Panel Justification

Title: Bringing New Tools to Evidence-Based Early Childhood Practices and Programs in Global Contexts

Moderator:
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Knowing whether an intervention is a good fit with the local culture and context, if it is installed properly (meets developer guidelines for fidelity and community goals for targeted outcomes), and whether continuous quality improvement (CQI) techniques can enhance implementation are central issues in ensuring that it is ready for evaluation and possible scaling. In this panel discussion, representatives of four early childhood education projects from around the globe (two in Latin America, one in Sub-Saharan Africa, and one in the United States) will discuss tools that facilitate the use of evidence and data in identifying community needs and potential programs to address them. The moderator (Dr. Kimberly Boller), a representative of a group implementing early childhood learning collaboratives in three school districts in the United States, will ask each panel member to introduce themselves and the project they represent. The moderator will then pose a set of five questions to the group and facilitate a lively discussion with the panel members and the audience.

The questions for the panel will include (primary responders noted here):

(1) What have we learned about supporting national, subnational, and community leaders in taking a program that has been shown to be evidence-based elsewhere and adapting and installing it in a new place? What types of tools are necessary? Dr. MaryCatherine Arbour, Dr. Jennifer Locasale-Crouch, Dr. Candace Miller

(2) What is cultural translation and how can it be used to make a program “fit” a new context? Dr. Locasale-Crouch

(3) What tools are used in CQI that can inform decisions about scaling enhanced and new evidence-based programs? Dr. Arbour

(4) What is an evaluability assessment and how can it be an inclusive process to determine whether an intervention is ready for a rigorous evaluation? Dr. Miller

(5) What other tools are needed to help propel ECE programs and policies forward in the next 10 years? All

Throughout the panel discussion, the moderator will note the connections between the panel responses and the conference theme of how these tools and what we are learning from them inform practice.

To ensure audience participation, at the middle and end of discussion of each question, the moderator will ask the audience for their questions, taking all questions together and then having the panel discuss them with the audience members and each other.
Panelist 1: Jennifer LoCasale-Crouch
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Panelist 1 Title:
Adapting Evidence-Based Interventions for Use in Latin America: What Are We Learning?

Growing international evidence points to both the critical role of teacher-child interactions on children’s learning and development and the persistence of low quality in such interactions (LoCasale-Crouch et al., 2016a). One way to improve the potential impact of education on children, then, resides in enhancing the quality of teacher-child interactions. Recently, a federally-funded randomized control trial in the US found that two different professional development (PD) interventions that specifically focused on improving teacher-child interactions changed preschool teachers’ interactions in ways that support children’s learning and development (Downer et al., 2012; Hamre et al., 2012). Even finding interventions to be effective under rigorous conditions, however, does not guarantee they will be effective when tested in other contexts. Thus, as the field looks to utilize effective interventions in new settings, much planning and consideration needs to be afforded to the adaptation and implementation process prior to conducting evaluations of program effectiveness. Thus, as part of a strategic partnership between key stakeholders wanting to conduct a randomized trial of a teacher-child interaction focused intervention in Latin America, the project first aimed to systematically adapt and then pilot a new implementation before scaling for the larger evaluation. This presentation focuses on three aspects of this work: 1) adaptation of the interventions 2) a framework for intentionally considering intervention implementation and 3) initial evidence on the intervention implementation efforts.

Strategic Intervention Adaptation for Use in Latin America

Identifying Core Intervention Components. The initial interventions under consideration here included both an in-person course and a web-based coaching intervention focused on improving teacher-child interactions. Thus, our first step in considering intervention adaption was to identify from previous studies what the core components of the interventions included. Following review of the literature and in collaboration with the intervention developers, we identified 3 core components important to maintain: 1) building knowledge about effective classroom interactions, 2) helping teachers identify effective interactions through the use of a validated framework and video analysis, and 3) providing opportunities to reflect on one’s own teaching through guided video analysis.

