Symposium: How NGO’s in conflict-affected countries develop and use evidence on the efficacy of social-emotional learning interventions.

Chair: Stephanie Jones  
Discussant: Celine Domitrovich

Paper 1: The evolution of a model to improve children's learning and social-emotional skills in crisis contexts  
Authors: Jennifer Sklar (IRC), Jamie Yeiss Yagoda (IRC)

Paper 2: Assessing the quality of implementation of non-formal education programming for Syrian refugee children in Lebanon: Lessons from a research/practice partnership  
Authors: Carly Tubbs Dolan (NYU), Autumn Brown (IRC), Samer Houshaimi (IRC), J. Lawrence Aber (NYU)

Paper 3: Evidence for Educational Intervention Effectiveness and Quality in Democratic Republic of Congo, Lebanon, and Niger  
Authors: Lindsay Brown (NYU), Jeannie Annan (IRC), Ha Yeon Kim (NYU), Carly Tubbs Dolan (NYU), J. Lawrence Aber (NYU)
How NGO's in conflict-affected countries develop and use evidence on the efficacy of social-emotional learning interventions.

In this symposium, we explore how the mounting evidence of the efficacy of Social-Emotional Learning (SEL) interventions in formal (schools) and informal (after-school) education settings in the U.S. is making its way over time into practice in such educational settings outside the U.S., specifically in conflict-affected countries in sub-Saharan Africa (Democratic Republic of Congo, Niger) and the Middle East (Lebanon).

**Paper 1** describes the evolution of "Learning in Healing Classrooms" (LIHC). LIHC was developed via action research by the International Rescue Committee (IRC) to overcome some of the challenges of providing basic education to children in conflict-affected countries. LIHC fuses social-emotional learning principles into quality reading and math instruction and aims to address the unique learning needs of children who have been exposed to armed conflict and related adversities. Key components of children's development addressed by LIHC are: self-worth, self-control, sense of belonging, social relationships, and an intellectually stimulating environment. The paper will describe how the emerging empirical evidence base in the U.S. was drawn upon and adapted by practitioners to guide the design of LIHC.

**Paper 2** presents the development and testing of a measure of quality of implementation of LIHC. The classroom observation measure was developed iteratively by IRC field staff over the course of school year 2014-2015 and then formally tested with data from school year 2015-2016. A two-factor structure of the observations was obtained: a general "responsive teaching" dimension; and an orthogonal "healing classrooms" dimension. Variation on these factors is then shown to differentially predict children's gains in literacy, math and social and emotional well-being from the start to the end of the school year. The potential of evidence from this measure (1) to guide feedback to teachers and (2) for use in monitoring and evaluation are discussed.

**Paper 3** will report on how LIHC has been adapted and rigorously tested in three countries across three different educational platforms (formal schools in D.R. Congo; after-school tutoring programs in Niger; and retention-support programs in Lebanon). Rigorous, adequately-powered cluster randomized trials were conducted to test the impact of LIHC on children's social-emotional and academic development. Relevant to the theme of this year's conference, the theories of change tested were co-constructed in "design workshops" by both researchers and practitioners. One year (or less) of exposure to LIHC led to significant improvements in literacy and numeracy skills in all three countries. But there were no impacts on mental and behavioral health outcomes and few impacts on the social-emotional processes hypothesized to mediate the impact of LIHC on outcomes. In subsequent design workshops, the partnership of practitioners and researchers struggled with both how to understand and interpret the results and what types of revisions to the program design and research design they wished to make in the next school year.

The independent discussant, herself an expert in SEL program design, implementation and impact in the U.S., will further reflect on when and how the growing cross-cultural evidence base on SEL informs practice in the U.S., Africa and the Middle East.
The evolution of a model to improve children’s learning and social-emotional skills in crisis contexts

Objective

This paper describes how and why the International Rescue Committee’s (IRC) education sector moved towards programming informed by rigorous research and a strategic research/practice partnership with NYU Global TIES for Children (NYU/TIES), and the resulting changes for children. It will describe how the emerging empirical evidence base in the United States was drawn upon and adapted to guide the design of our Healing Classrooms approach, the initial rigorous testing in DR Congo, and the ways in which our strategic research/practice partnership has informed and continues to change our approach to education programming in conflict contexts globally.

