

# The Virginia Kindergarten Readiness Project

Executive Summary

*Fall 2014, Phase II*

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## Need for Kindergarten Readiness Assessments in Virginia

The results of the Virginia Kindergarten Readiness Project (VKRP) summarized in this report indicate that 34% of children in the Commonwealth arrive at kindergarten unprepared in one or more critical learning domains (literacy, math, self-regulation, and social skills). Children who enter kindergarten behind their peers rarely catch up; instead, the achievement gap widens over time. Absent early intervention, these children are also more likely to fall below grade level expectations, to be retained in school, to be placed in special education, and to drop out of high school. The Commonwealth currently uses the Phonological Awareness Literacy Screening (PALS), a pre-literacy measure, as its only assessment of children's skills as they enter kindergarten. VKRP implemented and evaluated a comprehensive readiness assessment, which provides the Commonwealth, districts, schools, and teachers valuable information about children's skills not only in literacy but in math, social skills, and self-regulation - other areas of performance key to school success. The availability of more comprehensive kindergarten readiness data across the state provides guidance to the Commonwealth's efforts to identify effective policies, interventions, and investments for young children. This executive summary report<sup>1</sup> provides a brief description of the VKRP, summarizes key results, and makes data-driven recommendations for next steps.

## Project Goals and Approach

The VKRP, commissioned by Elevate Early Education (E3) and conducted by the University of Virginia's Center for the Advanced Study of Teaching and Learning (CASTL), had the following **key goals related to understanding kindergarten readiness in Virginia**:

- Select assessment tools for use statewide to accurately assess children's incoming school readiness skills across a range of readiness domains, beyond early literacy
- Pilot selected assessments to create a "snapshot" of Virginia's entering kindergarteners' readiness skills across a range of learning domains
- Describe the ways in which children and classrooms vary in readiness skills
- Present recommendations to implement a statewide comprehensive readiness assessment
- Present data that inform public policy and funding decisions in early childhood education

The final measures for assessing Virginia children's kindergarten readiness skills were selected from among a number of options that met the following criteria: a) complemented the PALS assessment; b) had been used successfully in early childhood education research; c) demonstrated prior evidence of validity; d) aligned with the Virginia Early Education Foundation Blocks and Standards of Learning; e) were feasible for teachers to administer accurately within a reasonable time-frame; and f) offered data to teachers to guide instruction

The selected measures included: a) the *Tools for Early Assessment in Mathematics-Short Form (TEAM-SF)* - a 20-item, teacher-administered direct assessment of preschool children's number and geometric/spatial competencies; and, b) the *Child Behavior Rating Scale (CBRS)* - a 17-item rating scale completed online by the teacher that measures children's self-regulation skills (e.g., follow classroom rules, concentrate on activities,) and social skills (e.g., cooperate with peers, comply with adult directives).

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<sup>1</sup>The full report of the VKRP Phase II pilot is available. Williford, A. P., Downer, J.T., & Hamre, B. K. (2014). *Virginia Kindergarten Readiness Project--Phase 2, Legislative Report*. Research report prepared for Elevate Early Education (E3)

Teachers conducted these additional readiness assessments immediately prior to their administration of PALS.

*Children were identified as “not ready” if their scores fell below the fall benchmark/established cut point on any of the assessed learning domains (literacy, math, self-regulation, or social skills).*

The participating teachers and children included 2,036 kindergarten students drawn from 100 classrooms and 41 schools within 16 districts across the eight superintendents’ regions of Virginia. This sample was recruited to be representative of the students attending kindergarten in the Commonwealth and to be diverse with regard to geographic regions and child demographic characteristics (see Legislative Report for comparisons to statewide averages). On average, children in the pilot were 5.4 years old, 47.5% were female, 11.3% were identified as English language learners, and 7.2% had an Individual Education Plan. In terms of ethnicity, children were mostly White, Not Hispanic (51%), whereas 28% were Black, 9% were Hispanic, 6% were Asian and 6% were other.

## Results and Conclusions

### ***One third of children in Virginia enter kindergarten unprepared in at least one essential early learning domain.***

*Thirty-four percent of children entering kindergarten in Virginia are lacking key skills in at least one early learning domain (see Table 1).* This multi-skill estimate falls in stark contrast to rates of readiness based solely on literacy, i.e. PALS, which estimates that approximately 12% of students statewide enter kindergarten unprepared. This higher estimate of children entering kindergarten “not ready” reflects the reality that kindergarten teachers are responsible for supporting children whose performance varies across learning domains. The additional information about math readiness is particularly relevant given an increasing focus on the importance of developing these skills in the early years of schooling. Although Virginia’s Standards of Learning do not directly cover social skills and self-regulation, decades of research demonstrate that these skills are foundational to later school and life success.