Contextualizing Resources and Delivery. Once a clear sense of the essential intervention elements were identified, the partnership sought to make adaptations to the program in order to be meaningful and effective in the Latin America context. First, we agreed to combine the two interventions into one and have it be delivered in person. Then, we focused on contextualizing the intervention resources. This involved forming a team of education leaders from different parts of the region to agree on the terms, in order to meaningful translate the content into Spanish acceptable across the entire region. Then, a cultural translation of the material took place, resulting in culturally sensitive examples of effective teacher-child interactions. Next, videos of local classrooms were carefully reviewed and selected to illustrate the quality of interactions in that context. Finally, specific to coaching, we created a process of how to do this in person while maintaining the tenets and principles of the previously tested version (that had taken place remotely). Following this initial development process, we then engaged in several strategic pilots.
to test this version out, receive feedback and further modify the intervention prior to evaluating it at a larger scale.

**Paying Attention to Implementation**

*Implementer Fidelity and Quality.* Following the intervention adaptation, our attention turned to ensuring fidelity and quality by the implementers, particularly since intervention fidelity and quality have been linked to improved intervention outcomes (Durlak & DuPre, 2008). With this in mind, we conducted a rigorous selection process to identify local implementers. Then, the local implementers received extensive training, including opportunities to practice delivering the intervention in amock situation and receiving specific feedback on the fidelity and quality of delivery. Finally, we created a plan to explicitly target implementation fidelity and quality through on-going training and support.

*Teacher Responsiveness as a Key Mechanism.* Berkel and colleagues (2011) hypothesized that participant responsiveness, which captures participants’ participation within an intervention, may serve as a mediating factor between intervention quality and intended intervention outcomes. And, previous work related to these specific interventions indicated that teacher responsiveness contributed to improvements in interaction quality (LoCasale-Crouch et al., 2016b). Thus, as we worked toward the field trial, we considered the necessary components to support teachers being able to engage as actively as they can. As a result, several key strategies were employed. First, the ministry provided a letter of support to the school and encouraged the principal to free up the teacher’s time to engage in the intervention. Then, teachers were incentivized to come to the initial training through provision of resources and food at the event (a rarity in this context). Finally, the on the ground team provided logistics support, including providing all the material necessary for participation and doing all the classroom filming so the teacher only needed to focus on participating in the intervention.

**Emerging Findings on Intervention Implementation Within a Field Trial**

Following the intentional steps outlined here and with the implementation supports in place, the team just began a field trial with 100 randomly assigned treatment and 100 matched control early elementary school teachers in a Latin America country. While we anticipate collecting extensive information about the teacher-child interaction quality and children’s development at the end of the trail, we continue to intentionally measure and respond to implementation throughout the process. The conference presentation will include updated information on implementation, including both implementer fidelity and quality as well as teacher responsiveness within the intervention. Our intention is to add to a growing body of literature stressing the importance of attending to adaptation and implementation of interventions prior to assessing their effectiveness, moving the field beyond a sole focus on whether or not something works and into the realm of understanding how and why it works.
References


Panelist 2
Title: Continuous Quality Improvement as a Tool for Intervention Refinement and Preparation for Scaling

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Background: Decades of research shows that early childhood interventions can positively impact children’s short- and long-term health, academic and economic outcomes, but that interventions’ effectiveness depend on their quality. Interest in continuous quality improvement (CQI) methods is rising among early childhood clinicians, educators and policymakers. We report on a professional development program to improve the quality of public preschool education in Chile and the outcomes of participating children through an intervention centered on literacy instructional strategies supported by health, socio-emotional skills and family involvement. Un Buen Comienzo (UBC, a Good Start) began as a randomized controlled trial, and subsequently, integrated CQI methods that use iterative cycles of testing and four levels of evidence to refine the intervention and improve its scalability.

