

VKRP Executive Summary

Excerpted from the
VKRP Annual Report
for the Chairmen of
House Appropriations
and Senate Finance
Committees for the
2022-2023
School Year



Acknowledgments

This Executive Summary is excerpted from the [VKRP Annual Report \(2022-23\)](#). Prepared by the [University of Virginia's Center for Advanced Study of Teaching and Learning \(CASTL\)](#) and the [Virginia Department of Education \(VDOE\)](#), supported through an appropriation from the [Virginia General Assembly](#) to the Virginia Department of Education subcontracted to CASTL. Initial funding for the development and piloting of VKRP and ongoing support and advocacy have been provided by [Elevate Early Education \(E3\)](#). Correspondence concerning this report should be addressed to Jenna Conway, Deputy Superintendent of Early Childhood Care and Education, VDOE (Jenna.Conway@doe.virginia.gov). The [Virginia Kindergarten Readiness Program \(VKRP\)](#) is implemented by CASTL under the direction of Amanda Williford (williford@virginia.edu).

VKRP shines a spotlight on pre-kindergarten and kindergarten students' learning and growth.

Executive Summary

The October 2023 data report¹ of the [Virginia Kindergarten Readiness Program \(VKRP\)](#) to the General Assembly, details the fall and spring kindergarten data collected during the 2022-2023 academic year, describes kindergarten data trends from fall 2019 through spring 2023 and 2022-2023 pre-kindergarten data for three- and four-year-old publicly funded pre-kindergarten students, updates on the progress on the mathematics, self-regulation, social skills, and mental health well-being assessment pilot in first through third grades (1-3 Assessment Pilot), and shares future goals of the VKRP system for the 2023-2024 year and beyond.

VKRP empowers Virginia's teachers and education leaders by providing a comprehensive assessment system that shines a spotlight on pre-kindergarten and kindergarten students' learning and growth.

VKRP is a Virginia standards-aligned, multi-year early learning assessment system that produces actionable information to guide decisions at the student, classroom, school, and division level from the beginning of pre-kindergarten through the end of kindergarten to support student learning. VKRP provides assessments of mathematics, self-regulation, and social skills to complement Virginia's longstanding literacy screeners. The 2022-2023 literacy data gathered from the PALS-K measure in kindergarten and the Virginia Language & Literacy Screener: Pre-K (VALLS: Pre-K) come directly from the Virginia Literacy Partnerships (VLP), formerly known as the PALS office. Additional information on the literacy screeners can be found on the [VLP website](#).

From 2014 through 2018, the [Center for Advanced Study of Teaching and Learning \(CASTL\) at the University of Virginia](#) implemented VKRP in kindergarten through a voluntary rollout where, each year, an increasing number of school divisions elected to administer VKRP. Virginia began statewide, mandatory kindergarten administration of VKRP in the 2019-2020 school year.

The VKRP team also developed a four-year-old pre-kindergarten extension of VKRP between 2018-2021. In the 2021-2022 school year, VKRP became available to all publicly funded pre-kindergarten programs to assess four-year-old children's skills in fall of 2021 and spring of 2022. Additionally, the VKRP team developed a three-year-old extension of VKRP, which was available to all publicly funded pre-kindergarten programs to assess three-year-old children's skills in the 2022-2023 school year. Pre-kindergarten expansion of VKRP will continue during the 2023-2024 school year.

Defining Readiness for Summative Purposes

Virginia defines school readiness as, "the capabilities of children, their families, schools, and communities that best promote student success in kindergarten and beyond." For summative purposes, kindergarten students are categorized as *ready* or *meeting the overall benchmark* (fall) or *meeting the overall benchmark* (spring) if their assessment scores indicate that they demonstrate the minimally expected skills for the fall or the spring (depending upon the data timepoint) of kindergarten for literacy, mathematics, self-regulation, and social skills. If kindergarten students' assessment scores do not indicate they are demonstrating the minimally expected skills in one or more areas at the respective timepoint (fall or spring), they are categorized as *not ready* or *below the overall benchmark* (fall) or *below the overall benchmark* (spring).

¹ This report was submitted to satisfy the requirement that, "the Department shall submit such findings using data from the prior year's fall assessment to the Chairmen of House Appropriations and Senate Finance Committees no later than October 1 each year."

VKRP does not currently publish benchmarks for pre-kindergarten children's skills. Instead, starting in the 2022-2023 school year, in pre-kindergarten, VKRP piloted Skill Development Bands (Beginning, Growing, and Strong) to help programs and educators interpret and use their VKRP pre-kindergarten data. Separate bands were established in the fall and spring to represent children's skill development as compared to expectations at that particular time point. VLP has created separate skill development bands for the VALLS: Pre-K and the VLP team can provide more information about the VALLS: Pre-K bands. These bands are included to give guidance on where children are in their development of early learning skills so that teachers can provide appropriate support and instruction. They are not intended to serve as benchmarks.