Background / Context

The IRC’s development and continued evolution of our signature Healing Classrooms approach to meeting the education needs of crisis-affected children represents a move from programming based on instinct to action research to rigorous research.

The IRC has been implementing education programs for children and youth affected by crisis since 1933. Healing Classrooms was born out of years of IRC’s on-the-ground experience in such settings. In 1997, when the IRC established its first technical unit for children’s protection and development, we found that teachers reported needing help coping with classroom behavior and signs of children’s emotional stress. It was clear that conflict-affected children needed something more than academic instruction if they were to succeed—and learn—in school. IRC thus created its first Healing Classrooms teacher training in 2000, which focused on building teachers' understanding of the effects that violence and displacement has on children's development and learning—including the important role teachers can play in promoting recovery and well-being by creating a safe, predictable, stimulating, and inclusive environment.

The IRC then moved from field observations and anecdotes to a more systematic approach that included documenting what teachers themselves felt promoted students' well-being. From 2004-2008, the IRC undertook action research in Afghanistan, Guinea, Sierra Leone, and Ethiopia to identify local definitions of well-being and teachers’ perspectives on the daily practices that impact it. These findings guided the development of a Healing Classrooms toolkit that included a clearer definition of well-being, guidance from teachers on daily practices and routines that could be implemented, and practical tools for supporting teachers.

In 2008, we had over 10 years of Healing Classrooms observations, anecdotes, and action research. Nevertheless, we realized that our approach could benefit from rigorous evidence. Unfortunately, a scarcity of research exists in our settings—a total of four experimental and quasi-experimental education studies have been conducted on what works to improve learning and six on what works to improve well-being in conflict contexts. We therefore shifted to draw on evidence from stable contexts, convening leading SEL academics for a consultation. The results led to the incorporation of emergent neuroscience research on toxic stress and the way in which it disrupts children's healthy brain development. We then created a Healing Classrooms
multi-media teacher training program that familiarizes teachers with the rationale, evidence base, and specific teaching practices that promote student well-being competencies. IRC and NYU/TIES then embarked on what has become a strategic and long-term partnership committed to rigorously testing this model, first in the Democratic Republic of Congo (DRC) with a cluster-randomized wait-list control trial (Aber et al., 2017).

Setting

DRC suffers from limited financial resources, widespread corruption, and decades of violent conflict that have had a disastrous impact on the quality of education. For example, 91 percent of Congolese primary-school children in grades 2-4 cannot correctly respond to a single reading comprehension question in the Early Grade Reading Assessment (EGRA). IRC and NYU/TIES rigorously tested Healing Classrooms in eastern DRC in what would be the first ever large-scale evaluation of a program in a conflict-affected country designed to improve classroom practices and promote both children’s academic and social-emotional skills.

Results

After one year, Learning in a Healing Classroom (LIHC) significantly improved students’ reading and math scores. In Cohort 1, LIHC increased students’ reading scores and geometry scores by .14 standard deviations each. In Cohort 2, LIHC increased reading scores by 3.9 months (.21 standard deviations) and addition/subtractions scores by 10.3 months (.30 standard deviations).

Learning in a Healing Classroom also significantly improved how safe and supportive students perceived their schools to be. However, the impacts varied on student perceptions of how predictable and cooperative schools were. LIHC increased students’ perceptions of the safety and supportiveness of their schools in Cohort 1 by .22 standard deviations. Results were replicated in Cohort 2, where LIHC improved the safety and supportiveness of school environments by .13 standard deviations.

As the program expanded to additional schools, the impacts of Learning in a Healing Classroom on reading, math, and school supportiveness faded out. Additionally, in neither cohort of schools did LIHC reduce children’s mental health problems or experiences of peer victimization.

Conclusion

These mixed results contributed to meaningful learning which informed yet another iteration of Healing Classrooms now being tested in Lebanon and Niger. We learned that Healing Classrooms had to be expanded beyond its focus on teachers creating a safe, predictable, and nurturing learning environment. We also needed to invest more resources in collecting and rapidly analyzing data to understand what is being implemented and quickly course correct. This would have helped us adjust the activities and refine our support package faster to avoid the fading of impact during scale up of the intervention.
Despite challenges and frustration, the nature of our research/practice partnership and mutual understanding of the length of time and iterative process needed to really identify what works in our context resulted in our engaging in a joint exercise to expand our theory of change. Working with programs in Niger and Lebanon, we are implementing and testing low-cost, targeted SEL interventions and embarking on the difficult task of rigorously testing these in a conflict setting, the results of which are described in subsequent papers in this symposium.

References:
Assessing the quality of implementation of non-formal education programming for Syrian refugee children in Lebanon: Lessons from a research/practice partnership

Background
Education settings are on the front-line in humanitarian contexts to promote the learning and holistic development of children exposed to armed conflict, forced displacement, and associated adversities. But the logistical and security challenges faced by front-line service providers in such contexts can compromise how often and how well programs are delivered or implemented. The amount and quality of implementation can determine the extent to which children benefit from education and health programs (Durlak & DuPre, 2008). Thus, it is imperative to develop rigorous tools and systems that allow for real-time tracking of the consistency and quality of program delivery in such contexts.

Objective
In this paper, I examine data collected by the International Rescue Committee (IRC) to monitor the implementation of non-formal education programming for Syrian refugee children in Lebanon. I focus specifically on providing initial evidence as to the validity of interpreting scores on the IRC’s “Teacher Classroom Observation” (TCO) tool as reflecting the classroom quality of implementation of the IRC's Learning in a Healing Classroom (LIHC) teacher professional development and curricular program. This is the first validation study of an observational measure of classroom implementation quality in a crisis-affected context.

Setting and Program Design
In 2015-2016, the IRC established and maintained 97 non-formal classrooms located in or near 20 informal tent settlements in the two regions of Lebanon with the highest number of Syrian refugees, Akkar and Bekaa. Students enrolled in the program were provided with LIHC-infused Arabic literacy and numeracy instruction. Consistent with Lebanese education policy, curricular materials were designed to build students' basic literacy and numeracy skills or grade-level competencies to support children's integration into the Lebanese public school system (Jalbout, 2015). Classes were offered five days a week for approximately four hours a day between November and July.

Lebanese and Syrian refugee teachers who held a vocational degree or higher were hired by the IRC to serve as classroom teachers, second-language instructors, or assistant teachers. All teachers attended a five-day pre-service training focused on Healing Classrooms techniques and pedagogical teaching strategies. Teachers participated in ongoing professional development activities, notably a monthly meeting with Teacher Trainers, during which the trainers provided feedback based on an in-person, 45-minute classroom observation scored on the TCO tool.

Samples
For factor analyses of the TCO tool, the teacher sample (“factor analytic teacher sample”) included all available observations of all teachers (j = 339). The predictive validity analyses involve two samples. The predictive validity teacher sample focuses on classroom teachers who were observed during Quarter 2 and who can be linked to student data (j = 95). The predictive validity student sample includes 3,438 Syrian refugee children ages 5-16 (M = 8.82, SD = 2.40), of whom 52% were male.

Data Collection
Data used in this paper were collected by IRC staff to monitor and evaluate the implementation of the LIHC program in Lebanon. Data included: basic demographic information from students and teachers, daily
information about students’ attendance; quarterly information about teachers’ implementation of LIHC in classrooms (using the 29-item TCO tool, the subject of this paper); and baseline and endline information about Syrian refugee students’ literacy and numeracy skills (ASER literacy and numeracy exam; Pratham, 2009), grades (final Arabic reading and math exam scores), and externalizing and social behaviors (α = .81 -.84; Strengths and Difficulties Questionnaire; Goodman, 1997; Tubbs Dolan, 2017). Full-information maximum likelihood estimation was used to address missing data (Enders, 2011).

