Indistar®
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Early Childhood Indicators (School-based pre-K through grade 3)

Access Children have access to early learning opportunities
1. District offers all children free full-day, full-week Kindergarten. (p 3)
2. All preschool-aged children in the district have access to free high-quality pre-Kindergarten (pre-K). (p 6)
3. District has a system in place for determining the nature and extent of early learning opportunities each student has experienced prior to school entry.(p 9)
4. **School** has a system in place for determining the nature and extent of early learning opportunities each student has accessed prior to school entry. (p 12)

Access High-quality early learning opportunities are offered
5. Teachers of children in pre-K have a bachelor's degree. (p 15)
6. All teachers providing education to pre-K through grade three students have specialized education in early childhood education or child development. (p 17)
7. All teachers providing education to pre-K through grade three students receive at least 15 hours of professional development annually. (p 19)
8. All pre-K classrooms have ratios of at least one adult for every 10 students and all Kindergarten to grade three classrooms have at least one adult for every 12 students. (p 21)
9. All pre-Kindergarten (pre-K) classrooms have class sizes with 20 or fewer students and all Kindergarten classrooms have class sizes with fewer than 24 students. (p 24)

Transitions that Support Student Learning
10. All teachers (including pre-K teachers in schools with pre-K programs) are part of a team that includes other teachers, an instructional leader, and related service personnel that assesses needs for services and referrals for services. (p 26)
11. The District has a system in place to assure children transitioning from Part C to Part B are assessed in their home language prior to children's third birthday. (p 29)
12. The District has a system in place to assure those screening children who are transitioning from Part C to Part B are trained in valid and reliable methods of assessing very young children. (p 32)
13. School has system in place for assuring that all kindergarten through third grade teachers have access to entering students' data. (p 35)

Program/School Leadership and Decision Making Focusing the leadership's role on building capacity, achieving learning goals, and improving instruction
14. An administrator (e.g. principal, assistant principal or other instructional leader) who is knowledgeable about early childhood development and learning and developmentally appropriate practices for young children participates actively with the early childhood instructional team. (p 37)

Curriculum, Assessment, and Instructional Planning Engaging teachers in aligning instruction with standards and benchmarks
15. Instructional Teams ensure curriculum is aligned with the state early learning standards and Common Core or state's own standards. Instructional teams design the curriculum to be aligned with the state early learning standards and Common Core or the state's own standards. (p 39)
16. Instructional Teams ensure curriculum is developmentally appropriate for young children in pre-K through Grade 3 classrooms. (p 42)
17. The Instructional Team engages in a process of collecting and using formative assessment data to inform instructional planning. (p 45)

Curriculum, Assessment, and Instructional Planning Assessing student learning frequently with standards-based assessments
18. Teachers **individualize instruction** based on developmentally appropriate assessment data to support students and provide enhanced learning opportunities. (p 48)
19. Each student is assessed at least 3 times each year using standards-based assessments that have district, state, and/or national norms. (p 50)

Classroom Instruction Expecting and monitoring sound instruction in all domains
20. Students are involved in activities each day that are designed to stimulate development in all domains: social-emotional, physical, approaches to learning, language, and cognitive development. (p 53)

Classroom Instruction Expecting and monitoring sound communication with families and family involvement in students' ongoing learning.
21. All teachers meet with family members (parents or guardians) formally at least two times a year to engage in two-way communication regarding students' cognitive, socio-emotional, and physical development outside the classroom. (p 57)

Indicator 1: District offers all children free full-day, full-week Kindergarten.

Explanation: A vast majority of states allow districts to offer a full or part-day Kindergarten program, with fewer than one third of states requiring full-day Kindergarten. Districts often have the option of offering part-day or full-day Kindergarten and some states and districts have chosen to charge parents a fee for their children to participate in full-day programming.

Question: Do all schools in the district offer full-day Kindergarten to all children without any cost to parents?

Mrs. Powers is excited to begin the school year teaching first grade. During the first month of school she assesses her 18 first graders to learn about their language and literacy development, knowledge of early numeracy, socio-emotional development, and fine and gross motor development.

She notices that some students are performing much better than others. When she reviews student records she sees that students who attended Kindergarten full-time perform much better than those who attended part-time. As she more carefully reviews student records, it also appears that the students attending part-time. She wonders if the difference in performance is due to attending full-day (compared to part-day) Kindergarten. She realizes that she will need to spend a significant amount of time reviewing the basics with the students who attended Kindergarten part-time and hopes that she will be able to give all students the attention they need so every student can make progress throughout the year and move successfully into second grade.

Research and Policy

The National Association of Early Childhood Specialists in State Departments of Education (NAECS-SDE) has issued a policy statement that all schools should provide a free full-day, every-day Kindergarten program (National Association of Early Childhood Specialists in State Departments of Education, 2013).

Full-day Kindergarten improves children's learning, problem-solving and social competence. Unequal access to publicly funded full-day and full-week high quality Kindergarten means too many young children lose a critical opportunity to develop and strengthen foundational skills necessary for success in school and lifelong learning (Child Trends, 2013; Halle, Forry, Hair, Perper, Wandner, Wessel, & Vick, 2009).

Research shows that cognitive, social, behavioral, and health disparities between low-income and higher-income children are evident at nine months and continue to grow throughout early childhood (Child Trends, 2013; Halle, Nicole Forry, Hair, Perper, Wandner, Wessel, & Vick, 2009). By the time children reach Kindergarten, fewer than 48 percent of low-income children are considered school ready, compared to 75 percent of their better-off peers (Isaacs, 2012). Moreover, when parents are required to pay fees, lower-income children are less likely access to early education. Children who are not guaranteed access to full-day Kindergarten are denied access to early learning opportunities, which could hamper school success.

Research comparing full-day to half-day Kindergarten suggests that children may make greater gains when they experience a developmentally appropriate full-day Kindergarten as compared to children in part-day programs. Research shows that, compared with children attending part-day programs, children attending full-day Kindergarten:

- **Are better prepared for school**. Students in full-day Kindergarten are better prepared for primary-grade learning than those in half-day programs (Finn & Pannozzo, 2004). They also do better with the transition to first grade, since they are more likely than those attending part-day Kindergarten to understand appropriate behavior and enter first grade with stronger learning skills (Elicker & Mathur, 1997). Moreover, children attending full-day Kindergarten show significant gains in school socialization and are equipped with stronger learning skills (Rothenberg, 1995).

- **Spend more time learning**. Children who spend time in full-day Kindergarten programs are more likely than children who spend time in half-day Kindergarten programs to devote time every day to reading, mathematics, and social studies (Child Trends, 2013; Walston, & West, 2004)

- **Perform better academically**. Attendance in full-day Kindergarten leads to higher academic achievement (Kaurez, 2005; Hough, & Bryde,1996). Moreover, early differences in achievement persist over time and when other factors such as student demographics and classroom factors are taken into account. Students in full-day programs perform better on standardized tests and get better grades (Gullo, 2000).

- **Demonstrate improved attendance**. Research has found that children attending full-day programs had better attendance in Kindergarten and through the primary grades. This in turn, translates to more learning time (Milligan, 2012).

- **Receive more supports literacy and language development**. Full-day Kindergarten students demonstrate increased gains on language and literacy measures when compared to part-day Kindergarten students (Villegas, 2005). Moreover, one study tracked children through the third grade and found that reading achievement persisted, and other research has found that the gains persist through seventh grade (Denton, West, & Walston, 2003).

- **Benefit socially and emotionally**. Full-day Kindergarten gives children more time in settings, which may enhance their social, emotional, and behavioral development. Full-day students received higher conduct marks (for example, they were more likely to follow rules and work well with others), (Hough & Bryde, 1996); and parents and teachers reported improved school socialization skills, lower levels of stress compared with students attending part-day programs (Sheehan, Cryan, Wiechel, & Bandy, 1991).

- **Are more likely to remain on grade (Leading to decreased costs by reducing retention and remediation rates)**. Full-day Kindergarten appears to help students remain on grade as they move ahead in school. For example, one study found full-day students to be more than twice as likely to remain on grade through third grade, showed that this academic benefit helped to offset 19 percent of the first year's cost of extending the Kindergarten day (Weiss & Offenberg, 2002). Thus reductions in retention and remediation can offset the cost of extending the Kindergarten day and even lead to long-term savings.

Yet, the benefits of full-day Kindergarten are dependent on how the additional time is used. Wasik et.al. (2013) report that, “More ([exposure] of a program of mediocre quality does not lead to positive effects on child outcomes. In other words, the positive impact of instruction on young children is not related solely to dosage of the intervention. Dosage needs to be considered along with other factors such as quality of the intervention and fidelity of implementation” (p. 10). Thus, while full-day Kindergarten demonstrates benefits over part-day Kindergarten, classroom quality also matters.

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Indicator 2: All preschool-aged children in the district have access to free high-quality pre-Kindergarten (pre-K).

Explanation: Currently 40 states and the District of Columbia offer state-funded pre-Kindergarten but within the states that do not fund pre-K, many districts offer pre-K. Free high-quality pre-K is not available to many children despite evidence that high-quality early education produces significant educational and cost benefits.

Question: Do children in the district have access to free pre-K? Is the pre-K high quality? Is the pre-K offered to all preschool-aged children?

Beth Sykes teaches Kindergarten in Franklin School District. A few years ago, Franklin School District began offering free high-quality pre-K to all children aged three through five. The school district had initially planned to offer pre-K in all neighborhoods, but because of budgetary constraints, wound up offering it in only three of the eight neighborhoods in the district.

Beth has noticed that the entering Kindergarteners from the neighborhoods that offer pre-K are performing much better on the Kindergarten Entry Assessment than students from the neighborhoods that don't offer pre-K. These children are performing better on early literacy, numeracy, socio-emotional measures, and on fine and gross motor functioning.

When Beth reviews student records she sees that students who attended pre-K perform much better than those who did not. She wonders if these students are performing better because they attended pre-K. She realizes that she will need to spend significant time reviewing the basics with the students who did not attend pre-K while also engaging the students who already have. She hopes that she can provide quality instruction and opportunities for early learning so each one of her students progresses throughout the year and transitions successfully into first grade.

Research

Research supports the benefits of high-quality pre-K (Yoshikawa, Weiland, Brooks-Gunn, Burchinal, Espinosa, Gormley, Ludwig, Magnuson, Phillips, & Zaslow, 2013).

Research shows that pre-K programs can have substantial impacts on children's early learning. According to a recent set of analysis of 84 preschool programs conducted by Yoshikawa and colleagues (2013):

- **Children attending high-quality pre-K perform better on reading, math and language and literacy** compared to those who do not attend high-quality pre-K. Research shows that students attending pre-K gain perform at least as well as students who have received one third of a year of additional learning across language, reading, and math skills. Some very high-quality programs have demonstrated gains of between a half and a full year of additional learning in reading and math (Camilli, Vargas, Ryan, & Barnett, 2010; Wong, Cook, Barnett, & Jung, 2008; Gormley, Gayer, Phillips, & Dawson, 2005; Weiland & Yoshikawa, 2013).

- **Children attending high-quality pre-K benefit in terms of socio-emotional development and health outcomes**. (Gormley, Phillips, Newmark, Welti, & Adelstein, 2011)

- **Quality preschool education is a wise investment**. Rigorous research has demonstrated economic benefits of early childhood education and shows that the costs of providing pre-K are a wise financial investment (Duncan, & Magnuson, 2013). Available benefit-cost estimates such as the Perry Preschool Program, Chicago Child-Parent Centers and Tulsa's preschool program, range from three to seven dollars saved for every dollar spent (Reynolds, 2000; Schweinhart, Montie, Xiang, Barnett, Belfield, & Nores,

2005; Gormley et al., 2011; Administration for Children and Families; Campbell, Ramey, Pungello, Sparling, & Miller-Johnson, 2002).

