



Transformation Zone Evaluation

Early Literacy Strategies Implementation Report

Noreen Yazejian, Kathleen Gallagher, Sandra Cianciolo, and Meredith Jones
Frank Porter Graham Child Development Institute
The University of North Carolina at Chapel Hill
September 13, 2016

Introduction

The North Carolina Race to the Top—Early Learning Challenge is a broad initiative to enhance the early learning and development system for children and families in North Carolina. One component of the state’s plan is the Transformation Zone, which is a systems change project designed to promote school readiness and improve knowledge, skills, and capacities in early childhood communities in four high need counties. Among the early childhood strategies being implemented as part of the Transformation Zone are two early literacy strategies. This report summarizes an examination of the implementation of these two evidence-informed early literacy programs within the context of the Transformation Zone initiative. Relative to other strategies implemented in the Transformation Zone, county and state stakeholders reported successful implementation of the literacy strategies. Successful implementation of the literacy strategies was facilitated by several features of the project: intensive technical assistance, purveyor involvement, data usage, leadership support, Literacy Coordinator, County Implementation Coach, a community of practice, and model flexibility. Current implementation status is also described, barriers to implementation are discussed, and suggestions for continued success are noted.

Background

The North Carolina Race to the Top—Early Learning Challenge Transformation Zone is one component of the state’s plan to enhance its early learning and development system. To better serve children with high needs in under-resourced areas, the Transformation Zone initiative included a three-pronged strategy to: “1) strengthen standards, assessment and capacity to collect and use data to drive program quality and continuous improvement; 2) invest in people and relationships to increase teacher and system effectiveness and sustain change; and 3) target high-intensity supports and community infrastructure-building efforts to turn around poor outcomes for young children in our highest need counties” (North Carolina Office of the Governor Race to the Top – Early Learning Challenge Application for Initial Funding, pp. 66-67). Four high need counties in eastern North Carolina were selected to participate in the Transformation Zone, and eight evidence-based programs and interventions were identified for implementation as mechanisms for building the knowledge, skills, and infrastructure needed to transform local early childhood systems. This work was intended to lead to scaling up of these efforts in other parts of the state (North Carolina Office of the Governor Race to the Top – Early Learning Challenge Application for Initial Funding, p. 76).

The overall purpose of the Transformation Zone evaluation is to examine the extent to which the state and four rural counties have enhanced their capacity to improve the quality of early childhood systems. The evaluation questions examine policy, practice, and infrastructure changes that support successful implementation of evidence-based and evidence-informed programs. The evaluation employs a developmental evaluation approach and has been informed by the implementation science and systems change frameworks in

which the Transformation Zone (TZ) project is embedded. It is important to note that TZ evaluators were charged with evaluating the effectiveness of the project overall in promoting local and state capacity building and systems change and not the effectiveness of individual strategy implementation.

The TZ evaluation included creation of a logic model; ongoing data collection in the form of interviews, focus groups, field observations, online surveys, and document reviews; and frequent sharing of information with stakeholders. During the course of the evaluation, stakeholders noted that among all TZ strategies, they observed greater success with literacy strategies. Upon consulting with the North Carolina Race to the Top—Early Learning Challenge grant leaders, it was agreed that the TZ evaluation team would use existing and new data to study the literacy strategies as a case of implementation success.

Technical Assistance

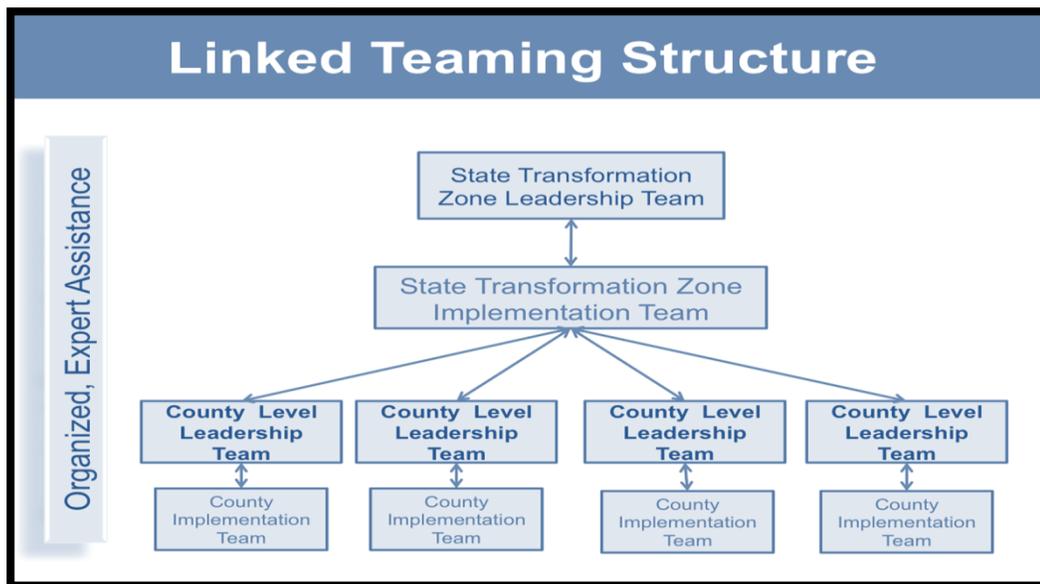
Two frameworks for systemic change are being used to support TZ counties’ efforts: Active Implementation and ABLe Change. The goal of implementation science is to support active implementation of evidence-based practices (Metz & Bartley, 2012). The ABLe Change Framework is an approach toward community systems change that focuses on systemic action learning teams, simple rules, and small wins (Foster-Fishman & Watson, 2011).