Analytic Plan
To establish the internal structure of the TCO tool, I conducted a traditional EFA and an exploratory bi-factor analysis using a randomly split half of factor analytic sample. I confirmed the selected solution using the other half of the factor analytic sample, and computed refined factor scores of the resulting dimensions of classroom implementation quality (DiStefano & Zhu, 2009). To provide evidence of whether the refined factor scores were predictive of students’ learning and well-being outcomes, I fit a series of multi-level random intercept models that adjusted for children’s baseline scores as well as a vector of child- and classroom-covariates. I also fit random slope and intercept models in order to examine whether the association between classroom implementation quality scores and students’ endline scores was contingent on students’ attendance, a measure of received program dosage (Odom et al., 2010; Preacher, Zhang, & Zyphur, 2016).

Results
Results indicated that a bi-factor model provided the best conceptual and empirical fit to the TCO data (RMSEA = 0.08 (CI: 0.073-0.090); CFI = .975), and suggested two factors that I interpreted using a responsive teaching framework (Hamre et al., 2010): (1) a general classroom quality of implementation (QOI) factor, according to which teachers responsively implemented LIHC practices; and (2) a Healing Classrooms factor, according to which teachers purposefully implemented classroom SEL practices to bolster children’s social-emotional well-being.

Scores on these two dimensions then differentially predicted students’ academic and social-emotional outcomes:

Social-emotional: Teachers’ purposeful implementation of Healing Classrooms practices predicted more positive teacher perceptions of children’s social behaviors at endline, adjusting for all baseline child and classroom covariates (b = 0.03 (0.01), p = .03). Contrary to expectations, general classroom quality of implementation also predicted greater perceptions of externalizing behaviors at endline, adjusting for a range of child- and classroom-covariates (b = 0.09 (0.03), p = .012).

Academic: The relationship between QOI and academic outcomes varied according to students’ attendance, such that children who attended less frequently than their classmates had greater gains in literacy skills (bsimple slope = 0.146 (0.085), p = .10) and math achievement (bsimple slope = 5.88 (1.12), p = .000) in classrooms in which LIHC practices were implemented responsively than in classrooms in which practices were not implemented responsively (see Figures 1, 2). Children who attended class on average more often than their peers, however, had similar gains in literacy skills and math achievement regardless of whether they were in a classroom in which practices were implemented responsively or not.

Conclusion
The potential evidence from this measure to guide feedback to teachers and for use in monitoring and evaluation will be discussed.
References


Figure 1

Adjusted Endline ASER Arabic Literacy Skills in Low- and High-Quality of Implementation Classrooms, by Children’s Group-Mean Centered Average Attendance

Figure 2

Adjusted Math Final Exam Scores in Low- and High-Quality Classrooms, by Children’s Group-Mean Centered Average Attendance
Evidence for Educational Intervention Effectiveness and Quality in Democratic Republic of Congo, Lebanon, and Niger

**BACKGROUND**

Children living in crisis and conflict-affected contexts suffer from unspeakable adversities that can result in a “toxic stress” response, disrupting healthy brain development and affecting their behavior, health, relationships and cognitive abilities (Shonkoff et al., 2012). We know from research in stable contexts that quality education with social-emotional learning (SEL) opportunities can mitigate the impact of toxic stress (Durlak et al., 2011)—but given the dearth of research, we don’t know whether or how this holds true for children in crisis-affected countries.

To address this lack of evidence, the International Rescue Committee (IRC) and TIES/NYU undertook the first large-scale, rigorous evaluation of a classroom social-emotional Learning intervention in a crisis-affected context in the Democratic Republic of the Congo between 2011 and 2015. The results of the evaluation indicate that the IRC’s Learning in a Healing Classroom (LIHC) approach shows promise: after one year of implementation, LIHC increased the supportiveness of teachers and schools, while also improving literacy and numeracy (Aber at al., 2017). However, LIHC was not found to reduce children’s mental health problems or experiences of peer victimization (Torrente et al., under review). Moreover, when the program was expanded, the impacts on reading, math and school supportiveness faded out.

In response, the IRC and NYU collaborated via country-based design workshops to adapt and improve LIHC in Lebanon with Syrian refugees and in Niger with children displaced by Boko-Haram. Adaptations included measures for ensuring high-quality implementation of programming as well as the addition of low-cost targeted SEL interventions.

**INTERVENTION:**

In 2016-2017, the IRC delivered tutoring support to thousands of children enrolled in public schools in Lebanon and Niger using an evidence-based approach to providing reading and math courses in safe and supportive learning environments. Sites were additionally randomized to embed low-cost, targeted social-emotional learning (SEL) interventions—mindfulness and executive-functioning “brain games”—into the curriculum.

