21		✓	✓	✓
Supplemental Materials					
My On	10	✓	✓	✓	✓
News ELA	24		✓	✓	✓

Interviews

In addition, a series of interviews with LEA administrators (e.g., assistant superintendents, LEA district coordinators, and other leadership staff) during Years 2 and 3 were conducted to provide details regarding literacy practices, curricula usage, assessment adoption, and reliance on community partners to support intervention efforts, among other things.

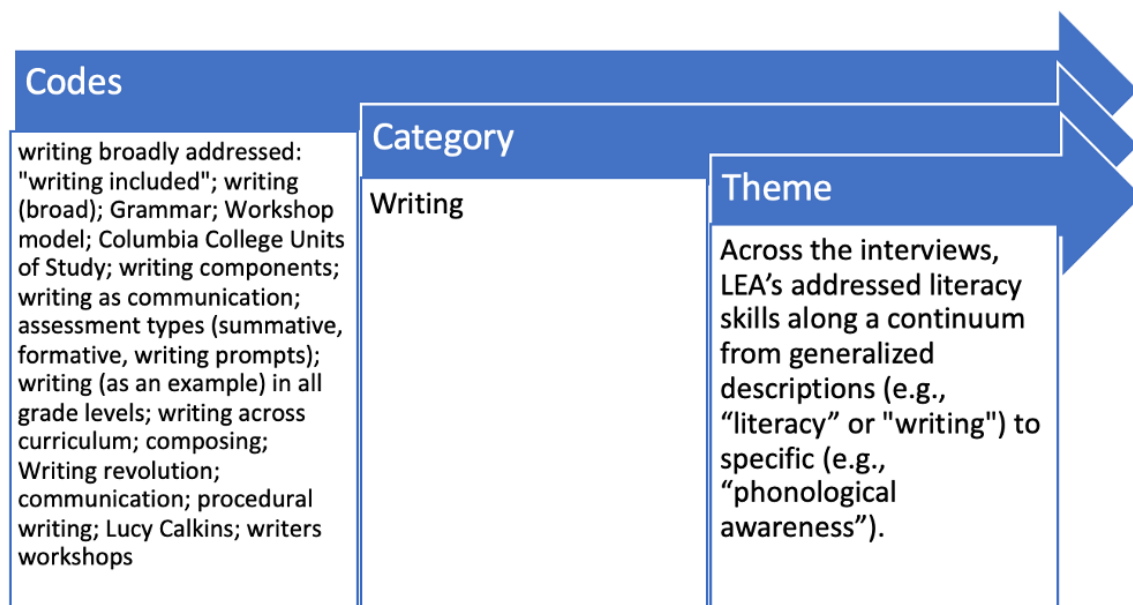
Research Methodology

LEAs participated in a semi-structured interview during the Spring of 2020 and 2021 where they described their implementation of L4GA activities. The interview protocol included prompts related to instruction, assessment, professional learning, and student learning. For the sake of this report, we highlight findings related to how LEAs spoke of literacy skills, routines, and practices. Data were transcribed and loaded into Dedoose, an online qualitative software coding program, for coding. LEA interviews were subjected to qualitative analyses (DeWalt & DeWalk, 2011; Saldaña, 2016). For the first phase, the research team developed a codebook through a consensus process for a priori coding. Once developed, the interviews were coded by researchers using the codebook. For the second phase, LEA interviews were subjected to further coding and qualitative analysis using an iterative process that included open-coding, categorization, and theme development.

Analytic Plan

Four researchers reviewed the codebook that was applied to the data a priori and identified through consensus specific codes that could help answer the research questions related to implementation. Coded interview excerpts associated with the identified codes were exported into an Excel spreadsheet. As a first step in the qualitative process, coders familiarized themselves with the data: they completed a read-through to get a broad understanding of the LEA responses. Researchers recorded noticings in a shared analytic journal (Seidel, 1998). Noticings were used to determine three areas of focus for the qualitative open coding process: 1) literacy skills; 2) literacy routines; and 3) literacy practices. To gather the data for the open-coding process, for each focus or subfocus, interview excerpts for the aligned code(s) were exported from Dedoose into an Excel spreadsheet for closer analysis. Data was double-coded for each area of focus, and differences were resolved through consensus. Codes were then categorized, and themes developed, again through a consensus process. Figure 24 presents an illustration of the levels of the qualitative analytic process and codes are related to categories and related to themes.

