INCREASING THE IMPACT OF PRESCHOOL IN VIRGINIA:
LESSONS LEARNED IN VPI+

Prepared for the Virginia Department of Education

By the UVA-Center for Advanced Study of Teaching and Learning
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# Increasing the Impact of Preschool in Virginia: Lessons from the VPI+ Program

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Executive Summary

All children in the Commonwealth of Virginia should have access to quality early experiences which help ensure they have the foundational school readiness they need to thrive in kindergarten and beyond. Virginia has made important progress toward this goal through Virginia Preschool Initiative Plus (VPI+), a four-year federally funded program. This report provides an overview of VPI+ in the first three years of the grant (2015-2018) and highlights lessons learned that can inform other efforts to expand access to effective early childhood experiences for all of Virginia’s children.

VPI+ Overview: Thirteen diverse school divisions from around Virginia were selected to participate in VPI+. To support divisions in implementing these elements, the Virginia Department of Education partnered with the Virginia Department of Social Services (VDSS), Virginia Department of Health (VDH), Virginia Early Childhood Foundation (VECF) and its Smart Beginnings network, and the University of Virginia’s Center for Advanced Study of Teaching and Learning (CASTL).

VPI+ Design: Key Elements of High-Quality Preschool Programs: The VPI+ model for preschool program quality identifies four elements: effective classroom interactions, evidence-based curriculum, formative assessments, and family engagement. VPI+ expanded on prior work of the Virginia Preschool Initiative by offering children and families a number of improvements in these four elements as well as by enhancing supports for teachers and leaders.

VPI+ Impact on Children’s Learning and Development: Results from a rigorous evaluation study demonstrates many positive outcomes for children who attended VPI+, including enhanced kindergarten entry skills and accelerated growth in preschool learning within and across years. VPI+ also helped close gaps for Dual Language Learners.

VPI+ Statewide Program Implementation Successes: VPI+ increased access to PreK for children at-risk for social-emotional or academic delays and raised quality in many ways: improving teacher-child interactions, supporting effective early learning environments, enhancing curricular implementation, and building on the use of formative assessments. Programs provided families additional supports, such as comprehensive services and home visiting. To achieve these quality enhancements VPI+ provided teachers individualized PD and coaching, engaged coaches in specialized training and support, and ensured that program leaders received training and support around data use and continuous improvement.

Lessons Learned: Success of VPI+ required an investment in capacity building at all levels – state, division, school, and individual educators. The effective use of data was a consistent focus of capacity building at each of these levels – helping teachers use formative assessment data to individualize instruction, helping coaches use classroom data to target professional learning, and supporting leaders in using data to develop and maintain rigorous approaches to continuous improvement. Ongoing success will depend on: ensuring sufficient access to high quality preschool, working to help families so that children can attend regularly, helping programs to effectively meet the needs of children with challenging behavior, and continuing to invest in effective data use at all levels.
VPI+ Overview

In December of 2014, the Virginia Department of Education (VDOE) was awarded a $17.5 million, four-year expansion grant under the federal Preschool Development Grant (PDG) competition to expand access to high quality preschool. Building off the existing state preschool program, the Virginia Preschool Initiative (VPI), PDG funded the creation and implementation of Virginia Preschool Initiative Plus (VPI+). VPI+ was designed to enhance quality in existing and new preschool classrooms across selected divisions around the Commonwealth. This report summarizes the implementation and results from the first 3 years of the VPI+ program and highlights lessons learned from this project that may inform early childhood work across Virginia in years to come.

Divisions Participating in VPI+

Starting in the 2015-16 school year, 11 school divisions (Figure 1) began implementing VPI+, with 2 additional divisions joining during the 2017-18 school year. Divisions were selected to focus resources on the Virginia school divisions facing challenges in economic need and school readiness, while also representing the diversity of Virginia in terms of urbanicity, ethnicity, language learner status, and race.

Figure 1. Participating School Divisions

VPI+ Implementation Team

VDOE partnered with a number of organizations, including the Virginia Department of Social Services (VDSS), Virginia Department of Health (VDH), Virginia Early Childhood Foundation (VECF) and its statewide Smart Beginnings network of local public-private school readiness partnerships, and Center for Advanced Study of Teaching and Learning (CASTL) at the University of Virginia, to support all the elements involved in high quality VPI+ implementation.

- VDSS: Provides collaboration with Head Start programs; maintains a statewide tool that recognizes professional development of those who work in early childhood.
- VDH: Provides guidance to school divisions in funding daily snack and other nutritional and well-being services.
- VECF: Leads Virginia’s Quality Rating and Improvement System (QRIS), which provides ratings of the quality of early childhood programs and offers support for programs to voluntarily improve.
• CASTL: Supports school divisions in continuous improvement through leadership academy trainings and ongoing consultation as well as direct training and support to coaches.

