The purpose of this chapter is to describe two key processes embraced by Educare, an enhanced Head Start/Early Head Start program, with the goal of informing cross-site, collaborative, applied research. The two processes are: (1) common data collection across multiple sites, and (2) use of data to impact program and policy at multiple levels. Educare’s "lessons learned" through implementation of these two processes will be shared to inform the formation and implementation of a research consortium of lab schools. Although Educare is not a university-based laboratory school, its focus on combining robust, embedded research with the delivery of a high-quality comprehensive child and family development program designed for children and families living in poverty is an example of Applied Developmental Science (ADS) (Lerner, Jacobs, & Wertlieb, 2003, 2005) in action that has important implications for building and analyzing databases to answer the most relevant contemporary program- and policy-oriented questions related to early care and education.

Research in Lab Schools: One Example

As highlighted in this book and other sources (e.g., see McBride & Barbour, 2003), university lab schools have generated, applied, and disseminated knowledge to inform practice in early childhood education since their inception in the early 20th century. As a former lab school director, along with the staff at the University of Rhode Island (URI) Child Development Centers, we embraced the three-fold mission of teaching, research, and service common across contemporary university-based lab schools. Working together as a staff we excelled in teaching by providing high-quality pre-service professional preparation to our college students and extensive service/outreach by engaging in productive professional
development collaborations with a range of partners including the state department of education, state early childhood professional associations, public schools, and other community-based groups and agencies (see Horn & Warford, 2003). While we were strong in teaching and service/outreach, our research activities were not as robust or comprehensive. Although we did engage in research, the scope was generally limited to URI faculty and graduate students who implemented their independently designed studies in our two locations and shared their findings through conference presentations and publications in professional journals. While this research activity and the resulting new knowledge often informed our practice, it generally did not have a direct impact on children and families outside our two sites of the URI Child Development Centers. Based on experience and conversations with other lab school staff, this scenario is not unique. Research implemented in university-based lab schools is typically designed and conducted by individual researchers, or small research teams, who rightfully take advantage of the university-affiliated lab school to host their work. While this is aligned with the research mission of lab schools, the researchers often work in relative isolation and may or may not address research questions that have direct relevance for practice or policy. Additionally, due to the study being conducted in only one university-affiliated lab school, the researchers must typically acknowledge limitations in their sample sizes and sample demographic characteristics that limit the generalizability of findings and associated impacts in the practice and policy arenas.

**Educare as an Alternative Model**

The growing network of Educare Schools can serve as a model of how multiple program sites and their affiliated researchers can collaborate to build a common research agenda and by working together can overcome the problems noted above to have a significant impact on both program and policy decisions, without giving up the local use of data. After a brief description of the history, growth, and features of the Educare program model, focused attention will be placed on the roles of applied research and data use in this model.

**Educare**

Educare is a comprehensive early childhood education program model designed to serve young children, birth to age five, and their families who live in poverty (Educare Learning Network [ELN], 2015). The model was developed by the Ounce of Prevention Fund who, in collaboration with Chicago Public Schools and the Irving Harris Foundation, opened the first Educare in Chicago in 2000. In 2016, a total of 21 Educare Schools are in operation across the United States in communities as diverse as Tulsa, Seattle, Miami-Dade, Washington DC, and Central Maine. For a listing of all Educare sites and more information about Educare, see www.educareschools.org.
Educare describes itself as a program, place, partnership, and platform for change. Specifically, "local public-private partnerships create and support an Educare school—the place—following the Educare model—the program—which serves as a platform for broader policy and systems change" (Yazejian, Bryant, & Kennel, 2013, p. 209). Relative to the program, Educare meets the Head Start and Early Head Start performance standards and goes beyond them (Yazejian et al., 2013) by implementing a variety of enhancements including: year-round, full-day services; lead teachers with bachelor's degrees; intensive, ongoing embedded professional development; family support staff with limited caseloads and bachelor's-level training; a Research Program Partnership with local researchers joining with each site's Educare program staff to tailor continuous improvement planning and data use; and contribution of local data to a cross-site Educare Implementation Study.