- **Quality pre-K benefits middle-class children as well as disadvantaged children; typically developing children as well as children with special needs; and dual language learners as well as native speakers.** Research focusing on universal pre-K provides evidence that middle-class children can benefit substantially from pre-K, and that benefits outweigh costs for children from middle-income as well as those from low-income families (Gormley et al., 2005).

- **Children from low-income backgrounds, those with special needs, and children who are dual language learners benefit significantly from high-quality pre-K.** Children with special needs who attended Tulsa's preschool program showed comparable improvements in reading and pre-writing skills as typically developing children. Children with special needs who had attended Head Start as 3-year-olds showed stronger gains in math and social-emotional development than children with special needs who had not attended Head Start (Advisory Committee on Head Start Research and Evaluation, 2012). Studies of both Head Start and public preschool programs suggest that dual language learners benefit as much as, and in some cases more than, their native speaker counterparts.

- **A second year of pre-K yields additional benefits compared with a single year of pre-K**. (Leak, Duncan, Li, Magnuson, Schindler, & Yoshikawa, 2010; Reynolds, 2000).

- **The benefits of pre-K are related to the quality of the program**. The National Institute for Early Education Research recommends 10 quality benchmarks that define high-quality pre-K. (Barnett, 2013)

- **Research demonstrates long-term benefits of pre-K programs**. Longitudinal studies provide evidence that both small-scale and intensive interventions demonstrate long-term effects on important outcomes such as high-school graduation, years of education completed, earnings, and reduced crime and teen pregnancy (Campbell, Ramey, Pungello, Sparling, & Miller-Johnson, 2002; Schweinhart et al., 2005).

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Indicator 3: District has a system in place for determining the nature and extent of early learning opportunities each student has experienced prior to school entry.

Explanation: Early learning experiences obtained through high-quality child care, Head Start, early intervention, or pre-Kindergarten can influence children's school readiness. Federal policies require the collection of data about children's early learning experiences (Early Childhood Data Collaborative, 2013). Yet, these data are often not compiled at the district or state levels, and thus educators have an incomplete picture about children's early learning prior to school entry. It is important for districts to know about student's early learning experiences prior to school entry, including whether, what types, and the extent of experiences in pre-Kindergarten and other formal early learning settings (Bornfreund & Severns, 2010).

Questions: For each incoming Kindergarten student, does the district have a system in place for determining:

- Whether the student has participated in child care, Head Start, early intervention, and/or pre-K?
- The extent of participation (in terms of years of participation and whether participation was full-day, full-year, part-year, etc.) in formal early learning opportunities?
- The nature of early learning opportunities (e.g., child care versus early intervention, etc.)?

Superintendent Fuella was recently asked by the state to answer questions about the number of entering Kindergarteners who had participated in child care, Head Start, early intervention, and pre-K. She contacted the five principals in the district to determine what data they collected.

One school had asked the families of all entering Kindergartners to complete a questionnaire about early learning experiences. This principal quickly provided the superintendent with a report showing that over 70 percent of all children had participated in classroom-based early learning, and 18 percent of all entering Kindergartners had received some types of early intervention. The report showed that many children participated in Head Start and pre-K, some participated in pre-K and child care, but that nearly 30 percent of children had not participated in any classroom-based early learning opportunity.

When Superintendent Fuella reached out to the other schools, she found that the four remaining schools did not have a process in place for systematic data collection of children's early learning experiences, and had a very incomplete picture of children's early experiences. One school had a transition plan in place for students who attended Head Start and could provide information about the number of students that received Head Start services. Another school offered school-based pre-K for 3- and 4-year-olds, and each child who attended that program received a unique identification number that would follow each child throughout elementary and secondary school, but this school didn't know about the early learning experiences of students who did not attend the pre-K. Principals of two schools had no information that was readily available but reported that teachers collected information from families and they could find out what was collected.

The superintendent thought there must be a better way to figure out what was going on in children's lives prior to the day they started Kindergarten.

Research

The National Early Childhood Accountability Task Force recommends that educators develop and implement a comprehensive, standards-based assessment system to inform policy decisions, investments, and improvement efforts for early education program curriculum, assessments, and program improvement efforts (National Early Childhood Accountability Task Force, 2007). Data about children's early learning opportunities can be used to address the school readiness gap and ultimately can be used to improve educational achievement (Early Childhood Data Collaborative [ECDC], 2010). Policymakers at the state and district levels can use data on early childhood program experiences to better understand incoming Kindergartener's early learning opportunities (ECDC, 2010). Head Start, early intervention, child care and many state-funded pre-K programs collect data

regarding children's participation, but in many instances districts do not have a complete picture regarding whether each entering Kindergarten student has participated in formal early learning, the dosage of participation, and the nature of participation (Zaslow, Anderson, Redd, Wessel, Tarullo, & Burchinal, 2010).

A number of national experts recommend the creation and use of a unique child identifier—a single, non-duplicated number that is assigned to and remains with a child throughout participation in early learning programs and services and across key databases (Data Quality Campaign, 2006). By using a consistent child identifier that stays with a child as the child enrolls in different services or moves, stakeholders can obtain a complete picture of the formal services and early learning opportunities a child has accessed across systems (Data Quality Campaign, 2006).

The Early Childhood Data Collaborative also recommends linking early childhood data with K–12 and other key data systems to better understand relationships among early learning opportunities and later outcomes. Linked data systems can:

- provide two-way communications between early childhood education (ECE) programs and K–12 so that ECE programs know how children progress in K–12 and K–12 programs can tailor instruction to meet individual children's needs when they arrive at school (ECDC, 2011).
- improve the coordination of services with other providers and the ECE workforce to target and improve services for individual children based on their access to other supports (ECDC, 2011).
- help with referrals, such as the federal mandate in the Child Abuse Prevention and Treatment Act, to refer any child under age 3 who is involved in a substantiated case of abuse and neglect to Early Intervention Services (Gillis, West, & Coleman, 2009).

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Indicator 4: School has a system in place for determining the nature and extent of early learning opportunities each student has experienced prior to school entry.

Explanation: Early learning experiences obtained through high-quality child care, Head Start, early intervention, or pre-Kindergarten can influence children's school readiness. Federal policies require the collection of data about children's early learning experiences (Early Childhood Data Collaborative, 2013). Yet, these data are often not compiled at the school level, and thus educators have an incomplete picture about children's early learning prior to school entry. It is important for principals and teachers to know about student's early learning experiences prior to school entry, including whether, what types, and the extent of experiences in pre-Kindergarten and other formal early learning settings (Bornfreund & Severns, 2010).

Questions: For each incoming Kindergarten student, does the school have a system in place for determining:

- Whether the student has participated in child care, Head Start, early intervention, and/or pre-K?
- The extent of participation (in terms of years of participation and whether participation was full-day, full-year, part-year, etc.) in formal early learning opportunities?
- The nature of early learning opportunities (e.g., child care versus early intervention, etc.)?

Principal Trujillo was recently asked by the Superintendent of the district to answer questions about the number of entering Kindergarteners who had participated in child care, Head Start, early intervention, and pre-K. She contacted the five Kindergarten teachers in her school to determine what data they collected.

One teacher asked the families of all entering Kindergartners to complete a questionnaire about early learning experiences. This principal quickly provided the superintendent with a report showing that over 70 percent of all children in one classroom had participated in classroom-based early learning, and 18 percent of all entering Kindergartners had received some types of early intervention. The report showed that many children participated in Head Start and pre-K, some participated in pre-K and child care, but that nearly 30 percent of children had not participated in any classroom-based early learning opportunity.

When Principal Trujillo reached out to the other teachers, she found that the three remaining teachers did not have a process in place for systematic data collection of children's early learning experiences, and had a very incomplete picture of children's early experiences. The remaining teacher had a transition plan in place for students who attended Head Start, and could provide information about the number of students that received Head Start services. The principal thought there must be a better way to figure out what is going on in children's lives prior to the day they started Kindergarten.

Research

The National Early Childhood Accountability Task Force recommends that educators develop and implement a comprehensive, standards-based assessment system to inform policy decisions, investments, and improvement efforts for early education program curriculum, assessments, and program improvement efforts (National Early Childhood Accountability Task Force, 2007). Data about children's early learning opportunities can be used to address the school readiness gap and ultimately can be used to improve educational achievement (Early Childhood Data Collaborative [ECDC], 2010). Policymakers at the state and district levels can use data on early childhood program experiences to better understand incoming Kindergartener's early learning opportunities (ECDC, 2010). Head Start, early intervention, child care and many state-funded pre-K programs collect data regarding children's participation, but in many instances districts do not have a complete picture regarding whether each entering Kindergarten student has participated in formal early learning, the dosage of participation, and the nature of participation (Zaslow, Anderson, Redd, Wessel, Tarullo, & Burchinal, 2010).

A number of national experts recommend the creation and use of a unique child identifier—a single, non-duplicated number that is assigned to and remains with a child throughout participation in early learning

programs and services and across key databases (Data Quality Campaign, 2006). By using a consistent child identifier that stays with a child as the child enrolls in different services or moves, stakeholders can obtain a complete picture of the formal services and early learning opportunities a child has accessed across systems (Data Quality Campaign, 2006).

The Early Childhood Data Collaborative also recommends linking early childhood data with K–12 and other key data systems to better understand relationships among early learning opportunities and later outcomes. Linked data systems can:

- provide two-way communications between early childhood education (ECE) programs and K–12 so that ECE programs know how children progress in K–12 and K–12 programs can tailor instruction to meet individual children's needs when they arrive at school (ECDC, 2011).
- improve the coordination of services with other providers and the ECE workforce to target and improve services for individual children based on their access to other supports (ECDC, 2011).
- help with referrals, such as the federal mandate in the Child Abuse Prevention and Treatment Act, to refer any child under age 3 who is involved in a substantiated case of abuse and neglect to Early Intervention Services (Gillis, West, & Coleman, 2009).

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Indicator 5: Teachers of children in pre-K have a bachelor's degree.

Explanation: For high-quality pre-K, it is important that the lead teacher has at least a bachelors degree (Barnett, W., Carolan, M., Fitzgerald, J., & Squires, 2012). Unlike K-12 teachers, a sizeable percentage of pre-K teachers lack a bachelor's degree. Currently:

- Twenty-seven percent of pre-K teachers (in state funded pre-K programs) nationally lack a bachelor's degree (Bueno, Darling-Hammong, & Gonzales, 2010; Gilliam, & Marchesseault, 2005).
- Only 30 state-funded pre-K programs require pre-K teachers to have a degree.

Question: Do all lead pre-K teachers in each Pre-K classroom every day have at least a bachelor's degree?
Helen Whiteblast has been teaching pre-K for the past two decades in the Almiba School District. She loves working with four-year-olds and feels fortunate that she is able to use what she learned through her bachelor's degree coursework in early childhood development. She understands how to support young children's growth and development by setting up the classroom with project-based stations and activities that give children opportunities to develop through integrated, play-based, fun activities. Each "station" is carefully set up and on a weekly basis and aligned to the curriculum. Helen analyzes the data she systematically collects to inform and design activities to support children's physical development and motor skills, social and emotional development, approaches to learning, language-literacy-communications, and cognitive development.