Report Overview
VPI+ allowed Virginia to expand access to preschool while ensuring that children had access to the most effective preschool experiences. In the next sections we:
• Provide information on the design of VPI+ and the ways in which this expanded on prior work to build preschool programming in Virginia through VPI;
• Summarize evaluation results on the impact of VPI+ on children’s learning and development;
• Examine the implementation of these design elements over the first three years of the program; and
• Provide lessons learned and recommendations for future work to expand access to effective early childhood experiences for all of Virginia’s children.
VPI+ Design: Key Elements of High-Quality Preschool Programs

Children and Families’ Daily Experiences in the Preschool Program

The VPI+ model for program quality focuses on ensuring that every child has access to the experiences that research demonstrates have the most significant impact on children’s learning and development:

1. **Effective Classroom Interactions**: Children must experience emotionally and instructionally supportive interactions within a well-organized context.
2. **Evidence-Based Curriculum**: Teachers must fully implement a comprehensive curriculum package to support student learning and development through the use of developmentally appropriate and highly engaging learning activities.
3. **Formative Assessments**: Teachers must regularly assess children’s engagement and current skill levels to adapt activities to meet the needs of all learners.
4. **Family Engagement**: Schools and teachers must intentionally work to build relationships with families and support home-school connections in children’s learning experiences.

Figure 2. Elements of Preschool Program Quality

Source: UVA-CASTL 2018
VPI+ offered children and families a number of improvements over more typical VPI programs in these key elements of classroom experience (Table 1).

Table 1. Classroom Experiences for VPI+ and VPI

<table>
<thead>
<tr>
<th></th>
<th>Effective Classroom Interactions</th>
<th>Approved Evidence-Based Curriculum</th>
<th>Formative Assessments</th>
<th>Family Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VPI+</strong></td>
<td>Classrooms evaluated using the CLASS© measure at least Years 1 and 3. Data used for individualized PD Plan.</td>
<td>Creative Curriculum or other approved curriculum aligned to Foundation Blocks for Early Learning used.</td>
<td>Formative assessments covering all major domains of development: PALS Pre-K (literacy) and Teaching Strategies® GOLD™ (all other areas)</td>
<td>-Family engagement coordinator -Nutrition services (free daily snacks and meals) -Screenings/ referrals and coordinated supports for obtaining services (e.g., vision, dental, health)</td>
</tr>
<tr>
<td><strong>Typical VPI in 2015</strong></td>
<td>None required.</td>
<td>Curriculum selected by locality, aligned to Foundation Blocks for Early Learning.</td>
<td>-Uniform formative assessments covering literacy only (PALS Pre-K). -Other assessments locally developed or selected.</td>
<td>Screenings/referrals and coordinated supports for obtaining services (e.g., vision, dental, health)</td>
</tr>
</tbody>
</table>

Supports for Teachers

Providing effective classroom experiences cannot be solely defined nor achieved through a static indicator such as teachers’ degree status or credential earned, or through the purchase of curricular materials. Rather, teachers need preparation, individualized feedback and ongoing professional development (PD) in order to facilitate high-quality interactions and instruction that promotes all domains of children’s learning and development. VPI+ teachers had access to more individualized and intensive PD experiences than do more typical VPI teachers, as summarized in Table 2.

Table 2. Supports for Teachers for VPI+ and VPI

<table>
<thead>
<tr>
<th></th>
<th>Professional Development</th>
<th>Coaching</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VPI+</strong></td>
<td>At least 30 hours of early childhood-focused professional development a year. Individualized PD plans required and reviewed.</td>
<td>Up to 40 hours of coaching provided by a dedicated coach with specialized training in early childhood and coaching methods.</td>
</tr>
<tr>
<td><strong>Typical VPI in 2015</strong></td>
<td>At least 15 hours of PD a year with no requirements on content.</td>
<td>None required.</td>
</tr>
</tbody>
</table>
Supports for Leaders

No early childhood program can succeed without strong leadership. Leaders must have access to actionable data, engage in ongoing continuous improvement, and have opportunities to learn from others about how to best support their teachers and other staff in ways that ensure positive outcomes for all children.

Table 3. Supports for Leaders for VPI+ and VPI

<table>
<thead>
<tr>
<th></th>
<th>Continuous Improvement</th>
<th>Access to Data</th>
<th>Leadership Academies and Consultation</th>
</tr>
</thead>
<tbody>
<tr>
<td>VPI+</td>
<td>All school divisions required to develop and maintain a continuous improvement plan for VPI+ program (with goals for school readiness, transition/PreK-3, and sustainability).</td>
<td>Divisions provided with detailed reporting on classroom level (CLASS©) at least every-other-year and student data (SRI) every fall and spring.</td>
<td>All divisions attended annual leadership academies to network with grant colleagues and received regular consultation with implementation team staff.</td>
</tr>
<tr>
<td>Typical VPI in 2015</td>
<td>Not required.</td>
<td>Not provided.</td>
<td>Not provided.</td>
</tr>
</tbody>
</table>

Other Key Elements of VPI+ Programs

There were several other key elements of VPI+ design that are aligned with nationally-recognized best practices, differentiating it from more typical VPI programs. VPI+ programs had to provide full day programing for children and had to include children with disabilities.

Table 4. Other Key Elements for VPI+ and VPI

<table>
<thead>
<tr>
<th></th>
<th>Full day/Half day</th>
<th>Inclusion of children with disabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>VPI+</td>
<td>Full day (5.5) hours required.</td>
<td>% of children with disabilities served by VPI+ not less than % served through Part B, Section 619 of IDEA (5.4%) or current national average (6.4%).</td>
</tr>
<tr>
<td>Typical VPI in 2015</td>
<td>Full day (5.5) hours or Half day (3 hours) required.</td>
<td>No inclusion requirement.</td>
</tr>
</tbody>
</table>
VPI+ Impact on Children’s Learning and Development

The ultimate aim of VPI+ is to support children’s development of key school readiness skills. Evaluation results provide strong evidence of a positive impact of VPI+ on children’s skills across key developmental domains.

