

Assessing Kindergarten Readiness in Pennsylvania:

How Can the Kindergarten Entry Inventory Boost Skills of Young Students?

Introduction

The connection between kindergarten readiness and subsequent school success is extensively documented by educational researchers and widely acknowledged by educators, child development experts, health care providers, employers, public policy analysts, the media and parents.^{1,2} Across the country—and especially in high poverty areas—most of the children who enter kindergarten lacking basic language, math, social/emotional and psychomotor skills never catch up.³

When school systems forge strong partnerships with the early childhood education sector, more progress can be

seen in closing the school readiness gap for entering kindergarten students. Research shows when those gaps are closed, children are far more likely to do well in school and graduate. For this reason, assessing a child's readiness for Kindergarten can be an effectively early warning indicator, which if heeded can promote student success from the earliest years of primary school through high school.

To this end, the Pennsylvania Office of Child Development and Early Learning (OCDEL) developed the Kindergarten Entry Inventory (KEI) in 2011. The KEI is an observational assessment of kindergarten readiness across multiple developmental domains (English, math, social/emotional, approaches to learning and physical). The instrument offers teachers critical information about their students and it can inform school administrators and OCDEL on trends in early learning gaps so that targeted training can be strategically deployed to boost the share of students who enter kindergarten ready for school.

In collaboration with United Way of Greater Philadelphia and Southern New Jersey and supported by a grant from the Robert Wood Johnson Foundation, Public Citizens for Children and Youth (PCCY) examined the Pennsylvania Entry Inventory and utilization of similar tools with a select group of schools in Bucks, Chester, Delaware, Montgomery and Philadelphia counties that were involved in the pilot testing of the Pennsylvania KEI. This brief summarizes the findings from the 2012 pilot test of the Inventory and offers recommendations for how to improve the pace of school districts adopting it, ensure appropriate utilization of the data and spur improvement in both the K-12 and early learning sectors.

The Pennsylvania KEI is a series of thirty questions answered by a kindergarten teacher based on observations of each individual student in the first weeks of school. The teacher is asked to determine, based on her observations and a clear measurement rubric, if a child's skills are "Unable to Observe", "Not Yet Evident," "Emerging," "Evident," or "Exceeds." The response category of "Unable to Observe" is used when a teacher does not have the opportunity to observe a skill as determined and documented by the teacher. The response category of "Not Yet Evident" is defined as "the student rarely or never exhibits the behaviors listed under the other scoring categories or needs significant support to achieve these behaviors." The response categories of Emerging, Evident, and Exceeds are defined by the observable behavioral indicators listed within the tool. Behavioral indicators progress based on a continuum of skill/concept development. The response categories of Emerging, Evident, and Exceeds provide examples of specific observable behaviors to assist the teacher in determining a skill level. A breakdown of the thirty indicators by domain and an example of one indicator are pictured on the next page.

Inventory Design: Domains and Indicators on the KEI ⁵	
Key Learning Area/Domain	Indicator
Social and Emotional Development	1. Emotional Regulation
	2. Self-Awareness
	3. Conflict Resolution
	4. Behavior Regulation
English Language Arts	5. Print Concepts/Letters
	6. Print Concepts/Words
	7. Phonological Awareness
	8. Phonics
	9. Text Analysis
	10. Text Structure
	11. Stages of Writing
	12. Writing Process
	13. Expressive Language
	14. Receptive Language
	15. Collaborative Communication
	16. Conventions of English Language
	Mathematics
18. Naming Numbers	
19. Operations and Algebraic Thinking	
20. Identifying Shapes	
21. Positional Words	
22. Measurement	
23. Data	
24. Curiosity and Initiative	
Approaches to Learning	25. Stages of Play
	26. Engagement, Attention and Persistence
	27. Task Analysis
	28. Reasoning and Problem Solving
Health, Wellness and Physical Development	29. Control and Coordination – Fine Motor
	30. Control and Coordination – Gross Motor

KEI Sample Page ⁶				
Domain: Mathematics				
Indicator 17: Counting Standard: Student knows the count sequence.				
				
