Smart Start

Smart Start Evidence-Based and Evidence-Informed Programs and Practices:
A Summary of Research Evidence, Revised Edition

July 2018

Developed by:

Compass Evaluation and Research, Inc. and The North Carolina Partnership for Children

Based on work previously developed by Smoky Mountain Research Institute and
The North Carolina Partnership for Children

All nonprofits are motivated to meet their missions. Yet funding for our work can be quite limited. As stewards of public and private funds, we want to ensure that we are targeting our resources in ways that are most likely to address our community needs and achieve the outcomes that help us meet our missions. For this reason, Smart Start and The North Carolina Partnership for Children, Inc. (NCPC) target funds to evidence-based and evidence-informed (EB/EI) programs and practices.

Definitions of Evidence-Based and Evidence-Informed Programs/Practices

The use of evidence-based or evidence-informed practices was mandated by the North Carolina legislation in 2011 for programs that operate using Smart Start funds. The North Carolina General Assembly passed legislation that provides guidance for employing evidence-based and evidence-informed practices. Using this guidance and input from a variety of organizations, The North Carolina Partnership for Children Inc.'s Board of Directors adopted definitions of evidence-based and evidence-informed practices to guide the work of local partnerships. The following are the definitions that were passed by the Board:

- Evidence-based programs or practices are those that have repeatedly and consistently demonstrated desirable outcomes through application of scientific research methods (replicated experimental, experimental, and quasi experimental).
- An evidence-informed practice is one that is guided by child development theory, and practitioner wisdom, and qualitative studies, and findings from basic research and has written guidelines, and a strong logic model, and a history of demonstrating positive results. They may be rated "Promising" or "Emerging" by at least one source that rates evidence-based programs.

Changes Since the Original Smart Start EB/EI Resource Guide

We have made several content and editorial changes to the EB/EI information including:

- *Revised rating categories* - Smart Start had previously developed four rating categories based on the definitions above:

  Evidence-based: Well-established
  Evidence-based: Established
  Evidence-informed: Promising
  Evidence-informed: Emerging

  Criteria for each of these categories have been reviewed and tightened for this edition. See *Smart Start Categories for Evidence Based and Evidence Informed Activities* for updated criteria and definitions. The main difference is related to the use of meta-analyses for the well-established rating. In some cases, the interventions included in a meta-analysis in the original EB/EI Resource Guide had substantial differences in implementation. The new criteria ensure that studies are assessing the same intervention. As a result of these changes, some activities have had their ratings adjusted downward.

- *New research evidence* - We have also searched for and reviewed new research evidence for all rated activities. Some ratings have been adjusted based on new research evidence.

- *Updated list of activities reviewed* – New activities have been reviewed and rated. A small number that were in the original Resource Guide are no longer included. Those removed typically are due to the purveyor having significantly changed the intervention and the new approach not having been adequately evaluated yet.

- *Umbrella activities split-out* – Some umbrella programs such as Incredible Years, Nurturing Parenting Program, Triple P, Motheread, etc. actually include a range of separate programs. The original EB/EI Resource Guide combined these under the umbrella program. In reality, some under the same umbrella have more research than others. This affects the research ratings. Now individual programs under the same umbrella activity have been split out, receiving their own EB/EI rating. Sometimes they have their own stand-alone write-up, in other cases they are included in the same comprehensive summary but have separately assigned evidence ratings.

- *Layout* – We have added a snapshot that shows suggested indicators for the Community Early Childhood Profile, suggested Smart Start outcomes for the activity, whether training is required and so on. The research table also includes the study design which is needed for determining the EB/EI ratings. A summary of each research study is now included for those who want to better understand the details.

- ***Web-based*** – The original EB/EI Resource Guide was one large document. This made it difficult to update items and insert new activities over time. The new approach is web-based. Click on the topic area of interest including early care and education, family support, health, or early literacy. Then, click on an activity to see the snapshot before going to the full write up. Note that several early childhood activities may fall into more than one category. Child care health consultants, for instance, could be considered both health and early care and education. Activities spanning more than one area have been included under all relevant topic areas.

How to Use the Smart Start EB/EI Ratings

The Smart Start EB/EI ratings and research write-ups provide a summary of research evidence for programs and practices most commonly funded by Smart Start partnerships. The Smart Start EB/EI ratings and research summaries provide a source of information for local partnerships on potential activities to address EC Profile indicators, which activities may help achieve desired outcomes, and activity requirements which should help local partnerships determine feasibility for your community, and so on. The EB/EI Ratings do not replace thoughtful, inclusive planning, implementation, and local evaluation, but should instead be used to inform those processes.