Children Attending VPI+ Demonstrate Key Readiness Skills at Kindergarten Entry

Across the first two VPI+ cohorts, the majority of VPI+ children entered kindergarten with key readiness skills. In fall 2017, 67% of Cohort 2 VPI+ children demonstrated kindergarten readiness, with division values ranging from 60% to 81%. The overall kindergarten readiness rate was not statistically different from that of children in Cohort 1. Figure 3 shows the kindergarten readiness rates overall and by domain and cohort.

In terms of readiness by domain, most Cohort 2 VPI+ children (87%) demonstrated readiness in literacy. The majority of Cohort 2 VPI+ children also demonstrated readiness in numeracy and counting (82%) and approaches to learning (81%). About two-thirds of children in Cohort 2 (69%) demonstrated readiness in the social and emotional domain.

Figure 3. Kindergarten Readiness of VPI+ Children, by Cohort

Source: SRI – VPI+ Comprehensive Evaluation Annual Report: Year 3

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1 Cohort 2 also entered preschool with relatively lower skills across domains than Cohort 1.
2 The assessment used for the VPI+ evaluation are not the same measures used in VKRP, except for literacy (PALS) – so these data should not be directly compared to VKRP data.
Rigorous methods\(^4\) used to assess the *impact* of VPI+ attendance on kindergarten readiness demonstrate the strongest impacts on literacy outcomes (effect sizes over 1.0), but also moderate impacts on math, self-regulation (effect sizes over .30) and small but statistically significant impacts on children’s vocabulary development (effect size of .15). These impacts are consistent with what has been found in other analyses of high-quality public preschool programs.

**Figure 4. Effect Sizes from Regression Discontinuity Design Analyses**

<table>
<thead>
<tr>
<th></th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy skills (phonological awareness) (PALS Letter sounds)</td>
<td>1.12***</td>
</tr>
<tr>
<td>Literacy skills (PALS lowercase letter recognition)</td>
<td>1.10***</td>
</tr>
<tr>
<td>Self-regulation (HTKS)</td>
<td>0.38**</td>
</tr>
<tr>
<td>Early mathematics (Woodcock Johnson III Revised Applied Problems)</td>
<td>0.33**</td>
</tr>
<tr>
<td>Language/Vocabulary (PPVT-4)</td>
<td>0.15**</td>
</tr>
</tbody>
</table>

\(^*\) p < 0.1, \(^{**}\) p < 0.05, \(^{***}\) p < 0.01

Source: SRI – VPI+ Comprehensive Evaluation Annual Report: Year 3

Furthermore, data analyses showed that VPI+ participation accelerated children’s learning in math and literacy in particular. In the year between enrolling in VPI+ and beginning kindergarten, participation in VPI+ resulted in gains of more than 15 months of mathematics skills (3.4 months more than expected based on typical development) and more than 20 months of literacy skills (8.8 months more than expected based on typical development) (Figure 5).\(^5\)

\(^4\) SRI used a Regression discontinuity design (RDD) to obtain a causal estimate of impact of participation in VPI+ on the kindergarten academic skills given children could not be randomly assigned to participate in VPI+ or not. RDD was used to compare those children who were just old enough to enroll in cohort 2 (age 4 by September 30 of the preschool year) to those children who just missed the age cutoff to enroll in Cohort 2 but subsequently did enroll in Cohort 3.

VPI+ Supports Helps Close Gaps for DLL Students

VPI+ students who were dual language learners (DLLs) showed greater gains than their counterparts across the preschool year, indicating progress in closing the learning gaps found at preschool entry. DLLs experienced particularly strong gains over the course of the preschool year with few exceptions (See Figure 6). Self-regulation continued to be the only measure in which DLLs started the VPI+ program with lower scores and made statistically fewer gains than non-DLLs. In Figure 6 below, green cells represent findings where DLL group made greater gains than the non-DLL group. Red cells represent findings where the non-DLL group made greater gains than the DLL group.
**Figure 6. VPI+ Children’s Gains, by DLL status, Year 3**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DLL &gt; Non-DLL</td>
<td>DLL &gt; Non-DLL</td>
<td>DLL &gt; Non-DLL</td>
<td>DLL &gt; Non-DLL</td>
<td>DLL &gt; Non-DLL</td>
<td>No difference</td>
<td>DLL &gt; Non-DLL</td>
<td>DLL &gt; Non-DLL</td>
<td>Non-DLL &gt; DLL</td>
<td>DLL &gt; Non-DLL</td>
<td>DLL &gt; Non-DLL</td>
<td>DLL &gt; Non-DLL</td>
<td>DLL &gt; Non-DLL</td>
</tr>
</tbody>
</table>

* significant at the <.05 level ** significant at the <.01 level *** significant at the < .001 level