Primary support, leadership, and administration related to TZ structures and processes are provided by the National Implementation Research Network’s Implementation Specialists. ABLe Change developers from Michigan State University provide technical assistance related to garnering community support, engaging families, assessing community systems, and enhancing community capacity for change. The North Carolina Partnership for Children provides oversight for the work of the State Transformation Zone Implementation Coach Coordinator and County Implementation Coaches and the ABLe Change contract, offers technical assistance, and administers the literacy strategies.

Transformation Zone Structure

It helps to understand the structure in which the strategies were implemented. Using an Active Implementation approach necessitates creation of linked teams. Numerous agencies and personnel are responsible for Transformation Zone activities: North Carolina Race to the Top—Early Learning Challenge leadership team; State Leadership Team; State Implementation Team; County Leadership Teams; and, County Implementation Teams. Figure 1 visually denotes intended team linkages.

Figure 1: Linked Teaming Structure



At the county level, Leadership Teams provide oversight and vision for the project plan and outcomes. County Implementation Teams provide regular guidance, data collection, and communication functions in the processes of strategy implementation. Also involved with the TZ project are State Strategy Purveyors and Local/regional Service Providers for each strategy/group of strategies. State purveyors are personnel who have largely developed the service model and primarily oversee program administration from the state level. Local service providers are individuals responsible for facilitating implementation of the strategies and have direct contact with community stakeholders. Each county also has a Literacy Coordinator. The North Carolina Partnership for Children and the County Implementation Coaches worked closely with the Literacy Coordinator in each county to support implementation of the strategies. For the purpose of this report, National Implementation Research Network Implementation Specialists will be referred to as “NIRN” and North Carolina Partnership for Children staff will be referred to as “NCPC.”

Literacy Strategies

The North Carolina Race to the Top—Early Learning grant application included two evidence-informed literacy programs to implement in the Transformation Zone: *Motheread* and *Reach out and Read*.

Motheread® Inc. is a suite of literacy programs that includes Motheread/Fatheread, Birth and Beginning Years, and Story Exploring. The goal of Motheread/Fatheread is to help family caregivers establish literacy-rich home environments by enhancing their listening, speaking, reading, and writing skills (Motheread Inc. 2016). Program facilitators attend a 20-hour training to learn best practices for training and supporting family caregivers in culturally-appropriate ways to develop their children’s literacy skills. Individuals from a variety of settings such as community colleges, libraries, human services, child care, and family support have become program facilitators. Measured outcomes for the TZ include use of shared reading strategies, increased shared reading, and improved reading confidence. Types of data gathered as part of the program include number of program graduates, number of program offerings, percentage of caregivers feeling more confident sharing a story with their child, frequencies of caregiver reading at home and visiting a library, and improved adult literacy.

The Birth and Beginning Years (B.A.B.Y.) program combines health information and support for expectant and new parents to build literacy skills of infants and toddlers. Program facilitators attend a 2-day training to learn the 21-lesson curriculum about pregnancy through the first year of life. Measured outcomes for the TZ include use of shared reading strategies, increased shared reading, and improved reading confidence. Data collected include parent surveys and records of number of program attendees.