Figure 24. An illustration of the levels of the qualitative analytic process



Defining Literacy Skills, Routines, and Practices

We approach LEA interview data with the broad goal of identifying how LEAs spoke of L4GA implementation and how it supported student literacy. Throughout this process, we identified three focal areas (see Figure 25) for understanding literacy practices: literacy skills, literacy routines, and literacy strategies. Literacy skills refer to what is being taught (i.e., what focal skill was targeted?); literacy routines refer to the context of learning activities, including when and where (how did the teacher organize their day to address this skill?); while literacy strategies refer to how learning is occurring (what instructional strategy or approach did the teacher engage in to support the target skill?). These focal areas are not mutually exclusive and are described further below.

Figure 25: Focal Areas for Analysis

Literacy Skills

After the iterative, open-coding process to identify literacy skills addressed by LEAs, we organized the codes into six categories:

Literacy Domains, Foundational Skills, Focus of Skills, Critical Thinking Skills, Guideposts for Skills, and Skill Remediation/Interventions. See Table 7 the six categories and corresponding 15 subcategories.

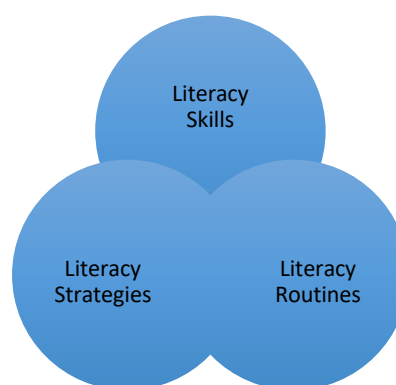


Table 7: LEA Descriptions of Literacy Skills

Category	Subcategory
Literacy Domain	<ul style="list-style-type: none"> • Reading • Writing • Literacy
Foundational Skills	<ul style="list-style-type: none"> • Phonological awareness and/or phonics • Fluency • Vocabulary • Comprehension
Focus of Skills	<ul style="list-style-type: none"> • Code-focused • Meaning-focused • Balanced
Critical Thinking Skills	<ul style="list-style-type: none"> • Critical thinking • Connections
Guideposts for Skills	<ul style="list-style-type: none"> • Curriculum or materials • Standards
Skill Remediation/Interventions	

Finding 1: LEA’s addressed literacy skills from generalized descriptions (e.g., “literacy,” “reading skills”) to specific (e.g., “phonological awareness”).

- LEA primarily identified foundational literacy skills addressed by National Reading Panel (2000), including phonological awareness, phonics, fluency, vocabulary, and comprehension.
- LEAs focus on skills varied, at times prioritizing code-based skills, meaning-based skills, or balanced literacy.
- **Example Quote:** “We have a balanced literacy guide...sounds or letters or phonics rules or grammar, or whatever that might be, all of the skills within that.”
 - In this example, the LEA uses the phrase "balanced literacy," and then specifically addresses decoding skills and mechanics, but does not specifically address meaning-based skills.
- Skills were often implicit in the mention of standards, curriculum, or other materials, which were often framed as guideposts for which skills to focus on and teach.
- **Example Quote:** “[We are]...making sure we are aligning everything in terms of the reading comprehension standards, the writing standards.”
 - This LEA explicitly named a reading skill (i.e., comprehension), but implied addition reading skills and writing skills through the reference to "standards." We can see here how standards serve as a guidepost for this LEA for which skills to teach.

Finding 2: LEA used more specific language around reading skills than writing skills and focused more on code-based skills than meaning-based or balanced skills.

- If districts are relying on standards, curricula, and materials as skills guideposts, then it is worth considering further the content of these guideposts and how teachers (or districts) take them up in instructional focus to better understand their approaches to reading and writing.

Literacy Routines

Literacy practices are often enacted through specific instructional routines that occur frequently throughout the week and are intended to support the reading and writing skills of students, particularly in elementary school settings (Bingham & Hall Kenyon, 2013). LEA’s described routines in terms of types of routines, groupings used, and temporal considerations for routines, which are each described below further in Table 8.

Table 8: LEA Descriptions of Literacy Routines

Category	Subcategory
Types of Routines	<ul style="list-style-type: none"> • Literacy routines • Reading routines • Writing routines • Routines for skill development or content • Support or requirements for routines • Strategies • Differentiation or monitoring • Groupings
Groupings as a Routine or for Routines	<ul style="list-style-type: none"> • Types of groups • Requirement • Purposes

	<ul style="list-style-type: none"> • Social interactions
Temporal Considerations as a Routine or for Routines	<ul style="list-style-type: none"> • Remediation and/or differentiation • Time allocations • Time challenges • Groupings • Time for skills • Time for domains • Time for routines • Time for strategies

Finding 3: When addressing specific routines, LEAs named specific reading routines, such as shared reading, guided reading, read aloud, choral reading. In contrast, writing routines were described more broadly.