Source: SRI – VPI+ Comprehensive Evaluation Annual Report: Year 3

**VPI+ Program’s Impact on Preschool Learning Improved over Time**

VPI+ school divisions engaged in an ongoing process of continuous improvement, and child learning outcomes demonstrate that they are succeeding. Children in Year 3 VPI+ programs made statistically greater gains in their preschool year than children in Years 1 or 2 on literacy, math, and social skills, behavior control, and task orientation. The only exception was self-regulation, in which gains were similar across all years. In nearly all cases, children in VPI+ Year 3 entered preschool behind their VPI+ peers from Years 1 or 2 but caught up by the spring. After analyzing demographics and risk factors of the three cohorts, we conclude that VPI+ served needier children, with better results, over time.
### Figure 7. Differences between Fall to Spring Gains for Children Across VPI+ Cohorts

<table>
<thead>
<tr>
<th></th>
<th>Cohort 3 made greater gains than Cohort 1</th>
<th>Cohort 3 made greater gains than Cohort 2</th>
<th>No differences between Cohort 3 and other cohorts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Literacy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name writing</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Upper-case alphabet recognition</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Beginning sound awareness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Print and word awareness</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Rhyme awareness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursery Rhyme awareness</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td><strong>Cognition and general knowledge</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early math</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td><strong>Social and emotional development</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-regulation</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Peer social skills</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Behavior control</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td><strong>Approaches to Learning</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Orientation</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

Source: SRI – VPI+ Comprehensive Evaluation Annual Report: Year 3
VPI+ Statewide Program Implementation Successes

The positive child outcomes demonstrated for VPI+ beg the question of how those results were achieved. Put simply, what worked? Evaluation results suggest strong implementation of the VPI+ model. In other words, children in classrooms across the VPI+ school divisions received high quality early education experiences.

Key program implementation successes include:
- Expanding access to high-quality preschool for at-risk four-year-olds;
- Improving the quality of teacher-child interactions and the classroom environment;
- Successfully implementing curricula and formative assessments; and
- Providing families with enhanced supports.

These program outcomes were achieved through:
- Providing teachers with individualized PD and coaching;
- Engaging coaches in ongoing training and support;
- Providing actionable data and leadership training opportunities for VPI+ teams.

VPI+ Expanded Access to High-Quality Preschool

VPI+ increased the number of high-quality slots available for at-risk four-year-olds in a preschool setting across the Commonwealth. Across the first three years of the grant 9,555 children were served in 121 VPI+ classrooms across the 13 school divisions. Around 40% of these (4,081) were new slots. Many school divisions were able to increase the numbers of children served each year by opening additional classrooms and ensuring that all classroom slots were filled. The total number of children served in each division are shown in Figure 8.

Figure 8. Total Number Children Served in VPI+ Divisions Year 1 to Year 3

By comparing VPI+ children to the aligned cohort of children entering kindergarten the following year, we are able to assess the extent to which VPI+ targeted children most in need of additional support. In the first year of the program VPI+ served children who were more racially and ethnically
diverse and who faced more challenges than the cohort of children attending Virginia public school at large (see Figure 9). All children attending VPI+ were from economically disadvantaged families, living at or below the required 200% of the federal poverty level. In fact, the majority of students served fell at or below the 100% federal poverty level. Compared to the larger population of children, VPI+ children were also more likely to come from homes where English was not the first language, and were more likely to be Hispanic and Black. One exception was children with disabilities. In the first year, VPI+ served fewer children with disabilities than in the aligned kindergarten cohort. One potential reason for this is some children are not diagnosed with a disability until they enter kindergarten. This point is discussed in greater detail below.

Figure 9. Demographics of Children Served in VPI+ Divisions Year 1 Compared to Aligned Kindergarten Cohort

![Figure 9](image_url)

Source: SRI – VPI+ Comprehensive Evaluation Annual Report: Year 3

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6 “Economically disadvantaged” includes students who are eligible for free or reduced meals, receive TANF, or are eligible for Medicaid for VA Kindergarten Class and includes children at or below 200% of the federal poverty level s. The statistics on ethnicity and race for VA Kindergarten Class represent the demographics of all children attending public school during the 2016-2017 school year according to VDOE Fall Membership Reports [http://www.doe.virginia.gov/statistics_reports/enrollment/fall_membership/report_data.shtml](http://www.doe.virginia.gov/statistics_reports/enrollment/fall_membership/report_data.shtml) because these demographics were not included for kindergarten only in the report.
VPI+ Improved the Effectiveness of Classroom Interactions and Environment

As part of Virginia’s tiered quality rating and improvement system (QRIS), called Virginia Quality, the Virginia Early Childhood Foundation (VECF) conducted observations of VPI+ classrooms using the Classroom Assessment Scoring System® (CLASS®) and Early Childhood Environment Rating Scale-Revised (ECERS-R) in Years 1 (fall 2015) and 3 (fall 2017) of the initiative. The goal of these observations was to provide school divisions with program-wide and classroom-level data to use to inform division-wide PD as well as to support individualizing PD and coaching plans for each teacher.

The CLASS® is a tool that measures the daily interactions between teachers and students and among students. The CLASS® measures interactions in three domains: Emotional Support (the level of responsiveness and sensitivity of caregivers), Classroom Organization (the overall organization of the classroom that teachers provide), and Instructional Support (the extent to which teachers provide and scaffold in-depth learning). CLASS® scores range from 1 to 7. Based on research documenting the levels of quality that are needed to best support children’s learning and development (and the thresholds set in Virginia’s and many other states’ QRIS), VPI+ set a goal of having the majority of classroom at 5.00 or higher in the emotional support/classroom organization domains and 3.25 or higher in the instructional support domain for programs.