**Table 1: Readiness Counts by Number of Domains**

Readiness	Frequency	Percent
“Not ready” in at least 1 domain	647	33.9
“Not Ready” in 1 domain	374	19.6
“Not Ready” in 2 domains	182	9.5
“Not Ready” in 3 domains	61	3.2
“Not Ready” in 4 domains	30	1.6
“Ready” in all domains	1264	66.1
Sub Total	1911	100.0
Missing	125	
Total	2036	

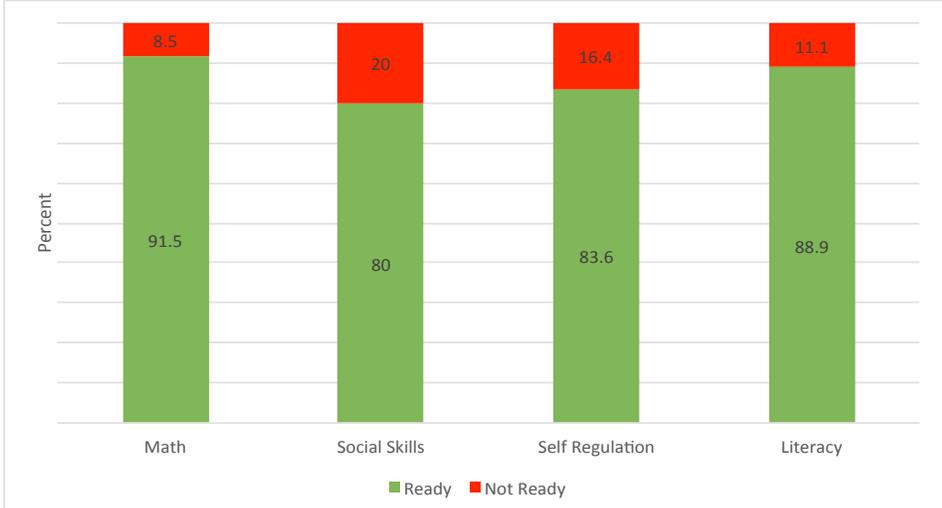
### ***A substantial number of children perform poorly in several domains of early learning.***

Fourteen percent of children entering kindergarten in Virginia demonstrate a lack of readiness in two or more domains of learning (see Table 1). These children provide unique challenges to kindergarten teachers. For example, a child who enters kindergarten without basic skills in literacy, but who can pay attention in the classroom and persist through challenges, is much more likely to respond positively to instruction than a child without these important self-regulation skills.

**Children enter school less “ready” in self-regulation and social skills than in literacy and math.**

Twenty percent of children entering kindergarten in Virginia face challenges with social skills and 16% do not possess the self-regulation skills needed in the classroom environment (see Figure 1). This is almost twice the rate of children who are “not ready” in the areas of either literacy or math.

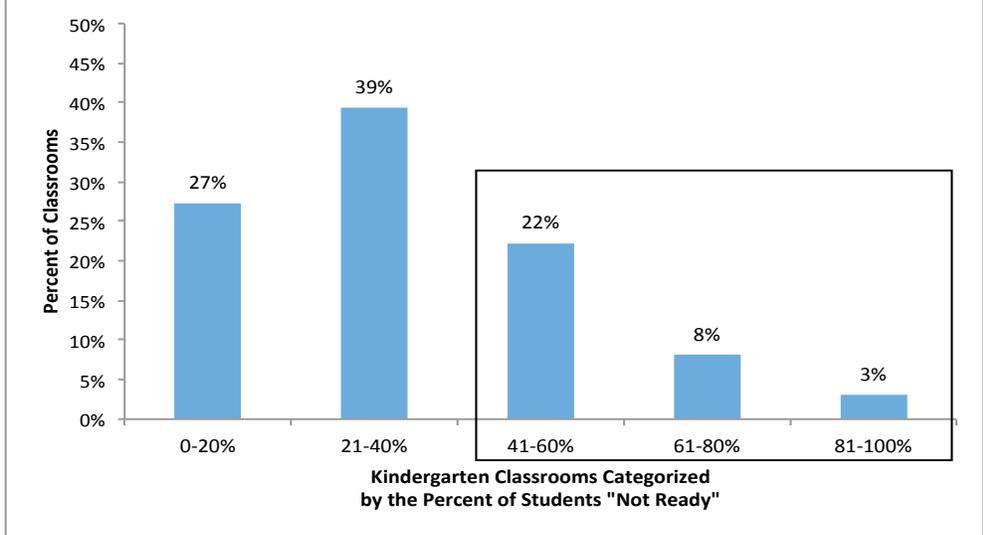
**Figure 1: Percent of Students “Ready” or “Not Ready” by Domain**



**Many teachers are faced with classrooms in which a large percentage of children are not well prepared for the daily tasks of kindergarten.**

One-third of kindergarten classrooms have more than 40% of students unprepared in at least one key learning domain (see Figure 2, adding the last 3 columns together equals one third of the classrooms in the sample). These classrooms present particular challenges for teachers as they work to support learning for all students.

**Figure 2: Variability Across Classrooms in the Percent of Students “Not Ready”**



### ***Certain children are at much greater risk for being “not ready” as they enter kindergarten.***

Schools serving more economically disadvantaged students enrolled more children identified as “not ready.” Boys, younger children, English Language Learners, and children who had an Individualized Education Plan were more often identified as “not ready.” Compared to White students, children of Black, Native American, Hispanic, or other races/ethnicities were also more likely to be identified as “not ready.” However, **significant percentages of children, regardless of their demographic backgrounds, enter kindergarten unprepared** in at least one key learning domain.