1. Indicate the developmental skill level the child has mastered.				
Not Yet Evident <input type="radio"/>	Emerging <input type="radio"/>	Evident <input type="radio"/>	Exceeds <input type="radio"/>	
Student rarely or never exhibits the behaviors listed under the other scoring categories OR needs significant support* to achieve these behaviors.	Attempts to count to twenty, but may skip numbers, repeat numbers, or place numbers in an incorrect order.	Counts to 20.	Counts past 20.	
<i>*Students receiving accommodations provided as part of his or her IEP/504 plan should be scored under the scoring category which reflects the student's behavior with this necessary support.</i>	Examples > During circle time, Kaden begins to count his peers "1,2,3,5,6,7,9,11." > At the math center, Bill lines up the unifix cubes and counts them "1,3,4,4,6."	Examples > Walking down the steps to the playground, Brayden counts to 20. > In the math center, Julia counts out 20 bears to put in her bowl.	Examples > While jumping rope on the playground, Susan counts 25 jumps. > While passing out napkins during snack, Nykeesha counts out 28 napkins.	
2. Record evidence for this rating here:				
3. Unable to determine a skill level: <input type="radio"/> I have not had opportunity to look for this skill. <input type="radio"/> Other, please explain: _____				
Indicator 17:	Counting			PA Kindergarten Inventory

Based on the Pennsylvania application for federal Race to the Top Funds, in 2012 more than 200 teachers who participated in the pilot observed more than 4,000 kindergarten children using the KEI. Nearly 90 percent of teachers who participated in the pilot indicated that they were extremely or moderately confident that the KEI results accurately reflected each child's skill level at kindergarten entry.⁷

Background on Kindergarten Readiness

Pennsylvania is one of several states deploying some form of kindergarten readiness assessment. The Economy League of Greater Philadelphia published a companion paper to this brief summarizing the approach used in other leading states deploying kindergarten readiness assessment systems.⁸

The Economy League's research and PCCY's own findings indicate that Maryland was among the earliest adopters, having launched its kindergarten readiness assessment system more than thirteen years ago.⁹ The assessment was one of several strategies adopted by the Maryland Department of Education to achieve its kindergarten readiness objectives. These objectives were based on the following goals that express the conditions necessary for early school success:

- + Children must be in good health, both physically and mentally, to actively engage in learning,
- + Parents must be encouraged and supported to fulfill their role as their children's first teachers, and
- + Children must have access to high quality and developmentally appropriate early care and education programs that aid in their preparation for school.¹⁰

The Maryland strategy has demonstrated impressive results. In the eleven year period from SY 2001-02 to SY 2012-13, the readiness of incoming kindergarten students increased from 49 percent to 82 percent. Among African Americans, student readiness rose from 37 percent to 79 percent and among Latinos it increased from 39 percent to 71 percent. The state did not change its assessment tool or measures in that period, thus the results are reliable and demonstrate that well designed policies and effective deployment strategies can close a significant portion of the school readiness gap.

This brief offers specific recommendations that if adopted could ensure that the Pennsylvania school readiness gap is closed at rates akin to those seen in Maryland, or even better.