Most VPI+ classrooms met these thresholds for Emotional Support and Classroom Organization in the first year (84% and 70%, respectively) and by year three over 90% of the classrooms met the quality threshold in these domains (Figure 10). Many fewer classrooms met the threshold for Instructional Support in year 1 (39%), which measures the extent to which teachers offer cognitively stimulating and language rich interactions for students. This weakness is consistent with CLASS® norms in other state pre-k and Head Start samples. However, there was notable improvement in this domain by year 3, with 59% of classrooms meeting the threshold. The average scores for CLASS® obtained by VPI+ classrooms in year 3 put them well above national norms for other samples of Head Start and state preschool programs (Hamre, 2014).
The ECERS-R is an observation tool that measures the process quality and structures of early childhood classrooms serving children ages 2 through 5. Process quality focuses on the interactions that happen in a classroom between children and staff, parents, other children, and the materials and activities in the learning environment. Structures include features such as space, schedule, and materials that relate to these interactions.

The ECERS-R has seven subscales, however, only four of the subscales were used for the purposes of the Virginia QRIS: Language-Reasoning, Activities, Interaction, and Program Structure. ECERS-R scores range from 1.00 to 7.00. The Virginia QRIS set minimum thresholds at 4.00 or higher across the four ECERS-R subscales (in line with other states’ QRIS). The average of all items in the four subscales yields a total scale score (ECERS-R Average).

Most VPI+ classrooms met the Virginia Quality threshold for overall ECERS-R scores by year 3 (88%) and there was notable improvement in two subscales from year 1 to year 3 (Figure 11). VPI+ provided significantly more developmentally appropriate activities and more effective program structure in year 3, compared to year 1.

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7 ECERS-R subscales are: (1) Language-Reasoning, (2) Activities, (3) Interaction, (4) Program Structure, (5) Space and Furnishings, (6) Personal Care Routines, and (7) Parents and Staff.
Figure 11. Percentage of Classrooms that Met the Virginia Quality Thresholds for ECERS-R in Year 1 and Year 3, by Subscale

Source: SRI – VPI+ Comprehensive Evaluation Annual Report: Year 3

VPI+ Teachers Successfully Implemented Curricula and Formative Assessments

*Classroom Curricula.* Effectively using a high-quality curriculum is one of the two most important elements for children’s learning during preschool. Using a careful review and selection process, Virginia selected *The Creative Curriculum for Preschool* to use in VPI+. *The Creative Curriculum for Preschool* is a comprehensive, research-based curriculum that focuses on the Essential Domains of School Readiness (National Research Council, 2008):

- Language and literacy development
- Cognition and general knowledge (including early mathematics and early scientific development)
- Approaches to learning (including the utilization of the arts)
- Physical well-being and motor development (including adaptive skills)
- Social and emotional development

Most divisions (9) chose to use *The Creative Curriculum for Preschool* in their VPI+ programs and 4 other divisions selected other curricula that were reviewed and verified to also be developmentally-appropriate and evidence-based. Although *Creative Curriculum* was new to all VPI+

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programs, they engaged in training and support to help ensure it was delivered most effectively. By the end of Year 3 the vast majority of teachers reported that the curriculum was good for preparing children for kindergarten and that they felt confident in their implementation of the curriculum.

Curricula can help support teachers to provide daily activities in each of the core school readiness domains. According to VPI+ teachers’ reports, large proportions of the day and week were spent on language and literacy activities, math, and motor activities and play, with a growing emphasis on science and creative dramatics as evidenced by the increased percentage of VPI+ teachers reporting spending time regularly on these content areas in Year 3.

**Formative Assessments.** All divisions used Teaching Strategies® GOLD™, which is an observation-based assessment system. It is aligned with *The Creative Curriculum for Preschool* learning objectives, and thus can assess children’s learning and development across all major areas of school readiness. GOLD™ is a performance-based assessment system in which teachers track children’s learning and development by observing their performance during authentic classrooms tasks.⁹ Across years of the grant, nearly all VPI+ teachers agreed that they felt confident both collecting and interpreting GOLD™ data. Most teachers reported feeling that GOLD™ was very useful for informing curricular and lesson planning and individualizing instruction overall; however, fewer teachers (about half) reported that GOLD™ was very useful for communicating children’s progress to families or informing instruction specifically for children with disabilities or for children who are DLLs.

**VPI+ Provided Enhanced Supports to Families**

Family wellbeing is a strong predictor of children’s school readiness, and federal guidance encourages schools to systematically support families in promoting their children’s learning, development, and health.¹⁰ As part of the PDG grant, VPI+ programs received funding to provide a comprehensive set of services to children and families to increase family engagement in children’s learning and to meet the health, mental health, and nutrition needs of children and families.

Most VPI+ teachers (over 80%) reported engaging with families in a variety of ways including sending notes home, meeting with families to get their input on their children’s learning, and inviting families to help out in the classroom. These supports were provided at fairly similar levels across years, but there were two areas of notable improvement. By year 3, most teachers (81%) visited families’ homes (compared to 62% in Year 1) and all teachers reported sending home activities to families to support their children’s learning (compared to 84% in Year 1).