Story Exploring provides information and materials to preschool and elementary school teachers to assist them to read “to children in ways that enhance comprehension, build vocabulary, and help translate spoken language to the written word.” Accompanying each lesson are companion pieces for family caregivers to support learning at home. The 6-hour training provides instructional materials for teachers to use with children birth through elementary school. The outcome measured for the TZ was improved classroom literacy environment. Outputs include number of classrooms, number of implementing teachers, and number of children served. Data collected include teacher surveys and classroom observations.

The second literacy strategy used in the Transformation Zone is Reach Out and Read®. This evidence-based program partners with primary care medical providers to prescribe books to children and encourage children and families to read. During regular checkups medical providers give new, developmentally-appropriate books to young children and counsel parents about the importance of reading aloud to their children (Reach Out and Read, 2016). The program begins at the child’s six-month visit and continues through age five. To become an official Reach Out and Read program, medical providers must complete an application. Once approved, the practice designates a medical consultant and program coordinator, and the medical provider completes an online training course. Outcomes include reports of shared reading and reports of use of recommended reading strategies. Examples of data gathered by the program include number of participating providers, number of books given to families, and caregivers’ reports of reading with their children.

Purpose

The current case study was conducted to examine and better understand implementation of literacy strategies in four rural, under-resourced counties. The purpose was to explore and describe the interplay of variables involved in implementing two literacy strategies (Becker, et al., 2012). The following questions guided the study:

1. What is the status of the literacy strategies relative to stages in an implementation science framework?
2. What features of the literacy strategies were associated with implementation successes?
3. What barriers interfered with or stalled implementation?
4. What structures and processes are needed going forward to sustain the literacy strategies at the county and state levels?

The report is organized as follows: methods, including a description of the counties; results organized by four evaluation questions; and discussion and summary.

Methods

The Methods section includes a description of participating counties, data sources, and coding and analysis used.

Description of Counties

Four eastern North Carolina counties are participating in the TZ initiative. Table 1 includes demographic characteristics. TZ counties have high unemployment and relatively low family incomes. Counties vary with respect to the numbers of services and resources available such as child care facilities and physicians.

Table 1: Transformation Zone Participating Counties

	Beaufort	Bertie	Chowan	Hyde
Population^a	47,464	20,344	14,726	5,721
%Unemployment^b	6.1	7.0	6.6	8.3
# Births^a	488	186	167	58
% < age 5	8	4.5	6.5	4.3
Median family income^c	\$51,200	\$41,000	\$43,000	\$42,000
# Licensed child care facilities^a	43	27	17	5
Enrollment child care facilities^a	1,088	502	536	75
# Physicians^a	13	4	23	2
Square Miles	959	741	233	1,424
% Race				
Black	25.4	61.6	34.4	30.0
Hispanic	7.6	1.7	3.2	8.0
White	71.8	36.0	63.2	67.8
# Schools	14	9	4	3

Sources: North Carolina Department of Health and Human Services; Public School Review; US Census; ^a 2013, ^b 2015, ^c 2011

Data Sources

The data sources used for this report are summarized in Table 2. Multiple data sources were used to allow for cross-checks and verification of findings. The largest source of data for this study was interviews of multiple individuals involved in implementation of the literacy strategies. Fifteen interviews were conducted, either on the phone or in person. Each interview lasted between one half to one hour. The questions are included in Appendix 1. Interviews were transcribed and then coded as described below. A document review was also conducted to provide contextual and confirmatory data to accompany the interviews.

Table 2: Summary of Data Sources

Data Type	To Examine:	Participants/Source (number)
Interviews	Expected outcomes Data collection and tracking Successes and barriers Advice for replication Adaptations/adjustments Unintended consequences	NIRN (n=2) NCPC (n=1) Coaches (n=4) Purveyors (n=2) Literacy coordinators (n=5) Literacy evaluator (n=1)
Document Review	Goals of TZ County context supporting/inhibiting implementation Strategy progress	Meeting agenda and notes MOUs/contracts/scopes of work County Literacy theories of change Monitoring reports Evaluator data County newsletter Local needs assessments

Coding and Analysis

Data analysis for this study followed an inductive approach, meaning research assistants read the interview transcripts and identified themes rather than using a pre-existing model or framework (Saldana, 2016). Codebooks were developed for analyzing interview data and monitoring reports. Established codebooks were used for other document reviews.

Once all interview transcripts were read and preliminary themes were identified, the research team discussed common themes and created a codebook with three overarching themes: Anticipated Successful Implementation; Features Related to Implementation Success; and Barriers. Anticipated Successful Implementation was defined by evaluators as planning activities beginning in January 2014 that led to successful implementation of literacy strategies. Features Related to Implementation Success was described as achievements that led to the successful implementation of literacy strategies. Barriers were defined as obstacles counties experienced related to literacy strategy implementation.

Once consensus was reached for the primary themes, the research assistants read the transcripts again to identify codes within each theme. Examples of codes within “Anticipated Successful Implementation” include installation planning, personnel, training, and site selection. Examples of codes within “Features Related to Implementation Success” include capacity building, leadership, sustainability, data, technical assistance, and coaching. Examples of codes within “Barriers” include recruitment and retention of families and recruitment and retention of professionals. Once research assistants agreed on codes, each code was defined and a codebook was created which is available upon request.

Transcripts for coding were then randomly assigned to each research assistant and coded using the finalized codebook. Four randomly selected transcripts were double-coded to ensure reliability among the coders. The research assistants met to discuss codes and agreements/disagreements and to calculate inter-rater reliability. The research assistants maintained inter-rater agreement above 80 percent.

Results

Successful implementation of the literacy strategies in the Transformation Zone was determined by the following characteristics: intensive technical assistance, purveyor involvement, data usage, leadership support, Literacy Coordinator, County Implementation Coach, a community of practice, and model flexibility. Detailed results of the analyses of interview data and document reviews are presented by evaluation question below.

What is the status of the early literacy strategies relative to an implementation science framework?

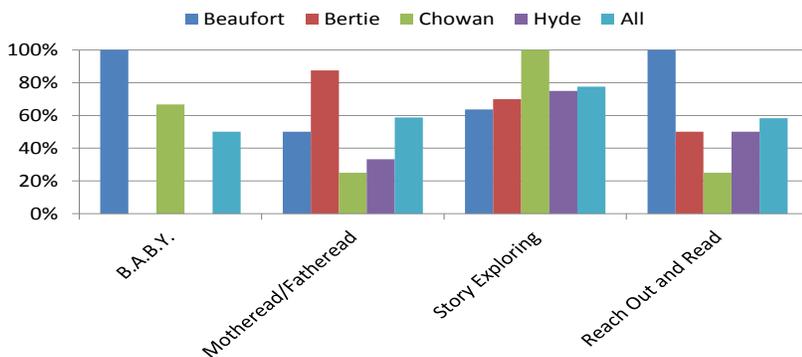
As part of a larger systems change project, two evidence-informed early literacy programs were identified by grant writers as mechanisms for helping build the knowledge, skills, and infrastructure needed to enhance literacy skills of children, families, and early childhood caregivers. To build capacity around integrating these strategies, grant writers proposed using principles of implementation science. Implementing these strategies provided counties with opportunities to apply their learning.

Successful implementation of a program or strategy occurs in stages. The National Implementation Research Network presents four stages of implementation. These stages serve as guides for how work is to be completed. The four stages are exploration, installation, initial implementation, and full implementation.

For the early literacy work, county teams' readiness plans were developed as part of the exploration phase. Next, resources were identified (installation). During initial implementation, procedures and policies were put into practice. Full implementation occurs when a new program or intervention becomes a routine part of the way of work. "Full Implementation is reached when 50% or more of the intended practitioners, staff, or team members are using an effective innovation with fidelity and good outcomes" (The National Implementation Research Network's Active Implementation Hub). Furthermore, mechanisms are in place to monitor and sustain new programs.

In terms of status, all of the literacy strategies were installed in most counties, though not all strategies matched the needs and capacities of each county. For example, one county has not established a need for B.A.B.Y. and has no intention at present to implement it. By far, the most successfully installed and implemented of the strategies is Story Exploring, which was implemented in more than 50% of sites across the counties as of December 2015. Implementation of Reach Out and Read varied by county and was limited by the number of medical clinics available in the counties. Figure 2 below presents the percentage of sites implementing each component relative to total potential sites identified for recruitment by county leaders in December 2015.

Figure 2: Percentage of Implementing Sites Relative to Total Possible Sites



Source: Adapted from Gallagher, K.C., Fleming, W.O., Bond, S., DiSalvo, C. (2016, May). "Implementing Powerful Early Childhood Literacy Strategies: What Does it Take? A Transformation (Zone) Story." Presentation at the Annual Smart Start Conference, Greensboro, NC.

What Features of Literacy Strategies Implementation Were Associated with Success?

Several features of the TZ project contributed to successful implementation of the literacy strategies. They include technical assistance, purveyor involvement, data usage, leadership, Literacy Coordinator role, County Implementation Coach role, community of practice, and model flexibility. These are described below.