At the beginning of each academic year, Helen spends time with each individual child to establish rapport, understand each child, collect formative baseline assessment data to understand each child's strengths and developmental opportunities, and tailor learning activities to support each child's learning. Based on ongoing assessment, Helen throughout the year adjusts the curriculum and integrates children's interests and desires into the flow of the activities.

At a staff meeting to discuss the following school year, Helen was told that to meet a new regulation, she will no longer have her own classroom but will be required to spend time in each of the five district classrooms every week! Instead of working with individual students, she will float among the classrooms and spend time schlepping among school buildings.

Helen is frustrated and doesn't understand the new regulation. She looks into the matter and realizes that most of the other pre-K teachers do not have a bachelor's degree and the district is trying to address the problem by having her float among the classrooms. Helen thinks she is better suited to teaching her own class of students and thinks the district should change their approach by instead supporting all lead pre-K teachers in obtaining bachelor's degrees.

Research
A review of the research literature on teacher qualifications for pre-Kindergarten teachers concludes that Bachelor's degrees are a strong predictor of high-quality pre-K programs (Whitebook, 2003). Requiring pre-K teachers to have at least a Bachelor's degree is one of ten national benchmarks of quality according to the National Institute for Early Education Research (NIEER) State of Preschool Yearbook (Barnett, W., Carolan, M., Fitzgerald, J., & Squires, 2012). Research finds that:

- Classrooms in which teachers have at least a bachelor's degree are more likely to be of higher quality including richer language environments, enhanced literacy environments, and better teacher-child interactions (Barnett, W. 2003).
- Teachers with at least a bachelor's degree are more likely to appropriately approach instruction—they are more sensitive, less punitive, and more engaged (Whitebook, 2003).
- Specialized training at the bachelor's degree level or above makes a difference in the quality of teacher-child interactions in family child care settings according to a recent study (Fuligni, Howes, Lara-Cinisomo, and Karoly, 2009).

Early et al., (2007) suggest that teacher quality is complex and teacher level of education alone might not be sufficient to consistently predict teacher quality. Early and colleagues note however, that a comprehensive professional development system for pre-service and in-service teachers could provide the knowledge, skills, and supports for teachers to provide a high-quality early education experience that can positively impact children's development.

Fuligni, et.al. (2009) note that "any policy that not only mandates (bachelor's degree) but provides tangible support for obtaining the (bachelor's degree) in a child development major will raise the quality of the pool of educators serving the low income children who can most benefit from high-quality early childhood education."

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Indicator 6: All teachers providing education to pre-K through grade three students have specialized education in early childhood education or child development.

Explanation: For a pre-K through third grade classroom to be considered high-quality, it is important that the lead teacher have specialized education in early childhood education or child development (Barnett, W., Carolan, M., Fitzgerald, J., & Squires, 2012). Currently only 44 of the existing 52 state-funded pre-K programs require specialized training in early childhood and state policies regarding specialized early childhood training for Kindergarten through third grade teachers vary considerably.

Question: Do all pre-K through grade three teachers have specialized education in early childhood education or child development? Do all pre-K through grade three teachers with specialized training spend the full school day teaching?

Jose Paradis is a teacher working in the Columbia School District Title 1 preschool classroom. Jose, who has a bachelor's degree in elementary education, began teaching fifth grade two years ago but was 'bumped' last year by a more senior teacher and was reassigned to the pre-K classroom.

All teachers in Columbia School District begin the academic year three days before school started for children so they have would time to set up their rooms, organize their curriculum, and meet with students and parents before the first day of class.

When Mr. Paradis entered his classroom, he was confused about the set-up. Instead of desks in rows, the classroom had small tables. Instead of text books, the room was filled with a range of books that do not seem to target just four-year olds as some are picture books and others are complex texts with few illustrations that appear geared for first or second graders. He sees that there are "stations" around the room that appear to include a library, a center for 'dress up,' a block corner, and a large space in the middle.

Mr. Paradis reorganizes the classroom so it looks more like a typical classroom. To prepare for the first day of school, he makes copies of worksheets for the students to complete. He makes copies of the 'parent information form' to give to students to take home to their parents. And, he develops a rigorous reading and mathematics curriculum.

After the first week of class Mr. Paradis has a new understanding of what it means to be a pre-K teacher. He feels completely overwhelmed and under-prepared to teach children of this age. The students don't sit at their desks. Many students have not yet learned how to hold a pencil so the reading and math worksheets are useless. He even realizes that giving students papers to take home to their parents is not a straight-forward task for some four-year-olds.

Mr. Paradis also realizes that he made a mistake in taking away the learning centers. The children want to move around and are eager to explore. He consults with a pre-K teacher in another district. She tells him about the importance of tailoring the pre-K curriculum to the developmental needs and learning styles of young children. She explains that it is best practice to set up the classroom environment and curriculum to encourage learning through play and exploration since this is how young children learn . And, she gives him a number of books about young children's learning and development that she obtained when she studied early childhood development in graduate school.

Mr. Paradis realizes that he has never studied child development and that his teaching approach would benefit substantially by specialized early childhood coursework. He signs up for a graduate class at a local university. By the spring, he feels he is gaining important knowledge that will benefit his teaching and plans to take two other courses so that he can best support young children's early learning and development.

Research

Specialized education in early childhood education or child development is an important component of quality early education (Barnett, W., Carolan, M., Fitzgerald, J., & Squires, 2012).

- The National Association for the Education of Young Children recommends that all early childhood teachers have specialized training in early childhood education or child development so that they are aware of the unique needs and learning trajectories of young children (Hyson, 2003).
- When teachers have specialized training in early childhood education, they are better able to support children's healthy development and school readiness (Bueno & Darling-Hammond, 2010).
- Young children's learning and development clearly depend on the educational qualifications of their teachers. Research by Barnett reveals that specialized training in early childhood development is linked with improved classroom quality and child outcomes (Barnett, 2003).
- Teacher behavior is one of the major influences on early childhood development (Shonkoff and Phillips, 2000) and teachers with specialized training on early childhood are more likely to have positive relationships with young children to support development of social and academic skills (Pianta, 1997).

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Indicator 7: All teachers providing education to pre-K through grade three students receive at least 15 hours of professional development annually.

Explanation: For a pre-K through third grade classroom to be considered high-quality, it is important that the lead teacher have at least 15 hours of professional development annually (Barnett, Carolan, Fitzgerald, & Squires, 2012). Currently only 42 of the existing 52 state-funded pre-K programs require at least 15 hours of professional development annually and state policies regarding hours of professional development that are required for Kindergarten through third grade teachers vary considerably.

Question: Do all teachers of pre-K through grade three students have at least 15 hours of professional development annually? Do all pre-K teachers through grade three teachers who annually have at least 15 hours of professional development spend the full school day teaching?

Mrs. Rosemary Bakos is a first grade teacher who has a bachelor's degree with specialized coursework in child development. She has been teaching at the Whitewater Elementary School for the past twenty-five years. In recent years, the school has adopted new standards aligned with the Common Core and has adopted an early literacy curriculum and early numeracy curriculum that align with the new standards. There are new assessments aligned with the curriculum and Mrs. Bakos is required to report the data and tailor instruction based on each child's assessment results.

Mrs. Bakos is confident about teaching young children and has enjoyed her job since she began working at Whitewater decades ago. But she feels she does not have sufficient training or professional development to adequately teach the new curriculum. She feels she could successfully implement the curriculum and associated assessments if she had professional development. She worries that she will be on her own trying to figure out all of the new information. She has always been an independent learner, but values the formal professional she has participated in over the years and wishes she had more professional development opportunities.

How could the state and district support Mrs. Bakos so that she has the professional development she needs? In what ways would her students benefit if she had the chance to become comfortable and familiar with the curriculum before she began teaching it to her first graders?

Research

The National Institute for Early Education Research (NIEER) recommends that early childhood teachers have at least 15 hours of professional development annually (Barnett et al., 2012). This recommendation is consistent with the National Association for the Education of Young Children's position that early childhood teachers should be continuous, collaborative learners who demonstrate knowledgeable, reflective and critical perspectives on their work and make informed decisions that integrate knowledge from a variety of sources.

- Research shows a relationship between receipt of professional development and teaching quality. NIEER suggests that at a minimum, early childhood teachers should have 15 hours or professional development annually.
- Research shows that one-day workshops do not provide the necessary dosage to improve teachers' classroom practices (Wasik, Mattera, Lloyd, & Boller, 2013; Joyce & Showers, 2002; Raikes, Torquaiti, Hegland, Raikes, Scott, Messner, Peterson, Thornburg, Houf, & Scott, 2006; Winton, & McCollum, 2008)
- Duration, frequency, and intensity of professional development are associated with better outcomes for teachers and for children (Zaslow et al., 2010).
- Numerous research studies demonstrate a link between participation in professional development and the quality of early childhood teaching (Zazlow, Martinez-Beck, Tout, & Halle, 2011; Zaslow & Martinez-Beck, 2005)

- Ongoing professional development of early childhood teachers produces positive outcomes for children (Bowman, Donovan, & Burns, 2000).
- The National Association for the Education of Young Children recommends that all early childhood teachers have ongoing professional development (Hyson, 2003).

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Indicator: 8. A**ll pre-K classrooms have ratios of at least one adult for every 10 students and all Kindergarten to grade three classrooms have at least one adult for every 12 students.**

Explanation: The National Association for the Education of Young Children (NAEYC) recommends that at least one adult for every 10 children are present in pre-K classrooms and a least one adult for every 12 Kindergarten-aged children. These recommendations are based on extensive research demonstrating that the ratio of adults to children is an important indicator of high-quality early childhood teaching and learning.

Questions: Do all pre-K classrooms consistently have ratios of at least one adult for every 10 students? Does the school have a back up plan to assure that additional adults can be present if the total number of children exceeds 10 per adult? Do all Kindergarten classrooms consistently have ratios of at least one adult for every 12 students? Does the school have a back up plan to assure that additional adults can be present if the total number of children exceeds 10 per adult? Do classrooms have a ratio of:

- at least one adult for every 10 students? (pre-K)
- at least one adult for every 12 students? (Kindergarten to Grade 3)

Does the school have a backup plan to assure that additional adults are present if the ratio of students to adults is above the recommended amount?

Mrs. Kristen Strong has been teaching pre-K for the past ten years and this year she is overwhelmed for the first time. Up until this year she worked in a school that required at least one teacher and one assistant for every ten preschoolers. Her average class size was between 18 and 20 and she the teaching assistant helped her managed it well.

In the fall Mrs. Strong took a new job that paid a little more in a neighboring school district and was very excited about making more money. The district was paying teachers more but did not have any teaching assistants in the pre-K classroom. Even though she has only 17 students in her class this year, she finds that she cannot provide the individual attention each child needs.

For the first time in her teaching career, Kristen is giving large groups of her students very structured activities to complete silently at desks so she can spend one-on-one time with individual students. She doesn't think this is optimal but can't figure out another way to assess each child, provide individual attention, and really get to know each student in her class.

She also finds that if children are in centers, she is not able to keep track of them. It seems these students are not getting along with one another as well as those she taught previously. She is surprised that almost daily she is telling her students to settle down and be quiet. She even notices that when she is leading group activities, she has less patience when students ask questions.

Kristen wonders if the challenges are related to the fact that she doesn't have another adult to help with the children, if she is simply feeling lonely in the classroom, or if something else is going on.