Maryland's Definition of School Readiness¹¹

MMSR		Family Child Care Providers	Center Directors	Kindergarten Teachers
Language/Literacy, Mathematical thinking	Pre-Academics	<p>Highlighted in 3 of 4 family child care provider groups</p> <ul style="list-style-type: none"> Basic knowledge (colors, letters, numbers, basic vocabulary) Pre-literacy skills (sounds, sight words, early reading) Pre-numeracy skills (sorting, drawing patterns, counting) 	<p>Highlighted in 3 of 4 center director groups</p> <ul style="list-style-type: none"> Basic knowledge (colors, letters, shapes) Writing skills: (ability to write one's name) Pre-literacy skills (early reading) Pre-numeracy skills (counting) 	<p>Highlighted in 2 of 2 kindergarten teacher groups</p> <ul style="list-style-type: none"> Basic knowledge (colors, letters, shapes, basic vocabulary) Verbal skills (ability to use vocabulary words in a classroom setting) Pre-literacy skills (knowledge of how to hold a book)
	Social Skills	<p>Highlighted in 4 of 4 family child care provider groups</p> <ul style="list-style-type: none"> Follow directions and rules (sit and listen) Ability to positively interact with other children (respect and work well with others) Ability to express oneself 	<p>Highlighted in 4 of 4 center director groups</p> <ul style="list-style-type: none"> Follow directions and rules (walk in a straight line, sit quietly, raise one's hand, listen quietly) Ability to positively interact with other children (play in a group, share) Ability to pay attention and participate in group activities 	<p>Highlighted in 2 of 2 kindergarten teacher groups</p> <ul style="list-style-type: none"> Follow directions and rules (stand in line, not touching others) Ability to positively interact with other children (sharing) Knowledge of personal space boundaries Ability to express oneself (communicate needs and wants)
Personal and Social Development	Emotional Skills	<p>Highlighted in 3 of 4 family child care provider groups</p> <ul style="list-style-type: none"> Ability to regulate emotions (control anger and rage) Positive self-esteem Excitement about learning 	<p>Highlighted in 2 of 4 center director groups</p> <ul style="list-style-type: none"> Ability to regulate emotions (control anger without being aggressive) Positive self-esteem Excitement about learning 	<p>Highlighted in 2 of 2 kindergarten teacher groups</p> <ul style="list-style-type: none"> Self-esteem/self-worth Excitement about learning (curiosity, inquisitiveness)
	Practical Life Skills	<p>Highlighted in 2 of 4 family child care provider groups</p> <ul style="list-style-type: none"> Ability to take responsibility for belongings Personal hygiene (ability to use the bathroom independently, hand washing) 	<p>Highlighted in 2 of 4 center director groups</p> <ul style="list-style-type: none"> Ability to take responsibility for belongings Ability to dress self (tie shoes, put coat on) Ability to stay awake during the day Ability to make choices 	<p>Highlighted in 2 of 2 kindergarten teacher groups</p> <ul style="list-style-type: none"> Ability to dress self (tie shoes) Personal hygiene (ability to use the bathroom independently)
	Motor Skills	<p>Highlighted in 1 of 4 family child care provider groups</p> <ul style="list-style-type: none"> Ability to hold crayons/pencils, cut, and type 	<p>Not highlighted in any center director groups</p>	<p>Highlighted in 2 of 2 kindergarten teacher focus groups</p> <ul style="list-style-type: none"> Ability to hold pencils, trace, and cut
Physical Development and Health	Safety Information	<p>Highlighted in 3 of 4 family child care provider groups</p> <ul style="list-style-type: none"> Knowledge of safety information (parent's name, home address and phone number, police as safe resource) 	<p>Highlighted in 1 of 4 center director groups</p> <ul style="list-style-type: none"> Knowledge of safety information 	<p>Highlighted in 2 of 2 kindergarten teacher groups</p> <ul style="list-style-type: none"> Knowledge of own name

The Pennsylvania Landscape

The process of evaluating kindergarten learning skills is not a new practice in Pennsylvania. Pennsylvania's 2013 application for Federal Race to the Top funds indicated that, "forty percent of districts (representing 39 percent of students) use a home-grown assessment to evaluate children at kindergarten registration based on letter and sound recognition, phonemic awareness, number sense, oral language, fine and gross motor skills, and listening skills as well as vision and health screenings. Twenty-five percent of districts (representing 22 percent of students) use an off-the-shelf assessment such as Ages and Stages, AIMSweb, Bracken School Readiness Assessment, Brigance Early Childhood Screener, DIBELS, DIAL, PALS Pre-K, and Pearson's Early Screening Profiles. Thirteen percent (representing 12 percent of students) use a combination of home-grown and off-the-shelf assessments; twenty-two percent don't use an assessment."¹² The widespread use of different instruments demonstrates acceptance that assessment is a routine practice among kindergarten educators.

This data also demonstrates that across the 500 school districts there is no consistency of approach. PCCY found that within districts and even within school buildings, kindergarten teachers are using different instruments to assess kindergarten student skills. As a result, the state, districts and principals are unlikely to have a clear or cogent sense of the readiness gaps or learning needs of their youngest students. Moreover, the absence of consistent and reliable data at the state level means that investments and policies aimed at promoting school readiness are under-developed and to some extent might be ill-informed or misdirected. If deployed appropriately, the KEI could remedy this situation.

