Global Ratings of Environments (GROE)

Bank Street College of Education

Virginia Casper, Ph.D.
Faith Lamb-Parker, Ph.D.
In-Country Partners

Research Advisory Group
Bangladesh, IED, BRACU
• Ms. Syeda Sazia Zaman
• Dr. Nishat Fatima Rahman
• Ms. Ferdousi Khanom
• Ms. Sakila Yesmin
• Ms. Syeda Rezwana Akhter

Research Advisory Liberia
• Yukhiko Aman
• Jamesetta Diggs

Canadian Partners
University of Toronto
• Dr. Kerrie Proulx
• Dr. Craig Burkett
Questions!

• Why did we develop the GROE?
• What does the GROE contribute?
• How was the GROE developed?
• Who can assess classrooms using the GROE?
• What are the ways the GROE can be used?
• How is the GROE organized?
• How does the GROE relate to the proposed ELDS for Bangladesh and measures of classroom quality?
Universal and “Local” Issues

“There are some universals in behavior and development that cross cultures.

However, of necessity, cross-cultural variability in the conceptions and conventions that shape human behavior limits the generalizability of knowledge from one culture to another (Marfo, 2011).”
Why did we develop the GROE?

• Gap in quality scales that more fairly measure ECD classrooms in under-resourced settings

• Most quality scales adapted from Western measures, with or without collaboration

• Found that scales did not capture significant, positive qualities using adapted Western measures

• Found that scales “flat lined” program variety and quality

• Encourage locally generated research to form the basis of culturally relevant content
What does the GROE contribute?

• A tool based on observations of group care in “developing” countries that supports professional growth

• A community-based participatory research and learning model for developing in-country ECD tools

• Strength-based approach to assessing the variability of preschool classrooms

• A co-developed tool that emphasizes country- and regionally specific values, resources, and capacities

• A way of valuing creative and innovative uses of self and resources in cultural context

• Additional subscale on Approaches to Learning based on recent research in brain development
Where was the GROE Developed?

• **South Africa**— 2010-11 Birth-to-Three Crèches

• **Liberia**— ongoing- 3-6-year-old-classrooms

• **Bangladesh**— final stages- 3-6-year-old classrooms
Rural South Africa
Monrovia, Liberia (before basic interventions)
Dakha Bangladesh – factory child care
How was the GROE developed?

• Developed foundational work from video segments of a cross-section of classrooms in low-resourced ECD programs

• Assessed classrooms using standard and adapted measures of quality that demonstrated low quality and little variability

• Found that data were in direct contradiction to the face validity and creative practices reflected in the observed classrooms

• Co-developed tool with front-line and senior ECD professionals and parents in selected countries
How was the GROE developed?
(continued)

• Chose basic sections and subscales for the tool that reflected current thinking in ECD and cultural responsiveness

• Held in-country focus groups to discuss subscales and items, tailoring to the needs of the ECD community

• Analyzed focus group data and revised GROE for particular country

• Pilot tested the GROE in South Africa, Liberia, and Bangladesh for face validity and inter-tester reliability

• Revised according to results of pilot tests for each country
Section I  ESSENTIAL CARE

• nutrition
• health
• safety
Section II: DEVELOPMENT & LEARNING

- space
- materials
- program
- approaches to learning
- interaction
A Total of 8 Scales

- Nutrition
- Safety
- Health
- Space
- Materials
- Program
- Approaches to Learning
- Interaction
Who can assess classrooms with the GROE?

- With a simple training guidance, most ECD professionals (8th grade literacy level) can learn to observe and record classroom quality using the GROE.
What are the ways the GROE may be used?

• Document program and classroom improvement over time (M&E)

• As professional development tool

• As research tool for further exploration of variations in program and classroom quality
How does the GROE relate to other measures of classroom quality?

- Infant/Toddler Environmental Rating Scale (ITERS), Early Childhood Environmental Rating Scale (ECERS)
- Classroom Assessment Scoring System (CLASS)
- ACEI Global Guidelines Assessment (GGA)
Global Ratings of Environments
GROE for Bangladesh
What Ages Does the GROE Focus on?

• Each country determines what the focal age will be based on their ECD policies.

• Some countries develop a 0-3 GROE, e.g., South Africa.

• Bangladeshi and Liberian caregivers wanted to assess quality in maximum number of center-based programs.
GROE for Bangladesh Pilot

- Dates: February, June and November 2013

- GROE research team training: February & August 2013

- Total N (organizations)= 6
- Total N (classrooms)= 21
- Total N of Research = 30
Field Site Examples

- Pre-primary program of Directorate of Primary Education (DPE)
- Day Care Centers of Ministry of Women and Children Affairs (MoWCA)
- Day Care Centers of Phulki
- Pre-school program of Save the Children
- SBK and Preschool programs of Plan Bangladesh
- SBK and Preschool programs of BRAC Education Program (BEP)
Beginning Discussions/Analyses

- Data entry process and cleaning
- Cultural validity/face validity
- Inter-rater reliability
- Comparison of item ratings and qualitative feedback from rater pairs
- Meaning of DK, NA, and 1?
- What do we mean by innovation or $i$?
- What are examples of innovation in Early Care and Education programs?
innovation

South Africa
Preliminary Analysis Results of 8 Scales

• Factor analysis revealed bias toward scores of “1”, “3” and “5” (more descriptors needed for “2’s” and “4’s” (mid-range scores)

• Reliability analysis showed need for at least 3 items per scale

• Correlation matrices lead to recommendation for fewer NA’s, which create missing data but with the removal of one item reaches a Cronbach’s alpha of .85.
Analytic Sequence/Strategies

• Test for internal consistency for each subscale (Chronbach’s Alpha Coefficients)
• Test for inter-rater reliability by subscales (Pearson r correlations)
• Comparison of item ratings and qualitative evidence for congruence between ratings and justification of ratings
• Exploratory factor analysis—looking for eigenvalues greater than 1; look at loadings, number of factors and % variance using a orthogonal factor analysis
Findings

• GROE tool is useful when in-country ECD professionals pilot and analyze applicability to their local context

• Gives an accurate baseline for purposes of professional development

• There is high congruence between ratings and why the ratings were made
Selected References (1)

Selected References (2)


