A Puzzle in the Making:
Building Community in Preparation for a Large-Scale School Readiness Study

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Abstract

This article provides lessons learned about community building and child assessment training from an external evaluation of an Arizona statewide initiative for early childhood programs.

Children's success in school is largely affected by their experiences during the first few years of their lives. Research indicates that during the first three years, the young child's brain experiences dramatic growth. Zero to Three, a nonprofit organization whose mission is to improve the lives of infants and toddlers, states that "there are many ways parents and caregivers can help children get off to a good start and establish healthy patterns for life-long learning (Behavior and Development, Brain Development, n.d.).

To further emphasize the importance of the early years, the executive summary of The National Academies provided in *From Neurons to Neighborhoods: The Science of Early Childhood Development* highlights core concepts of development in young children. These concepts, in part, include the following (Shonkoff & Phillips, 2000, pp. 3-4):

1. Children are active participants in their own development, reflecting the intrinsic human drive to explore and master one's environment.
2. The development of children unfolds along individual pathways whose trajectories are characterized by continuities and discontinuities, as well as by a series of significant transitions.
3. The timing of early experiences can matter, but, more often than not, the developing child remains vulnerable to risks and open to protective influences throughout the early years of life and into adulthood.
4. The course of development can be altered in early childhood by effective interventions that change the balance between risk and protection, thereby shifting the odds in favor of more adaptive outcomes.

First Things First

Due to the great importance of the early years of children's development, an initiative was brought before the voters of Arizona in 2006, to support a proposition to fund quality early childhood development and health, operating under the following principles (History, n.d.):

1. Local communities must come together to plan and administer what works best in
   their community.
2. It must be flexible enough to accommodate the unique demographics of our state.
3. It must be transparent and held accountable for outcomes.

The Arizona voters passed the proposition in, what is referred to as, a *statistical landslide*. As a result, a state level board, known as the Arizona Early Childhood Development and Health Board, was created for the purpose of improving the lives of Arizona's youngest citizens. The Board adopted the name First Things First (FTF), which exemplifies the importance of early childhood development. The mission of FTF is to increase the quality of and access to early childhood development and health programs that ensure a child entering school comes healthy and ready to learn. FTF is a community-based initiative and funds Regional Partnership Councils to provide services based on community needs. One principle of the proposition included that the initiative must be transparent and be held accountable for outcomes. In turn, this principle manifested the need for an external evaluation.

External Evaluation

In 2007, three Arizona universities formed the Tri-University consortium to begin an external evaluation team to evaluate the system of FTF. This external evaluation team was tasked with determining whether or not there is a positive increase in the educational and health outcomes for young children, birth to age five, and their families, as well as increased capacity in the early childhood service delivery system as a result of the FTF statewide initiative. That is, the team would evaluate whether or not programs funded by FTF were improving the general wellbeing of children in Arizona and their preparedness for beginning kindergarten. To accomplish this task, the external evaluation team developed a mixed-methods evaluation to be conducted across the state of Arizona. This evaluation included an accelerated longitudinal study of child outcomes and a cross-sectional annual evaluation of kindergarten readiness (approximately 9,000 and 1,200 children, respectively). To assess school readiness, the evaluation team used direct child assessments, looking at language, literacy, mathematics, motor skills, and health. Additionally, questionnaires and surveys were used to collect information on socio-emotional skills, literacy, math skills, and overall health.

As stated by the consortium (Tri-University Consortium, 2008),

> First Things First (FTF) provides an unprecedented opportunity to invest in the lives of Arizona's young children and the evaluation of FTF provides an unprecedented opportunity to study how improvements in access to and quality of educational and health services impact young children's development. (p. 7).

A study of this magnitude to determine the impact of statewide programs provided ample opportunity for evaluators to utilize multiple approaches to build community and to assess young children and their readiness for kindergarten.

The focus of this article is to discuss the lessons learned or the assembling of "the puzzle" from working on a large-scale study. As such, no data interpretation will be included. As the team from Northern Arizona University (NAU) self-reflected on the first three years of this study, we

gained valuable insight beyond the initial intent of the study to evaluate FTF. A primary lesson or first piece of the puzzle was the ability to nurture a partnership within the communities involved in the project, including partnerships with local school administrators, teachers, and kindergarteners and their families. NAU was charged with a data-collection area that consisted of nearly half the state. NAU has a long history of partnerships in northern Arizona and continuing those partnerships was a high priority for us. It is important to note that much of northern Arizona is classified as rural, with areas consisting of tribal land, mixed with many remote, small towns. The university's location, in Flagstaff, is one of the few larger cities in northern Arizona, and still only has a population of about 60,000. The College of Education at this university is committed to meeting the educational needs of remote communities by offering programs in nontraditional formats through online courses and face-to-face programs offered in various communities. Our desire to reach outlying communities is shown through our commitment to ongoing partnerships. For this reason, the evaluation team based at NAU felt strongly about carrying out this study in a manner that showed respect and sensitivity to the communities in our data-collection area.