Coordinators reported that large majorities of children and families had access to a wide range of local services and supports. Most VPI+ teachers also reported that several types of medical and social services supports were available to VPI+ children and families. VPI+ teachers reported increases in accessibility from Year 1 to Year 3 for a number of services, including: prenatal care, insurance enrollment, immunizations, mental health service for children, substance abuse treatment, and domestic violence services. This implies that VPI+ provided teachers (and families) more

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knowledge about comprehensive services available for families and children. Yet, data also indicate ongoing gaps in comprehensive services available (or known to be available) to children and families who might need them, including: family mental health services (64%), insurance enrollment (55%), WIC enrollment (49%), food banks (42%), domestic violence counseling (42%), prenatal care (41%), and substance abuse and treatment (34%).

**VPI+ Provided Teachers with Individualized PD and Coaching**

Most VPI+ teachers received relatively intensive PD and coaching, averaging over 30 hours annually by year 3 (up from 21 hours in year 1). Importantly, this PD and coaching was largely focused on early childhood teaching and learning: teacher-child interactions (90%); supportive environments (90%); domains of language and literacy (90%), social-emotional development (85%), and mathematics (75%), and supporting children with challenging behavior (73%).

Teachers reported satisfaction with the focus and quality professional development. For example, the vast majority of teachers (over 90-95%) reported that their coach was supportive, knowledgeable, and provided helpful feedback and resources. Most teachers (75-86%) agreed that they changed their practices as a result of coaching, consistent with the CLASS© and ECERS-R observational data improvements presented above.

**VPI+ Engaged Coaches in Ongoing Support and Training**

Coaches received support through regular trainings and individual and group implementation supports. Coaches were trained on Practice-Based Coaching11 and CLASS©, with an emphasis on evidence-based coaching strategies, including:

- having an ongoing, data-driven coaching/PD focus;
- providing sufficient intensity/dosage and supports;
- using strategies to engage and motivate teachers.

CASTL also supported coaches in planning PD and coaching. Coaches used classroom-level data to develop individualized professional development plans for each teacher that defined specific, articulated objectives for professional development with sufficient dosage to promote change. Coaches were encouraged to gather additional data to assess the impact of their PD/coaching.

In Years 2 and 3, additional content-focused supports were provided for coaches as they worked on building expertise in coaching that focused on key areas of teacher needs such as promoting social emotional development, responding effectively to challenging behaviors, and providing high quality mathematics instruction.

Across divisions there was a desire for intensive training for coaches in supporting teachers in addressing challenging behavior. Coaches were trained in the evidence-based Pyramid Model tool (the Teaching Pyramid Observation Tool, or TPOT) to support their skills in observing and supporting teachers’ social-emotional teaching practices and responses to challenging behaviors. In addition,

11 Practice-based Coaching is a framework for developed for the Office of Head Start. Resources to learn more can be found at [https://eclkc.ohs.acf.hhs.gov/professional-development/article/practice-based-coaching-pbc](https://eclkc.ohs.acf.hhs.gov/professional-development/article/practice-based-coaching-pbc)
coaches were provided the Prevent-Teach-Reinforce for Young Children\textsuperscript{12} manual, which outlines a team-based process for addressing pervasive, serious behaviors.

**VPI+ Provided Actionable Data and Leadership Training for VPI+ Teams**

Divisions received ongoing training and technical assistance to support continuous improvement and effective data use. Through annual leadership academy trainings and ongoing consultation/technical assistance, division leadership teams (VPI+ coordinators, coaches, family engagement coordinators, and other administrators), collaboratively reviewed data and used data to inform ongoing planning for continuous improvement.

Previously in these divisions, Preschool data sources were largely limited to the PALS literacy assessment required for use in VPI. VPI+ collected a wide range of new data at the child and classroom/program levels, including:

- SRI child outcome data across domains (2 times annually)
- GOLD formative assessment data (2-3 times annually)
- CLASS\textsuperscript{©} and ECERS-R (Years 1 and 3)
- SRI formative (implementation) data, including coaching/PD logs (2-3 times annually).

Divisions received trainings and support focused on most effectively using these data sources. Continuous Improvement Plans (CIPs) guided programs to focus attention and resources on two selected school readiness areas, as well as a transition/alignment goal and sustainability goal. Over time, divisions set goals and created plans for aligning their supports to teachers and families to meet these goals. For instance, teams that selected math often planned teacher professional development and family engagement activities that would address similar approaches for early math learning. Social-emotional and math were the most common areas of focus across divisions, with some divisions also focusing on literacy, language, and approaches to learning.

Lessons Learned

Successes in VPI+ Implementation and Implications for Preschool Broadly in Virginia

1) Importance of capacity-building across systems levels

When VPI+ began in 2015, many VPI+ staff were new to their roles, including coordinators and coaches who supported teachers-- and many teachers were often new to preschool, meaning they needed additional supports. VPI+ leadership teams needed to work together build foundational knowledge and skills to implement VPI+ program elements, use data, manage VPI+ program/teaching staff, and work effectively within/across larger systems (school/community) to improve and maintain quality. This was highly demanding work; the most successful VPI+ coordinators were able to set a vision for shared focus and build buy-in across their systems.

To support the capacity of all VPI+ staff, there was a need for a Technical Assistance network that provided supported directly to teams and coaches and facilitated peer learning networks. Examples of successes was CASTL and VDOE’s training/Technical Assistance (T/TA) to division teams in ongoing leadership academies and regional meetings where teams presented ongoing successes and challenges in targeted ways, informed by a continuous improvement framework. CASTL coach supports, through coach learning community calls and coach visits, allowed coaches to make their practices visible to each other and provide valuable consultation and resources to each other as well.