### ***Teachers can assess a broader array of readiness skills and find having this data useful but note concerns around loss of instruction time.***

Most teachers (over 94%) reported feeling confident in their ability to accurately assess their students using the chosen assessments. Furthermore, observations suggested that teachers administered the assessments as intended by measure developers. The majority of teachers felt it was useful to have readiness data broader than literacy for the children in their classrooms and that they had a better understanding of their students’ skills after conducting the assessments. Half of the teachers felt that the time it took to administer the assessments was manageable and 35% of teachers indicated that the time to complete the assessments was worth it (with 41% being undecided and 24% indicating that the time taken to conduct the assessments was not worth it).

## **Recommendations**

### ***1. Skills beyond literacy should be included in Virginia’s kindergarten readiness assessments.***

There is great value in understanding kindergarten readiness in Virginia beyond early literacy skills. The adoption of a combination of direct assessments and teacher ratings across the developmental domains of literacy, math, social skills, and self-regulation will provide a more comprehensive snapshot of children’s incoming readiness skills than is currently available.

### ***2. Implement a voluntary, statewide rollout of a comprehensive readiness battery.***

We recommend that a more comprehensive assessment be implemented on a voluntary, opt-in basis across Virginia in 2015-2016 and beyond, building from the success and infrastructure of PALS. Further development of this readiness assessment approach is required for successful implementation and requires several key steps:

#### ***a. Build consensus among stakeholders***

In Virginia, it is critical that all stakeholders and the legislature work together to ensure that other relevant data and findings are used to develop an approach to kindergarten readiness assessment that improves young children’s school success.

#### ***b. Finalize assessment protocol and teacher assessment training***

The assessments used in this pilot demonstrated utility and feasibility. There are, however, modifications that should be made to enhance ease of implementation and minimize teacher disruptions to instructional time.

#### ***c. Develop an integrated data system***

Teachers need a centralized, web-based system to efficiently input data on all assessments. Currently, each assessment has a separate data entry portal which is not feasible at-scale.

#### ***d. Make data useful for teachers***

Teachers must be able to use the data to help them understand their students’ skills and data must be linked to recommendations for individualizing instruction. Reports need to provide detailed information about individual students’ strengths and areas of challenge, describe the variability of students’ skills, and provide strategies for effectively instructing students.

#### ***e. Provide teachers with training around individualized instructional strategies linked to readiness data***

Teachers need more training and support in how to use these data to individualize instruction, particularly

in relation to strategies to support students' social skills and self-regulation.

### **3. Target social-emotional skills for early intervention prior to and within kindergarten.**

Twenty percent of children were identified as “not ready” in their social skills and 16.4% were “not ready” in their self-regulation skills – larger percentages than in math or literacy. Decades of research demonstrate the ways in which children’s self-regulation and social skills are foundational to later school and life success. For instance, self-regulation has a greater influence on a student’s academic performance than his or her intelligence. This indicates the importance of considering social-emotional learning skills as a learning target on the same level as academic skills. Thus, the Commonwealth should consider:

#### **a. Developing social-emotional learning standards for K-12 students**

Learning standards are an important driver of educational practice. Some states have developed free-standing and comprehensive standards for social-emotional skills while others have worked to more adequately integrate these standards within other subject areas (<http://www.casel.org/state-scorecard-project>). Although Virginia identifies these skills explicitly in its Foundation Blocks, they are not described as subject areas within the K-12 Standards of Learning.

#### **b. Providing teacher training on evidence-based strategies for supporting social-emotional learning**

Teachers need training and support in the use of strategies to promote students’ self-regulation and social skills. Strategies that help students pay attention, remain on task, and engage in productive group work with peers can be employed during academic instructional times, and thus are feasible for teachers to implement in their classrooms. In addition, there are effective, social-emotional curricula available at both the preschool and elementary levels that can be integrated into kindergarten instruction.

### **4. Use kindergarten readiness assessments to make data-driven policy decisions.**

A more comprehensive kindergarten assessment is well positioned within the birth-to-3rd grade continuum to serve as both an evaluation of the effectiveness of Virginia’s birth-through-preschool programs and an early predictor of later performance in school. As such, the results and recommendations in this report are likely relevant to the efforts of the newly established Commonwealth Council on Childhood Success, which is tasked to assess the health and educational needs of Virginia’s youngest children (0-8 years). In order to use the data in these ways, Virginia needs a longitudinal data system that links data on young children across agencies (e.g., Office of Head Start, Department of Social Services, and Department of Education) and across time (e.g., early intervention, preschool, K-12). Such a system will increase our capacity to understand the outcomes of state and local investments including:

- Consideration of early childhood quality improvement models that are evidence-based, effective, and cost-sustainable
- Understanding what initiatives, policies, and interventions are currently being funded in Virginia and determine which are effective in promoting school readiness

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