To address the varied approach used among school districts and within schools, in 2011 the Pennsylvania Department of Education embarked on the creation of an observations based kindergarten readiness assessment tool that could be used by all school districts. The state pilot tested a tool over three years, improving the tool in each of those years and developing teacher training to ensure reliability. Based on the Pennsylvania application for federal Race to the Top funds, in 2012, more than 200 teachers assessed more than 4,000 kindergarten children using the 2012 version of the KEI. With the receipt of a \$50 million federal Race to the Top Early Learning Challenge grant, the state now has the capacity to spur improvement in the number of districts using the KEI, the fidelity of its administration, and its use to inform the design and delivery of professional development to address student readiness gaps.

The state has also made progress in standardizing the assessment tools used by state subsidized early learning providers. In 2012, in an effort to improve instructional alignment between the early learning sector and the K-12 sector, the Pennsylvania Department of Education revised what state funded early childhood education providers could use to report their student level early learning outcomes. The state selected a limited set of assessment tools that are aligned to common standards and the KEI.¹³ While this policy shift is a move in the right direction, there is no available data on what share of providers are using these assessments, and the lack of one standard assessment makes it difficult to draw conclusions about student needs and trends in readiness.

Local Reaction to the Pilot Test of Pennsylvania's KEI

PCCY interviewed kindergarten teachers across the region who in 2012 and 2013 participated in the state's pilot test of the KEI instrument. OCDEL's data indicated that 32 Philadelphia teachers and 27 suburban teachers were pilot test participants.

Philadelphia

PCCY visited ten elementary schools in the Spring of 2013 to observe how kindergarten instruction was delivered and interviewed 13 kindergarten teachers who piloted the KEI in fall 2012. The purpose of these visits and interviews was to capture teacher reactions to the instrument and their general concerns about their students' readiness. In addition, seven principals from these ten schools were interviewed. The purpose of these interviews was to assess principals' knowledge of the KEI and its purpose, and to gauge the extent to which they were working in collaboration with pre-k providers on the instructional alignment needed to prepare students for early school success.

PCCY found that all the teachers viewed the comprehensive nature of the KEI as a strength. Teachers remarked that the KEI was more robust than the one-dimensional DIBELS assessment which measures a child's literacy skills only, which the District had been using.

One challenge to introducing a new more comprehensive assessment such as the KEI is the training necessary to ensure the reliability of its results. Several interviewees noted difficulty in applying the observational rubrics to more abstract indicators such as interpersonal skills and approaches to learning. Teachers with limited technology skills found inputting the data very time consuming. On average, teachers spent approximately 45 minutes completing the KEI for each student.

In talking with teachers and principals it was evident that in these ten schools there is little to no contact with the pre-k programs from which their students come. Even in the case of Head Start classes located in the elementary school itself, the Head Start and kindergarten teachers attend separate professional development sessions and rarely interact. Kindergarten teachers and their principals expressed eagerness to deepen their connection to and collaboration with their pre-k feeder programs, but they had few ideas about how such efforts could work, given scheduling difficulties, student mobility, and the absence of clear feeder patterns from pre-k to elementary school.

Further, with respect to the use of assessment to inform and improve instruction, the interviews found no professional development activities in 2012 specifically designed to help teachers improve or adjust their instructional strategies in response to the results of the DIBELS or the KEI. Likewise, there was no evidence that teachers or principals were actively working with pre-K providers, or engaging families to help boost school readiness skills among incoming students.

In September 2014, the Philadelphia School District began to bridge the gap between its District managed early childhood programs and kindergarten instruction by offering common professional development to the educators in both sectors.

Included in this professional development effort was a review of the Kindergarten Readiness Inventory. Further, all 400 of the district's kindergarten teachers have been trained to complete the KEI and are expected to input their results into the state-managed data system in October 2014.