Technical Assistance and Purveyor Involvement

Implementation of literacy strategies has been supported by intense and ongoing technical assistance by NIRN, NCPC, the State Implementation Coach, County Implementation Coaches, Early Literacy Coordinators, and importantly, Strategy Purveyors. During 2013, NCPC provided technical assistance with readiness plans including development of county logic models for each literacy strategy. NIRN provided technical assistance to Strategy Purveyors to engage in the preparation for installation in communities. They helped the purveyors and counties identify features of interventions that might ease installation and identified areas that might match community needs and resources. Collaborative technical assistance by NCPC, NIRN, and literacy Strategy Purveyors began in February 2014. Early Literacy Coordinators (one in each county) were hired and trained by May 2014. Counties developed and finalized installation plans between April and July 2014. Monthly cross-county conference calls with counties and purveyors were facilitated by NCPC to support installation. The Motherhead purveyor conducted a series of trainings for program facilitators throughout 2014. The Reach Out and Read purveyor provided materials to facilitate installation. TZ county staff began attending monthly Smart Start Reach Out and Read project coordinator calls to network with other coordinators across the state around implementation successes and challenges. Evaluation tools were created by purveyors, NCPC and the literacy evaluator between May-July 2014. A Motherhead Toolkit was jointly developed by Motherhead staff, NCPC, and the literacy evaluator to facilitate implementation. Cross-county in person meetings began in July 2014. Staggered initial implementation of strategies began in all TZ counties during August-October 2014. All counties submitted strategy logic models, Memoranda of Agreement, and program guidelines to NCPC by October 2014. Due to reported county challenges, a reorientation of early literacy program models and evaluation requirements was provided in June 2015. A coaching refresher course was offered to Literacy Coordinators in August 2015. Every other month in-person meetings were held in April, June, August and November 2015 to support implementation practices and provide networking opportunities. In 2016, cross-county meetings were held in February and May 2016.

Using Data for Improvement

An early example of successful data use was with county needs assessments and literacy readiness plans. County needs assessments, designed to examine the capacity of infrastructure and systems to implement strategies, were conducted between March-July 2013. In one county, the needs assessment revealed a community interest in literacy, but a lack of access to service. These data helped inform implementation plans. Implementation readiness planning occurred between July-September 2013 assisted by NCPC. Each TZ county developed and submitted readiness plans to NCPC in October 2013. Components of these plans consisted of:

- 1) description of the stakeholders engaged in the assessment and planning process;
- 2) summary of existing early literacy data and collection of new data as appropriate;
- 3) identification of early literacy and school readiness needs and gaps;
- 4) identification of community strengths and resources;
- 5) description of developed and/or identified community strategies (Motherhead and Reach Out and Read); and
- 6) detailed steps to implement strategies.

Another example of data usage is the County Leadership and Implementation Teams working together to open a library on Saturdays using volunteers. This has become the library's busiest day of the week. An unintended benefit has been that the library serves as a venue for other literacy initiatives such as B.A.B.Y. classes for expectant mothers and their families.

The library was not open on Saturdays and they found out through their County Needs Assessment that would be something important for parents. So they started to have the library open, and they actually do the B.A.B.Y. class there on Saturday mornings and that has been a very successful class too.

Improvement cycles facilitate implementation by engaging in ongoing data collection and communication feedback loop processes. The Plan-Do-Study-Act cycle was used by County Implementation Teams with a focus on identifying opportunities for gathering, interpreting, and reporting data. By using data, counties have been able to identify areas of strength and challenge and where improvements might be made. Efforts to collect, understand, and communicate data continued with support from NIRN. Furthermore, literacy strategies have served as a cross-sector connection among agencies that communicated little before the TZ project began. Implementation facilitated communication at the state and local level, further enhancing their impact.

Leadership

The County Leadership Team facilitated successful uptake of the literacy strategies. Early on in the process, leaders understood the importance of early reading and its link to outcomes for children. They also grasped the nature and scope of these strategies. Implementation of the literacy strategies provided an opportunity for teams to apply implementation science principles and build their own capacity. County Leadership and Implementation Teams realized benefits of assessing literacy needs including the identification of target audiences prior to implementation. This stage, “exploration,” is an important part of planning. Additionally, the needs and readiness assessments facilitated buy-in and collaboration between County Leadership and Implementation Teams. In part because of the data gathered, TZ counties quickly viewed the literacy strategies as something to collectively engage in and promote. All counties continue using data systems to examine how these strategies are being used in their communities and how many children and families are receiving services.