VKRP and the COVID-19 Pandemic

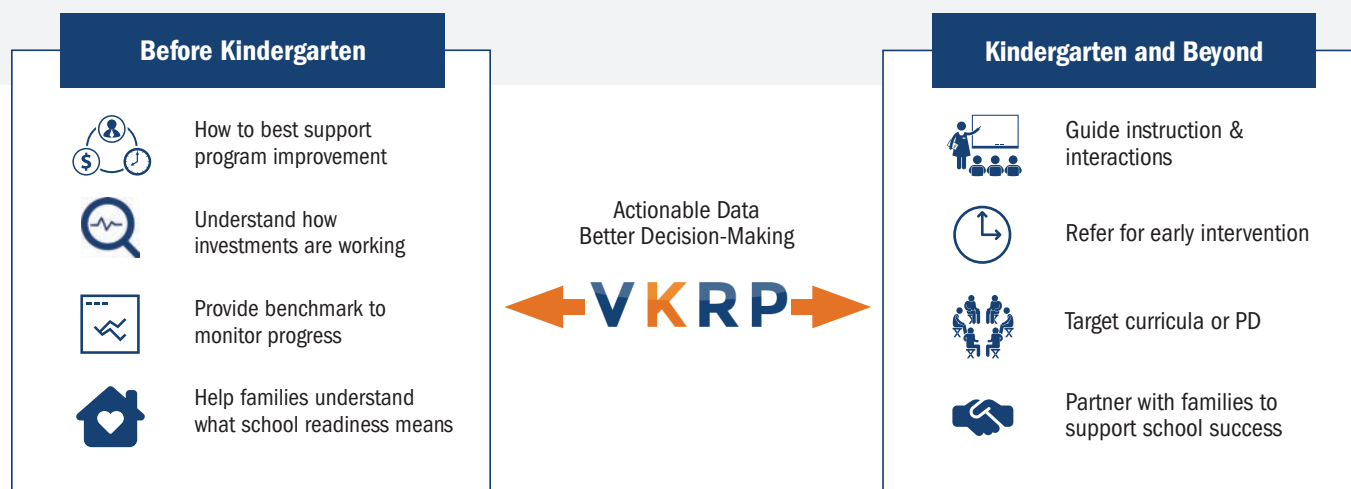
During the worldwide COVID-19 pandemic, young students experienced sudden and long-lasting negative stresses to their care and early learning environments negatively impacting their academic and social-emotional school readiness. Nationally and within the Commonwealth, there were missed opportunities to

learn foundational early mathematics and literacy skills, pandemic related learning losses, and adverse impacts on young students' mental health well-being. The pandemic had disproportionate impacts on students from families with low-income backgrounds and students who resided in neighborhoods with decreased access to early learning opportunities (Schady et al., 2023²). Importantly, if students are not provided with opportunities to catch up and these losses are not addressed, gaps in students' early learning skills will continue to widen over time (Schady et al., 2023²). VKRP collects data on students' early learning, social-emotional skills, and mental health well-being that can be used to understand early learning trends over time and inform recovery investments.

How Statewide VKRP Data can be used in Virginia

VKRP highlights the strengths of Virginia's pre-kindergarten and kindergarten children, bringing attention to areas where students need support to maximize their learning (see Figure 1). For teachers and school personnel, VKRP data can help drive day-to-day instruction, guide conversations with families, and inform decisions about educators' professional

FIGURE 1: How Statewide Data Can Be Used in Virginia



² Schady, N., Holla, A., Sabarwal, S., & Silva, J. (2023). *Collapse and Recovery: How the COVID-19 Pandemic Eroded Human Capital and What to Do about It*. World Bank Publications. doi:[10.1596/978-1-4648-1901-8](https://doi.org/10.1596/978-1-4648-1901-8).

development needs. At the state level, VKRP data informs policy decisions and helps identify schools, programs, divisions, and regions that may need more support or can serve as exemplars.

VKRP can be used by various stakeholders to better understand and support students' academic and social-emotional learning and development, as well as their mental health well-being.

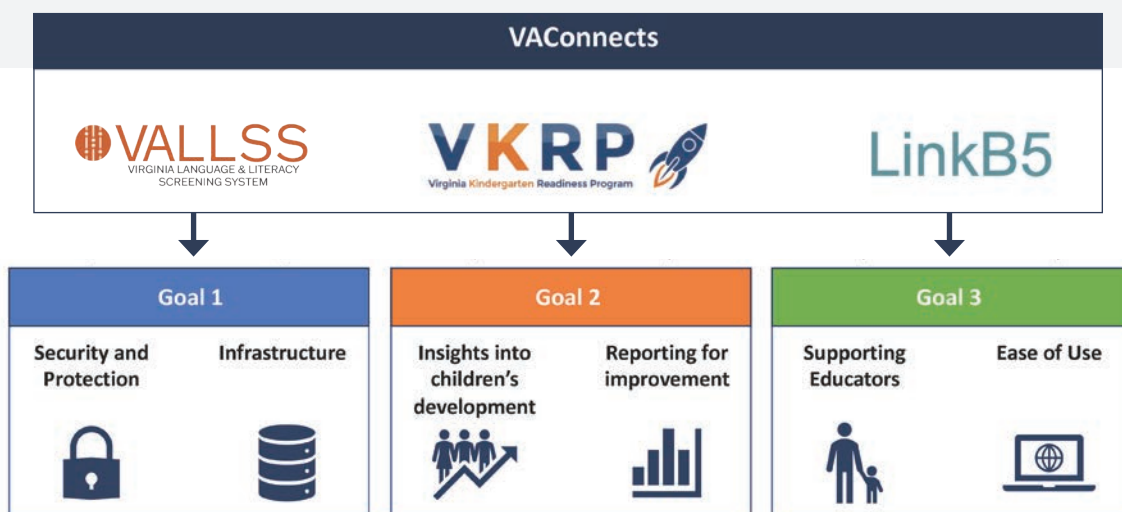
An Integrated Approach to VDOE's Early Childhood Data Systems: Virginia Connects for Kids

In 2022, VDOE provided funding through the federal Preschool Development Grant Funds and American Rescue Plan Act to a team of researchers at CASTL to develop and implement a coordinated and integrated technology strategy and shared infrastructure between the growing state data collection initiatives (VLP, VKRP, and LinkB5³) to maximize the impact and potential of these data systems. The integrated data system, Virginia Connects for Kids (VACONnects), ensures that each project can not only sustain individual growth

and expansion but also work together to prioritize the integrity and continuity of data needed to inform and strengthen Virginia's sizable investment in young learners—birth through third grade. The goals of the integrated data system are to build a robust, coordinated system with enhanced hosting infrastructure and security features; shared data warehousing reflecting effective data governance; consistent, aligned, and integrated reporting; and a more streamlined user interface. This year, we have completed the planning and design phase of VACONnects, built assessment services for VLP, and launched the pilot Virginia Language & Literacy Screener (VALLS) K-3 in 17 school divisions across Virginia.