Suburban Districts

Very few teachers or schools in suburban school districts participated in the pilot test. As a result, interviews were conducted in two districts that had pilot tested the instrument in the fall of 2012, as well as several districts that did not to participate in the pilot that year and two additional districts that anticipated participating in the 2013 pilot (but ultimately did not). Three districts illustrate the varied reactions to the OCDEL effort to test the KEI:

- + In one district that was gearing up for 2013, teachers and instructional support staff reported looking forward to sharing the KEI findings with parents. The acting director of education and assessment wanted to institute a research-based assessment and was encouraging principals to conduct pre-k to kindergarten transition activities that help parents and young children become familiar with their kindergarten settings and expectations as well as all paperwork requirements before the child starts attending kindergarten.
- + A large cohort of eleven teachers from one district participated in the pilot. They found the KEI to be less rigorous than the common assessment they had been using, which included the DIBELS, which they use for literacy, the TOEN for numeracy, as well as observations and children's journals, all of which are assessed three times a year.
- + A third district that was unable to participate in the pilot -- because they did not have enough notice to gear up for training over the summer -- indicated that they thought the KEI would be especially promising if the data it would yield offered longitudinal tracking of student progress, and if it captured each student's preschool experiences.

Some other suburban districts did not see the efficacy of adopting the KEI. Similarly, a principal reported that their locally designed assessment was superior to the KEI, and another felt its literacy elements did not have enough depth. At another extreme, one principal reported that all their students were already well prepared for kindergarten so did not need this assessment tool.

Other districts expressed concerns about the time necessary to administer the assessment and record the results. Concerns were also raised regarding the State's requirement that the assessment be completed in the first 45 days of school; the teachers felt that meeting that deadline would take valuable time away from the urgent task of getting children accustomed to kindergarten routines.

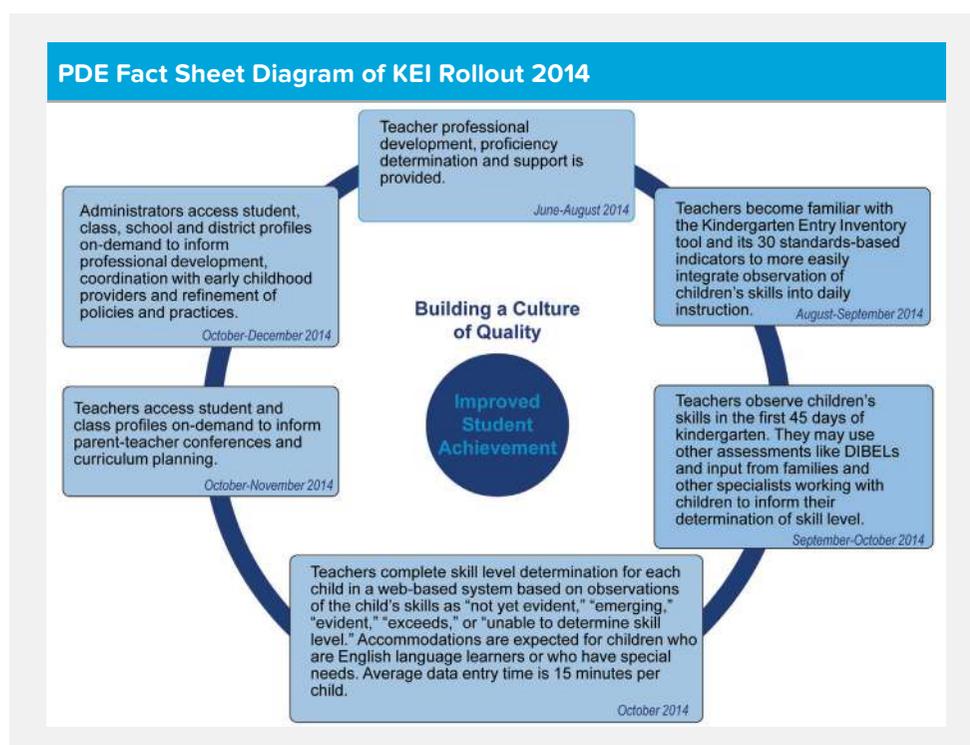
Recommendations for Making the KEI Matter

The following recommendations are intended to ensure that the implementation of the KEI enhances students' kindergarten readiness and subsequent school success.

