2011 STAM – CCPRC Meeting
Workshop E5
November 17, 2011, 2:00-3:30 pm

Analytic Approach to Studying the Implementation of ECE Programs and Systems

Description
>This workshop focused on analytic approaches in studying the implementation of early childhood programs and policies. The goal was to provide an overview of a series of research briefs that are being developed by the members of the Implementation Working Group. The challenges and opportunities of applying an Implementation Science (IS) lens to early care and education research were highlighted, along with opportunities for discussion about how IS can inform the work of early childhood researchers and practitioners. Panelists summarized current thinking about (1) how *definitions of implementation* can be applied to early childhood research and practice, (2) how *dosage* of implementation and *dosage* of the early childhood intervention relate to one another, and (3) how researchers are grappling with *measurement issues* with regard to implementation.

Facilitators
>Tamara Halle, Child Trends
>Lisa Knoche, University of Nebraska-Lincoln

Presenters
>Kimberly Boller, Mathematica Policy Research
>Amy Susman-Stillman, University of Minnesota
>Noreen Yazejian, University of North Carolina, Chapel Hill

Scribe
>Amy Blasberg, Child Trends

1. **Documents in Session Folder**
   - "Analytic Approaches to Studying Implementation of Early Childhood Programs and Systems," Tamara Halle, Amy Susman-Stillman, Kimberly Boller, Noreen Yazejian, and Lisa Knoche

2. **Summary of Presentations**
   - **Summary of Presentation #1:** Tamara Halle
     o Implementation is important because children cannot benefit from programs they do not experience. Many programs that are adopted are not used with fidelity, and what is used with fidelity is not sustained or used on a sufficient scale. Tamara also discussed the IS workgroup which emerged as the result of a working meeting, Application of Implementation Science to Early Care and Education Initiatives (September 2010).
     o The purpose of this session is to provide an overview of the research briefs that are being developed, highlight the benefits and challenges of applying the IS lens, and

provide opportunities for discussion about definitions and considerations for applying implementation science to ECE research.

- **Summary of Presentation #2:** Amy Susman-Stillman
  - Amy discussed the brief on the connection between frameworks and measurement issues. People are looking at fidelity in many ways; which framework you use determines what you will look at and there is an intimate connection between frameworks and measurement.
  - Along with conceptual differences, there are methodological gaps: different studies examine different components of fidelity and there are no common measures, which makes it challenging to compare across interventions.
  - Guiding questions include: What kinds of implementation frameworks are guiding the development of new implementation fidelity measures? Which elements of these *implementation frameworks* are particularly important for early care and education (ECE) researchers to consider? What issues in *measurement development* need to be attended to when designing implementation measures for early care and education interventions? What measurements strategies should be considered, including the development of measures that can be used across studies?
  - This brief is examining at least three frameworks including strengths and weaknesses in terms of applicability to ECE (Gearing et al, Nelson et al, and Fixsen et al).
  - Potential conclusions: suggestions for choosing a framework; development and use of project-specific and general measures; and standards for measurement of implementation fidelity.

- **Summary of Presentation #3:** Kim Boller
  - Kim discussed the brief on dosage: how much of an intervention is needed? There are questions around what program developers expect interventions to deliver compared to what is actually observed. There are underlying assumptions that more is better and one size fits all, but these assumptions may not necessarily be correct. Also, participants typically receive a smaller amount of the intervention than what was intended: what is actually received by the participant varies depending on participant compliance or adherence.
  - Findings based on the research: (1) once is not enough, but more is not always the answer; (2) one size does not fit all – dosage is intervention and context-specific; (3) quality matters for understanding the effect of dosage; and (4) what is delivered and what is received can vary.

- **Summary of Presentation #4:** Noreen Yazejian
  - Brief examines the interplay of quality and quantity in early childhood interventions. There has been a large increase in early childhood interventions, but there is a lack of understanding of how and why interventions work, so the critical next step is to answer these questions by improving measurement of implementation.
  - The quantity of implementation means any aspect of either interventionist or participant behavior that is quantified. The quality of implementation refers to aspects of the interventionist's behavior that indicate how skillfully the intervention is delivered.

- o Methodology: Conducting a limited review of recent work to identify current practices in measuring quality and quantity of implementation; two studies that describe quantity and quality of implementation will be selected and highlighted.
  - ▪ Preliminary results: 58 intervention articles were identified, and 32 had information about implementation; 12 of the 32 had information about both quantity and quality; and 4 of the 32 articles included implementation measures as predictors of outcomes.

3. Summary of Discussion with Presenters and Participants
- The application of IS to ECE is still coalescing in the field. Some of the key points made during the discussion included:
  - o In the real world, programs often are not well-defined, though the goals are clear. It is important to articulate the details (the hows and whys) of these programs to the people who will be implementing them.
  - o Creating a logic model is a critical first step to guiding how to measure implementation. (Need to identify theory of change; it can't be about 50 things.)
  - o Using a multi-dimensional approach to studying implementation will allow researchers to tell the story of *why* an intervention didn't work.
  - o It is important to identify a framework that will match with the intervention.
  - o Determining who reports on which data elements is critical for implementation evaluations; it simply isn't possible for an outside observer to collect data on every aspect of a program.

- Additional key points:
  - o We might need to over-collect data until we have more agreement in the literature about what components are critical and related to outcomes.
  - o It is important to measure characteristics in the control group to determine whether the intervention was successful on its own merit or because of factors that were unique to the treatment group.
  - o Don't be afraid of a multi-dimensional approach to studying implementation and telling the story of why an intervention doesn't work.
  - o Different frameworks may be better or more challenging depending on the intervention. There can be resistance to applying a framework to an intervention where that framework might not be a good fit.
  - o There aren't a lot of good ways to study systems interventions; many of these frameworks address program interventions or curriculum interventions.
  - o There are many different hypotheses and ways we can examine implementation around the different stages of implementation.
  - o How do we prioritize measuring the different elements of implementation? (It depends on the stage of implementation.) Perhaps having dual-purpose measures is the key and researchers and program developers can use the same measure.
  - o Who is the reporter of information? We can't observe every person, so figuring out who will report what is critical.