2022-2023 Kindergarten Students Assessed with VKRP

In the fall of 2022, teachers assessed approximately 98% of eligible⁴ kindergarteners on the PALS-K literacy screener and the Early Mathematics Assessment System (EMAS) mathematics assessment. Similarly, approximately 98% of eligible kindergarteners



³ [LinkB5 Project for Early Childhood Data Collection](#)

⁴ Kindergarten students were eligible if they were in a public kindergarten classroom and were not otherwise exempt from testing.

were rated by teachers on self-regulation and social skills on the Child Behavior Rating Scale (CBRS) and Mental Health Well-being items. Statewide, 96% of assessed kindergarten students had complete VKRP data on all four measures – literacy (PALS-K), mathematics (EMAS), and self-regulation and social skills assessments (CBRS) in the fall of 2022.

In the spring of 2023, approximately 98% of eligible kindergarteners were assessed on the PALS-K literacy screener and the EMAS mathematics assessment and were rated by teachers on self-regulation and social skills using the CBRS and Mental Health Well-being items. Statewide, 96% of assessed kindergarten students enrolled in the spring of 2023 had complete VKRP data on the four assessments – literacy (PALS-K), mathematics (EMAS), self-regulation, and social skills (CBRS) assessments in the spring of 2023.

Over 78,000 kindergarten students were assessed in both the fall of 2022 and the spring of 2023 in all four domains of literacy, mathematics, self-regulation, and social skills.

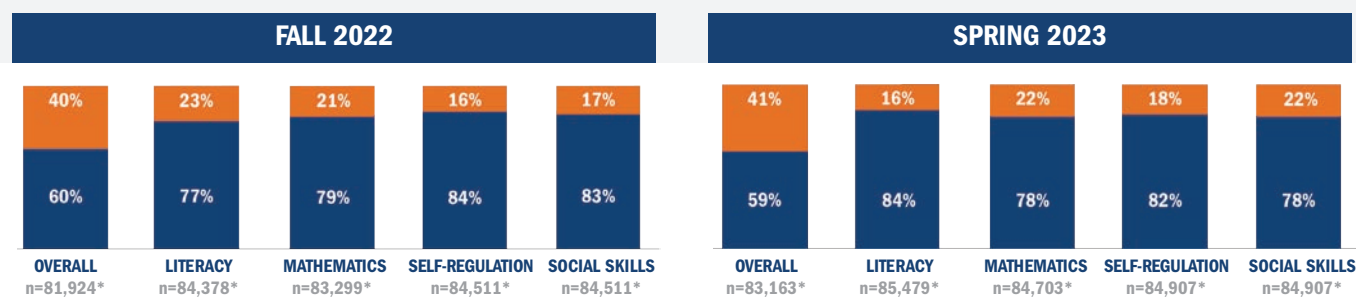
2022-2023 VKRP Kindergarten Key Findings

Fall 2022 and Spring 2023 VKRP Kindergarten Data

In fall of 2022, approximately 60% of kindergarten students met the overall benchmark or minimum competency level in literacy, mathematics, self-regulation, and social skills. This means that 40% of Virginia’s kindergarteners began the school year still needing to build skills in literacy, mathematics, self-regulation, and/or social skills.

In the spring of 2023, approximately 59% of kindergarten students met the overall benchmark or minimum competency level in literacy, mathematics, self-regulation, and social skills. This means that 41% of Virginia’s kindergarteners ended the school year below expected levels in literacy, mathematics, self-regulation, and/or social skills. These results indicate a very small, 1% increase, in kindergarten students not meeting the overall VKRP benchmark from fall 2022 to spring 2023 (Figure 2).

FIGURE 2: Fall 2022 and Spring 2023 Kindergarten Overall and Domain Benchmark Estimates



* Students with complete data on each individual measure were included to obtain these estimates.

Did Not Meet Benchmark Met Benchmark

*If a kindergarten student does not demonstrate the minimally expected skill in one or more areas at the respective timepoint (fall or spring), they are categorized as not ready or below the overall benchmark (fall) or below the overall benchmark (spring).

2022-2023 VKRP Kindergarten Benchmark Estimates Across Demographics

Students falling below the overall VKRP benchmark at the beginning and/or end of kindergarten were disproportionately more likely to be students from low-income backgrounds, students with a disability, students who are English language/multilingual learners (EL), and students from historically marginalized racial/ethnic groups (see Table 1). These differential

TABLE 1: 2022-2023 Kindergarten Demographics and Below Benchmark Percentages

Kindergarten Student Demographic Characteristics	Percent Below the Overall Benchmark	
	Fall 2022	Spring 2023
From low-income background ^a	53%	53%
Has a disability ^b	64%	66%
Is an English language/multilingual learner ^c	66%	58%
Student race		
American Indian or Alaska Native	40%	38%
Asian	27%	27%
Black or African American	49%	55%
Hispanic/Latino of any race	56%	51%
White, not of Hispanic origin	32%	33%
Native Hawaiian or other Pacific Islander	39%	31%
Non-Hispanic/Latino of any race, two or more races	37%	38%

^a Source: SRC Disadvantaged Status Flag. Students are identified as having a low-income background if, at any point during the school year, the student: 1) is eligible for Free/Reduced Meals, 2) receives TANF, or 3) is eligible for Medicaid.

^b Source: SRC Primary Disability Code. Students are identified as having a disability if any code is present except, "Qualified Individual under Section 504."

^c Source: Student Record Collection (SRC) EL Services Code. Students are identified as English language/multilingual learners (EL) if code is, "Identified as EL and receives EL services," "Identified as EL but has refused EL services," or "Identified as formerly EL for each of the four years after exiting EL services."

patterns in skill development illustrate the stark disparities in opportunities and access to high-quality educational experiences available to students and their families. These results elevate concerns that disparities in opportunity and access were likely exacerbated following the onset of the COVID-19 pandemic and mandated school closures in Virginia during the spring of 2020 and beyond.