Finally, capacity-building requires adequate infrastructure and funding. Improving quality cannot happen without dedicated staff with adequate time to serve as effective leaders, to support teachers and families. VPI+’s success required coordinators, coaches, and family engagement coordinators aligning their efforts. And coaches, in particular, provided teachers a high intensity of ongoing PD (often 20+ hours per teacher) that is not typically provided in early childhood settings. Teachers overwhelmingly reported that coaches supported their work and were an essential part of their practice improvements. Yet, as federal grant funding for VPI+ ends, some of the 13 division coordinators reported that the quality enhancements such as coaching would be challenging to sustain due to cost. Solutions for promoting quality must be found, both at a lower cost and with higher rates of funding than previously provided in VPI.

2) Value of collaboration within- and-across systems

In order to make lasting changes for children, we must overcome silos in Early Childhood Education and across school/community systems. In VPI+, there were indications of silos – groups working independently of each other, with little time to communicate or align approaches – not only between divisions but within divisions as well. Sometimes, especially in larger divisions, there were multiple programs (e.g., VPI+, VPI, Head Start, Title 1, Early Childhood Special Education (ECSE), community programs), each with different program elements and requirements (curricula, assessments, PD) as well as staffing (leaders, coaches, etc.). Even within the same program (VPI+), different sites functioned somewhat independently of each other, such as when preschool classrooms were spread across many different elementary school buildings, each with different
principals. This made improvement efforts and scaling up implementation of effective preschool practices (e.g., tiered approaches to address challenging behaviors) more difficult.

Promising solutions for enhancing collaboration include state-level policies, programs, and technical assistance as well as local leadership funded to provide the allocation of resources (e.g., time and space) for collaborative planning. Successes at initiating greater collaboration in VPI+ included:

- ECSE/inclusion institutes (1-day training/collaboration events held regionally) that pulled together ECSE and regular education staff from VPI+, VPI, Head Start and community partners
- PreK Teacher Institute (2-day conference) and Showcase PreK in VA events starting in Year 4 (1-day PD events hosted across 6 divisions) to encourage cross-division collaboration around specific quality preschool practices (social-emotional, interactions, inclusion)
- the PreK-3 Institute (1-day conference) convening 20 teams who applied around the state representing public and community preschool and K-5 division staff.

As with quality teacher professional development, one cannot expect a one- or two-day institute, meeting, or PD to radically change practices—in this case, collaboration within and across systems. While these events initiate the critical step of bringing people together to build relationships and express commitment toward shared goals, more ongoing TA and communities of practice will be needed to support ongoing networking in meaningful ways. In-depth supports targeted to areas of particular need (e.g., inclusive practices, PreK-3/birth-to-8 alignment) will pave the way for deeper and meaningful changes in knowledge, dispositions and practices across systems.

3) Importance of focus and data use at all levels.

To focus on the right things, and know when our efforts have succeeded or not, data must guide us (at the state-, division-, site-, and classroom- levels). Work on VPI+ has underscored the value of having more child- and classroom data than previously available (CLASS®, ECERS-R, GOLD™, and SRI child assessment and implementation data). At the same time, there are needs for more and better data as well as better data systems (that are more integrated and user-friendly) to support data use at all levels for (program, classroom, child). We can only improve what we measure. As SRI evaluation data is no longer available (last year of collection will be 2018-2019), and as local funding for formative assessments reduces, collecting and analyzing new data sources (such as VKRP) will be critical. Furthermore, continuous improvement work hinges on divisions collecting additional data to recognize implementation challenges, understand root causes, and make ongoing course corrections to overcome the most pervasive challenges underscored in the last section: enrollment, student absenteeism, challenging behaviors leading to exclusionary disciplinary practices, and achievement gaps by status of poverty, race, dual language learner and special needs. To address these critical issues at scale, preschool programs around the state should network and collaborate in continuous improvement efforts.
Challenges in VPI+ Implementation and Recommendations for Preschool Broadly in Virginia

1) Enrolling children in high quality preschool presents a variety of challenges.

VPI+ sought to simultaneously increase the number of available slots for children and ensure that these slots provided children with high quality experiences. Some divisions faced challenges in meeting these goals and in ensuring that enrollment targets were met.

The first challenge was creating accessible and high-quality slots for preschool children. In the initial year of the grant, some school divisions struggled to find classrooms that met standards and were conveniently located for the families most in need of services. Transportation is a major barrier to access for many families. In urban communities, limited bus routes and drivers make it challenging for preschool programs to get all of their children to school. In more rural and suburban locations, classrooms are spread out across long distances and there are often more eligible children in one location than can be served in existing busing routes, even if there are available slots in other schools within the division.

One way to help support access is to expand partnerships with community-based ECE providers. Although most VPI+ classrooms were in public school buildings, over the past few years Virginia has support a number of mixed-delivery models that could be considered to help meet the demands of providing high quality experiences to all children. However, it is critical that these efforts take seriously the challenges of maintaining high-quality across a variety of ECE settings and not focus solely on opening additional pre-K slots. In some rural divisions there simply were not community partners available to provide services and in other divisions the available community partners lacked developmentally appropriate classrooms and facilities or had other challenges in meeting basic quality benchmarks.