What to Expect Going Forward

More improvements are planned for the Smart Start EB/EI Ratings including:

- Establishment of a process for identifying new activities to review as well as when and how to update research and ratings for items currently reviewed.
- Development of a public website that will feature comprehensive search functions to better help users drill down to activities that will best meet their needs.

Smart Start EB/EI Ratings Citation

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Smart Start Categories for Evidence Based and Evidence Informed Activities

July 2018

EB/EI Category	Icon	Definition	Key Features
Evidence-Based: Well-established		Programs and practices that have strong evidence of their effectiveness across five or more studies with experimental or quasi-experimental designs. At least one study must be conducted by an independent researcher not affiliated with the program designer or original research group May have a systematic review or meta-analysis with experimental or quasi-experimental designs.	At least 5 studies with experimental or quasi-experimental designs assessing the same program or approach to the practice. At least one study conducted by an independent researcher not affiliated with the program designer or original research group.
Evidence-Based: Established		Programs and practices that had at least three studies using an experimental or quasi-experimental design that found evidence of their effectiveness.	At least 3 studies with experimental or quasi-experimental designs studying the same program or approach to the practice.
Evidence-Informed: Promising		Evidence-informed programs and practices that had at least one study that compared the effectiveness of the intervention for people who participated in the program and those who did not participate. The level of evidence suggests the intervention would qualify as evidence-informed as long as a strong logic model and written guidelines exist.	At least one study with comparison group.
Evidence-Informed: Emerging		Evidence-informed programs and practices that had only preliminary data with no comparison group. The level of evidence suggests the intervention would qualify as evidence-informed as long as a strong logic model and written guidelines exist.	Preliminary results with no comparison group.

Definitions

The following definitions have guided the review of evidence and establishment of the evidence ratings in the *Smart Start Clearinghouse for Evidence-Based Programs and Practices for Early Childhood.*

Experimental studies randomly assign study participants to either receive the intervention or to not receive the intervention. The group receiving the intervention or service in called the treatment group. The group not receiving the service in the control group. Some experimental studies may have more than two groups that vary by type or the amount of the intervention received.

Quasi-experimental is defined as a study with a treatment and a comparison group where group assignment was not decided by randomization and that uses advanced statistical procedures to control for between group differences.

Advanced statistical procedures primarily include multivariate regression analyses designed to control for differences in characteristics between the treatment and comparison groups. These may include logistic regression with substantial control variables, propensity score analysis, difference in difference modeling, fixed effects, etc. These approaches are often used with statistical methods or designs that address unique characteristics of the data such as nested or time lapsed records. Such methods might include hierarchical linear modeling, time-series, analysis, regression discontinuity, etc.

Treatment group includes those study participants who receive the intervention or service being studied.

Control group includes study participants who were randomly assigned to <u>not</u> receive the intervention. They serve as a comparison to the treatment group.

Comparison group includes participants who do not receive the intervention. A comparison group may be determined by convenience or another means other than random assignment.

Random assignment or **randomization** means that study participants have an equal chance of being selected to participate in either the treatment or control group. Assignment is often done through a "chance procedure" which might include flipping a coin, drawing a name out of a hat, or a random number generator.

Systematic reviews of a program or practice look at the findings of as many studies as can be located that investigated a program or practice to determine if results taken together show that it had the outcomes intended.

Meta-analysis is a common type of systematic review. It consists of coding different characteristics of studies of the same or similar program or practice and summarizing the results across studies with similar outcomes using a statistic called an effect size.

Effect size tells us how large the difference in outcome is between the intervention groups and control or comparison group.

Activities in Revised Smart Start EB/EI Ratings

Updated 7/24/19

Below lists the Smart Start EB/EI ratings for activities currently assessed. Evidence reviews for each of these activities are currently available on fabrik.   Activities reviewed but not included due to insufficient evidence or other circumstances are also included.