2022-2023 VKRP Kindergarten Mental Health Well-Being Data

In fall of 2021, VKRP added items to measure students' mental health well-being. Teachers continued to report concern for student mental health well-being in the 2022-2023 school year. Teachers reported being moderately, very, or extremely concerned about mental health and social-emotional well-being for about 14% of kindergarten students in fall 2022 and 13% in spring 2023.

Additionally, in both fall of 2022 and spring of 2023, students whose teachers were concerned for their mental health well-being were much more likely to not meet the overall benchmark, and to be below the benchmark academically and social-emotionally when compared to students whose teachers did not report mental health well-being concerns. These results indicate teacher concern is an important indicator of which students likely need comprehensive and intensive supports to be successful in school (see Figure 3 on next page).

Teacher concern about a student's mental health well-being is an important indicator that the student may need early, comprehensive, and intensive supports to be successful in school.

FIGURE 3: Mental Health Well-Being Concerns and Benchmark Status

Students whose teachers reported having significant mental health well-being concerns were much more likely to:

Not meet the overall benchmark



Be below benchmarks academically, in Literacy and Math



Be below benchmarks in Self-Regulation and Social Skills



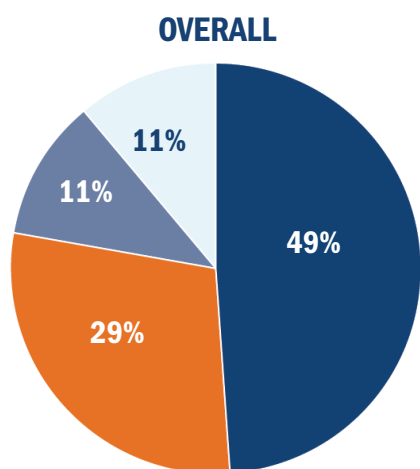
2022-2023 VKRP Kindergarten Benchmark and Growth Data

This is the second year that we could examine growth in kindergarten data from fall to spring. In terms of overall benchmark status, 49% of kindergarten students met the overall benchmark for both fall 2022 and spring 2023 while 29% did not meet the overall benchmark in either fall 2022 or spring 2023 (see Figure 4).

Smaller percentages of students shifted in their overall benchmark status across the 2022-2023 school year—either meeting the overall benchmark in fall 2022 and not meeting in spring 2023 (11%) or not meeting the overall benchmark in fall 2022 and meeting in spring 2023 (11%).

We examined trends in student growth⁵ from fall 2022 to spring 2023 in mathematics, self-regulation, and

FIGURE 4: Kindergarten Benchmark Status for Fall 2022 and Spring 2023

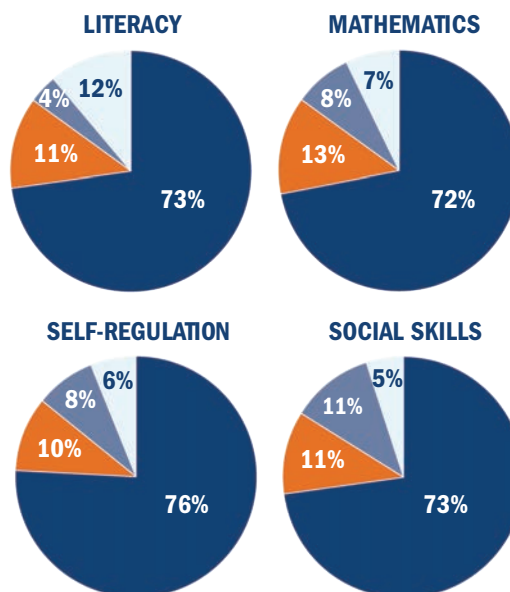


Met overall benchmark for both fall 2022 and spring 2023

Did not meet overall benchmark in either fall 2022 or spring 2023

Met overall benchmark in fall 2022; did not meet in spring 2023

Did not meet overall benchmark in fall 2022; met in spring 2023



⁵ The current PALS-K literacy screener does not measure growth from fall to spring, but the revised literacy screener will measure growth across time.

social skills. Kindergarten students, on average, tended to display strong growth in mathematics skills and modest growth in self-regulation and social skills. However, there was variation in students' growth across all domains with some students making robust gains, while a small percentage of students demonstrated negative growth from fall 2022 to spring 2023. Student demographic characteristics were associated with growth in mathematics, self-regulation, and social skills, although the size of these associations tended to be small.

One consistent finding across all learning domains was that kindergarten students who are English language/multilingual learners (EL) tended to make greater skill gains compared to their non-EL peers.

In addition, although students with no pre-kindergarten experience were likely to enter kindergarten below the overall readiness benchmark in the fall, they made greater skill gains in mathematics, self-regulation, and social skills during kindergarten.

2019-2023 VKRP Kindergarten Trends Across Time Key Findings

Overall readiness estimates from fall 2019 to fall 2022 have remained relatively stable with a slight decrease in the percentage of students meeting the overall benchmark from fall 2019 to fall 2020, followed by slight increases in fall 2021 and fall 2022 (see Figure 5).

Overall benchmark estimates from spring 2021 to spring 2023 have increased. There was a large increase in students meeting the overall benchmark from spring 2021 during the height of the pandemic (48%) to spring 2022 (56%). There was a slight increase from spring 2022 to spring 2023 (59%) in students meeting the overall benchmark (see Figure 6). Spring VKRP data was not collected prior to the

2019-20 school year and the spring assessment was not administered in 2020 due to the onset of the COVID-19 pandemic and universally mandated public school closures.

