



USAID
FROM THE AMERICAN PEOPLE

ALL CHILDREN READING – ASIA

EARLY CHILDHOOD EDUCATION: CONSIDERATIONS FOR PROGRAMMING

Early Learning Assessment

Assessment of learning and the quality of early learning environments is an important component of early childhood education.

This brief outlines the existing early learning assessments of children and environments used in the Asia region, excluding diagnostic and screening assessments.

CONSIDERATIONS FOR ASSESSMENT SELECTION

In their 2017 toolkit for measuring early childhood development in low- and middle-income countries (LMICs), Fernald, Prado, Kariger, and Raikes cite several key characteristics that should be considered in identification and selection of assessments:

- Purpose of the assessment
- Psychometric properties
- Cultural relevance
- Ease of administration

ADAPTING ASSESSMENTS FOR LMICS

Although there are no universally recognized minimum standards for adaptation, there are general guidelines for the adaptation of existing measures for use in other contexts (Fernald et al., 2017), including but not limited to the following:

- Translation and back-translation
- Selection of culturally sensitive content
- Reduction of culturally based differences in assessment procedures
- Pilot testing
- Tracking and documentation of all revisions



PHOTO: GUIDED READING AT SDN KEBON DALEM MOJOKERTO, EAST JAVA – USAID PRIORITAS PROJECT

TYPES OF ASSESSMENTS

Typically, measures of child learning and development are collected through child-direct assessments or ratings from caregivers or teachers. Both methods have benefits and drawbacks. Child-direct measures elicit more accurate data, whereas caregiver or teacher ratings rely on recall and can be biased. However, teacher and caregiver methods are generally more cost-conscious than child-direct measures.

CHILD-DIRECT MEASURES OF LEARNING AND DEVELOPMENT

Assessments that measure child learning and development directly through interaction with the child have been shown to be the least biased and to reveal the highest quality of data when gathered from a highly trained enumerator—but they typically require more resources. Training enumerators to consistently collect standardized data takes time and financial commitment. In addition, sometimes administration of these assessments can take up to 30 minutes. The tables below list a sample of child-direct measures used in the Asia region and contain our analysis and recommendations.

Information on a Selected List of Child-Direct Measures

Title and Age Group	Country	Domains Measured	Purpose	Psycho-metrics in LMICs?
East Asia Pacific – Early Child Development Scales (EAP-ECDS): 3–5 years (Rao et al, 2018)	<ul style="list-style-type: none"> • Cambodia • China • Fiji • Mongolia Myanmar • Papua New Guinea • Timor-Leste • Vanuatu 	<ul style="list-style-type: none"> • Approaches to Learning • Cognitive Development • Cultural Knowledge and Participation • Health, Hygiene, and Safety • Language and Emergent Literacy • Motor Development • Socio-emotional Development 	Population monitoring	Yes
Save the Children International Development Early Learning Assessment (IDELA): 3–6 years (Pisani, Borisova, & Dowd, 2015)	<ul style="list-style-type: none"> • Bangladesh • Bhutan • Cambodia • Indonesia • Philippines 	<ul style="list-style-type: none"> • Emergent Language/ Literacy • Emergent Numeracy/ Problem Solving • Motor Development • Social-Emotional Inhibitory Control (add-on) • Memory (add-on) • Learning Approaches (add-on) 	Impact Evaluation	Yes
Measuring Early Learning Quality and Outcomes Measure of Development of Early Learning (MELQO MODEL): 4–6 years (UNESCO, 2017)	<ul style="list-style-type: none"> • Bangladesh • Lao PDR • Mongolia • Cambodia 	<ul style="list-style-type: none"> • Pre-literacy • Pre-numeracy • Fine Motor Skills • Executive Function • Socio-emotional Skills 	Population	Yes

Analysis and Recommendations

Analysis

Only two child-level assessments (including the EAP-ECDS) focused on regions in Asia. Only early versions of the MELQO MODEL assessment have undergone piloting in Asian countries.

Only two specific assessments designed for impact evaluations were found in the literature with sufficient documentation of their development.

Recommendations

Development of the EAP-ECDS and the MELQO MODEL used appropriate instrument design and development methods. Both should be tested further for use in more countries in Asia, using similar methods.

More studies, research, and programs should describe the tasks and/or assessments used in their evaluations and their development. As ECE programming leans toward considering the child in a holistic manner, evaluation measures should also assess the whole child, not just specific learning domains. More studies are needed to understand the relationship among program inputs and their effect on the whole child, not just pre-literacy or pre-numeracy.

CAREGIVER AND TEACHER REPORTS/RATINGS

Child development and learning may also be measured through a caregiver and/or teacher report. These assessments rely on caregiver and/or teacher reports of behaviors that are easy for caregivers and teachers to understand, observe, and describe. The tables below provide examples of caregiver and teacher report assessments and provide our analysis and recommendations.

Selected Caregiver and Teacher Report Assessments

Title and Age Group	Country	Domains Measured	Purpose	Reliability and Validity in LMICs?
UNICEF Multiple Indicator Cluster Surveys Early Child Development Index (MICS ECDI) 36–59 months (Loizillon, Petrowski, Britto, & Cappa, 2017)	<ul style="list-style-type: none"> • Bhutan • Bangladesh • Kazakhstan • Kyrgyzstan • Lao PDR • Nepal • Philippines • Mongolia • Vietnam 	<ul style="list-style-type: none"> • Learning • Literacy and Numeracy • Physical Development • Socio-emotional Development 	Population monitoring	Yes
Early Development Instrument (EDI) 3.5–6.5 years (Janus & Offord, 2007)	<ul style="list-style-type: none"> • Indonesia • India • