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FirstSchool—

An Approach That Prepares Pre-K to 3 Educators to Effectively Interpret and Respond to School Data

FirstSchool is a partnership led by Frank Porter Graham Child Development Institute and the University of North Carolina–Chapel Hill School of Education. Key features include an emphasis on effective use of data to improve teaching practices, collaborative inquiry as central to professional learning communities, and alignment across the pre-K, kindergarten, and primary grades. Connecting these elements is the use of multiple forms of data—school-based assessments, state-mandated achievement tests, family surveys and focus groups, and documents and classroom observations—to inform and monitor the change process. For more information, visit www.firstschool.us.

FirstSchool is in the development stage and funded through grants. It is part of a national pre-K to 3 movement of schools, districts, educators, and universities seeking to improve how children from ages 3 to 8 learn and develop in educational settings (for resources on this movement, visit www.fcd-us.org).

FirstSchool is a school reform approach to early schooling for children 3 to 8 years old. It was developed over the past five years through a collaborative partnership among families, schools, communities, and institutions of higher education. The approach responds to the needs of all young children—especially in African American or Latino families and families with low incomes—by combining best practices for young children from the fields of early childhood, elementary, and special education.

Collaboration, the use of data and inquiry to guide and monitor change efforts, and a commitment to creating seamless education from pre-K through third grade are the essentials. FirstSchool's approach is to help educators think beyond traditional practices to improve school experiences and outcomes for children, particularly the most vulnerable. Currently, FirstSchool is involved with four schools in North Carolina and four schools in Michigan. Six of the eight schools serve predominantly minority populations. All eight schools serve many children from low-income homes.

In this article we describe the FirstSchool approach to improving instruction through the use of existing school data. Through the analysis of data, we prepare teachers to use reflection to inquire into their own practice. The approach incorporates the critical components of effective professional development for teachers (Desimone 2009): (1) actively engaging teachers to examine their classroom and school; (2) helping teachers make connections between their beliefs about how children

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learn, district standards, and effective teaching strategies; (3) giving them opportunities to learn through collaborative inquiry with other teachers and professionals; and (4) focusing on teachers' understanding of subject matter and how children learn it.

Data-driven education and collaborative inquiry

Teachers need support to understand data and to respond to the increased demand for data-driven education. Several studies indicate that teachers often question the usefulness of data in improving their teaching, especially when instruction is solely based on standardized tests (Young 2006). FirstSchool supports teachers by helping the school create a culture of collaborative inquiry. In such a culture, teachers ask questions relevant to children's learning, try to answer these questions by gathering and analyzing data, and collaborate to enhance their practice.

Providing teachers with a prescribed curriculum does not necessarily ensure quality instruction (Justice et al. 2008). Thus, FirstSchool is not a canned solution. Rather, it gives teachers opportunities to cocreate solutions to problems they encounter as they analyze the different sources of data.

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Data sets. Three critical data sets are used by FirstSchool in collaboration with the partner schools in designing and developing interventions at all levels. Data comes from the classroom, the school, and the school community. This article discusses how we use classroom data and family data to promote inquiry, to encourage collaboration, and to develop interventions.

Teachers, grade-level teams, and school leaders, including principals, assistant principals, family coordinators, and curriculum coordinators, identify interventions that address the desired changes. FirstSchool project staff serve as consultants to individual teachers, grade-level teams, and the school leaders throughout the process, building the staff's capacity to create their own expertise.

Using the data. To actively engage teachers and create a springboard for discussion, we use data both from teachers' classrooms and from the parents of children in the school. Information for teachers about how children experience a day in their classroom has the potential to improve the quality of interaction and the content and structure of teaching time.

We hold conversations with individual teachers or collectively with other teachers of the same or different grades. Likewise, the FirstSchool approach gives a voice to parents who often do not participate in school functions by including them in focus groups. This information can also promote dialogue among teachers about their views regarding family involvement and thus ultimately improve home-school partnerships.

Our conversations with teachers about data follow the steps described in the school improvement literature (Boudett et al. 2005). Through this process the FirstSchool approach helps teachers (1) identify a pattern in the presented data; (2) choose a pattern they want to explore more deeply and agree on the problem they would like to focus on; (3) examine their current practices using research findings as a guide; and (4) develop, implement, and assess an action plan. The next three sections present FirstSchool examples and model how to use collected data to promote teachers' active participation in their professional development.

> **Teachers ask questions relevant to children's learning, try to answer these questions by gathering and analyzing data, and collaborate to enhance their practice.**

FirstSchool classroom and family data

Through data collected by the FirstSchool team, schools focus on improvement in two major areas: instructional practice and home-school partnerships. Teachers and school staff engage in a five-step process that lets them look into their own practice through the eyes of the children experiencing that practice. A classroom observation measure, the FirstSchool Snapshot (Ritchie et al. 2010) provides minute-by-minute information about how children spend their time throughout the day.

The FirstSchool Snapshot divides the day into four categories: *activity setting* (whole group, free choice, and so on); *type of activity* or activities children are engaged in (math, science, gross motor, and so on); *children's behaviors* (attentive, distracted, and so forth); and *teacher's style of interaction* (didactic teaching, scaffolding, and so on).

FirstSchool also gathers data by creating focus groups for parents. Schools often struggle to engage families, so we invite parents whom the school has described as "uninvolved" and encourage them to share and discuss their beliefs about their role in their children's education, their views about the school invitations to participate, beliefs and practices that promote their children's learning, and life circumstances that facilitate or hinder their ability to support their children's learning (Walker et al. 2005).

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Minutes Spent in Each Activity Setting: Second Grade

- 28
- 28
- 100
- 108
- 32
- 20
- 112

- ■ Basics
- ■ Meals/Snacks
- ■ Whole Group
- ■ Choice
- ■ Individual
- ■ Small Group
- ■ Outside

Source: FirstSchool, FPG Child Development Institute.

FirstSchool approach to classroom data

The data obtained through the FirstSchool Snapshot and the parent focus groups help promote reflective practice. Using data can be an integral part of the work teachers do during grade level meetings, meetings with colleagues of different grade levels, or leadership team meetings. Examples follow, throughout which we include some voices of the teachers who have participated in FirstSchool.
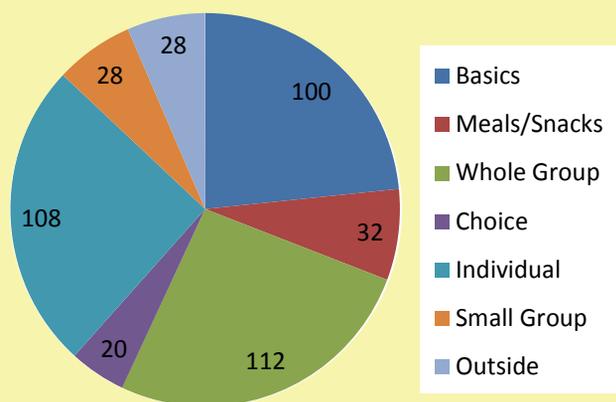
Step 1: Consider the child's perspective

FirstSchool staff presented second grade teachers at Madison Elementary data from the FirstSchool Snapshot showing the amount of time teachers and children spend in a variety of activity settings (see "Minutes Spent in Each Activity Setting: Second Grade").

As the teachers look for patterns in the data, they are surprised to see that children spent 100 minutes a day in Basics, which includes moving from one place to another, cleaning up materials, using the bathroom, and waiting; and 108 minutes in Individual time, during which teachers expect them to work quietly, alone, and not in collaboration with others.

Step 2: Choose a pattern in the data and agree on the problem to focus on

Examining these data from their own classrooms sparked teachers' conversation about the challenges they face in managing children's behavior. They struggled with guiding children's behavior during routines and transitions, and they focused more on Basics.

Likewise, teachers noted their difficulty in keeping children engaged during Individual time. Children frequently got up from their desks, whispered to their neighbors, and doodled instead of completing their assignments. Teachers agreed that they wanted to explore more deeply the basis for their rules, use of transition time for learning, and their relationships with children.

Step 3: Examine current practices

During their conversations, the teachers and FirstSchool staff reviewed research confirming that by interacting with children in a responsive, warm, individualized manner, teachers can build classroom environments in which children and teachers establish close relationships that let children feel safe while exploring classroom learning opportunities (Howes & Ritchie, 2002).

The conversations also shed light on certain trends in the data focused on classroom environment, most notably concerns about the experiences of the boys. Teachers recognized that boys found transitions difficult; most were "wiggly" during periods of individual work and were regularly docked points or privileges that were part of classroom management systems. As a result of their examination of the data, teachers questioned the arbitrary rules in their classrooms that often mean boys are in trouble instead of thriving.

Step 4: Develop, implement, and assess an action plan

I find I advocate most for boys. School has not always been a comfortable place for boys, but we have the power to change what school looks like for the sake of learning. Is "criss-cross applesauce" really all that important? Do you have to be still and quiet to learn? No!

So how can I plan the school day so that movement and talking are learning opportunities, so that choices are not just kid-friendly but boy-friendly, and natural curiosity is celebrated? All learners should feel valued and appreciated, even the wiggly ones!

—Andi Green, Second Grade Teacher

After interacting with the data and engaging in dialogue, the teachers made a plan to exchange such ideas as *criss-cross applesauce*, *hands in your lap*, and *silence* for flexibility and choice about where to sit, stand, and lie down while working and for engaging children in interesting observations as they moved through the hallways. Teachers more

often noticed when children had retreated into anger or sadness because they did not get a turn or the attention they needed, and worked to reengage them as quickly as possible. They offered the children more opportunities for movement, access to the outdoors, and sensory-motor materials and experiences such as sand and water play and playdough.

Finally, teachers engaged in more meaningful and extended conversations with children, both socially and academically, which increased children's opportunities to use expressive language, build their vocabularies, and develop closer relationships with teachers and one another. This work required teachers to spend more time collaborating with peers, exploring research related to children's engagement in learning and teacher-child relationships, examining and interpreting data, and rethinking their schedules. The result was that teachers engaged in more meaningful ways with their students.

> **By interacting with children in a responsive, warm, individualized manner, teachers can build classroom environments in which children and teachers establish close relationships that let children feel safe while exploring classroom learning opportunities.**

I got rid of my behavior system. I was afraid to do it, and all of the teachers told me I would be sorry. But I found out that I really did not need it. My relationships with the kids are far more important than anything I give or take away from them.

—Teacher's Assessment of Her Action Plan

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Continuing the process

Teachers noticed a change in their classroom atmosphere as a result of the reduction in arbitrary rules. They saw an increase in flexibility and attention to teacher-student relationships. However, they wanted to learn more about why such changes proved to be so effective, especially for boys, and what other methods they could use to continue the success in their classrooms.

In response, FirstSchool staff designed a full-day professional development program for the second and third grade teachers at Madison Elementary, focused on helping boys succeed in school. Topics included brain research, differences between how boys and girls respond to and process information, and teaching strategies that work and those that seem to cause stress and concern for 7- to 9-year-old boys and their self-regulation and executive functioning—the ability to plan, organize, set goals, and pay attention to tasks and details.

> **Schools can use parent focus groups to purposefully learn the beliefs, goals, and practices of parents who do not have a strong connection to the school.**

Teachers responded well to this kind of professional development. Because it was designed and based on teachers' interests and needs, and because their concerns had been identified through the data analysis, teachers found it engaging, useful, and meaningful. They immediately began to implement concepts they learned in their own classrooms.

As a new teacher, I find that the data provided by FirstSchool has helped me see a new way of looking at my classroom. The Snapshot data gave me a truly unbiased look into my own classroom, which helped me see my teaching practices in a new light. It also made me more aware of deeper dimensions of learning that I might need to focus on more. As a result of working with FirstSchool data, I feel armed with indisputable evidence that supports what I see happening in my classroom. I am now more confident in advocating for all the young children I teach. I look forward to interacting with more FirstSchool data in the future.

—Katie Welch, Kindergarten Teacher

Creating focus groups to reach all parents

Researchers find that parents who actively participate in school events are involved in PTA, communicate frequently with teachers, and define the nature of the school's parent involvement activities. Their beliefs and values become incorporated in classroom life (Lawson 2003; Auerbach 2007). Parents who choose not to engage in family involvement activities due to demands on their time, language differences, or a history of mistrust toward schools seldom influence how their children are taught in school (Auerbach 2007). Consequently, schools often dismiss these parents' beliefs, goals, and practices, and fail to incorporate the children's cultural backgrounds into the curriculum.

The FirstSchool approach encourages schools to widen the scope of parent participation. Schools can use parent focus groups to purposefully learn the beliefs, goals, and practices of parents who do not have a strong connection to the school. One school provides an example of the approach and the steps taken.

Step 1. Learn from the mothers' perspective

Livingston Elementary had a large population of children who were Latino, dual language learners. The FirstSchool team created focus groups among the Latino mothers to learn and to understand (1) their beliefs about their role in their children's education; (2) their perceptions of invitations for partnership from the school, the teacher, and the children; and (3) their life contexts that facilitate or hinder their ability to become involved (Hoover-Dempsey & Sandler 1997).