In each Educare location, public–private partnerships develop to fund and implement the program. Federal guidance and funds from Early Head Start and Head Start form the base for programming and funding, with local, state, and philanthropic sources augmenting both programming and funding (ELN, 2015) to support enhancements such as the full-day, year-round schedule and highly qualified, degreed staff. In addition to serving as a model of how early childhood programs can be created and sustained in communities, Educare schools serve as "showrooms" demonstrating the delivery of high-quality early childhood services (ELN, 2015). Relative to classroom quality, Educare classrooms demonstrate significantly higher overall quality as measured by the Infant/Toddler Environment Rating Scale (ITERS-R) (Harms, Cryer, & Clifford, 2006) and the Early Childhood Environment Rating Scale (ECERS-R) (Harms, Clifford, & Cryer, 2005) than results reported for other infant/toddler and preschool classrooms in published large-scale studies (Yazejian & Bryant, 2012). For example, in 2012 the average cross-site ITERS-R and ECERS-R scores were 5.8, falling in the range defined as high quality (Yazejian, Bryant, Freeh, Burchinal, & ELN Investigative Team, 2015). Similarly, results on the Classroom Assessment Scoring System (CLASS) PreK (Pianta, LaParo, & Hamre, 2008) fell in the high to moderately high range with an average cross-site score of 6.4 for emotional support, 5.7 for classroom organization, and 3.5 for instructional support (Yazejian et al., 2015). As noted by Yazejian and Bryant (2012), Educare's average instructional support scores are above the threshold required for children's acquisition of academic skills and higher than averages reported in other studies of early childhood programs. Individual Educare sites review their ITERS, ECERS, and CLASS results as one source of information to inform their professional development planning and efforts at continuous program improvement.

As noted above, the Educare model embraces the collection and use of data and the partnership with local researchers as key features. The goal is for the local researcher to be "embedded" as part of the program (Yazejian et al., 2013). In fact, the Educare logic model identifies four core program features with data utilization listed first and recognized as driving and informing the other three—embedded
professional development, high-quality teaching practices, and intensive family engagement. The implementation of these core features, with the emphasis on the primacy of data and its use, is predicted to prepare young children, birth to five years, growing up in poverty, for kindergarten as well as longer-term academic and life success (ELN, 2015). More details on the Educare model and its implementation can be found in published reports (e.g. Guss, Norris, Horm, Monroe, & Wolfe, 2013; Stein, Freel, Hanson, Pacchiano, & Eiland-Williford, 2013; Yazejian et al., 2013; Yazejian et al., 2015).

The emphasis on data and its use distinguishes Educare from other early education programs. Each Educare site forms a partnership with a researcher, typically from a local university, to conduct the required Educare Implementation Study. This partnership is called the Research Program Partnership (RPP) and is charged to implement a reciprocal data feedback and utilization cycle (Stein et al., 2013) to inform local program improvement. Thus, like quality lab schools, the voices of practitioners and researchers are evident; and similar to the tenets of Applied Developmental Science the problems of practice inform the research questions that are posed as well as the data collection methods and strategies.

Since 2005, the local researchers affiliated with each Educare site, called Local Evaluation Partners or LEPs, have been coordinated by a team from the FPG Child Development Institute at the University of North Carolina at Chapel Hill, led by Noreen Yazejian and Donna Bryant, who are referred to as the National Evaluation Partner (NEP). Together the NEPs and LEPs have designed a common set of measures, in collaboration with Educare program partners, that are administered on a common schedule with the NEP ensuring quality control through common training as well as regular reliability and accuracy monitoring. The Educare Implementation Study includes direct child assessments, staff surveys, parent interviews, and classroom observations. This coordination allows data to be aggregated across sites, resulting in large databases. To date, analyses have demonstrated the high quality of the programs (briefly summarized above) and shows that children who are enrolled earlier, and for longer periods of time, demonstrate better outcomes (Yazejian et al., 2015). This large-sample, "practical" research has caught the attention of other researchers as well as policymakers and funders.

**What Lessons can Educare Offer to University-based Lab School Research Consortia?**

The above description of Educare shows it shares some common features with university-based lab schools. These include:

- Emphasis on the delivery of high-quality, research-informed services to young children and their families;
- Use as a "showroom" or observations site where others can see high-quality services in action on a daily basis;
• Emphasis on ongoing professional development;
• Affiliation and partnership with local university-based researchers.