If I was going to work with another community doing Motherread and/or B.A.B.Y., I think I would really emphasize the exploration process. I would really push people to identify captive populations like places where people are already convening and going.

I think there's a growing awareness among some of our community leaders about how important literacy is. There are key players that are at the table. Like for instance our county schools superintendent is a strong advocate for early education.

Literacy Coordinators

The Literacy Coordinator position is funded by NCPC and administered through the local grantee which was the local Smart Start non-profit agency for three of the counties and the lead education agency for one county. The Literacy Coordinators are responsible for learning all program models, curricula, and methods for supporting the strategies in their counties. They also recruit participants, order and monitor materials and supplies, and manage logistics of program delivery and engagement such as procuring sites. One of the most important aspects of the position, in terms of implementation, is their role in collecting, interpreting and reporting data about strategy implementation. Literacy Coordinators monitor uptake, assess program implementation and model fidelity, and work with County Implementation and Leadership teams to use data to inform ongoing progress. The Literacy Coordinator is an active member of the County Implementation Team. This participation and engagement in TZ activities are key features that enhance successful literacy strategy implementation.

We have just seen large success in that enhanced model where we have the local Literacy Coordinator that supports the medical clinic. So we've seen qualitatively a lot of stories around medical sites saying 'We have a partner in this.'

Specific examples of program support include Literacy Coordinators providing training, support and coaching to early childhood programs for Story Exploring in order to increase the quality of group story reading in classrooms. By establishing and maintaining relationships with programs, Literacy Coordinators have been able to more effectively gather data and monitor progress. For Reach Out and Read, Literacy Coordinators establish relationships with medical practitioners and work with clinic staff to enhance waiting rooms.

She'll be working with those three centers, so she's probably got eight classrooms under her belt again. She's been working with the teachers on feeling comfortable, making it natural...

The Literacy Coordinator corresponds back and forth with them (clinics) to try to figure out how many books are being put out in the home, how many children are being seen.

County Implementation Coaches

The importance of the County Implementation Coach to the success of the Transformation Zone cannot be overstated, and this is especially true with literacy strategy implementation. As the person responsible for interacting with leadership, stakeholders, and providers (Blasé & Fixsen, 2012), the coaching role is one of the most essential to the infrastructure and processes. Their influence has been at the practice, administration, policy, and system levels in their counties. For example, Coaches facilitated startup and installation. They coach the Literacy Coordinator, help with data collection and program participation, and stay informed on progress of strategy implementation. Because County Implementation Coaches are the liaison to all levels of the TZ project and are aware of all work being done, they are an invaluable resource to the Literacy Coordinator.

Community of Practice

A Community of Practice was particularly valuable in the context of the implementation of literacy strategies. NCPC met with County Implementation Coaches, Literacy Coordinators, State Purveyors, the Literacy Evaluator, and State Implementation Coach at regular intervals for information sharing, networking, skills building, and problem-solving sessions. What began as regular conference calls evolved into quarterly in-person cross-county meetings and an eventual Community of Practice. NCPC recently began co-creation of meeting agenda and will begin co-facilitation of the next two quarterly meetings before the grant ends. In addition to being an important structural component in the TZ literacy strategies success, the Community of Practice has served as an important process facilitator for feedback loops among TZ counties and between the counties and state. It is hoped the Community of Practice will continue into the future.

Adaptations to the Model

While it is important to adhere to literacy strategy program policies and procedures to ensure model fidelity, it was noted during implementation that counties might need to make adaptations to meet their communities' needs. The Strategy Purveyors and NCPC met to develop guidelines for allowable Motherhead and B.A.B.Y modifications. For example, counties were permitted to establish a welcome or introductory event for potential participants to learn about the program before enrolling in classes. Counties were also allowed to add a graduation session to the end of a series of classes. When program participation decreased, counties asked for and received permission to combine two separate cohorts into one. These accommodations facilitated implementation in part by increasing the engagement of stakeholders.

In summary, early uptake, installation and implementation of literacy strategies in the TZ were facilitated by:

1. Consistent technical assistance and purveyor involvement
2. Data usage and completion of literacy needs assessments, logic models and implementation plans
3. County leaders' recognition of the importance of early literacy
4. A Literacy Coordinator position as an integral member of the County Implementation Team
5. Guidance by the County Implementation Coach to support literacy promotion activities
6. Establishment and support of a Community of Practice to facilitate learning through shared experiences
7. Adaptations to the strategy model.

What Barriers Interfered with or Stalled Implementation?