Activities Currently Rated with Research Write-Up Available on fabrik as of July 2019

Activity	EB: Well Established	EB: Established	EI: Promising	EI: Emerging
Early Care and Education				
Be Active Kids			✔	
Child Care Health Consultant			✔	
Color Me Healthy			✔	
Communities of Practice				✔
Community Engagement for Systems Building*				✔
Consultation/Coaching**		✔		
Consumer Education and Referral*			✔	
Go NAP SACC		✔		
Incredible Years Teacher Classroom Management and Dinosaur School*			✔	
Kindergarten Transitions				✔
Mentoring			✔	
Lending Library*				✔
Motheread Story Exploring			✔	
Outdoor Learning Environment				✔
Part Day/Part Week Child Care			✔	
Professional Development Advising			✔	
Program Quality Incentives			✔	
Provider Education Supports				✔
Providing Training			✔	
Pyramid Model			✔	
Raising a Reader			✔	
Staff Quality Incentives/WAGE$			✔	
Subsidy and Scholarships			✔	

*New addition or split out umbrella program
**A supplement on inclusive child care is also available.

A special note about CCR&R: Local partnerships fund CCR&R work in different ways. Some fund the full CCR&R model while others may fund certain components (e.g. training, technical assistance, etc.). As a result, CCR&R is not a stand-alone activity in the EB/EI review but rather each individual component has its own evidence and rating, giving partnerships flexibility in how they fund CCR&R.

Activity	EB: Well Established	EB: Established	EI: Promising	EI: Emerging
Family Support				
Adolescent Parenting Program			■	
Attachment and Biobehavioral Catch-Up		■		
Circle of Parents				■
Community Engagement for Systems Building*				■
Facilitated Playgroups*			■	
Family Connects			■	
Healthy Families America		■		
Incredible Years Autism Spectrum and Language Delays*				■
Incredible Years Preschool Basic Program*	■			
Incredible Years Toddler Basic Program*			■	
Kaleidoscope*			■	
Nurse Family Partnership	■			
Nurturing Parenting Program				
- NPP - Parents and Their Infants, Toddlers, and Preschoolers			■	
- NPP-Young Parents and Their Families				■
- NPP-Nurturing Skills for Families				■
- NPP-Nurturing Fathers				■
Parent to Parent Peer Support				
- Peer Support for Parents of Children with Disabilities and Chronic Illness		■		
- Peer Support for Parents of Young Children with Mental Health Issues			■	
Parents as Teachers		■		
Safe Care			■	
Safe Care Augmented			■	
Targeted Short-term Home Visiting			■	
Triple P				
- Level 1		■		
- Level 2	■			
- Level 3	■			
- Level 4	■			
- Level 5	■			

*New addition or split out umbrella program

Activity	EB: Well Established	EB: Established	EI: Promising	EI: Emerging
Early Literacy				
Community Engagement for Systems Building*				■
Dolly Parton's Imagination Library			■	
Mother Goose*			■	
Motheread/Fatheread*			■	
Motheread Story Exploring			■	
Raising a Reader			■	
Reach Out and Read	■			

*New addition or split out umbrella program

Activity	EB: Well Established	EB: Established	EI: Promising	EI: Emerging
Health				
ABCD			■	
Adolescent Parenting Program*			■	
Be Active Kids			■	
Breastfeeding Support (Lactation Consultation)*		■		
Child Care Health Consultant			■	
Color Me Healthy			■	
Community Engagement for Systems Building*				■
Family Connects*			■	
Go NAP SACC		■		
Healthy Families America		■		
Incredible Years Autism Spectrum and Language Delays*				■
Nurse Family Partnership	■			
Outdoor Learning Environment				■
Parent to Parent Peer Support				
- Peer Support for Parents of Children with Disabilities and Chronic Illness*		■		
- Peer Support for Parents of Young Children with Mental Health Issues*			■	
Pyramid Model			■	
Reach Out and Read	■			
Triple P				
- Level 1*		■		
- Level 2*	■			
- Level 3*	■			
- Level 4*	■			
- Level 5*	■			

*New addition or split out umbrella program

Activities Reviewed and Found to Have Limited Evidence

Other activities have been reviewed and found to have evidence only for certain groups or when used in specific circumstances. Partnerships may use the evidence that NCPC has for these activities only when they are implementing the activity under similar circumstances and with similar target groups. Local partnerships must contact their program officer to learn more. As more evidence becomes available, NCPC will consider adding these to the Smart Start EB/EI Ratings. These include:

Baby FAST	Parenting Now
Circle of Security	Peer to Peer Support for Breastfeeding
Family Resource Centers	Triple P Online
LENA	Triple P Stepping Stones
Motheread BABY	Very Important Parents Program (VIP)

Activities Reviewed and Found to Have Insufficient Evidence

Some activities were reviewed and found to have insufficient evidence at this time. NCPC will review these activities as additional evidence and interest emerge. These include:

Every Child Ready to Read, Revised
Incredible Years – Parents and Babies Program
Pre-K FAST
Ready Rosie