A major difference is the intentional design and implementation of a network to facilitate cross-site data collection and use. The Educare network has negotiated a common set of child, family, staff, and classroom measures; common protocols for training and assessment administration; common timelines for data collection; and common approaches to data management and analysis. This collaboration has resulted in a large and diverse database that enables the framing of research questions to address numerous policy-relevant questions. For example, Yaziejian led a group of ELN colleagues to investigate the optimal age and duration of services for young children living in poverty to receive early care and education. The resulting paper, published in *Early Childhood Research Quarterly* in 2015, drew on data collected in ten cities (Chicago, Denver, Kansas City, Miami, Milwaukee, Oklahoma City, Omaha, Seattle, Tulsa, and Waterville, Maine) and based on approximately 5,000 young children who were demographically diverse. This sample and associated database that enabled analyses to provide emerging answers to an extremely relevant policy question—the timing and duration of services—would be next to impossible to generate without a network combining efforts to coordinate, develop, and sustain the work.

The network approach also provides a mechanism to design and implement other important and needed research—not only for Educare but for the broader field. For example, researchers and program leaders from four Educare sites collaborated with the NEP Team to design and implement a randomized controlled trial (RCT) of the Educare model. This study, which began in 2011, involved randomly assigning infants 18 months of age or younger to Educare or a control condition. The progress of these children has been followed through 2016 with efforts to secure funding to follow the children through Grade 3. Many label this RCT as the “modern” Abecedarian Study because it will compare the effects of a high-quality early care and education program on similar children growing up in poverty who did and did not receive the program. It also stands as an example of implementing a rigorous, “gold-standard” research method in a real-life program providing daily services to young children and their families. To spawn additional studies, the ELN has provided funding for Data Camps where the LEPs come together on a periodic basis with the NEPs to brainstorm open research questions in the current literature. Workgroups consisting of LEPs from various sites who elect to participate pose research questions and use the Educare Implementation Study database to conduct analyses to yield answers. Currently, numerous ELN Workgroups are investigating questions related to continuity of care in infant/toddler classrooms, peer effects, impacts of family risk and classroom quality on child outcomes, nature of services for young dual-language learners, and a range of other questions that will contribute answers to fill current gaps in the literature and to inform practice and policy.
It should be noted that the uniformity needed to build a cross-site network and resulting database similar to Educare’s does not hamper local efforts to answer unique or place-specific questions. Each RPP is free to add measures based on local interest. Each RPP analyzes their own local data to answer questions related to their specific children, families, school, and community. Each site contributes their “core” or required data to the larger ELN pool and this aggregated data results in the large and growing cross-site database that, through secondary analyses, can be used to answer research questions with a larger and more diverse sample supporting greater generalizability of the results. Thus, the data from the Educare Implementation Study is used to inform local programming and services and to contribute to answering program- and policy-relevant questions of interest to state and federal decision makers.

While the Educare database offers many advantages to researchers interested in investigating program- and policy-relevant questions, its limitation is that it is comprised of children and families eligible for Educare. As an enhanced Head Start and Early Head Start program, to be eligible for Educare families must meet the Head Start and Early Head Start enrollment guideline of living at or below the federal poverty line. Thus, the large Educare database provides a platform for answering questions about children growing up in poverty.

A lab school research consortium could contribute to building a database comprised of information about children growing up in a range of economic and geographic contexts. Similar to the database produced by the Educare Implementation Study, a database composed of a comprehensive set of relevant measures administered across several strategically located lab schools, selected to offer both geographic and ethnic diversity, could provide researchers with a platform from which to answer a range of questions that we, as a field, have difficulty answering. An example includes the topic area of peer effects. Families enrolling their children in lab schools, like Educare schools, understand that research is part of the mission and are thus likely to provide consent to participate in studies as they are announced and implemented. This creates the unique situation where almost all the children in a classroom are assessed and thus allows researchers to investigate the impacts of peers on individual child development. Given the strong role many lab schools play in pre-service professional preparation, another void in the literature that could be addressed is to research features of various curriculum approaches with different types of pre-service students, enrolled in programs with lab schools, participating in a research consortium.

McBride and colleagues (2012) have written about and pursued federal and foundation funding for a lab school research consortium in the past. Reviewers, although positive about the overall concept and potential, voiced concerns about the infrastructure, coordination, and administration support required for a lab school research consortium to be successful. McBride’s chapter in this volume provides detailed answers to many of these concerns based on his work at the University of Illinois. Our “lessons learned” through the cross-site Educare
Implementation Study and collaborative use of data among ELN colleagues also offer insights into the needed structures and processes for a lab school research consortium to be successful. This knowledge and experience combined with the current focus on early childhood education in the popular press, scientific literature, and policy-arena suggests the timing might be right for funding the development of a lab school research consortium. Given that, what could such a consortium learn from the Educare work to date?