In April 2015 counties reported complex challenges related to fit of certain strategies. These resulted in difficulties with site selection, participant recruitment and retention, staff turnover, and lack of community awareness and understanding of programming and coordination. In reports submitted to NCPC, counties cited participant recruitment and retention difficulties as early as November 2014. Counties had difficulty finding families to participate in Motherhead and B.A.B.Y. Two counties lack sufficient medical providers to implement Reach Out and Read. Over time, counties continued to report challenges recruiting family participants. Three main barriers were identified during interviews which are similar to barriers reported to NCPC: retention and recruitment of families; retention and recruitment of professionals; and those categorized as "other."

Recruitment and Retention of Families

One challenge cited numerous times in documents and interviews was family participation. A variety of reasons were given including lack of interest, not valuing literacy, more pressing needs, finding a job (thus no longer able to attend class), seasonal work (which draws transitional families), and time commitment of classes. Some families have to travel long distances and often don't have consistent transportation. A small population of families from which to recruit was also named.

Well, if you go back to the systems scan and the whole idea with the mindsets of parents, they because of their own issues with school and literacy, may not see it as an issue.

Recruitment and Retention of Professionals

Another identified challenge included difficulty with recruiting and retaining literacy program facilitators. Examples of reasons included lack of medical providers in the community, teacher turnover, lack of child care programs, and busy working environments.

They totally had to back off cuz they didn't have time for the training and time for... even though they may down the road be interested, they just said 'We just really can't take anything else.'

Other

Several other barriers were reported. The academic calendar (September-June) poses challenges for scheduling training during the summer when teachers, potential facilitators and family participants are on vacation. Many families have seasonal work, and it's difficult to work around their schedules. Another barrier to implementation includes long distances to travel to literacy classes. One county has had ongoing challenges securing a permanent Literacy Coordinator, experiencing turnover of the position four times. During these periods the work stalled, effectively demonstrating the value of a dedicated professional to the project. Related to Story Exploring, it was noted that implementation was challenged by low literacy levels of several early childhood teachers in child care programs. This challenge was not initially anticipated.

So I'm thinking that maybe and it could be because we're so rural that no matter what event I show up to and how many books and flyers and cards I give away, I think it's just the fact that it's so large and rural that the word haven't really gotten out like we had wanted it to also.

What Structures and Processes Are Needed Going Forward?

Going forward, supportive structures and processes will continue to contribute to successful implementation of the TZ literacy strategies. Team infrastructures provide a foundation for literacy work in the counties. NCPC continues to offer key assistance and has made a commitment to continue to support literacy efforts in North Carolina. Furthermore, county teams and personnel have the potential to apply what they have learned about implementation science to other community change efforts further county building capacity. Though counties are hopeful they will retain their Implementation Coaches and/or Literacy Coordinators, funding for those roles and maintenance of county teams remain undetermined.

And then lastly again across all four literacy strategies is I wish they had talked about sustainability funding-wise from the very start.

Related to ongoing supportive processes, NCPC engaged an evaluator to examine effectiveness of the two literacy strategies. This evaluator is specifically assessing impact of these strategies in TZ counties. NCPC and the Strategy Purveyors collaborated with the literacy evaluator to create evaluation forms for use in the counties. Specific questions to be addressed by the evaluator include:

1. To what degree does the literacy environment change after participation in the Motherread/Fatheread or B.A.B.Y. curricula?
2. To what degree does the classroom literacy environment change with participation in Story Exploring?
3. How do these outcomes vary by key implementation factors including county, early literacy intervention, and participant characteristics among others?

Questions related to implementation science include:

1. How have these programs been implemented in each county?
2. What does this project show about readiness for each of these programs in each community?

3. How did it work implementing two early literacy strategies simultaneously in the same locations? How do the distinct features of the interventions interface with one another? How do they support or hinder with one another? What, if any, efficiencies resulted?
4. What challenges and opportunities does the rural location offer?

Counties will benefit from using results of the evaluation process to address implementation challenges. Counties should strengthen their relationships and learned tools to support literacy work in their communities. Among the activities that could sustain literacy efforts include supporting implementation coaching, continuing the Literacy Coordinator position, continuing to understand the community needs to address barriers, strengthening collaborations with current and potential purveyors, and maintaining cross-sector connections with medical practices, early childhood programs, and libraries.

Summary

This brief case study examined implementation of literacy strategies in the Transformation Zone. Specifically, we attempted to uncover the multi-level features including structural and process supports that accounted for relative implementation success. At the county level, Implementation Teams used implementation science principles to install evidence-informed literacy strategies which in turn advanced their understanding of implementation science. Possibly more importantly, counties used the literacy strategies to engage county leadership buy-in and learn how to use implementation science in other current and future improvement initiatives. At the state level, NCPC enhanced its capacity in service of funded programs. Furthermore, they demonstrated capacity for providing training and technical assistance for future improvement initiatives.