Research

The National Institute for Early Education Research (NIEER) recommends ratios of at least one adult for every 10 children in an early childhood classroom (Barnett, Carolan, Fitzgerald, & Squires, 2012). This recommendation is consistent with the National Association for the Education of Young Children (NAEYC)'s position recommended teacher-child ratios. For Kindergarten, NAEYC recommends at least one adult for every 12 children (NAEYC, 2008).

Litgens & Taguma performed a review of the research for the Office of Economic Cooperation and Development's (2010) and reported that existing research shows that when early childhood classrooms have at least one adult for every ten students the quality teaching improves and student learning outcomes increase as well (Burchinal, Howes & Kontos, 2002; Burchinal, Cryer & Clifford, 2002; De Schipper, Riksen-Walraven & Geurts, 2006; Torquati, Raikes & Huddleston-Casas, 2007). This review further summarized research conducted in the past two decades that demonstrated the benefits of ratios of at least one adult for every 10 four-year olds in the classroom, and at least one adult for every 12 five-year olds as follows:

- Teachers reported improvements in the quality of their work experience, independent observers documented improvements in quality of teaching, and researchers who collected student assessment data found that children in classrooms with these ratios perform better than students who are in classrooms with more students and fewer adults (De Schipper, Riksen-Walraven & Geurts, 2006; Torquati, Raikes & Huddleston-Casas, 2007).
- Teachers reported better working conditions and less stress and were responsive to children when there were groups of ten or fewer for each adult (De Schipper et al., 2006). Moreover, as the number of children for each adult increased, teachers and teaching assistants were more likely to spend time in restrictive and routine communication with children and less time engaged in positive verbal interactions (Litjens and Taguma, 2010).
- Class size reduction is a policy that can increase educational effectiveness (Barnett, Schulman, & Shore, 2004). Barnett and his colleagues reported that research conducted in three states found that the most important predictor of child care quality other than wages was ratios of adults to children (NICHD, 1999).
- The National Research Council (NRC) conducted an extensive review of research on early childhood programs and published findings in a book entitled, *Neurons to Neighborhoods: The Science of Early Childhood Development* which reported that in preschool classrooms where ratios of adults were at least one adult to every 10 children, classroom quality and child outcomes increased. The NRC concluded that research demonstrates the importance of regulating ratios in early childhood classrooms (Shonkoff & Phillips, 2000).

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Indicator: 9. All pre-Kindergarten (pre-K) classrooms have class sizes with 20 or fewer students and all Kindergarten classrooms have class sizes with fewer than 24 students.

Explanation: The National Association for the Education of Young Children (NAEYC) recommends that the maximum group size for pre-K classrooms does not exceed 20 students and recommends that Kindergarten classroom maximum class size does not exceed 24. These recommendations are based on extensive research demonstrating the importance of smaller group sizes for high-quality early childhood classroom teaching and learning.

Questions: Do classrooms consistently have class sizes of no more than:

- 20 students? (pre-K)
- 24 students? (Kindergarten)

Ms. Glendora Lott is a pre-K teacher working in the Cosgrove School. At the beginning of the school year, she was saddened and dismayed to learn that even though she has two assistant teachers in her room, she has 28 students this year!

Ms. Lott that her classroom is noisy and chaotic and the assistant teachers are often 'shusshing' students. She is unable to keep up with paperwork—everything from morning attendance to completing children's screenings and assessments. She feels she is in a frenzy and is struggling to keep in touch with parents and learn about connect one-on-one with each student. She finds that developing curriculum and obtaining sufficient materials for all 28 students is a challenge. And, she feels more like a referee than a teacher as she tries to coordinate both assistant teachers and teach the high-quality curriculum she has developed.

Glendora wonders if the challenges are related to the size of the class or if something else is going on. She didn't expect such challenges since there are three adults working with the 28 students, but wonders if the group size is the problem.

Research

The National Institute for Early Education Research (NIEER) recommends ratios of at least one adult for every 10 children in an early childhood classroom (Barnett, Carolan, Fitzgerald, & Squires, 2012). This recommendation is consistent with the National Association for the Education of Young Children's recommended group size.

Litgens & Taguma performed a review of the research for the Office of Economic Cooperation and Development (OECD) (2010) and summarized findings from studies that have been conducted in the past two decades demonstrating the benefits of smaller groups in early childhood settings:

- Research reveals that group size has an effect on process quality including staff-child relationships and communication between staff and parents (Burchinal, Howes, Kontos, 2002; Burchinal, Cryer, & Clifford, 2002).
- Class size reduction is a policy that can increase educational effectiveness (Barnett, Schulman, & Shore, 2004).
- The National Research Council (NRC) conducted an extensive review of research on early childhood programs and published findings in a book entitled, *Neurons to Neighborhoods: The Science of Early Childhood Development*. In this book the NRC reported that, compared with larger group sizes, children who are taught in smaller groups demonstrate increased child outcomes and improved well-being of teachers. The NRC concluded that research demonstrates the importance of regulating class sizes in early childhood classrooms (Shonkoff & Phillips, 2000).
- The National Institute for Early Education Research performed a review of research on group size and reported that experimental and quasi-experimental research studies of preschool through grade three classrooms demonstrated that students randomly assigned to smaller classrooms outperformed their

peers who were in classrooms with more students (Barnett, Schulman, & Shore, 2004). These studies were conducted in states ranging from California and North Carolina to Tennessee and Wisconsin.

- Studies indicate that staff working in classrooms with smaller groups of children report working conditions that are more pleasant than those working with large classes of children. Moreover, those who report that work is pleasant are as more likely to engage in caring and stimulating behavior (Burchinal et al., 2002).

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Indicator 10: All teachers (including pre-K teachers in schools with pre-K programs) are part of a team that includes other teachers, an instructional leader, and related service personnel that assesses needs for services and referrals for services.

Explanation: School personnel are best able to monitor student performance and coordinate student support services when instructional teams include all related school personnel. Instructional teams that meet regularly to examine student data to inform instruction are able to differentiate instruction based on student needs. Instructional teams typically include all teachers and support working within a specific grade (such as all pre-K teachers and service providers) or teachers who are working across grades (such as pre-K through third grade teachers.) Various federal education programs including programs administered by Office of Special Education and Rehabilitative Services (OSERS), the Office of Elementary and Secondary Education (OESE), and the Office of Civil Rights (OCR) require support services to be integrated into the general education classroom (OSEP, 2014; OESE, 2014; OCR, 2014). Research has shown that schools that structure collaboration among all educators to create a comprehensive continuum of supports and services can maximize successful learning for all students.

Questions: Are all teachers part of an integrated instructional team? Are instructional teams aligned horizontally (such as all first grade teachers and support personnel) and/or vertically (such as representatives from pre-K through grade three and support personnel)? Are all key support personnel part of the instructional team? Do the instructional teams meet regularly? Do instructional team members share student data regarding screening and assessments? Does the instructional team receive updates from service providers regarding students' status? Ms. Danell Washington is a first grade teacher working in Kenneck Elementary School, a large urban elementary school. This year the principal informed all of the teachers who are providing support services to students in the school that they should begin to meet monthly as an instructional team of teachers and support personnel to coordinate supports to students and inform instruction in the classroom.

This year, the school also adopted a new approach to coordinate support services with the instructional day in order to address concerns expressed by teachers. Last year, nearly one third of Ms. Washington's students were pulled out of the classroom to receive services at some time during the week. Some students had behavior challenges, some had language delays, some were identified as needing intensive special education services related to cognitive impairment, and some didn't speak English. She felt like her room had a revolving door of students. She found that it was hard to keep track of what she had covered with each student.

Now, that Ms. Washington co-teaches most lessons with the special education teacher students spend much less time out of the classroom. Some students still receive supplementary services but most spend the majority of the day in her classroom. With the implementation of instructional teams and co-teaching strategies, Ms. Washington feels she is better able to tailor her instruction to the needs of each student.

Ms. Washington notices that by meeting monthly with the entire instructional team, she has a better understanding of what services each student is receiving, how they are progressing, and how she can best support their learning while in her classroom. She had thought that the monthly meetings would be too time consuming, but she notices that she actually has more time during the day. She has a better sense of what is happening and is no longer feeling she needs to have a conversation with each teacher who is providing supplemental services each time the students are transitioning back into the classroom.

Ms. Washington wonders why all of the schools don't use this integrated approach. She thinks it is a worthwhile model and feels fortunate that her principal encouraged all of the teachers to use this approach this year.

Research

Research reveals that an integrated approach to supporting children's learning yields positive outcomes. Conversely, the absence of a systematic focus on integrating and aligning services for young children can lead to inefficiencies in provision of services as well as reduced educational outcomes for young students.

Research and policy positions from organizations representing special educators, early childhood educators, bilingual educators and elementary school teachers support the creation of comprehensive teams of educators who meet regularly to reflect on how to best support common learning objectives for young children.

Research summarized by special education advocates and organizations demonstrates that integrating academic and special education services leads to better outcomes for young children (Bohanon, n.d.). Research shows that young children who face learning challenges in one area are more likely to have behavior issues or other identified learning needs which can increase over time as students move from elementary to secondary school (Fleming et al., 2004; Nelson, Benner, Lane, & Smith, 2004). By focusing on the entire student, rather than separate issues that young children face, schools and teachers are more likely to offer services that best meet students' needs (McIntosh, Chard, Boland, Horner, 2006; McKinney, 1989). Research further demonstrates that improving the social behavior of students results in more minutes spent in academic instruction (Scott & Barrett, 2004). Moreover, Slavin & Madden (2006) report that for native English speakers as well as English language learners instructional teams that include all support personnel can improve student outcomes.

A number of models from Head Start, special education, and early education have emerged in recent years that support integrated school-wide teams. The RTINetwork has articulated elements of an RtI system that includes use of teaming, team-wide reviews of progress monitoring data, reviews of integrations, and processes that rely on data decision rules (Sugai, n.d.). SWIFT (School Wide, Integrated, Framework for Transformation), a national K-8 center funded by the U.S. Department of Education, Office of Special Education, has articulated an integrated framework (Stoneheimer, et al, 2014). The U.S. Department of Education together with U.S. Department of Health and Human Services are supporting an integrated an aligned approach to early education. Additionally, separate offices within each of these agencies such as the Office of Head Start and the Office of Bilingual Education support integration of services (Office of Head Start, 2014; U.S. Department of Education, 2014). While each of these models and approaches differ slightly, they share a focus on supporting an aligned strategy for meeting students early learning needs.

Research from a range of perspectives supports the adoption of an integrated approach to early education services. The research of Freeman (2005), Kotter (1995), Sugai & Homer (2002) supports the importance of teams reviewing student assessment data create a shared priorities for change that can in turn can lead to a shared understanding of how each service can best support students' outcomes.

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Indicator 11: The District has a system in place to assure children transitioning from Part C to Part B are assessed in their home language prior to children's third birthday (US Department of Education; Early Childhood Technical Assistance Center, 2014; National Dissemination Center for Children with Disabilities, 2013; State of Washington, Office of Superintendent, 2010).

Explanation: Districts are required to assess children in their home language under the Individuals with Disabilities Education Act (IDEA) Part C (grants for early intervention services targeting children aged birth up to age three) and Part B (special education services for children aged three and older). Concerns have been raised by the U.S. Department of Education and some State Education Agencies that some children transitioning from Part C to Part B are not assessed in their home language, thereby leading to an over or under identification of actual disabilities. Some State Education Agencies and districts are required by the U.S. Department of Education to develop an improvement plan to verify compliance with federal regulation regarding the assessment of children under IDEA Parts B and C.