Once slots were available, VPI+ programs had to ensure they were filled. The majority of divisions met or exceeded their enrollment targets in each year of the grant, but some divisions reported challenges in enrollment. In some cases they had difficulty getting enough families to apply. Over time the divisions started to use a broader set of recruitment strategies, including: working with ChildFind, the local housing authority, and community organizations; advertising on local radio and cable; and posting flyers in laundromats, churches, and stores. Once families heard about the program there were other enrollment challenges, such as difficulties completing paperwork and the high levels of mobility. To address high levels of mobility, many divisions used active waitlists to help fill available slots as quickly as possible.

These experiences suggest that building an effective system for preschool in Virginia, in which all children have access to high quality programs, requires broad community engagement and careful planning. VPI+ divisions could be helpful to other divisions in the state by sharing more detailed examples of the barriers they faced and the ways these barriers were systematically addressed.
2) **To ensure benefits of quality preschool, absenteeism should be tracked and addressed.**

The VPI+ attendance data suggest considerable variability across divisions and cohorts, with 38 percent chronically absent\(^\text{13}\) in Year 3, a significant increase from 26 percent of children in Cohort 2 overall. The percentage of chronically absent Cohort 3 children ranged from 3 percent to 50 percent across divisions. In divisions with higher rates of chronic absenteeism, many children are failing to get full advantage from the program. Absences should be tracked, better understood (e.g., collecting data to understand root causes), and addressed systematically.

3) **Responding to children with challenging behavior is an ongoing challenge to be addressed across systems levels (state, program, school/center, and classroom).**

VPI+ saw improvements in areas of improved child social-emotional learning, reduced exclusionary practices, and fewer teachers reporting needing more professional development in this area. Coaches and divisions reported success when they provided teachers more support through intensive professional development (using resources from Pyramid Model/Center on the Social Emotional Foundations of Early Learning (CSEFEL), PATHS social-emotional curriculum, and Conscious Discipline). Select divisions reported greater successes when working within their school settings and larger school divisions to put tiered systems of support into place (like the Pyramid Model and the Tier 3 process outlined in Prevent-Teach-Reinforce for Young Children).

Yet, across VPI+, exclusionary practices were still reported at the end of Year 3 by about 20% of teachers\(^\text{14}\). Also, about half of teachers continued to ask for more PD for challenging behaviors, and many division teams report ongoing systemic challenges. For instance, while new policies recommend proactive, positive, and tiered approach instead of exclusionary discipline, this is not yet leading to consistent school or center-level implementation. VPI+ leadership teams have frequently reported need for tiered systems of support with clearly defined processes (aligned with K-5) and provision of supports (coaching, mental health services, ECSE services) that adequately address challenging behaviors in proactive, systematic way—and that, to be successful, this must involve school- and center-level leaders. Without a comprehensive, systematic approach, we can continue to anticipate needs for both child-level and teacher-level supports regarding challenging behavior.

4) **To serve all children equitably and reduce achievement gaps, we must continue to collect data and work in aligned ways from PreK-3 and birth-8.**

VPI+ made strides in reducing achievement gaps for students who are Dual Language Learners (these students made greater gains than non-DLLs in most areas measured). This was likely accomplished, in part, to divisions’ use of data—seeing the gaps by subgroup shown in

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\(^\text{13}\) Chronically absent is defined as missing 10% of more days in a school year.

\(^\text{14}\) 22 percent of VPI+ teachers reported that at least one child’s family was asked to keep the child home for *at least one day*, and 15 percent reported that at least one child’s family was asked to keep a child home *for part of a day* for challenging behaviors.
SRI child data— and planning for needed continuous improvement, including more professional development including intensive coaching for supporting Dual Language Learners (using resources such as the WIDA: World Class Instructional Design and Assessment-TM tools, and the CLASS© tool: language modeling). Although the percentage dropped, a third of teachers continue to request more training in best practices for Dual Language Learners. Children who are dual language learners, in fact, continued to enter Kindergarten less ready than children who are English speaking only (60% versus 70% ready overall).

In addition, a greater focus is needed to address gaps for children with special needs (40% entering ready overall). Although more children with special needs were included in VPI+ classrooms (up to the 6% goal), on most measures, there were no statistically significant differences in gains between children with and without disabilities. On one hand, this is a positive finding that children with disabilities made gains—this may be attributed to overall classroom quality (positive teacher-child interactions, use of curriculum, and assessments). On the other hand, learning gaps were not narrowed, which we would hope to ultimately see, similar to students who are Dual Language Learners.

Finally, children of color and children with highest poverty continue to show higher needs, with a lower percentage of Hispanic children (62%) and Black children (67%) demonstrating overall kindergarten readiness than White children (71%), and Black children less likely to demonstrate readiness in math than White children. Although Hispanic children were statistically more likely than White children to demonstrate readiness in approaches to learning (an important strength to note), they were also less likely to demonstrate readiness in math than White children.

A recommendation to address these needs, more than simply enhancing supports to teachers and parents in the preschool year, is to take a comprehensive approach, PreK-3 or birth-8, to tackle the important issues. While quality preschool is important, and should continue to improve, one year cannot entirely overcome pre-existing inequities related to poverty, race, and access to services. Consistent exposure must provide needed supports, services, and high-quality educational environments across childhood.