FIGURE 5: Fall Overall Kindergarten Readiness Estimates 2019-2022

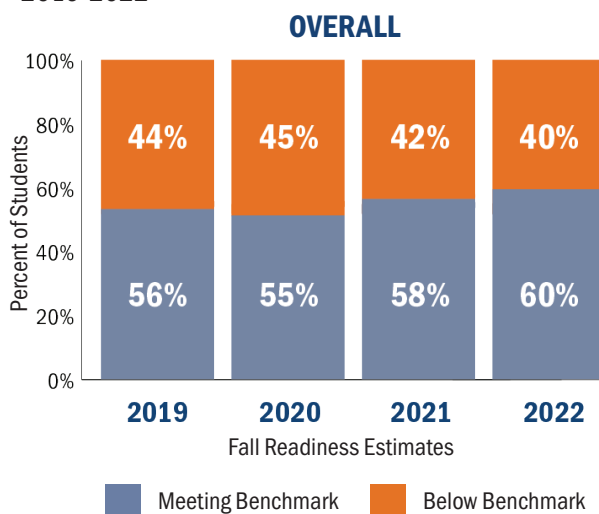
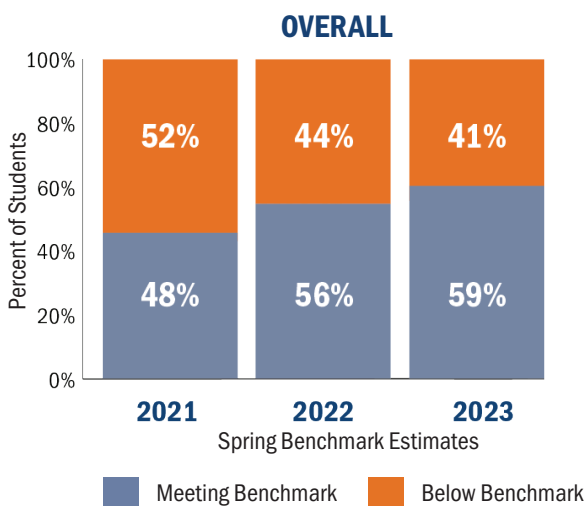


FIGURE 6: Spring Overall Kindergarten Benchmark Estimates 2021-2023



2022-2023 VKRP Pre-kindergarten Students Assessed With VKRP

Beginning in the 2022-2023 school year, VKRP was administered to publicly funded three- and four-year-old children in Virginia Preschool Initiative (VPI) and Virginia Early Childhood Foundation (VECF) Mixed Delivery classrooms in the fall of 2022 and in the spring of 2023. Pre-kindergarten classrooms in public schools that are not funded by VPI (such as a full ECSE classroom, Head Start classroom, Title I classroom, or other locally supported pre-kindergarten classroom) may have chosen to administer the VKRP assessments to their children, but it was not required.

Three-Year-Old Assessment Completion Data

In the fall of 2022, teachers assessed approximately 71% of eligible⁶ three-year-old pre-kindergarteners on the VALLS: Pre-K and 65% of eligible three-year-old pre-kindergarteners on the EMAS mathematics assessment. Approximately 80% of eligible three-year-old pre-kindergarteners were rated by teachers on self-regulation and social skills on the CBRS and Mental Health Well-being items. Statewide, 69% of assessed three-year-old pre-kindergarten children had complete VKRP data on all four measures – literacy (VALLS: Pre-K), mathematics (EMAS), and self-regulation and social skills assessments (CBRS) in the fall of 2022.

In the spring of 2023, approximately 78% of eligible three-year-old pre-kindergarteners were assessed on the VALLS: Pre-K literacy screener, 73% were assessed on the EMAS mathematics assessment, and 81% were rated by teachers on self-regulation and social skills using the CBRS and Mental Health Well-being items. Statewide, 78% of assessed three-year-old pre-kindergarten children enrolled in the spring of 2023 had complete VKRP data on the four assessments – literacy (VALLS: Pre-K), mathematics (EMAS), self-

regulation, and social skills (CBRS) assessments in the spring of 2023.

Over 3,800 three-year-old pre-kindergarten children were assessed in both the fall of 2022 and in the spring of 2023 in all four domains of literacy, mathematics, self-regulation, and social skills.

Four-Year-Old Assessment Completion Data

In the fall of 2022, teachers assessed approximately 93% of eligible four-year-old pre-kindergarteners on the VALLS: Pre-K and 91% of eligible four-year-old pre-kindergarteners on the EMAS mathematics assessment. Approximately 92% of eligible four-year-old pre-kindergarteners were rated by teachers on self-regulation and social skills on the CBRS and Mental Health Well-being items. Statewide, 90% of assessed four-year-old pre-kindergarten children had complete VKRP data on all four measures – literacy (VALLS: Pre-K), mathematics (EMAS), and self-regulation and social skills assessments (CBRS) in the fall of 2022.

In the spring of 2023, approximately 95% of eligible four-year-old pre-kindergarteners were assessed on the VALLS: Pre-K literacy screener, 91% were assessed on the EMAS mathematics assessment, and 92% were rated by teachers on self-regulation and social skills using the CBRS and Mental Health Well-being items. Statewide, 92% of assessed four-year-old pre-kindergarten children enrolled in the spring of 2023 had complete VKRP data on the four assessments – literacy (VALLS: Pre-K), mathematics (EMAS), self-regulation, and social skills (CBRS) assessments in the spring of 2023.

Over 25,000 four-year-old pre-kindergarten children were assessed in both the fall of 2022 and in the spring of 2023 in all four domains of literacy, mathematics, self-regulation, and social skills.

⁶ Three- and four-year-old pre-kindergarten children were eligible if they were in a participating VKRP classroom and were not otherwise exempt from testing.