Question: Does the district have identified personnel with knowledge of IDEA Part B and Part C regulations and skills and competencies in best practices in early childhood screening and assessment practices for children who are English Language Learners (ELL)? Does the district have a process of engaging parents of ELLs in the process? Mrs. Anna Schwartz is a pre-K teacher working in a mixed special education and regular education classroom. Every September she performs screenings and assessments to determine if students are eligible for special education services and to inform the development of an Individualized Education Plan (IEP).

In the past three years, Mrs. Schwartz has noticed a large increase in students who performing very low on the battery of assessments she is administering. This year she notices that based on the "Get it, Got it, Go" standardized literacy assessment scores that were administered during the first three weeks of attendance, most of her students have significant language delays. Based on the battery of screening tools for assessing her students' social-emotional development, Mrs. Schwartz sees that many children are also performing poorly on socio-emotional skills.

Mrs. Schwartz has worked with the Part C specialist in the past, but last year there were changes in staffing. She wishes she had a process in place to coordinate with the Part C specialist to see if the results she is getting on her assessments are consistent or different from earlier results. She also wishes that there were better procedures in place to assure all of the students entering her classroom were assessed in their home languages before they began the school year.

How could the district have assured that all of the students who were transitioning from Part C to Part B were properly screened in their home languages prior to preschool? What screening processes, measures, and supports could the district offer to assure that children are being correctly identified?

Research

Research shows that the language and learning needs of a child are often misidentified, because young children's ability to speak and understand English may be overestimated and their general cognitive and social abilities may be underestimated (Espinosa & Lopez, 2007). Moreover, the context of the testing situation as well as the specific aspect of language being assessed can influence the child's language usage (Genessee, Paradis & Crago, 2004). Thus, research suggests that using appropriate multiple methods of assessing young children who do not speak English and assessing children in comfortable settings is critical to correctly identify students in need of appropriate services.

Research points to important considerations when choosing appropriate assessment tools. It is important for educators to know that many of the current assessments available for young ELL children are basic translations or

adaptations of English language versions of measures (Wolf, Kao, Griffin, Herman, Bachman Chang, & Farnsworth, 2008). In other words, tvalidity may not be the same between the different versions of the same measure (Espinosa, 2010). Therefore, use of screening and assessment measures that are simple translations often mid-identify students.

Therefore, it is important that educators engage in an assessment process that combines data from screening and assessment measures with information gathered from teachers, families and careful observation when making any decisions about academic functioning of young ELLs (Espinosa & Lopez, 2007). Moreover, for ELL children, the results from initial screening efforts should be interpreted with caution because of the unique developmental characteristics of dual language learners and the limitations of most current screening measures (Barrueco, S., Lopez, M., Ong, C., & Lozano). When using one of the recommended screening instruments, and engaging parent judgments in a multidisciplinary team, it is possible to make professional judgments that are reasonably accurate. Researchers suggest that it is better to err on the side of over-referring ELL children to a specialist so that a comprehensive evaluation can be conducted to determine if the child qualifies for special services. However, it is essential that a bilingual specialist and a representative of the child's culture/language be included as part of the child assessment team (Luke, S & Schwartz, A., 2007 updated in 2010).

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Indicator 12: The District has a system in place to assure those screening children who are transitioning from Part C to Part B are trained in valid and reliable methods of assessing very young children. (US Department of Education; Early Childhood Technical Assistance Center, 2014; National Dissemination Center for Children with Disabilities, 2013; State of Washington, Office of Superintendent, 2010).

Explanation: Districts are required to assess children in their home language under Individuals with Disabilities Education Act (IDEA) Part C (grants for early intervention services targeting children aged birth up to age three) and Part B (special education services for children aged three and older). Concerns have been raised that those conducting the screening of children transitioning from Part C to Part B are not trained appropriately to reliably assess children in their home language, resulting in either an over or under identification of children with actual disabilities. Some State Education Agencies and districts are required by the U.S. Department of Education to develop an improvement plan that demonstrates those conducting the screening have the skills needed to assure to compliance with federal regulation regarding the screening and assessment of children under IDEA Parts B and C.

Question: Does the district have a process in place to assure personnel responsible for screening and assessment of young children transitioning from Part C to Part B are knowledgeable of how to reliably and validly screen children whose primary language is not English? Does the training assure those collecting data are aware of the linguistic and cultural issues in assessing very young children? Does the district have a process of assuring those screening non-English language students are trained to engage parents of ELL's in the screening and assessment process?

Ms. Kelly O'Leary has assessed young children transitioning from Part C to Part B for nearly a decade. She received a Master's in Education with a focus on special education and annually receives professional development points (PDPs) in excess of the district requirements to assure she is very proficient in the research-based screening and assessment instruments that are appropriate for use with very young children. These include: Assessment Evaluation and Programming System Interactive (AEPsi), Child Observation Record (COR), Creative Curriculum Development Continuum, Devereux Early Childhood Assessment (DECA), and Desired Results Developmental Profile (DRDP).

In the past two years, Ms. O'Leary has noticed that at least half of the children in her caseload are performing poorly and seem unfamiliar with English. The times she meets with parents, she notices that many of the parents are speaking languages other than English. The languages seem to include Spanish, Portuguese, Cantonese, Mandarin, French, French Creole, Italian, Russian, Vietnamese, Greek, Arabic, and Cambodian. She knows some Spanish and notices that the Spanish-speaking parents speak a wide range of dialects. She thinks this is the same with the parents who speak other languages.

Ms. O'Leary knows that she is required to screen children in their home language and she is not proficient in Spanish speaking or reading to effective assess young children. She would like to bring in translators to conduct the screening. But, she is concerned that a literal translation of the existing instruments might not be appropriate.

In the past week, a majority of the students Ms. O'Leary assessed demonstrated significant deficits and she is concerned that she is over-identifying students. She also realizes that when she meets with some parents, she is not able to converse with them and get their input into the process. She wonders what she can do to assure she is meeting the federal requirement and how she can get up to speed to assure the screening process for students is valid and reliable for students whose primary language is not English.

Mrs. O'Leary is aware of the issues in assessing the students in her school. With her concerns, what next steps could she take? Where could she look for resources or additional support? How could she approach leaders in the school and district with this issue to get the appropriate guidance?

Research

Research shows that the language and learning needs of the child are often misidentified, because young children's ability to speak and understand English may be overestimated and their general cognitive and social abilities may be underestimated (Espinosa & Lopez, 2007). The context of the testing situation as well as the specific aspect of language being assessed can influence the child's language usage (Genessee, Paradis & Crago, 2004). Thus, research suggests that using appropriate multiple methods of assessing young children who do not speak English and assessing children in comfortable settings is critical to correctly identify students in need of appropriate services.

Research points to the importance assuring those who are performing the screening and assessments are trained in methods to validly and reliably assess children whose primary language is not English. Screeners must understand the importance of selecting appropriate instruments as many that are available are basic translations or adaptations of English language versions of measures (Wolf, Kao, Griffin, Herman, Bachman Chang, & Farnsworth, 2008). In other words, the content validity and construct validity may not be the same between the different versions of the same measure (Espinosa, 2010). Therefore, those conducting the screening and assessments must understand that measures should not be simple translations as these often mid-identify students.

Research reveals that assessors must combine data from screening and assessment measures gathered from teachers, families and careful observation when making any decisions about educational functioning of young ELLs (Espinosa & Lopez, 2007). For ELL children, the results from initial screening efforts should be interpreted with caution because of the unique developmental characteristics of dual language learners and the limitations of most current screening measures (Barrueco, S., Lopez, M., Ong, C., & Lozano). Research suggests using a screening instrument that is vetted, and engaging parent judgments in a multidisciplinary team, to make professional judgments that are reasonably accurate. Researchers suggest that it is better to err on the side of over-referring ELL children to a specialist so that a comprehensive evaluation can be conducted to determine if the child qualifies for special services. However, it is essential that a bilingual specialist and a representative of the child's culture/language be included as part of the child assessment team (Luke, S & Schwartz, A., 2007 updated in 2010).

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Indicator 13: School has system in place for assuring that all kindergarten through third grade teachers have access to entering students' data.

Explanation: Access to child and family demographic information and child-level program participation and attendance data allows teachers to "use developmental history to tailor curriculum and care to particular skill development" for the children in their classroom (Early Childhood Data Collaborative, 2011). Timely and early access to information about students' characteristic and prior educational experiences provides teachers with information necessary to plan instruction for students beginning on the first day of school.

Question: Do all kindergarten, first, second, and third grade teachers have access to family and demographic information about each entering student? Do kindergarten, first, second and third grade teachers have access to information on each students' previous learning experiences?
Ms. Kim Su's kindergarten class has students from a wide array of different backgrounds and experiences. Ms. Su is familiar with some of her student's pre-K experiences because they attended pre-K in her school building. However, for most of the students, she has little information on their previous learning experiences and learning environments.

As the beginning of the school year unfolds, Ms. Su finds herself spending a lot of time assessing the skills and needs of the children that did not come from her school's pre-K program. Some parents provide examples of their child's work in pre-k, such as work samples and written feedback, but Ms. Su finds it difficult to draw conclusions from this work because it seems that the pre-K teacher uses different terminology. Ms. Su had spent the month of August developing detailed curriculum plans to make the first month of the school year smooth. But she finds that she must make substantial changes in curriculum once she realizes that most of the students are performing at a different level than those upon whom she based on the curriculum plans—the students who had attended her schools' pre-K.

Ms. Su wishes she had information on each entering students' prior educational experiences as well as information about their prior year's attendance. She has a few students who have missed several days and she wonders if this is a pattern.

She talks to other teachers in Kindergarten as well as first, second and third grade teachers and finds all of the Kindergarten teachers they have similar challenges and even some of the third grade teachers wish they had better access to data on children's prior educational experiences. They think about how they can tackle this issue for the next school year, so they are better informed about all incoming students before the school year starts.

If Ms. Su had access to all of her students' pre-K data, what effect would it have had on her planning and instruction? How could the school better support each teachers' access to students' demographic data as well as data on students' prior educational experiences?

Research
Access to information on children's experiences is important as "teachers need longitudinal data for the students in their classroom from their previous years of schooling to help them target their instruction and identify students who need additional help" (Bornfreund & Severns, 2010, 8). Early learning providers also benefit from data sharing since "knowing what happens to students in later grades can provide valuable insight on how academic skills and behavioral patterns formed in the early years develop and change over time, reflecting the impact of early childhood programs." (Bornfreund & Severns, 2010, 8)

A comprehensive data system *and* a process for sharing data are important mechanisms to assure pre-K through grade three teachers have a shared understanding of children's experiences and characteristics at each level. In turn, these data systems and processes can support smoother transitions between early learning experiences,

Kindergarten and later grades. Additionally, such data can provide schools with opportunities to arrange professional development sessions with both pre-K and K to third grade teachers to discuss data findings, leading to increased and continuous collaboration to benefit students as teachers can better target their instruction.

According to the Early Childhood Data Collaborative (2014)

> Data on child developmental outcomes allow [teachers] . . . to monitor child progress and quickly address concerns. . . . [Teachers can] . . . use child-level development data formatively to tailor services and instruction for continuous improvement. . . Teachers can use developmental history to tailor curriculum and care to particular skill development, and policymakers can use the aggregated data to help improve programs.
>
> Information on child demographics and program participation connected to developmental data also allows stakeholders to understand how different children, including key subgroups, are progressing.