FirstSchool included mothers because traditionally, in the Latino culture, they are more involved than fathers in the education of their children. A Spanish-speaking facilitator conducted three focus group sessions with a group of six mothers. FirstSchool then presented a summary of the findings from the focus groups to the Livingston Elementary leadership team, which comprised the principal, assistant principal, and teacher representatives of each grade level.

As in most schools, Livingston Elementary had attempted to establish relationships with families through family involvement activities. The information from the focus groups helped educators at Livingston realize that Latino mothers believed that parents and teachers have a shared responsibility for the education of their children, even though the mothers did not always participate in family involvement activities. The mothers wanted more information about how to help their children in school, but frequently they could not understand the instructions or felt overwhelmed by the amount of homework assigned. The mothers explained that they often did not participate in family involvement activities at the school because they did not speak English. They also expressed a need for more opportunities to network with other parents in the school.

Step 2. Choose a pattern in the data and agree on the problem to focus on

The focus group findings prompted members of the school's leadership team to engage in a conversation about the needs of Latino parents. They agreed that the parents needed to receive more information about school policies and procedures. Therefore, school leaders organized a Latino parent night conducted in Spanish. School staff engaged the parents, asking them what they wanted to know about the school's policies and practices. Some parents expressed concern about the effects of new language assessment policies on their children Others asked to have more opportunities to socialize and network with other Latino and English-speaking parents.

> School leaders organized a Latino parent night conducted in Spanish. School staff engaged the parents, asking them what they wanted to know about the school's policies and practices.

Step 3. Examine current school practices

The school leadership team examined their practices for communicating the new language assessment policies to parents. The ESL (English-as-a-Second-Language) teachers realized that parents had received little information regarding their children's placements in the ESL classes. In addition, they reflected on the lack of school events in which all parents had opportunities to socialize.

Step 4: Develop, implement, and assess an action plan

The leadership team decided to organize a Family Night in which they would explain to parents in Spanish the process of assessment of dual language learners and the criteria for placement in ESL classes. In addition, they planned opportunities for parents to socialize, such as a coffee hour, while children participated in recreational activities.

Continue the process

The leadership team at Livingston Elementary plans to examine the data from the focus groups and other sources to determine their next steps. An area that they want to explore more deeply is school homework policies and practices, including ideas on the purpose, goals, and effectiveness of homework. FirstSchool will provide information about research on critical elements of effective homework practices and help the school design practices more sensitive to parents and children's needs.

Along with 22 years of experience come ideas that I, like most educators, have developed about the best ways to reach and support the children with whom I work. However, for the first time, through FirstSchool data, I have been given much-needed support for these ideas. In particular, the importance of making better connections with families has been proven by the data gathered in the parent focus group. This data opened my eyes to the beliefs and perceptions of the mothers of students within my school.

With this knowledge, I now am better equipped to connect with and provide for my students and their families. This knowledge gives me the gateway to best advocate for students. The data also allows me to know which students I must advocate for the most. Currently, advocating for students who live in the most vulnerable (crime-ridden) neighborhoods the school serves is my focus.

—Connie Crowe, Second Grade Teacher

Conclusion

In this article we illustrate the power of data to promote professional development and school improvement when they are presented in a way that provides a lens for teach-

ers to engage in self-examination and inquiry. Not every school has access to the in-depth data we describe here, but data collected by schools can be powerful when teachers receive appropriate support to interpret and respond to it. For example, schools collect data about student retention, attendance, and discipline rates. When examined by gender, grade, or ethnic background, the data can promote interesting, valuable conversations and actions such as reviewing classroom management and teaching strategies (Flowers & Carpenter 2009).

Similarly, data regarding parent participation activities may also be a springboard for discussions about the purpose and effectiveness of home-school partnership strategies, especially for parents from minority backgrounds. We conclude this article with voices from two teachers.

The data gave me an awareness of my teaching practices from the students' point of view. While I am an advocate for all of my students, I find myself advocating the most for those who come to school each day and need extra support. The data equip me with the information to prove that students who need more time in small-group instruction are not necessarily receiving it.

— Erin Millspaugh, Third Grade Teacher

Reviewing the data gave me the conviction that students need ample reflection time in order to process what they are learning and that all students must be engaged and actively learning throughout the entire day.

The data gave me the courage to examine the way I ran my instructional day in the media center and the strength to make changes in my practices so that students' learning would be enriched through opportunities not just to hear a story but to interact with it and pose questions and make connections to it. The data made me realize that my center time within the library was too short, and it also gave me the support I needed to really be able to talk to others about implementing learning centers in their classroom throughout the day.

—Carrie Potter, Media Specialist

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