Objectives: To describe and discuss the evolution of research and intervention methods as the policy context in Chile and the knowledge of the intervention team evolved. To describe how different kinds of evidence and iterative data used in CQI led to improvement in the quality of public preschool education and children’s language outcomes in Chile. To propose an adaptation of the levels of evidence used to inform clinical guidelines in medicine and public health for making appropriate use of more types of evidence for improving education.

Methods: 2008-2011, 64 schools (child N=1,876) participated in the UBC experiment. Teachers from 32 randomly selected schools received training in instructional strategies through workshops and in-classroom coaching. 2011-2012 Teachers from 40 low-income urban and rural classrooms received training in instructional strategies. A subset of 18 early adopters participated in a CQI Learning Collaborative that taught CQI methods and facilitated shared learning. 2014-2015 Teachers from 27 early adopter schools (N=361 children) received training in instructional strategies and CQI through online training and in classroom coaching. Non-randomly selected comparison group of 35 schools (843 children) usual conditions.
For each cohort, classroom quality and children’s language and literacy skills were assessed by external evaluators at the beginning and end of each 2 year period using internationally validated tests. CQI cohorts also used teacher and teacher coach collected formative assessment data three times per year, monthly classroom quality observations, and daily teacher report of time on language activities and children’s attendance. Analytic approach varied. For 2008-2011 cohort hierarchical linear modeling was used to assess impact of the UBC intervention. 2011-2012 quasi-experimental methods of propensity scores and inverse-propensity weighting were used to estimate the impact of professional development in instructional strategies only versus instructional strategies plus CQI methods. 2014-2015 quasi-experimental methods of propensity scores and inverse-propensity weighting were used to estimate the impact of professional development in instructional strategies and CQI methods versus usual preschool conditions.

Results: 2008-2011: moderate and large positive impacts on classroom quality, null effects on language of all children, positive effects on language among children who attended most. 2011-2012: Children in classrooms whose teachers received professional development in instructional strategies plus CQI methods had larger increases in language skills (vocabulary, effect size 0.31, p<0.05) than children whose teachers received instructional strategies alone. 2014-2015 large positive effects on classroom quality (ES ~ 1 in 3 CLASS domains) and time on language (~60 minutes a day) and positive effects on children’s language (ES 0.3 letter word identification and emergent writing; ES 0.2 comprehension).

Conclusions & Implications: CQI may be a valuable addition to promote change via professional development in low-income schools in Chile. CQI methods – especially iterative testing and data use with front-line service providers—warrants further examination for early childhood interventions in diverse contexts globally.
Panelist 3
Title:
Evaluability Assessment of a Preprimary Teacher Training Program in Sub-Saharan Africa: An Evolving Story

Panelist 3:
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Evaluability Assessments (EA) determine whether a program innovation or improvement is ready for evaluation (Davies 2013; Leviton and Gutman 2010; Patton 2008; Soares et al. 2010). The EA process engages stakeholders and incorporates elements of program theory, needs assessment, program monitoring and learning, process evaluation, and stakeholder evaluation. The purpose an EA, applied to a preprimary teacher training and school readiness intervention and learning collaborative in a country in Sub-Saharan Africa was twofold. First, the EA process was designed to help strengthen the intervention and ensure it was based on a theory of change, guided by a program logic model, and assessed with a monitoring, evaluation, and learning (MEL) framework. A second purpose was to gauge whether the program inputs and outputs suggest the intended outcomes were likely to be achieved, whether the program could be scaled up with fidelity, and whether stakeholders support the program. If findings of the EA were positive, stakeholders, including an independent research team, would take the next steps in recommending whether a rigorous impact evaluation was warranted or if further pilot/innovation and improvement activities would be needed to strengthen the program.

The EA was an iterative process throughout the pilot phase in 2014-15. It involved researchers participating in stakeholder meetings and phone discussions; reviewing reports and documentation; and helping to develop, implement, and learn from the MEL activities conducted throughout the pilot conducted in 60 schools in two regions of the country.