**PARTICIPANTS, AND RESEARCH DESIGN:**

**LEBANON:**

Data from 5,355 Syrian Refugee children enrolled in Lebanese public schools, living in 87 communities in the Akkar and Bekaa regions of Lebanon is utilized for this study. The communities were randomized into three conditions: Retention Support (“RS,” N=33), Retention Support + SEL (N=33), Waitlist (N=21). RS and RS+SEL communities received two cycles (32 weeks) of programing over the course of the school year; waitlist communities received one cycle (16 weeks) of programing in the second half of the year (RS or RS+SEL).

**NIGER:**

Violent attacks by Boko Haram have led nearly 200,000 Nigerian refugees and internally-displaced Nigeriens to seek protection in Niger's Diffa and Maine departments. Thirty schools were selected in these regions based on security clearance, geographic location, and school size. Schools were paired on baseline student and school-level characteristics and randomized to treatment (n=15) or control (n=15) within pairs; students in eligible grades (2-4) were assessed on academic math and French literacy
competence at baseline and endline (ASER: http://www.asercentre.org/). Students in lowest-performing ASER categories were eligible for retention support. Due to insufficient resources to serve all eligible children, a lottery was used to select children to receive eight hours weekly of academic tutoring services (“control”) or tutoring plus low-cost targeted SEL intervention (“treatment”). Eligible waitlisted students attended public school but did not attend tutoring services and functioned as a no-treatment control.

**DATA COLLECTION AND ANALYSIS:**

*Lebanon:* Data were collected three times across the year using reliable and contextually-valid measures of children’s: (1) basic reading and math (Early Grade Reading Assessment, Early Grade Math Assessment: RTI International, 2009a,b) (2) internalizing symptoms (Mood and Feelings Questionnaire: Tavitian et al., 2014), (3) hostile attribution bias and emotion regulation (Children’s Stories: Dodge et al., 2015; DiGiunta et al., 2017), and (4) executive function (teacher report).

*Niger:* This paper utilizes impact data from academic measures collected from 4,994 students at baseline and endline. Students were assessed on French and math proficiency using ASER and administrative data was collected on student grades. Basic demographic information was collected during baseline ASER assessment.

In all analyses, community, family, and child characteristics are used as covariates, where available. Prior to analysis, missing data were multiply imputed using R MI package. Multi-level models were used to test the impacts of Retention Support and Retention Support + SEL programs using Mplus 7.

**FINDINGS:**

*Lebanon:* The preliminary analyses of Cycle 1 impacts suggest that access to Retention Support programming significantly improves Syrian refugee students’ Arabic reading (RS: b=.10, p<.05; RS+SEL: b=.16, p<.001) and math (RS: b=.20, p<.001; RS+SEL: b=.26, p<.001) skills after four months of implementation. In addition, Syrian refugee children in Retention Support programs are less likely to view interactions with peers as hostile in intent than the children who were attending public schools only (RS: b=-14, p<.001; RS+SEL: b=.16, p<.001). However, Retention Support is not found to significantly improve children’s internalizing symptoms or executive function after the first cycle.

*Niger:* After one academic year, additional LIHC-infused Tutoring services improved children’s French literacy and Math competence about three quarters of an ASER level (.69-.78) more than did public schooling alone (p<.001). On average, students in LIHC-infused Tutoring + SEL (Mindfulness and Brain Games) program showed about 8% higher school grades averaged across all subjects (.82, out of on a 0-to-10 scale) compared to those in Tutoring Only. We did not find evidence of impacts on ASER scores for targeted SEL interventions over and above tutoring only.

**CONCLUSIONS:**

This trial provides the first rigorous evidence of whether and how non-formal, SEL-based retention support education programs can bolster refugee children’s ability to succeed in formal education systems, as well as some of the first evidence globally on how targeted SEL practices can be embedded in curriculum to support children’s holistic learning and development. In addition, it illuminates an iterative design process that informs field-generated questions for immediate practitioner application.
REFERENCES:


Torrente, C. JREE, under review