This, in part, was accomplished through the next piece of the puzzle, which involved qualified community members joining the university team as data collectors. This built upon the already well-established relationships between the university and surrounding communities in northern Arizona. It was important to recruit data collectors who would be good with children, which is why most of the data collectors were current/former teachers or people who had worked closely with young children in other ways, such as school counselors or librarians. While the team was primarily located in the Flagstaff area, we made efforts to recruit data collectors in many of the more remote locations where we would be assessing children. We began by contacting educators or former educators we knew from our interactions with local schools and invited suggestions from them for people they knew in the more remote communities who might be interested in working with us. As word got out about our project, we received calls from educators, expressing a desire to join the team. Having local data collectors added credibility to our project and resulted in a greater trust with our partnering communities. In addition, it was our goal to hire some data collectors who were fluent in Spanish or in Navajo (Dine´) in order to ensure that we could communicate effectively with all children and families participating in the study. While finding versions of our child assessments that were in languages other than English was not always possible, we were able to use Spanish language versions for some of the assessments.

Another important piece of the puzzle was the consideration for building community and partnerships related to our recruitment of schools that we hoped would agree to participate in the kindergarten readiness study. We felt that it was important for our recruiting efforts to be done by people who were familiar with the culture of school. For this reason, those on the team who had formerly worked in the school system made initial contacts with assistant superintendents and principals. We found this to be extremely successful as the recruiters and school administrators seemed to "speak the same language," expressing those concerns that would matter most to the schools about their participation. It was important to us not to treat our partners in a way that made them feel like we were merely using them for data collection, but rather that the study would allow their voices to be heard and how their participation would benefit Arizona schools, children, and families.

Finally, once we enlisted the participation of schools, families, and children, we were committed to taking the time necessary to help participants understand the full data-collection process. We wanted teachers and families to be comfortable with the project and to understand the incentives they would receive for their participation (e.g., big books for teachers, gift cards and books for families). We were also committed to scheduling our assessments in a manner that would cause the least amount of disruption to the kindergarten teachers. Data collectors were careful to communicate openly with the teachers about the amount of time they would be working with children and were committed to completing the assessments in a timely manner. For this reason, we committed to spending additional time and money to send data collectors to various communities ahead of time to meet with teachers and families to explain the project and answer their questions, rather than just showing up on the day of data collection. Moving with this deliberate and respectful approach meant that we were not always quite as quick as our consortium colleagues to begin data collection, but our target numbers were always met. Overall, it was important to us to take the time necessary up front to meet with school administrators and teachers to be sure they were supportive of our efforts. Because of this, we found that most of the schools and teachers were happy to participate and eager to have us return in the future. This was extremely important to us in that we hoped to return to schools in subsequent years to evaluate the readiness of kindergarteners and these strong partnerships were a key to the success of our future evaluation efforts.

Teacher Education Program

Through our work on this evaluation study over a period of three years, we also learned lessons about how our involvement in this study benefitted the teacher candidates in our early childhood education programs. This project ultimately provided a key puzzle piece being a literature resource about the use of various child assessments, including decisions made about assessment selection and administration. Selection was, in part, based on the ability to engage children through game-like, yet psychometrically-sound assessments and the administration of assessments was improved upon through lessons learned during training of data collectors and administration of the assessments in the field. For example, we found during our pilot study that the math assessment originally selected was too material-intensive and time-intensive, requiring an amount of time that was simply too much for the attention span of young children. We suggested changes to the consortium and later replaced the assessment tool with one that would provide the data we needed, but in a manner that was more respectful of children.

Additionally, in the team's ongoing effort to address the goal of self-evaluation set by the National Council for Accreditation of Teacher Education (NCATE, 2008), the information gained from this project served to inform our early childhood programs about effective community-building practices. The National Association for the Education of Young Children (the leading organization for early childhood) provides standards for teacher education programs and Standard 2 (NAEYC, 2010) addresses the building of family and community relationships. Our involvement in the study strengthened our commitment to this goal as we have learned first-hand effective partnering strategies, which can be shared with future teachers and ultimately benefit young children.

Recommendations

Longitudinal research is noted as having many strengths in measuring changes and temporal order of relationship in variables allowing for stronger casual interpretations than in cross-sectional designs (Ribsel, Walton, Mowbray, Luke, Davidison, & Bootsmiller, 1996). The rarity of longitudinal studies is in part the challenge of participant recruitment and participant retention. We experienced both of these challenges in our study. From our experiences and lessons learned on this large-scale longitudinal study, we offer the following strategies for both recruitment and retention of participants for longitudinal studies.