The Institute for Education Science (IES) has a report that outline the key questions stakeholders can ask to frame the development of comprehensive data systems (IES, 2013).

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Indicator 14: An administrator (e.g. principal, assistant principal or other instructional leader) who is knowledgeable about early childhood development and learning and developmentally appropriate practices for young children participates actively with the early childhood instructional team.

Explanation: Principals, assistant principals and other instructional leaders play an important role in supporting high-quality teaching that can best support students. Instructional leaders evaluate teachers and provide important feedback to teachers on every aspect of teaching ranging from classroom set-up, curriculum, and assessment to communication with parents and engagement of specialists. It is important that instructional leaders have knowledge of early childhood development so they can optimally support early childhood teachers in pre-K through grade 3 classrooms.

Question: Does the instructional leader responsible for supervising the pre-K through grade three teachers have knowledge of early childhood development? Is the instructional leader knowledgeable of instructional practices that are developmentally appropriate for pre-K through grade three teachers?

Mr. Dan Tubbs is principal of the Ferryway pre-K through grade eight school. Prior to working as an administrator, Mr. Tubbs was an eighth grade science teacher. He obtained a graduate degree in administration while teaching middle school and feels confident in the skills needed in his role as a principal of a large urban elementary school. Recently, Ferryway adopted a new teacher evaluation system that requires each principal to observe teachers using a standard observation rubric. Mr. Tubbs schedules observations of teaching in the early elementary grades, but when he enters the pre-K and Kindergarten classrooms he sees children engaged in a variety of activities like playing in the dress up center or at the water table, counting blocks, listening to audio books, or coloring. He has asked the teachers to tell him when they are teaching and he will come back then. The teachers seem offended by the comment.

Mr. Tubbs also notices that the scores on the observation rubric are consistently lower for early elementary grades. He is concerned because he has received terrific reports from parents of children in the early elementary grades and the school's third grade assessment scores are the highest in the district. When he shares the scores with the teachers they stare at him and tell him the scores are "wrong." He wonders whether something is amiss with the observation rubric. After discussions with the teachers, Mr. Tubbs comes to understand that he is interpreting the observation rubric through a lens that is appropriate for older children but is not appropriate for early learning classrooms. He recognizes that he needs more training and knowledge about early childhood best practice so he can more effectively support the pre-K through third grade teachers.

Research

An emerging body of research confirms practical wisdom from the field that instructional leaders are gatekeepers to quality early education (Copple, & Bredekamp, 2009).

- Instructional leaders have the potential to promote a shared vision, create professional environments that enable teachers to provide enriching learning environments for children and supervise early childhood educators to support effective instruction (National Association of Elementary School Principals, 2005).
- Strong leadership in which administrators support a strategic planning process for improving classroom quality and supervise teachers in the development of high-quality curriculum and assessment is essential for high-quality instruction (Taylor and Bryant, 2002).
- Supervisors who do not understand early childhood education, can have unrealistic expectations about high-quality early childhood instructional practices, which can in turn lead to feedback that undermines early childhood high-quality instructional practices.
- Instructional leaders use specific rubrics to assess student performance and states are increasingly recognizing that what administrators the evidence of effective instruction in early childhood classrooms

should look different from those types of evidence sought in a school age classroom (Brown & Mowey, 2013).

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Indicator 15: Instructional teams design the curriculum to be aligned with the state early learning standards and Common Core or the state's own standards.

Explanation: Many state Departments of Education are committed to supporting statewide efforts for children and schools to promote a seamless system between pre-Kindergarten and Kindergarten through third grade education.

It is important to recognize that Kindergarten is a time when alignment or lack of alignment between early education and K-12 standards is most noticable (NAEYC, 2012). According to the Snow (2012), "Kindergarten provides a bridge within early childhood, linking a time during which children spend their years in a wide range of settings prior to kindergarten, and primary education, where children spend their days in a more structured setting learning with their age-mates from a common teacher, teaching to a shared set of expectations and standards (at least within classrooms, districts, and typically, states)."

Question: How do instructional teams take steps to assure the curriculum that is being taught is aligned with the state's early learning standards and the Common Core (if the state has adopted the Common Core)? How are instructional teams tailoring the curriculum? How are the teams assuring that the curriculum is aligned?

Mrs. Patricia Dahlin teaches pre-K at the San Omaeo Bishop Elementary School. Four years ago Mrs. Dahlin was told by school district early learning administrator that she had to change her curriculum to assure it aligned with the state's new early learning standards. She studied the standards, created a curriculum map, changed the classroom set-up, purchased new materials for the classroom, and systematically reviewed the curriculum weekly to assure she met the new standards. She now spends a few hours each night adjusting and tailoring the curriculum—significantly less time than she spent when she four years ago.

Last week Mrs. Dahlin was dismayed to hear that she is now expected to change her curriculum again to assure it is aligned with the common core. She is told that she must continue to address the early learning standards but must also address the common core. She doesn't understand why she is asked to make these changes.

Over lunch, Mrs. Dahlin expresses her dismay to Ms. Joslin, a friend who teaches Kindergarten at Bishop. Ms. Joslin expresses delight about the proposed change. She tells Mrs. Dahlin that she notices small gaps in content knowledge among entering Kindergartners and feels that the changes will involve small tweaks in the pre-K curriculum rather than a wholesale revision. She shares with Mrs. Dahlin a standards map she created when she began addressing the common core that shows the alignment between the existing curriculum and the common core. She suggests that Mrs. Dahlin could create a similar map aligning the early learning standards and the common core. Mrs. Dahlin is grateful to have the resource and is happy to know why she is being asked to make the changes.

Research

Standards provide a blueprint for instruction and should help establish authentic assessment, benchmarks and curriculum (Martin-Kniep, 2013). Currently, every state in the US has established early learning standards and most states have adopted the Common Core (National Governors Association, 2013; Barnett, W., Carolan, M., Fitzgerald, J., & Squires, 2012).[1]

Across states and in many districts, separate standards govern early childhood programs serving children under age five and children attending early elementary school (Snow, 2012). An opportunity exists to link early learning

[1] Information on standards, state-by-state, are available at http://ceelo.org/state-map/

and associated standards (for children aged five and younger) and K-12 standards, which tend to focus more specifically on academic content (NAEYC and NAECS-SDE, 2010).

Vertical alignment of standards and curriculum is important among pre-K through third grade classrooms to assure that curriculum and associated content builds on children's earlier experiences (Schilder & Dahlin, 2013). Experts are increasingly recognizing the importance of horizontal alignment of curriculum and standards (i.e., for specific programs serving the same age group such as school-based pre-K and pre-K offered through a child care program).

To assure standards and associated curriculum are aligned, it is important to consider the following:

- *Balance*: Are the number/percentage of items across multiple domains of development relatively consistent?
- *Coverage*: Are all the key domains of learning and development addressed in the standards and curriculum?
- *Depth*: Do the standards, indicators within each domain, and curriculum sufficiently address needed skills?
- *Difficulty*: Are the items across standards and within the curriculum at a similar level of cognitive or developmental demand?
- *Age range*: Are standards and associated taking into account differences among infants, toddlers, preschoolers, kindergarteners and elementary school-aged children? Are standards reflecting what is known about children's developmental learning trajectories? (Schilder, & Dahlin, 2013; Kagan & Scott-Little, 2013

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Indicator 16: Instructional Teams ensure curriculum is developmentally appropriate for young children in pre-K through grade three classrooms.

Explanation: Curriculum that guides instruction in pre-K through grade three classrooms should support developmentally appropriate practice in the classroom. Developmentally appropriate practice (DAP) is defined by the National Association for the Education of Young Children as "an approach to teaching grounded in the research on how young children develop and learn and in what is known about effective early education. DAP involves teachers meeting young children where they are (by stage of development), both as individuals and as part of a group; and helping each child meet challenging and achievable learning goals" (NAEYC, nd). Developmentally appropriate curriculum is informed by research on child development and learning, aligned to state Early Learning Guidelines for the age group, and lends itself to adaptation by teachers to ensure instruction is individually appropriate for children in the classroom, as well as culturally appropriate for students in a district or school.

Question: Is the curriculum appropriate for the developmental learning and development of the ages in each grade level, pre-K through third grade? Is it inclusive of all domains of learning, including health and social-emotional development? Does the curriculum support instruction and learning experiences that integrate all domains? Does it incorporate multiple types of learning experiences (small group, large groups, play, centers, etc.) that are appropriate for the age? Does it support children in reaching the goals outlined in state early learning guidelines and/or state (Common Core) standards?

Day Elementary is a pre-K to sixth grade school. The instructional teams at each grade level have selected curriculum to use within their grade level. The Kindergarten through grade six classroom's curriculum follows the state standards. However, with the recent revision of standards, following the state's adoption of the Common Core State Standards, the principal asks the instructional team to review the current curriculum to be sure it aligns with the new standards. If it does not, the principal asks the instructional team to recommend a new curriculum or to make recommendations for revisions to the current curriculum.

When the pre-K staff learn about the curriculum alignment in the other grades, they agree it is good time to review their curriculum as well. They arrange a meeting with the Kindergarten team to discuss how the Kindergarten teachers are tackling the alignment process and to create a communication strategy so that they stay informed of each other's progress and can ensure smooth transitions for the children as they move from the pre-K curriculum to the Kindergarten curriculum. Additionally, they volunteer to provide input for the instructional teams of the Kindergarten to grade three in their review processes.

What potential outcomes could happen from instructional teams consulting teachers in other grades around the curriculum framework? How would input from the pre-K team in planning the Kindergarten to grade three curriculum shape the curriculum alignment across all grades? How could working with the kindergarten through third grade teachers support pre-K teachers in providing curriculum that prepares students for later grades? How can instructional leaders access information and knowledge around preparing curriculum that is attuned to the cultures of the students? How can the instructional team assess whether the curriculum is based in research on child development and learning while also addressing the state's guidelines/standards in each grade?

Research

Curriculum should be well-planned and written to ensure consistency across classroom and grades, while also allowing flexibility for teachers to deploy their expertise in how they implement the curriculum in their classroom to meet their students. It helps children achieve goals "through learning experiences (including play, small group, large group, interest centers, and routines) that reflect what is known about young children in general and about these children in particular, as well as about the sequences in which children acquire specific concepts, skills, and

abilities, building on prior experiences" (NAEYC, 2009, 20). In its position statement on Developmentally Appropriate Practice, NAEYC provides guidelines on **planning curriculum to achieve important goals**. These include:

- The curriculum goals are clear and reflect what has been identified as important in young children's learning and development. Teachers consider what children need to know, understand, and be able to do across all domains. The curriculum goals should be aligned with state standards or other standards[2] to which the program must adhere.
- The curriculum is comprehensive and effective. Curricula may be from a published source or created by the teacher or grade level team. In either case, teachers and the grade level team must make sure that the curriculum is developmentally appropriate and make adaptations if it is not. The instructional team ensures that teachers are familiar with the curriculum.
- The curriculum framework is used by teachers as they plan activities for the week or month. The curriculum framework and resulting activities address all domains and build on the teachers' understanding of the skills that are key for the age group. Furthermore, the curriculum framework can be adapted to consider children's needs, skills, and interests.
- The curriculum framework allows teachers to make instruction meaningful by providing teachers room to connect it with the experiences of the children in the classroom. A research-based curriculum promotes integrated learning across domains and follow logical sequences of development so that instruction has depth and focus.
- The curriculum should be aligned with preceding and subsequent grade levels, equipping teachers across grades to collaborate and providing continuity for children.