2022-2023 VKRP Three-Year-Old Pre-kindergarten Key Findings

Fall 2022 and Spring 2023 Three-Year-Old VKRP Pre-kindergarten Data

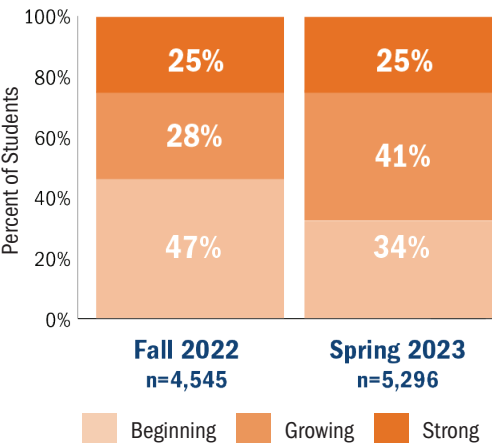
Three-year-old pre-kindergarten children displayed a range of skills across mathematics, self-regulation, and social skills in fall 2022 and spring 2023.

In 2022-2023, VKRP and VLP⁷ piloted Skill Development Bands (Beginning, Growing, and Strong) to help programs and educators interpret and use their VKRP pre-kindergarten data. For mathematics, self-regulation, and social skills, separate bands were established in the fall of 2022 and spring of 2023 to represent children’s development as compared to expectations at that point in time.

For mathematics, in the fall of 2022, the largest percentage of three-year-old children’s scores (47%) fell into the Beginning Skill Development Band. In the spring of 2023, the largest percentage of these children’s scores (41%) fell into the Growing Skill Development Band (see Figure 7).

For self-regulation and social skills, the largest percentage of three-year-old children’s scores fell into the Growing Skill Development Band in both the fall

FIGURE 7: Three-Year-Old Mathematics Skill Development Bands

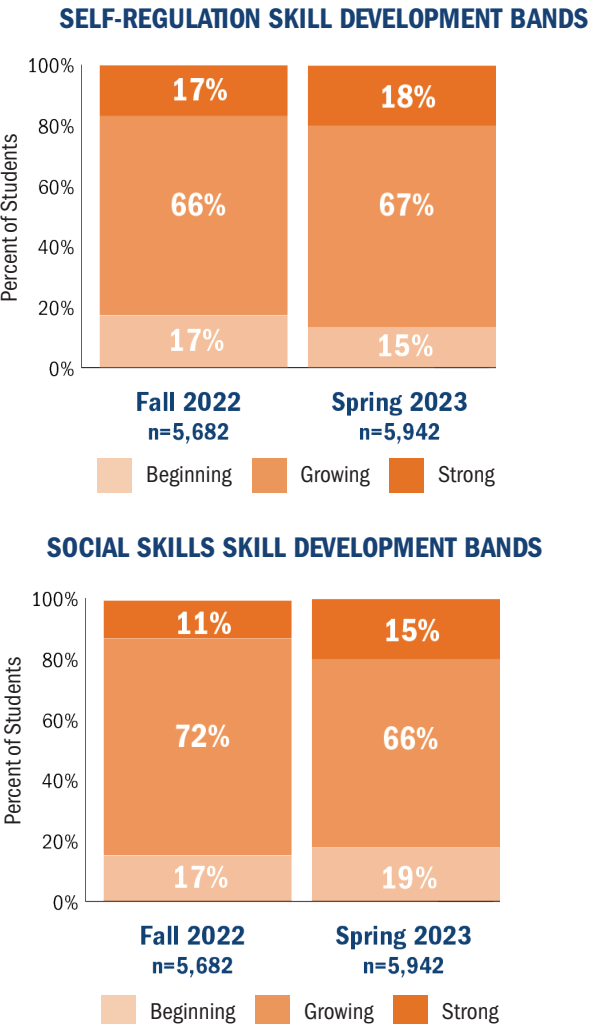


of 2022 (66% and 72%, respectively) and in the spring of 2023 (67% and 66%, respectively) (see Figure 8).

2022-2023 VKRP Three-Year-Old Pre-kindergarten Mental Health Well-Being Data

In the fall of 2022, teachers reported being moderately, very, or extremely concerned about 23% of three-year-old children enrolled in VKRP. Elevated teacher concern for three-year-old pre-kindergarten children decreased slightly in the spring of 2023 where teachers reported being moderately, very, or extremely concerned about 20% of children.

FIGURE 8: Three-Year-Old Self-Regulation and Social Skills Skill Development Bands



⁷ For more information about Skill Development Bands for VALLS: Pre-K, please contact the VLP office.

2022-2023 VKRP Three-Year-Old Pre-kindergarten Growth Data

As with the kindergarten data, we examined trends in growth⁸ of three-year-old children's scores from fall 2022 to spring 2023 in mathematics, self-regulation, and social skills. Three-year-old pre-kindergarten children tended to display strong growth in mathematics skills and modest growth in self-regulation and social skills. There was variation in children's growth across all domains with some children making robust gains, while a small percentage of children lost ground from fall 2022 to spring 2023. Child demographic characteristics were associated with growth in mathematics, self-regulation, and social skills, although the size of these associations tended to be small.

2022-2023 VKRP Four-Year-Old Pre-kindergarten Key Findings

Fall 2022 and Spring 2023 Four-Year-Old VKRP Pre-kindergarten Data

Four-year-old pre-kindergarten children also displayed a range of skills across mathematics, self-regulation, and social skills in fall 2022 and spring 2023.

For mathematics, in the fall of 2022, the largest percentage of four-year-old children's scores (51.8%) fell into the Growing Skill Development Band. In the spring of 2023, the largest percentage of these children's scores fell into the Beginning and Growing Skill Development Bands (34.8 and 34.4% respectively) (see Figure 9).

For self-regulation and social skills, the largest percentage of four-year-old children's scores fell into the Growing Skill Development Band in both the fall of 2022 (70% and 69%, respectively) and in the spring of 2023 (62% and 62%, respectively) (see Figure 10).