OCDEL must create and implement a substantial, ongoing and multi-year communications strategy aimed at building public and educator support for the KEI

Mounting disaffection with standardized testing among both educators and parents can cause some critics to suggest that the KEI is a "kindergarten PSSA" that will result in even earlier "teaching to the test." For this reason it would be helpful to prepare teachers with tools so that they can effectively explain the KEI to parents. Further, the state must help by communicating directly with parents in ways that prove that the KEI is an observational tool used by teachers to assess students' skills; that its purpose is to facilitate the delivery of additional supports to both students and teachers where needed; and that parents can learn from the KEI and help their children develop the skills needed as they start school.

In July 2014, the state published a fact sheet on the KEI that emphasizes that the KEI is *not* a paper and pencil test administered to students whose scores are used to evaluate or rank pre-school programs, teachers or schools, or to bar student entry to kindergarten. But it will take much more to ensure parents that understand the benefits of the KEI.¹⁴ The Department must build on its early communications efforts by developing and rolling out a strong and consistent outreach effort aimed at building public acceptance and educator buy-in. The best metric to know if this recommendation has been achieved is that early childhood program staff and directors, kindergarten teachers and principals become knowledgeable, articulate spokespersons for the KEI.



OCDEL must include the early learning sector as a leading partner in boosting kindergarten readiness

In the three years of the pilot test, OCDEL did limited outreach to leaders in the early learning sector. Due to the restricted approach to outreach in the sector, some pre-k providers have developed their own understanding of what the KEI is and some are concerned that the results of the KEI will be used to gauge programs and result in punitive state practices for programs where children exhibit large readiness gaps. A deeper conversation in the early learning sector focused on kindergarten alignment is eminently reasonable and necessary. Specifically, the State must work to build trust, clarity and the basis of a conversation. To this end, OCDEL should:

- + Disseminate the KEI to all early learning programs and host workshops throughout the Commonwealth to help early learning program staff understand what children are expected to know and be able to do when they enter kindergarten, and
- + Help those early childhood programs/staff develop instructional practices that more effectively boost the school readiness skills of children they enroll. This is an opportunity to promote the KEI in the context of PA's Pre-K Early Learning Standards, which were revised in 2014 to align with both the PA Core and elementary grades. Because half the state's early learning programs do not participate in the Keystone STARS, they are unlikely to be familiar with the standards and the connection would not be obvious to them.

OCDEL must prepare elementary school teachers and leaders and early childhood education program staff and directors to develop common strategies to communicate what the KEI means for parents.

As their children's earliest teachers, parents can have a huge impact on academic and social development long before their children enter pre-k. The sooner they support healthy development and understand its indicators, the more likely their children will attain kindergarten readiness by age 5. Further, based on our discussions with superintendents, principals and teachers, it was evident that schools were eager for parent education materials that would describe in layman's terms for parents what skills their children need to start school ready to learn.

Given the need to engage parents, OCDEL should:

- + Develop a strategy with the primary school and early childhood education sectors to effectively engage parents in boosting school readiness skills,
- + Create resources that build parents' understanding of the rationale for the KEI and how to reinforce progress on kindergarten readiness objectives at home throughout their children's early childhood, and
- + Give parents simple information in electronic, text and print formats on how to interpret their child's KEI results.

OCDEL must be intentional and clear about the KEI and its implications for students with significant development delays and students with learning differences

Far too many children enter school with undiagnosed developmental delays. In some cases those delays require extra services from specialists; in other cases the child can thrive if the teacher has the full portfolio of basic instructional skills needed to help the child compensate for learning differences. For this reason OCDEL must

- + Intentionally consider when and how the KEI will trigger deeper developmental screening, and where necessary, referrals to special education or Early Intervention depending on the age of the child.
- + To avoid the likelihood that a child with a low assessment might be assumed to need special education services, OCDEL must design professional development to help teachers recognize, understand and address learning differences with specialized instructional practices and materials, where appropriate. For students with IEP's, as of 2014, the KEI now clarifies that the observing teacher should refer to the IEP to consider how to assess the individual student on each indicator.

PDE must ensure collaboration among its key departmental leaders to boost school readiness

The Deputy Secretary of OCDEL reports jointly to the Pennsylvania Secretaries of Education and Public Welfare. Meanwhile the Deputy Secretary of Elementary and Secondary Education has purview over all K-12 instructional and assessment activities. The Deputy Secretary of Higher Education's responsibilities include the certification programs in the schools of education within the state's higher education institutions. To boost the kindergarten readiness of young children, the Secretary of Education must convene these three key system leaders and align their work to support the full adoption and impact of the KEI. The following findings and recommendations support the need for this sort of collaboration.