Considering what is appropriate for the age of students is very important; for instance, grade 2 students are better able physically to sit for longer periods and stay focused on instruction than younger students.
For an example of how early learning standards can incorporate all five domains, this article (Sherwood & Freshwater, 2006) in NAEYC's journal Young Children details how science standards can be implemented in the classroom to address all domains of development. It also provides a template to help teachers connect standards to conduct intentional planning approach.

Another resource (Early Learning Coalition of Broward County, Inc., nd) offers review guidelines on selecting a developmentally appropriate curriculum.

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Indicator 17: Each student is assessed at least 3 times each year using standards-based assessments that have district, state, and/or national norms.

Explanation: Assessing students at least three times a year is important to determine if each individual student is making progress (Reform Support Network, 2013). Yet in some districts, schools, and classrooms, regular assessment is not occurring, the types of assessments that are being administered are not developmentally appropriate, or the assessments are not standards-based.

Question: Is each student assessed at least three times a year? Are the assessments that are being used developmentally appropriate? Are assessments standards-based? Do the assessments have national and state norm data so that the teacher and district can compare progress toward norms?

Mrs. Lena Asher is excited to begin the school year teaching first grade. During the first month of school she assesses her 18 first graders to learn about their language and literacy development, knowledge of early numeracy, socio-emotional development, and fine and gross motor development.

Mrs. Asher reviews the data to see how her class is doing at the beginning of the year. She sees that some students are performing well across the board and other students are performing well in specific content areas (such as early literacy) and not as well in other content areas. Some students are performing better in socio-emotional development than in content areas and some are delayed in all areas.

At the end of the year, Mrs. Powers sees that most students have improved dramatically in socio-emotional development as well as fine and gross motor development. She sees that a few students have made almost no progress on literacy and numeracy domains and others have far exceeded the target she set. She sees that very few students are performing well on some of the math tasks and realizes she had not really covered those topics during the academic year.

As a new teacher, she realizes her teaching and her students' learning would have benefitted if she had used standards-based assessments so she could compare her students' progress with district, state or national norms. She sees that her students have progressed in some areas, but she has no way to determine whether their performance is in line with other students who are the same age.

Ms. Asher also wishes she had assessed her students in the middle of the year. She realizes that she had been gathering information during the year but had not systematically assessed her students using developmentally appropriate assessments. She sees that some students improved a lot but some have made limited progress. What would have happened if Mrs. Asher had assessed her students and compared their early and mid-term development to national and state norms?

Next year Mrs. Asher plans to collect baseline data using developmentally appropriate, standards-based assessments. She also plans to schedule mid-year assessments and then collect data a third time in the spring. This way she will be able to track progress throughout the academic year and see how her students are performing relative to their peers.

Research

Research has demonstrated the importance of early childhood educators' regular collection, analysis and use of data about children's development to tailor instruction to best support children's continued growth (Snow, 2011; National Research Council, 2008). Research and policy currently support regular data collection, analysis and use by early childhood teachers and evidence exists that frequent use of data to tailor instruction is linked with improved outcomes. A summary of policies and research is presented below.

- The National Association for the Education of Young Children (NAEYC) promotes the regular collection and use of developmentally appropriate assessments to improve instruction and in recent years the policy has been supported by research evidence (Donovan, Bransford, & Pellegrino, 2000; National Association for the Education of Young Children, 2009).

- To understand children's growth, assessments of the same children must be completed at multiple time points. Single point-in-time assessment data cannot provide developmental data on individual children (Snow, 2011)

- Research has shown that teachers who collect and use data over time are more likely to see increases in their students' standardized scores. Specifically, research has shown that when teachers receive training and support around using specific assessment tools and regularly evaluate their students, their students demonstrate a larger growth in reading skills than those in classrooms in which teachers are not regularly collecting and using assessment data (Meisels, Atkins-Burnett, Xue, Nicholson, Bickel, & Son, 2003).

- Early childhood assessment should be developmentally appropriate and, in order for early childhood teachers to serve a student population that is diverse, teachers need assessment tools that help them to identify children's strengths and weaknesses in a wide range of learning areas (Chen and McNamee, 2006).

- Use of norm-referenced, developmentally appropriate assessments are important to understand how students are performing relative to district and national norms (Riley-Ayers, 2014). Moreover, for teachers to adequately establish student learning objectives, it is important that they examine trend data (Connors-Tadros & Horowitz, 2014).

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Indicator 18: Teachers individualize instruction based on developmentally appropriate assessment data to support students and provide enhanced learning opportunities.

Explanation: Young children's development varies considerably across different domains of development. For instance, some students may be strong in social-emotional skills, but need to develop further their motor skills, or have strong skills in large motor skills, but need more guidance in developing fine motor skills. By individualizing instruction, teachers can make the most of valuable class time by adapting their planning and instruction to meet the developmental needs of each student. Developmentally appropriate assessments provide teachers with valid and reliable data to inform instruction. Data on what children know and are able to do can come from a range of sources – observational notes, work samples, scale, video clips, photographs, and so on (Riley-Ayers, 2014). While the collection of data is important, what is done with the data is even more critical in improving student outcomes. If data is collected and analyzed, but no action is taken to inform and change practice based on findings, then an opportunity is lost. By using developmentally appropriate assessments, teachers can accurately gauge where each student is (across domains) and identify goals for the student and adjust instruction to meet targets for learning.

Question: What do teachers do with the data they collect? What challenges do they face in moving from data analysis to implementing what they have learned to adapt their instructional practices to meet individual students' learning needs?

The families of Mr. Lee's second grade students enjoy the portfolios he maintains for each of the students. In addition to seeing the experience their child has in the classroom, the families find it informative in understanding the skills children have gained in the classroom and areas to focus attention on at home and at school. The portfolios synthesize data from multiple sources, such as photographs of students doing work with narration, writing samples, pieces of their work, and Mr. Lee's observational notes for each domain of development.[3] He finds the portfolios helpful in understanding and articulating where students in his classroom are developmentally as he prepares for parent-teacher conferences.

However, as he prepares the portfolios for the next parent-teacher conference session, he thinks about what the information tells him about how varied his students are in their skills and backgrounds. He feels very confident in the value of the data he has collected and his interpretation of the data, but wonders if he could have used the data to provide students with more differentiated instructions in the areas they really needed more support in. As he reviews one student's portfolio, he notices that she often begins tasks, but gives up quickly and often. He now knows he needs to focus attention on building her skills around persistence to task, though he feels unsure about the best way to do this. He notices that some students are struggling with reading and others have finished all of the second grade reading books he has on the shelf. He thinks the students would be reading with greater proficiency if he had provided more tailored reading tasks to each child.

Where can Mr. Lee turn for support on how to incorporate individualized instruction into his classroom? What does he need to consider about each child as he plans?

Research

Children, especially young children, have their own individual needs (and strengths) across all domains – cognitive, language/literacy, social-emotional, physical, and approaches to learning. They also come from different cultural, linguistic, and other contexts. To understand a child's individual needs, a teacher must be aware of the context of the child: the child him/herself (interest, language, culture, etc.), the child's family, and

[3] The domains of development are: language development, cognition and general knowledge, physical well-being and motor development, social and emotional development, and approaches to learning

the child's community. Using data from developmentally appropriate assessment, with awareness of the child's him/herself, forms the basis for planning instruction that is individualized.

According to Baker (2013), there are three main strategies to individualize:

- **Offer choices**: This includes children having an active role in their learning experience, creating activating and offering materials that children can choose from, and giving them time to finish projects.
- **Universal Design for Learning (UDL)**: This approach incorporates the "what", "how", and "why" of learning by using different ways to present information and content, allowing students multiple means of action and expression, and stimulates interest and motivation for learning (CAST, n.d.).
- **Response to Intervention (RTI)**: RTI has four main components: screening, progress monitoring, a multi-level prevention system, and data-based decision-making. In RTI, data is used "to identify students at risk for poor learning outcomes, monitor student progress, provide evidence-based interventions and adjust the intensity and nature of those interventions depending on a student's responsiveness, and identify students with learning disabilities or other disabilities" (Center on Response to Intervention, n.d.).

The National Association for the Education of Young Children (NAEYC) lists of number of resources to support individualized instruction (NAEYC, 2013: http://www.naeyc.org/yc/node/213). In addition, the Institutes on Academic Diversity hosts a website with information and resources to support differentiated instruction to meet the needs of every learner that can be accessed at: http://www.diffcentral.com/.

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Indicator 19: Each student is assessed at least 3 times each year using standards-based assessments that have district, state, and/or national norms.

Explanation: Assessing students at least three times a year is important to determine if each individual student is making progress (Reform Support Network, 2013). Yet in some districts, schools, and classrooms, regular assessment is not occurring, the types of assessments that are being administered are not developmentally appropriate, or the assessments are not standards-based.

Question: Is each student assessed at least three times a year? Are the assessments that are being used developmentally appropriate? Are assessments standards-based? Do the assessments have national and state norm data so that the teacher and district can compare progress toward norms?

Mrs. Lena Asher is excited to begin the school year teaching first grade. During the first month of school she assesses her 18 first graders to learn about their language and literacy development, knowledge of early numeracy, socio-emotional development, and fine and gross motor development.

Mrs. Asher reviews the data to see how her class is doing at the beginning of the year. She sees that some students are performing well across the board and other students are performing well in specific content areas (such as early literacy) and not as well in other content areas. Some students are performing better in socio-emotional development than in content areas and some are delayed in all areas.

At the end of the year, Mrs. Powers sees that most students have improved dramatically in socio-emotional development as well as fine and gross motor development. She sees that a few students have made almost no progress on literacy and numeracy domains and others have far exceeded the target she set. She sees that very few students are performing well on some of the math tasks and realizes she had not really covered those topics during the academic year.

As a new teacher, she realizes her teaching and her students' learning would have benefitted if she had used standards-based assessments so she could compare her students' progress with district, state or national norms. She sees that her students have progressed in some areas, but she has no way to determine whether their performance is in line with other students who are the same age.

Ms. Asher also wishes she had assessed her students in the middle of the year. She realizes that she had been gathering information during the year but had not systematically assessed her students using developmentally appropriate assessments. She sees that some students improved a lot but some have made limited progress. What would have happened if Mrs. Asher had assessed her students and compared their early and mid-term development to national and state norms?

Next year Mrs. Asher plans to collect baseline data using developmentally appropriate, standards-based assessments. She also plans to schedule mid-year assessments and then collect data a third time in the spring. This way she will be able to track progress throughout the academic year and see how her students are performing relative to their peers.

Research

Research has demonstrated the importance of early childhood educators' regular collection, analysis and use of data about children's development to tailor instruction to best support children's continued growth (Snow, 2011; National Research Council, 2008). Research and policy currently support regular data collection, analysis and use by early childhood teachers and evidence exists that frequent use of data to tailor instruction is linked with improved outcomes. A summary of policies and research is presented below.

- The National Association for the Education of Young Children (NAEYC) promotes the regular collection and use of developmentally appropriate assessments to improve instruction and in recent years the policy has been supported by research evidence (Donovan, Bransford, & Pellegrino, 2000; National Association for the Education of Young Children, 2009).