- LEAs used broad terms such as "writing workshop" or "writing center" to describe writing routines. They rarely outlined the organization of writing instructional routines.
- The lack of specificity around writing routines warrants additional attention. Examining how LEA's understand the connection between students' reading and writing development and how writing instruction is enacted is needed. It would be worth considering what factors might be guiding writing instruction and their possible limitations.

Finding 4: LEA's identified various grouping configurations (e.g., individuals, pairs, small groups, whole groups) as well as the need for utilizing various grouping configurations as part of students' learning experiences.

- **Example Quote:** "You have whole group instruction. You have small groups. You have guided reading groups. And then, there's also time built-in for one-to-one conferencing when necessary."
 - In this quote, the LEA identifies types of groupings (whole and small), but also names a specific routine (guided reading) for which groupings are used. This quote also identifies a social purpose for the grouping—that is, time for one-on-one teacher-student interactions.
- Some LEA's also addressed the need for "dynamic" groups or "regroupings" for small groups.

Finding 5: LEAs described specific time allocations for literacy (e.g., number of minutes or hours for a "block"). In addition to addressing time in clock terms, they also described time for various purposes or structures, such as time for groups, time for focusing on certain domains (e.g., writing or reading), as well as time for focusing on domain-related skills, such as phonics blocks.

- **Example Quote:** "It had to be a time where they had to have small groups, and then we went back and observed that and gave feedback about what that is supposed to look like; what the teacher does and what the students are supposed to be doing."
 - Here the LEA explicitly identified small groups as a mandated component of classroom time. In this case, the LEA specifies that not only is time for small groups required, but that teachers are given guidance that focuses on teacher-student roles within these spaces.

Literacy Strategies

Instructional practices were conceptualized as specific strategies that teachers might employ to support students' reading and writing development. In the interviews, LEA's described skills and

routines utilized at the classroom level but focused far less on classroom-level instructional strategies. When LEAs addressed strategies, they tended to outline school-level and district-level approaches to improving literacy education, such as the purchase of curriculum, focus on certain student populations, and professional development. Therefore, we had to shift our focus on strategies to include classroom-based instructional strategies, but also school-wide and district-wide strategies. These categories of literacy strategies are displayed in Table 9.

Table 9: LEA Descriptions of Literacy Strategies

Category	Subcategory
Classroom-Based Strategies	
Assessment	
Guideposts	<ul style="list-style-type: none"> • Materials and resources • Curriculum and pacing
Need-based	<ul style="list-style-type: none"> • Focus on specific student populations • Differentiation
Support as a school or district strategy	<ul style="list-style-type: none"> • Purchasing materials, curriculum • Professional development • Technology resources
Additional strategies	

Finding 6: LEA’s emphasized the use of common curricula or the purchase of new curricula to support goals or pacing needs.

- Instructional practices were not explicitly addressed but implied by the curriculum named.
- LEAs identified focusing on specific student populations as a strategy; (e.g, “struggling” students or students with language needs).
- Differentiation was identified as a strategy for supporting all students' literacy development.
- **Example Quote:** "Then we purchased Read180 and System 44 at the sixth through twelfth-grade levels for intervention for struggling readers. And at the elementary level, we purchased Walpole McKenna Bookworms as part of our differentiated instruction."
 - In this example, the LEA names specific programs purchased for intervention. The focus here is on differentiated instruction for struggling readers. Also, assessment data, such as DIBELS or Lexile scores, were cited for instructional decision-making.

Finding 7: LEA’s broadly addressed professional development for teachers as a strategy.

- When LEAs addressed the content of the PL, they typically mentioned training for curriculum or program implementation.
- **Example Quote:** “In addition to that, during the professional development, we have data meetings where we are strategic about digging down into our data. And what we realize is, with our SPED population, ...that they needed another curriculum to support them."
 - In this example, the LEA identifies professional development as an activity in which they examine data and use that data to make curricular decisions about particular populations, in this case, the special ed population.

Finding 8: LEAs may have focused on district-level and school-level strategies for supporting literacy development given the interviewee’s position in the school system.

- LEAs rather global, or system wide, responses to some questioning may have been an artifact of their roll within the LEA. As the GSU team did not always have an LEA instructional coach

present at interviews, it is possible that information remained a higher level than it would have should key personal have included someone with direct in-service teacher development expertise and responsibilities.