As our interviews with school administrators and teachers found, some professionals in the field are either not aware of the need to assess readiness or are under the mistaken assumption that such assessment is not needed. Meanwhile, as families are increasingly mobile, teachers would benefit from more consistency of kindergarten readiness expectations both within and across school districts so they can ensure common messages are sent to parents. Further, we heard from the field that the absence of a common tool that can identify trends in skills gaps has contributed to a lack of available professional development for K-3 teachers or focused training to help new teachers gain the skills to close the gaps. Finally, the absence of a common assessment tool means that many early learning sector providers don't have the clarity needed to ensure they are focusing on helping children develop the skills they need for school success.

For this reason, the PDE Secretary must ensure that the Deputy Secretaries of Elementary/Secondary Education and the Deputy Secretary of Higher Education are focused on building knowledge and buy-in for the KEI utilization and the improvements necessary to instructional practices that arise from the assessment results.

To address these challenges, PCCY offers several recommendations:

- + **Build a common understanding across the full spectrum of education professionals of the purpose and opportunity presented by the Kindergarten Entry Inventory.** To close the gap in common understanding and the need for a common approach to assessing readiness, OCDEL and the PDE Deputy Secretary for Elementary and Secondary Education should jointly design professional development modules based on the KEI, itself an indicator of whether and how well the Early Learning Standards are being used to overcome the apparent lack of continuity in actual practice between pre-k and K-3 programs.

- + **Help teachers learn how to use the KEI results to inform instruction.** To achieve its remarkable results, Maryland rolled out a ten-year plan to train administrators and staff in both the early learning and K-3 sectors. Unfortunately, in Pennsylvania much more must be done to connect these sectors with respect to creating clear expectations and common, high quality teaching practices. As a result, each of the 500 school districts is left to invent its own approach to train its teachers and there is little consistent interaction with the early learning sector.

To address this clear professional development gap, the PDE Deputy Secretary for Elementary and Secondary Education should convene national experts to learn from them the best ways to assist early childhood teachers and elementary school administrators and teachers to use the KEI results to sharpen their instructional practices to improve student outcomes. Once these practices are clearly delineated, the Department should use its professional development infrastructure, tap intermediate units and certify new professional development providers (per Act 48) to deliver the training needed for K-3 teachers to boost their instructional skills. OCDEL should use its Race to the Top, Child Care Development Block Grant and other available resources to ensure that sufficient training is provided to the early learning sector staff.

- + **Make sure new teachers are prepared to put the KEI to use.** The teacher preparation pipeline also warrants attention. The schools of education must ensure that graduates with elementary education degrees understand the KEI and the instructional strategies to employ based on its results. Providing this training in the pre-service stage of a teacher's career should yield a better qualified workforce, while reducing the need for more intensive in-service programming for staff and more remedial interventions for children in their later school years.

As such OCDEL and the Deputies of Elementary and Secondary Education and Higher Education must collaborate to convene higher education institutions which certify child development associates, pre-K-4 teachers, elementary principals, and superintendents to examine statewide and district KEI findings to determine where and how their certification programs can improve alignment with program, school and student needs.

- + **School district leaders need to be intentional about using the KEI to improve outcomes for children.** The roll-out of any student assessment system is rife with challenges; training teachers to conduct observational assessments in ways that ensure the integrity of results is just the first step. Districts must also plan for systems that give the teachers the supports and time necessary to conduct the assessment. Typically the biggest element of the roll-out is the training for teachers and administrators on interpreting the results in ways that drive instructional change and improved student outcomes.

The most frequently overlooked elements of a new assessment system are the processes and materials needed to help parents understand the tool, its purpose and use. All of these system elements must be addressed by school administrators.