The full package includes several interventions that occur at the school level; at the local level; and at the national level (Steering Committee FkW 2015). Each component was designed to affect children’s school readiness. Outcome 1—the emphasis of the EA report—includes these components:

- Teacher training, observation, and support
- Head and deputy head teacher training
- Improved classroom learning environments and the provision of learning kits
- Parent partnership program training and coordination

Outcome 1 interventions focus on improved teaching and classroom practices through training and feedback and mentoring to support ongoing teacher behavior change.

Methods to assess the model

To assess the components of Outcome 1, partners in the learning collaborative implemented MEL activities including the (1) the Teacher Observation tool, (2) the Classroom Observation Tool, (3) qualitative interviews with teachers, head teachers, deputy head teachers, and focus group discussions with parents, and (4) classroom observations. The MEL work group received all data and
reviewed findings, which were later presented to and discussed by the Steering Committee and used to inform programmatic improvements.

**Findings and recommendations**

Based MEL data collected over two years, the pilot yielded evidence of positive changes in teaching practices and learning environments. The MEL activities generated quantitative and qualitative evidence that teachers gained and used skills and classrooms were transformed into engaging and stimulating learning environments. Furthermore, respondents described perceived changes in children’s learning outcomes. Teachers attributed these impacts to improved teaching practices and learning environments.

In the final EA discussion and data collection, the learning collaborative and other stakeholders endorsed the intervention, despite some uncertainty about future scalability and sustainability. Stakeholders agreed that the program rollout should be rigorously evaluated and costed given its potential to yield strong positive impacts on children’s learning outcomes and social development.

In December 2015, the third party research team that served as a learning partner recommended a rigorous RCT to measure the impacts of the intervention on student learning outcomes. Such a study would have been an important contribution to the evidence on what works in preprimary education to guide policy and practice in the country and inform global efforts to identify and test effective low-cost interventions.

**Changes based on the policy landscape**

At the end of the 2015 school year (December 2015), the national government, under the leadership of newly elected president, instructed schools to implement fee-free education, essentially removing the cost of fees and contributions to allow children to attend school for free. This new policy had drastic implications in a context in which the preprimary gross enrollment rate was 40 percent in 2012, such that approximately 1.7 preprimary aged million children were out of school, and the country-wide student-to-qualified teacher ratio was 206 to 1. Removing fees indeed quickly increased student enrollment and rapidly overwhelmed many classes, grades, and schools. Classrooms, already characterized by their poor quality learning environment and ineffective teaching practices, were suddenly severely overcrowded as parents flocked to register their children for school. As of July of 2016, the average teacher to student ratio in one region was 1 teacher to 85 students (with a range of 32 to 156 students per class). The ratio was lower in the other region at 1 teacher to 44 students (with a range of 20 to 80 students per class). The partners observed drastic overcrowding and a lack of classroom space, as well as severe shortage of teachers and paraprofessional teachers in the classrooms (Miller et al. 2017).

In addition, in June 2016, the new national education sector plans through school year 2020/21 was shared with the Steering Committee of the Learning Collaborative. It included sweeping changes to the education policies that would affect preprimary teachers and schools. Taken together, the Steering Committee recommended not going forward with an RCT but rather focusing on developing a collaborative Learning Agenda for country (Miller et al. 2017). Topics for further study include using MEL approaches to document (1) how the fee-free policy is being implemented in schools and how preprimary is affected by the policy; (2) which aspects of Fursa are associated with higher quality preprimary student experiences and outcomes; (3) approaches to scaling cost effective preprimary models; and (4) recommendations for policy, program, and systems to help schools and teachers overcome contextual challenges and barriers to high quality preprimary implementation.
The director of the third party research team that leads the learning collaborative will represent the collaborative on the panel. She will share insights from the evolution of the project and the tools that were helpful to meet local needs and remain flexible as the policy landscape changed.

References