- To understand children's growth, assessments of the same children must be completed at multiple time points. Single point-in-time assessment data cannot provide developmental data on individual children (Snow, 2011)

- Research has shown that teachers who collect and use data over time are more likely to see increases in their students' standardized scores. Specifically, research has shown that when teachers receive training and support around using specific assessment tools and regularly evaluate their students, their students demonstrate a larger growth in reading skills than those in classrooms in which teachers are not regularly collecting and using assessment data (Meisels, Atkins-Burnett, Xue, Nicholson, Bickel, & Son, 2003).

- Early childhood assessment should be developmentally appropriate and, in order for early childhood teachers to serve a student population that is diverse, teachers need assessment tools that help them to identify children's strengths and weaknesses in a wide range of learning areas (Chen and McNamee, 2006).

- Use of norm-referenced, developmentally appropriate assessments are important to understand how students are performing relative to district and national norms (Riley-Ayers, 2014). Moreover, for teachers to adequately establish student learning objectives, it is important that they examine trend data (Connors-Tadros & Horowitz, 2014).

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Indicator 20: Students are involved in activities each day that are designed to stimulate development in all domains: social-emotional, physical, approaches to learning, language, and cognitive development.

Explanation: Each state has recognized the importance of focusing on the five domains of development as these domains are present in each state's Early Learning Guidelines. (To view each state's guidelines see: http://ceelo.org/state-information/standards) State Early Learning Guidelines describe expectations for young children before the age of school entry.
Moreover, the National Association of Early Childhood Specialists in State Departments of Education (2013) has issued a policy that high-quality early education supports all five domains of early childhood development.

Question: Do teachers intentionally support development across all domains in their daily activities? And does the school administration support teachers in implementing curricula that support development across all domains?

Mrs. Rita Mae Perkins, an elementary school principal, wants the pre-K children at her school to succeed as they transition into kindergarten and higher grades. She is especially concerned about her students doing well on grade three standardized assessment tests, so she strongly encourages the pre-K staff at her school to focus more time on literacy and math.

Mrs. Edena Babic, a pre-K teacher at Mrs. Perkins' school, believes addressing all the developmental domains best supports students' academic success. However, she feels pressure to make her classroom resemble higher grades and, as a result, feels there is less time for dramatic play and other activities that involve students being out of their desks.

While walking to her office, Mrs. Perkins hears a lot of noise coming from Mrs. Babic's classroom and stops by to check it out. There is a lot of activity in the room, with children at different centers. Mrs. Babic appears to be playing with a group of children in a play kitchen. Mrs. Perkins remembers the last time she walked by the room and saw children sitting in a large group as Mrs. Babic held up a picture and talked about feelings. Mrs. Perkins want to ensure these students are ready for the rigor of elementary school and arranges a time to meet with Mrs. Babic to discuss focusing time and energy on math and language instead of play.

When Mrs. Babic learns about the purpose of the meeting, she knows she will need to make a case for how these activities support math and language development, and how they support development in the other domains. She always wants to use it as an opportunity to discuss how address the importance of supporting children's development in all domains. She thinks about asking her assistant to film a session of dramatic play time so that she can explain moment by moment the skills the children are learning. For instance, she knows Lily needs support in fine motor skills and that letting her manipulate play dough is building this skill, which will help her be able to grip pencils and other materials in later grades.

If you were Mrs. Babic, how would you make the case for addressing all domains in daily activities? What additional evidence would you use? How can skills in social-emotional development and approaches to learning (e.g., initiative, motivation, and persistence) be an asset to children as they tackle learning in their current grade level as well as future grades? In what ways can teachers be intentional about addressing all domains? How can they assess if they are truly are covering all domains on a daily basis?

Research
Young children's development occurs across multiple domains (Payton, Weissberg, Durlak, Dymnicki, Taylor, Schellinger, & Pachan, 2008). Early learning opportunities that support the whole child lay the foundation for successful learning throughout that child's life.

According to the National Association for the Education of Young Children and the National Association of Early Childhood Specialists in State Departments of Education, daily stimulation of each of the domains is important as "young children's development is strongly interconnected, with positive outcomes in one area relying on development in other domains" (NAEYC & NAECS-SDE, 2002, 4). Moreover, NAESC-SDE (2013) recently issued a policy statement based on a review of research that all children in the U.S. should have an opportunity to participate in a high quality classrooms with a comprehensive curriculum that addresses all domains important for young children.

In recent years, each state in the national has adopted State Early Learning Guidelines which reflect the importance of supporting the major domains of development. These guidelines are based in part on the seminal work of the National Education Goals Panel, (1995) which summarized the research and rationale behind each of the five domains. For additional details on each of the domains see the ELG/ELDS website.

Research has demonstrated the importance of focusing on each of these domains in early learning classrooms. Scott-Little, Kagan and Frelow (2006) summarize research on the importance of early learning classrooms supporting children's physical, language, and cognitive development as well as specific attention on children's approaches to learning. This 2006 review updates the summary produced by Kagan, Moore, & Bredekamp in 1995. These authors summarize research on the importance of early learning environments that support each of the five domains of development:

- **Physical development**: Research shows the importance of early learning that emphasize the importance of motor development in children, from large motor movements that occur on the playground to small motor work required for holding a crayon or putting together puzzles to physical well-being including attention to all aspects of health (Brown et al, 2009; Grissmer et al, 2010)
- **Socio-emotional development**: Studies have shown that early learning that include emotional support and secure relationships that engender the child's acquisition of such characteristics as self-confidence and the ability to function as a member of a group. supports the importance of early attention to socio-emotional development has been conducted by Payton and colleagues (2008) who reported a positive impact of social and emotional learning for kindergarten to eighth-grade students. Raver (2002) reported that research reveals early attention to children's emotional development is critical for early school readiness. Moreover, Bogard & Takanishi's research (2005) demonstrated that social-emotional skills are related to later literacy achievement."
- **Approaches to learning**: Research has demonstrated that early learning that teachers should understand the ways children become engaged in learning so they can best enhance their engagement. Curiosity, creativity, independence, cooperativeness, and persistence are some of the approaches that enhance early learning and development (Fantuzzo, Perry, & McDermott; Mize & Ladd, 1990).
- **Language and literacy**: Communicating effectively with other children and adults and having emergent literacy experiences with diverse forms of language are fundamental elements of this dimension. Research demonstrates the critical importance of early literacy on later school success (Dickenson & Neuman, 2006).
- **Cognitive development**: Cognition and general knowledge represent the accumulation and reorganization of experiences that result from participating in a rich learning setting with skilled and appropriate adult intervention. From these experiences children construct knowledge of patterns and relations, cause and effect, and methods of solving problems in everyday life (Fischer, 1980: Masten & Coatsworth, 1998).

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Indicator 21: All teachers meet with family members (parents or guardians) formally at least two times a year to engage in two-way communication regarding students' cognitive, socio-emotional, and physical development outside the classroom.

Explanation: A strong relationship exists between communication between teachers and family members (parents and guardians) and children's outcomes (Halgunseth, & Peterson, 2009). Family and home environment play a role in the development of preschool children's academic skills (Anders, et.al., 2012). Multiple methods of communication with parents/guardians (hereafter referred to as "family") are important, from informal face-to-face chats or notes to formal meetings, for a teacher to have a more complete understanding of the student. By engaging with families, the teacher can elicit and incorporate family member knowledge of the student to individualize and support that student's learning. Families' input on their child's development outside the classroom is a data source that a teacher can use to triangulate with data collected inside the classroom. Moreover, it is important for families to hear about their children's development from their child's teacher. As such, two-way communication between teachers and families is critical to support student's ongoing learning.
Questions: Are teachers engaged in two-way communication with families around students' ongoing learning? Does every teacher meet with family members at least two times a year in a formal meeting? Does the teacher present information about students' growth in each of the developmental domains? Are families' opinions and observations respected and taken into account to support their child's development? Do teachers conduct meetings in a manner that is culturally and linguistically appropriate for the family?
Ms. Lin strives to ensure that her kindergarten students receive a comprehensive, robust experience. She believes it is important for parents to feel included and aware of their child's learning experience. Each week she sends home a newsletter detailing the learning objectives of the week (across all domains) and the activities and projects students engaged in to reach the objectives.

While a few parents ask her for more information about their individual child's learning in the areas covered in the newsletter, most parents do not provide any response or feedback. Ms. Lin is not sure if parents are extending learning around the objectives at home. Despite the newsletters, when the time for quarterly parent meetings arrives, many parents are surprised or unaware of the areas in which their child needs more support.

Additionally, during family meetings, Ms. Lin hears that for some children who are performing at lower developmental levels in school, parents report are performing quite well at home. For example, a mother of a girl who rarely spoke during the first three months of school informed Ms. Lin that her daughter is quite talkative at home and has an extensive vocabulary. Ms. Lin feels uncomfortable when she hears this since she had presumed that the child had very limited language skills and had been talking to her using very simple words.

Three different issues appear to be a challenge for Ms. Lin. She is concerned that some of the parents who receive the newsletter do not know what to do with the information. She realizes they may know all the domains and content covered in class during the week, but might not know how to best support students' development at home. She wonders how she could better support parents in engaging their children in learning experiences at home

Ms. Lin also realizes that if she knew more about what was happening at home, she could help individualize the instruction she provides to children in her classroom to reinforce and build on their home experiences. If she had gathered more information about the home environment, Ms. Lin could better involve parents in the decision and goal-setting process. Finally, she realizes that while she has wanted to actively communicate with families, she has not yet adequately created a culture where parents feel comfortable regularly communicating with her and engaging in classroom activities.

Research

The National Family, School, and Community Engagement Working Group defines family engagement as:

- A shared responsibility in which schools and other community agencies and organizations are committed to engaging families in meaningful and culturally respectful ways, and families are committed to actively supporting their children's learning and development.
- Continuous across a child's life, spanning from Early Head Start programs to college preparation high schools.
- A process carried out everywhere that children learn – at home, in pre-kindergarten programs, in school, in after-school programs, in faith-based institutions, and in community programs and activities (National Association of Early Childhood Specialists in State Departments of Education, 2014).

Research shows that family engagement[4] and involvement provides a number of benefits for young children academically and socially, including literacy and math skills (Van Voorhis, Maier, Epstein, & Lloyd, 2013; Henderson, & Mapp, 2002). Van Voorhees et al. (2013) examined nearly 100 family involvement research studies and found that "parents from diverse backgrounds, when given direction, can increase their involvement with their children's learning at home and at school and that, when parents are more involved and more engaged, children tend to do better academically and socially." Barnard (2004) studied the relationship between parental involvement in elementary school and students' high school success and found that early parental involvement in a child's education was associated with positive long-term effects. Communicating and involving parents is a key part of parent engagement. Engaging families in two-way communication is one of six principles for effective family engagement identified by the NAEYC Engaging Diverse Families project (NAEYC, n.d.).

For teachers, families' knowledge of a child's development outside the classroom, their home experiences, their community engagements, is valuable to provide a whole picture of the child and to inform instruction with that child inside the classroom. This information can help teachers understand what the student is exposed to at home and how they can best support growth in the classroom (Head Start National Center on Parent, Family & Community Engagement, 2014). Additionally, families can help the teacher understand the cultural and linguistic environment the student lives in outside the classroom (Head Start National Center on Cultural and Linguistic Responsiveness, 2014).

To effectively engage families teachers need create a welcoming environment for the family, and need to consider the linguistic and cultural backgrounds of the families (Halgunseth & Peterson, 2009). Scheduling regular in person meetings is one important mechanisms to engage in a goal-setting process.

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