Summary

Findings from the multiple data sources from this evaluation project point to core implementation and achievement outcomes. Although data are only available on select LEAs on varying years of implementation, and project activities were severely impacted by the global COVID-19 pandemic, LEAs spent considerable time and energy organizing themselves to meet the needs of their students. LEAs chose a variety of literacy curriculum to meet the needs of their learners PreK-12th grade, with a sizable percentage choosing Bookworms. A large percentage of districts chose a supplemental intervention focused curriculum and invested significant resources in staff training. LEA leaders discussed how they addressed students' literacy development by organizing experiences around a core number of literacy, mostly reading, routines. Although LEAs discussed how they were addressing a host of literacy outcomes, a large percentage of responses focused on foundational literacy skills in the elementary grades, with LEAs speaking to how they differentiated to students needs through various instructional groupings. This is likely an outcome related to the intended nature of the focus of the grant. Consistent with LEA level Responses, teachers reported engaging in a variety of reading and writing instructional routines in their daily and weekly instruction. However, they reported significantly more time engaging in reading instruction than writing instruction. Student achievement data from the first year of implementation show steady gains across most reading and language measures at each age band. Student progress was evident on static achievement benchmarks, while Acadience Reading outcomes, which use multiple timepoint benchmarks, evidenced more limited growth. Findings point to the fact that students were steadily increasing their literacy skills but not at the pace recommended by Acadience Reading test developers to maintain pace with needed levels of performance. As findings were taken from the first year of implementation only, additional study of subsequent years is needed to determine if student achievement accelerated over time in relation to teachers showing more expertise with chosen curriculum.

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Appendix A.

Deidentified List of LEAs with Number of Participating Schools By Grade Level Categories

LEA Number	Birth to Five	Elementary School	Middle School	High School
1	1	2	1	1
2*	1	4	1	1
3*	1	12	4	3
4	1	2	1	1
5	1	4	1	1
6	1	2	2	2
7	1	1	1	0
8	1	1	1	1
9	1	10	2	2
10	1	2	1	1
11	1	1	1	1
12	1	3	2	2
13	1	3	2	1
14	1	3	1	1
15	1	10	4	4
16	1	4	1	1
17	1	5	2	1
18	1	6	2	2
19	1	3	2	1
20	1	4	2	1
21	1	2	1	1
22	1	4	2	2
23	1	1	1	1
24	1	11	5	2
25	1	1	1	1
26	1	2	2	2
27	1	1	1	1
28	1	4	1	1
29	1	3	1	1
30	1	13	5	3
31	1	2	1	1
32	1	1	2	1
33	1	3	1	1
34	1	6	1	1
35	1	1	1	1
36	1	7	7	1
37	1	3	1	1
38	1	5	2	1
Total	38	152	70	51
Percentage	12.22	48.87	15.76	16.40

Note: * indicates that the LEA participated in the 2014 Striving Readers Initiative

Appendix B.

Technological Pedagogical Content Knowledge Descriptive Statistics Reliability Estimates

TPACK Dimension	Mean	SD	Min	Max	Cronbach's Alpha	Number of Items
Design	40.20	7.95	2	50	.93	10
Ethics	25.08	4.27	2	30	.84	8
Exertion	48.86	9.30	2	60	.90	10
Proficiency	11.54	2.45	2	15	.77	3

Appendix C.

Alphabetized listing of Curricula and Supplemental Materials Used in Each Grade Band Across LEAs

Curricula	% LEAs Adopted	Grade Level	B-5	Elementary School	Middle School	High School
Achieve 3000	5	6-12			✓	✓
Big Day	3	PreK	✓			
Bookworms	32	K-5		✓		
Creative	2	Pre-K	✓			
Fast Forward	2	K-12		✓	✓	✓
Fountas & Pinnell	8	K-12		✓	✓	✓
Into Reading	3	K-6		✓	✓	
I Ready	2	K-12		✓	✓	✓
Journeys	8	K-6		✓	✓	
Lexia	8	K-12		✓	✓	✓
MyOn	10	PreK-9	✓	✓	✓	✓
myPerspectives	3	6-12			✓	✓
Newsela	24	2-12		✓	✓	✓
Open Court	3	K-5		✓		
Opening the World of Learning (OWL)	3	PreK	✓			
Read 180	11	4-12		✓	✓	✓
Read Naturally/Read Live	5	1-8		✓	✓	
Reading Plus	8	3+		✓	✓	✓
ReadyGEN	5	K-6		✓	✓	
Scholastic Edge	11	K-6		✓	✓	
System 44	21	3-12		✓	✓	✓
Wonders	5	PreK-6	✓	✓	✓	
Voyager Passport	2	K-5	✓	✓		