1. Trust Building: At the forefront of recruitment and the key to a successful longitudinal study is the development of trusting relationships between the researchers and the participants (McGregor, Parker, LeBlanc, & King, 2010). You must know your target and accessible audience. Here, we had the advantage of team member's experiences in school settings. Rodriguez, Rodriguez, and Davis (2006) remind us that it is less difficult to recruit European American or White participants as compared to ethnic minorities. Our recruitment strategies took into account the diverse populations of northern Arizona.

2. Snowballing for Increased Participation: Another strategy that we employed was snowballing —this word of mouth approach assisted us in getting our request out across the large area in which we were charged to study.

3. Pilot Study: We strongly suggest that a pilot study be performed. We used this strategy to review protocols and timing. We also had regular team meetings to review our recruitment strategies and were ready to make changes as necessary, for example, noting that we were limited in the number of a particular demographic—we sought out schools where we could gain those voices.

4. Retention Strategies: Not surprising, at the top of the retention strategies is also trust along with clearly explaining the purpose of a study. "Participants are more likely to remain in a study if they understand the importance and relevance of the study" (Davis, Broome, & Cox, 2002, p. 48). Respect of one's time also plays a key role in retention. As we learned from our piloting, we were able to more accurately convey to our participants the amount and type of commitment they would make. Part of our retention success was that we had a single contact person for our participants to interact with. We created an extensive tracking system with participant information to allow us to better interact with the participants. As we were working with schools, children, and families, we had to be flexible with our scheduling and make our visits as convenient as possible. We provided reasonable incentives for participants. And above all we continued to show our appreciation for the individual's participation through respecting their time and cultural differences.

Assembling the Puzzle

As we look to the years ahead and our continued work within our neighboring communities, we see our efforts as a sort of puzzle, with each piece working and interlocking with the next. Like a puzzle, we quickly learned that every piece is needed to make the puzzle complete. Our work necessitated the cooperation of communities, schools, administrators, teachers, families, and children. We also learned the importance of having a great evaluation team, from the managing component to the very crucial field team. Without the willing participation of all, we would not have been able to inform First Things First about the best ways to help children in our state. In part, based on the foundational efforts of the university, this evaluation team found it extremely

valuable and surprising that even with such a large geographic data-collection area, we were able to work within, maintain, and expand a sense of small community-like partnerships. We feel fortunate to work within these communities, which allowed us to provide their voice as part of this external evaluation.

Puzzles come in all shapes and sizes, as well as levels of difficulty. One might see a large-scale longitudinal study as the highest level of difficulty, especially if it includes so many pieces, e.g., children, parents, teachers, and community leaders. We approached our puzzle one piece at a time while never losing sight of what the final puzzle should/could look like. While there are several strategies for a successful study, one should always have the big picture in mind. In the forefront of our recommendations is the building of trust with the communities with whom you will be working. From that trust, came our successes.

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SCHOOL READINESS School readiness [1] refers to the extent to which a child exhibits the behaviors, skills, and knowledge necessary to be successful in elementary school [2]. Â When these behaviors and skills are in place, the child is ready to take his place as a member of the learning community in the classroom and the school. See also: Early Childhood Education; Reading, subentry on Beginning Reading. bibliography. Children's School Readiness is affected by the early care and learning experiences they receive. The research in brain development emphasizes that early learning (especially from birth to five) directly influences a child's ability to learn and succeed in school. These studies have contributed to a growing awareness of the importance of quality early education and prekindergarten experiences. Research indicates that preschoolers who attend high quality programs Â SOCIAL STUDIES Children learn early how people live in the social world. Their preschool classroom mirrors the larger society with its diverse ethnic, religious, and socioeconomic backgrounds. Preschool teachers help children to think about themselves and their roles and responsibilities that they and others assume. Our school readiness checklist and program prepares your child for an adventure of lifelong learning. Based on the EYLF, it lists the school readiness skills your child works towards in their early years school readiness program. Â School readiness often focuses on that final year that leads up to the big event. While the transition from an early learning environment or from home to school is important, your childâ€™s preparation began years ago. And, it has little to do with reading, writing or counting. That first breath. The moment your child opens their eyes and hears your voice, theyâ€™re learning. Â Manages new projects on their own. Problem solves, like finishing a puzzle. Comes to conclusions on how ideas and outcomes connect. Uses their imagination to create complex storytelling. But what does school readiness mean, and how do communities know whether they have achieved it? This research brief is intended to help communities invest wisely in school readiness initiatives. It begins by summarizing recommendations from the National Education Goals Panel (NEGP) for defining and assessing school readiness. The brief then presents a framework for community investments based on an ecological view of child development. This framework considers factors related not only to the child but also to the child's family, early childhood care and education, schools, and neighborhood. Â Study on the learning readiness of the first graders in the elementary school according to the levels of the learning ability (Unpublished master's thesis). Jan 2001. O H Choi.