FIGURE 9: Four-Year-Old Mathematics Skill Development Bands

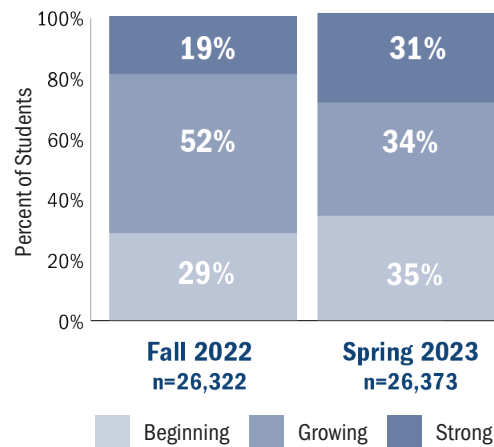
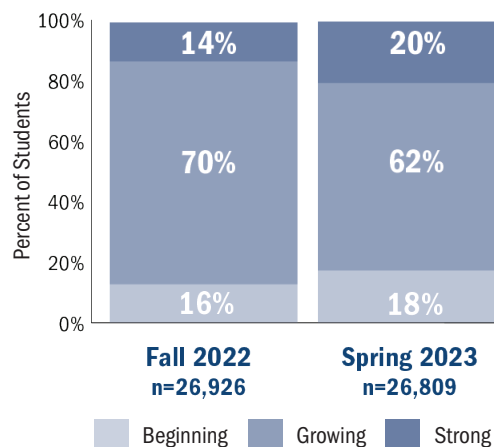
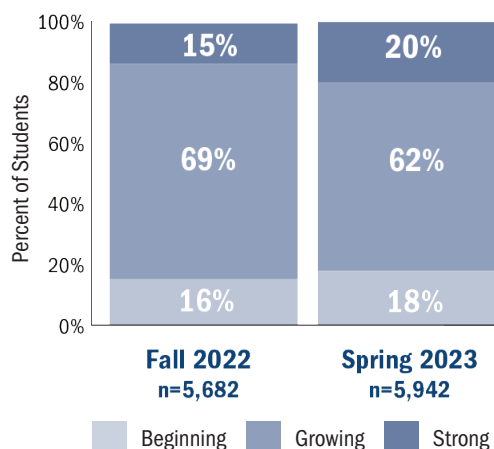


FIGURE 10: Four-Year-Old Self-Regulation and Social Skills Skill Development Bands

SELF-REGULATION SKILL DEVELOPMENT BANDS



SOCIAL SKILLS SKILL DEVELOPMENT BANDS



⁸ Growth scores on the pre-kindergarten literacy screener are still being finalized. Currently, pre-kindergarten literacy scores represent children's outcomes at each distinct time period (i.e., fall and spring).

2022-2023 VKRP Four-Year-Old Pre-kindergarten Mental Health Well-Being Data

In the fall of 2022, teachers reported being moderately, very, or extremely concerned about 19% of their four-year-old children. Elevated teacher concern for four-year-old pre-kindergarten children decreased slightly in the spring of 2023 where teachers reported being moderately, very, or extremely concerned about 16% of their four-year-old children.

Preschool teachers reported being significantly concerned about

1 in 5 four-year-olds

during Fall 2022.

2022-2023 VKRP Four-Year-Old Pre-kindergarten Growth Data

We examined trends in growth⁹ of four-year-old children’s scores from fall 2022 to spring 2023 in mathematics, self-regulation, and social skills. Four-year-old pre-kindergarten children tended to display robust growth in mathematics skills and modest growth in self-regulation and social skills.

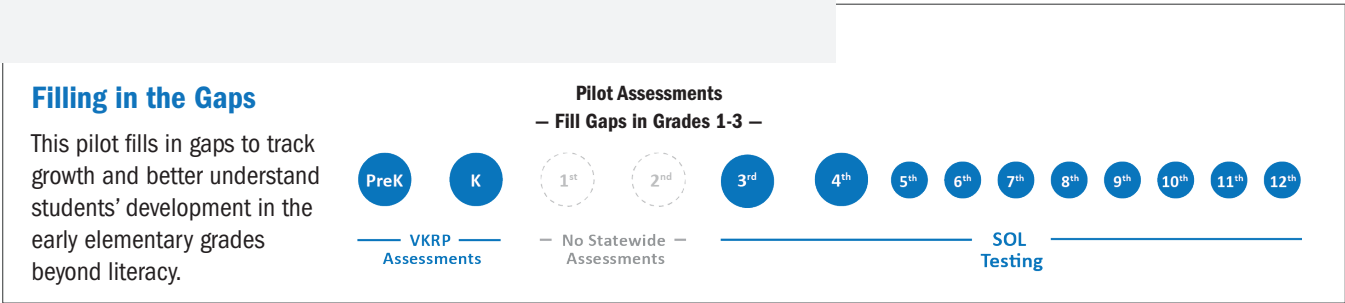
There was variation in children’s growth across all domains with some children making strong gains, while a small percentage of children lost ground from fall 2022 to spring 2023. Four-year-old child demographic characteristics were associated with growth in mathematics, self-regulation, and social skills, although the size of these associations tended to be small.

Grade 1-3 Assessment Pilot

VKRP, in partnership with VDOE, began conducting a mathematics, self-regulation, social skills, and mental health well-being assessment pilot in grades one through three (1-3 Assessment Pilot) in 2022-2023. The purpose of the pilot, required by Virginia’s 2022-2023 Biennial Budget, is to explore the utility of building longitudinal measures of mathematics, self-regulation, social skills, and mental health well-being that could potentially extend into grades one through three.

Currently, there are several gaps in existing assessments (see Figure 11). Apart from literacy, there are no statewide assessments that measure students’ early learning in these areas in grades one and two. Additionally, there are no statewide assessments that universally track students’ growth within the academic year and across academic years in these areas from pre-kindergarten through grade three (noting there are growth assessments in mathematics starting in grade three).