TZ personnel trained in implementation science increased their capacity to implement these and other strategies as funding and roles allow. The capacity of local programs including libraries, early childhood programs and medical clinics has expanded such that some literacy programs can be delivered with limited outside resources. Toolkits assist efforts, and NCPC will likely update these even after the grant ends.

The literacy strategies were the “what” in teaching the TZ counties and state to use implementation science in that they served as a practice ground for learning how to apply implementation science principles. Moreover, the literacy strategies have served as a cross-sector connection among agencies that communicated little before the TZ project began. Relative to these literacy strategies, TZ counties and one state agency achieved one goal of the project in that they enhanced their capacity to improve the quality of early childhood systems including policy, practice, and infrastructure changes to support implementation of evidence-based and evidence-informed practices.

References

- Becker, B., Dawson, P., Devine, K., Hannum, C., Hill, S., Leydens, J., Matuskevick, D., Traver, C., & Palmquist, M. (1994-2012). Case studies. Writing@CSU. Colorado State University. Available at <http://writing.colostate.edu/guides/guide.cfm?guideid=60>.
- Fixsen, D., Blasé, K., & Van Dyke, M. (2012, March). *From ghost systems to host systems via transformation zones*. Adult Education Great Cities Summit, U.S. Department of Education and Office of Vocational and Adult Education. Washington, DC.
- Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature*. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, National Implementation Research Network. (FMHI Publication No. 231).
- Foster-Fishman, P.G. & Watson, E.R. (2011). The ABLe Change Framework: A conceptual and methodological tool for promoting systems change. *American Journal of Community Psychology*, 49(3-4), 503-516. Doi: 10.1007/s10464-011-9454-x
- Gallagher, K.C., Fleming, W.O., Bond, S., DiSalvo, C. "Implementing Powerful Early Childhood Literacy Strategies: What Does it Take? A Transformation (Zone) Story." PowerPoint slide presentation at the Annual Smart Start Conference, Greensboro, NC, May 2-5, 2016.
- Metz, A. & Bartley, L. (2012). Active Implementation Frameworks for program success: How to use implementation science to improve outcomes for children. *Zero to Three Journal*, 32(4), 11-18.
- Motheread Inc. Retrieved April 4, 2016 from: <http://www.motheread.org/>
- North Carolina Office of the Governor. (2011, August, 22). *Race to the Top – Early Learning Challenge Application for Initial Funding*.
- North Carolina Department of Health and Human Services. (2015). *Statistics and Reports*. Retrieved from: <http://www2.ncdhhs.gov/dma/pub/>
- Public School Review. (2015). *North Carolina Public Schools*. Retrieved August 26, 2015 from: <http://www.publicschoolreview.com/north-carolina>
- Reach Out and Read. Retrieved April 4, 2016 from <http://www.reachoutandread.org/>
- Saladña, J. (2016). *The coding manual for qualitative researchers*, 3rd edition. Thousand Oaks, CA: Sage.
- The National Implementation Research Network's Active Implementation Hub. Retrieved August 15, 2016 from <http://implementation.fpg.unc.edu/module-4/topic-6-full-implementation-stage>
- United States Census Bureau (2013). *State and County QuickFacts*. Retrieved August 26, 2015 from: <http://quickfacts.census.gov/qfd/states/37000.html>

Appendices

Appendix 1: Interview Questions

1. What are the evidence-based outcomes expected for [STRATEGY] and how has this information tracked?
[PROBES: BY WHOM? HOW SHARED?]
2. Overall, where do you see the greatest success for [STRATEGY] and what factors contribute to this success?
3. Are there aspects of the implementation that were less successful than you hoped? (IF YES) What were some barriers that slowed or blocked success?
4. Thinking toward the future, if you were advising people in another state or county about implementing [STRATEGY], what advice would you give?
5. Has the implementation of [STRATEGY] required or led to any system changes [in the counties]. For example, changes in policies, practices, attitudes, behaviors, etc.? (If YES) Please describe some of these changes.
6. Has the implementation of this strategy [in this county] require any adjustments to the strategy itself in order to work [in these communities]? (If YES) Please describe some of these adjustments.
7. Have there been any unintended consequences of implementation? (If YES) What were some unexpected benefits and negative consequences?