**Lessons Learned: What Does It Take to Design and Implement a Multi-site Research Network?**

My experiences gained as a result of actively participating in the Educare Implementation Study since 2007 and Educare RCT since 2011 have highlighted the importance of the following features in building and sustaining a cross-site research network:

- **Mutual respect and strong relationships among researchers, practitioners, and policymakers:** For research to meaningfully inform practice and policy, in essence to meet the promise of ADS, the voices of practitioners and policymakers must be present in all phases of the work—from framing questions to interpreting and disseminating results. Not only must these voices be present, a climate of mutual respect and trust must be established for optimal results. Applied to the university setting, researchers may be perceived as the higher status or more powerful individuals and this imbalance must be recognized and neutralized to allow the practitioners and policymakers to freely contribute their ideas and perspectives to ensure the resulting work has maximum impact and relevance. Based on experience, this is best achieved through the articulation of a compelling common goal—in the case of Educare the goal is delivering high-quality services to young children growing up in poverty to reduce or eliminate the achievement gap. While the researchers, program specialists, and policymakers bring different skills to the table, each is respected for contributing something valued to achieving the common goal.

- **Clear structures, roles, processes, and timelines:** The respective roles of the LEPs and NEPs in the Educare Implementation Study have been referenced above. For a cross-site network to be effective, leaders and followers are needed. The leader of a lab school research consortium could be an individual, or more likely a small committee, that would facilitate the establishment of basic policies and procedures with input from the consortium members. Participating members need to commit to common processes, such as a common core of assessments administered following standardized protocols on a common timeline, to allow the resulting data to be aggregated into a meaningful and robust data set. Lack of such commitment results in an incomplete
data set that significantly hampers and limits secondary analyses that can be so fruitful in producing policy-relevant answers.

- **Ongoing, multi-directional communication:** Despite attempts to plan and organize everything in advance, it is inevitable that questions and problems arise. The ELN has used regularly scheduled conference calls to discuss questions and brainstorm solutions to unanticipated problems or issues. Although in-person meetings have merit and are of great value in building and strengthening relationships, regularly scheduled calls are invaluable in addressing questions, keeping everyone on the same page, and keeping the momentum of research project activities going and on track.

- **Professional development:** The participants in the Educare Implementation Study entered their unique roles with solid qualifications. However, through participating in the Implementation Study, all staff have learned new things, especially new learning related to the conduct of Applied Developmental Science. Specifically, the researchers learned how to package and present feedback based on local data to partner classroom staff in more meaningful ways; program staff learned about the rigors of research and why standardization is necessary. The research network offered a variety of opportunities for professional development with some other examples including learning new measures, enhancing data literacy, as well as developing mastery with strategies for building the RPP, techniques for sharing results with people inside and outside the network, and processes for interpreting and using data to inform program decisions. As these lessons were learned, they were shared with newcomers to the network through network meetings, webinars, or conference calls and with the larger field through publications (for example see Guss et al., 2013 and Stein et al., 2013, for two articles published in a special issue of *Early Education and Development* devoted to the topic of the use of data).

- **Resources and infrastructure support:** As suggested by the above and elsewhere in this book, resources are required to support in-person meetings, regular phone calls, and other infrastructure required for cross-site collaboration. Thus, the identification of a funding source is critical to support cross-site collaboration. Based on experience, an important and often overlooked resource is time to collaborate. Lab schools are typically busy places with limited open time to add new responsibilities. This reality must be recognized and productive brainstorming is required to link ongoing duties to the cross-site research responsibilities. Drawing on the functioning of the Educare Workgroups, a motivation to collaborate is the desire to learn more about a specific topic and how the findings might inform local practice. For example, a group representing several Educare sites with large populations of dual language learners was formed to ask and answer questions about the impact of various amounts of home language/English used in classrooms on children’s development of English and their home language. This group
had high motivation to participate in the Workgroup because their schools' data was part of the analysis and the results held relevance for their classroom practice. The same would be true for lab school workgroups with the added incentive of disseminating the information to the college students who are the future of the field. While personal motivation is important, for sustainability this type of collaboration must be valued by the organization and incorporated as a component of personnel reviews, annual performance evaluations, and employee recognition programs.

- **Ability to speak to varied audiences**: Researchers often write for other researchers with the gold standard being the peer-reviewed journal article. While this builds the academic knowledge base, it often limits or slows dissemination of relevant information to those who need it or use it—practitioners and policymakers. Involvement of practitioners and policymakers on research teams not only contributes to asking meaningful research questions, it also results in dissemination of results to varied audiences through varied mechanisms. Typically, practitioners and policymakers rely on different dissemination techniques and venues than do researchers and this serves to get the information out to different audiences in a quicker timeframe. This enhances the impact of the collaborative work.