FIGURE 11: How the Assessment Pilot Fills Gaps in Grades 1-3



⁹ Growth scores on the pre-kindergarten literacy screener are still being finalized. Currently pre-kindergarten literacy scores represent children’s outcomes at each distinct time period (i.e., fall and spring).

Key Pilot Activity Updates

1-3 Divisions Assessment Survey

A survey was developed and distributed across Virginia school divisions to learn what assessments are currently being used in grades one through three to assess mathematics, social-emotional learning (with a particular interest in self-regulation and social skills), and mental health well-being. At least two division leaders from each of the 130 divisions across the state were identified, contacted, and asked to complete the survey. A total of 181 individuals across 109 divisions completed the survey. Initial results indicated that most divisions do not have an assessment to measure social-emotional learning or mental health well-being in grades one, two, or three. In contrast, most respondents reported having a division-wide assessment for mathematics in grades one, two, and three. Qualitative coding is ongoing to determine divisions' satisfaction with current assessments, and whether they measure growth over time.

EMAS Item Development and Piloting

EMAS Item Development

The VKRP team formed a Mathematics Working Group whose members included key staff from VDOE's Office of STEM and Innovation Team and external consultants. The purpose of the Mathematics Working Group was to provide feedback and guidance to inform the development of the Mathematics Assessment Pilot in grades one through three, provide expertise on existing mathematics measures used nationally and/or in Virginia, and develop items to be piloted in the early elementary grades. The VKRP team worked with consultants with mathematics expertise to create 237 new items across five mathematics sub-domains (Numeracy = 52, Geometry & Measurement = 43, Patterning = 36, Computation = 84, and Probability & Statistics = 22) that were then reviewed by VDOE.

EMAS Item Piloting

The VKRP team recruited 12 school divisions to participate in an EMAS item pilot. We intentionally recruited a diverse group of divisions that included variability based on urban city and size. In spring 2023, VKRP hired and trained data collectors to pilot test items in first through third grade classrooms. To date, we have collected data on 1,627 students across grades one through three. Our goal is to assess 900 students per grade to enable a rigorous psychometric analysis of item properties. Item level piloting with trained data collectors will continue into the fall of 2023.

Teacher EMAS Review

In partnership with VDOE, a sample of first, second, and third grade mathematics teachers was recruited across all eight superintendent regions to conduct a thorough review of the proposed EMAS Pilot items. A total of 40 teachers participated in the teacher review.

As part of the teacher survey and listening sessions, teachers were asked to share their thoughts about what should be considered when developing a mathematics assessment. Themes from the teacher survey and listening sessions included:

- The assessment should produce meaningful and useful data to support students' mathematics knowledge and skills and should measure growth over time.
- A direct one-on-one assessment, rather than a computerized assessment, is the most valuable testing method for mathematics.
- Physical mathematics manipulatives should be offered as part of the assessment at all grade levels.
- It is important to consider the value of additional third grade testing.

Future Directions

In the 2023-2024 school year, VKRP will:

- **Continue to support pre-kindergarten and kindergarten implementation.** VKRP will continue to support teachers', administrators', and divisions'/programs' implementation of VKRP by providing in-person trainings, webinars, and online trainings and resources for teachers and school/division/program level administrators.
- **Continue to expand three- and four-year-old pre-kindergarten participation.** VKRP will continue to be available for use in publicly funded, three- and four-year-old pre-kindergarten classrooms with continued implementation support for programs required to participate (e.g., VPI, ECSE, VECF Mixed Delivery) or who are voluntarily participating and targeted outreach to those who are not yet participating but may choose to participate.
- **Continue the grades 1-3 Assessment Pilot.** Data collection will continue in the 2023-2024 school year and data will be analyzed and used to create mathematics pilot assessments.
- **Pilot a VKRP Mid-Year Assessment.** A mid-year assessment timepoint will be piloted in three and four-year-old pre-kindergarten and kindergarten classrooms during the 2023-2024 school year. The inclusion of a mid-year timepoint for VKRP will allow teachers to better monitor students' progress over the year and to make continual instructional changes to best meet students' individual needs.
- **Continue to collaborate with VLP.** Continuing in 2023-2024, VKRP will closely collaborate with the VLP team around their development and implementation of the Virginia Language & Literacy Screener (VALLS: Pre-K) as well as the new English and Spanish versions of the kindergarten literacy screener (VALLS: Kindergarten).
- **Continue to collaborate with STREAMin³.** The STREAMin³ curriculum model supports skills and interactions that align to VKRP and highly encourages use of VKRP as a progress monitoring tool. To support VKRP use in new STREAMin³ programs, the VKRP and STREAMin³ teams collaborated to encourage VKRP use and provide individualized trainings to support new programs, many of whom were small private and family childcare programs.
- **Continue development of improved and expanded reports.** VKRP includes a robust reporting system that provides a detailed snapshot of students' academic and social-emotional skills in the fall and spring of each academic year. VKRP is planning to expand its capabilities to show students' growth across a single year and provide information about students' skills across both the pre-kindergarten and kindergarten years.
- **Continue to develop enhanced resources for families.** VKRP, in collaboration with VDOE, continues to prioritize elevating families' voices and improving families' experiences with VKRP. During the summer and fall of 2023, VKRP and VDOE are co-leading a series of family focus groups to gather feedback on the VKRP Family Information Reports and VKRP family resources. Feedback from focus groups will directly inform improvements to the VKRP suite of family resources.
- **Virginia Connects for Kids.** The VKRP team continues to collaborate with VLP and the LinkB5 teams to develop a coordinated integrated data system, Virginia Connects for Kids (VACconnects). This system will integrate statewide early childhood data collection initiatives to leverage data to maximize the impact of the three separate data systems. VLP is launching in 17 school divisions this fall in VACconnects. This year, VKRP and LinkB5 will begin to be incorporated into VACconnects. ♦