Specifically we recommend:

- + **Make sure teachers have the time and support necessary to implement the KEI system.** Time is a significant factor with respect to the KEI. As stated, the instrument takes about 45 minutes per student to conduct and input into the web-based tracking system. Without adequate supports, kindergarten teachers are more likely to view the KEI as yet another burden, rather than a valuable tool to guide improved instructional practice. School administrators will need to consider the appropriate use of classroom aides or substitutes to cover kindergarten classes while teachers are recording KEI assessments, inputting the data, and reorganizing classrooms to reflect the need for differentiated instruction.
- + **Create school-based processes that ensure integrity of the KEI results.** OCDEL delivers KEI training via webinars and a self-paced instruction model. This distance learning approach might need to be augmented with direct support from school administrators in order to ensure that teachers are using the instrument correctly. Principals and higher level school administrators would be wise to create useful information systems that help administrators know when teachers are struggling with the assessment so that training can be strategically deployed to those who need assistance.

- + **Identify the strategies that keep well-prepared students motivated and advancing while ensuring accelerated progress of less prepared students.** Interviews with teachers in some school districts uncovered that sometimes teachers must focus all of their attention on students who are less prepared, causing the more prepared students to atrophy. This finding is consistent with national research on the factors contributing to what is known as the “Head Start Fade Out Effect” which finds that, in some cases, Head Start students who start school more advanced than their non-Head Start peers are typically not performing better than these peer students by the end of third grade. The KEI is likely to cause teachers to become more aware of and focused on the needs of students who are not well prepared for kindergarten. To protect against the atrophy of students who are fully ready for school, school administrators must work with teachers to design specific strategies for sustaining the performance of students who enter kindergarten with good skills and for accelerating the academic development of struggling students. Similarly, districts will have to help teachers acquire the skills needed to help the children who are less prepared “catch-up” so they are ready for first grade and beyond.

- + **Continue to measure social and emotional learning gains.** Decades of research and training has outfitted Head Start and other high quality early learning programs with a well researched approach to helping young children develop across the full spectrum of cognitive, social and emotional domains. But as children transition to K-3 the focus increasingly shifts exclusively to cognitive skill development. For example, despite recent research findings that non-cognitive skills are a stronger predictor of adult success than cognitive skills, the Philadelphia School District grades kindergarten students on 14 social/emotional skills and students in grades 1-3 on only four elements of social and emotional development. To ensure that young children develop the full range of social and emotional skills needed for school and life success, districts would be wise to revise report cards to reflect the importance of these domains, building on effective early learning practices.

Conclusion

Our research shows that significant challenges remain in ensuring that the adoption the KEI is linked to a systemic approach to boosting Kindergarten readiness and early school success. It appears that OCDEL has developed an instrument that could trigger significant improvements in both the early childhood education sector and in primary schools. The tool has the potential to help stimulate the long overdue discussion to ensure instructional alignment between these two important early learning sectors – those serving pre-school children and our primary schools. Further, if primary school teachers are prepared to use the results of the tools and adjust how they teach, the KEI can be the lynchpin in boosting the share of students who succeed in K-3 education and beyond. Such potential will be realized if early childhood educators in both sectors and parents view the KEI not as an end in itself but as a means for enhancing instructional practices and if these educators are given the resources, training, and support to so.

We expect that just as in Maryland, widespread adoption of the KEI will demonstrate that extraordinary school readiness gaps are holding back student achievement levels across the state. The results of the KEI are likely to point to the specific areas where there is a need for additional resources to build the reach and effectiveness of the early childhood sector. With this information, elected officials and the public will have powerful information to use to build the case for increased investment to improve the learning experiences of preschool-aged children, which will, in turn, boost grade level reading by fourth grade and ensure that all children graduate college- and career-ready.

Endnotes

1. W. S. Barnett, "Effectiveness of Early Educational Intervention," *Science* 333, no. 6045 (August 19, 2011): 975–78, doi:10.1126/science.1204534.
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Public Citizens for Children and Youth (PCCY) serves as the leading child advocacy organization working to improve the lives and life chances of children in the region.

Through thoughtful and informed advocacy, community education, targeted service projects and budget analysis, PCCY watches out and speaks out for children and families. PCCY undertakes specific and focused projects in areas affecting the healthy growth and development of

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Founded in 1980 as Philadelphia Citizens for Children and Youth, our name was changed in 2007 to better reflect our expanded work in the counties surrounding Philadelphia. PCCY remains a committed advocate and an independent watchdog for the well-being of all our children.

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