**Next Steps**

These lessons from Educare can inform the development of a lab school consortium and other research groups involving multiple sites and personnel striving to inform practice and policy. In addition to the above lessons, such a consortium would benefit from:

- **Strategic decisions about membership**—to represent valued and varied populations and audiences. Lab schools are often criticized for offering boutique-like services to homogeneous populations. To overcome this criticism and build databases based on a sample representative of the U.S., efforts must be focused on identifying, recruiting, and selecting lab schools offering services to varied populations.

- **A research agenda and an organizing theoretical framework**—to guide research teams to address existing gaps and to serve as a framework for interpreting results and building the knowledge base. For example, in addition to the logic model that graphically displays how the Educare model is predicted to accomplish its intended goal, the Educare Learning Network has articulated a research agenda that clearly outlines the scope of the research topics to be considered and the desired collaborators. Relative to the valued role of lab schools in professional development, Hyson, Horn, and Winton (2012) and Horn, Hyson, and Winton (2013) identify many gaps in the existing literature base on early childhood teacher professional development.
in higher education settings that require investigation for our field to progress. A lab school research consortium could use the work of Hyson and colleagues to map or organize their collaborative research in the arena of professional development. The recent release of the Institute of Medicine, National Research Council’s report *Transforming the workforce for children birth through age 8: A unifying foundation* (IOM and NRC, 2015) has confirmed the importance of a well-prepared workforce for early childhood programming to achieve its promise and highlights the need for more research to inform early childhood professional preparation. A lab school research consortium would be uniquely positioned to contribute needed research results in this area.

- **An identity.** In some ways, the saying “build it and they will come” applies. Given the increasing role of externally funded research on campuses today, many lab school directors feel the need to enhance their research activity and productivity (McBride et al., 2012) and a consortium may be a strategy for accomplishing these goals. Additionally, given the complex questions begging for answers in the literature, collaborative research appears to be the key for generating meaningful answers. Lab schools have different strengths and these can contribute to the building of a strong research network. For example, the NEP in the Educare network brings strength in advanced quantitative data analysis and this capacity strengthens manuscripts generated by the ELN workgroups.

- **A plan for growth.** Although it is wise to start small and design for early successes, the foundation of a lab school consortium should be built with an eye toward supporting future growth. All decisions must be made with a future orientation anticipating and paving the way for expansion, not to just serve short-term goals.

- **Funding.** As noted above, the idea of a lab school research consortium has been discussed for more than a decade. Many see the wisdom of the idea and are ready to join. The current context appears ripe for lab schools to join forces to develop a strong research consortium that would be uniquely positioned to address some meaningful and complex open questions in early childhood. A missing piece is funding. The authors of other chapters in this volume have also identified funding as a challenge. This gives rise to several questions, including: How can the group move forward without funding? What granting agency or private philanthropy is best positioned to support the formation of a lab school research consortium? What can the group do to demonstrate proof of concept to move forward and demonstrate viability for funding?

Although much work remains to build such a network, the anticipated dividends would be great. Such a network would offer:

- the power to address unanswered research questions in early childhood education, especially in areas where lab schools have traditionally excelled such as professional development;
• networking and professional development opportunities for lab school faculty, staff, and students to enhance their own research capacity and consequently that of the field;
• opportunities to cultivate and prepare future generations of early childhood researchers and to enhance the research profiles of lab schools;
• leverage for our field's ability to address practice- and policy-relevant questions. In essence to achieve the original vision of lab schools and to align with the goals of contemporary ADS, a consortium would
  • engage in meaningful and robust scientific research where “science drives application and application drives science” (Lerner et al., 2005);
  • conduct research that has direct implications for individuals in context;
  • design research that can be applied to lifespan developmental issues; and to
  • ensure research provides insights and implications for practice and policy.

The above four points relate to the definition of ADS and echo the original goals of laboratory schools. Additionally, given the increasing importance of externally funded research on university and college campuses, lab schools must position themselves to align with this research mission to remain viable and vital (McBride et al., 2012). A consortium of lab schools operating together to advance and promote meaningful research could be instrumental not only to the survival of lab schools, but also key to positioning them to thrive and achieve the original mission of lab schools that continues to be a high priority today and for the future—the generation and application of knowledge that is relevant to solving the challenges faced by young children and their families.

References


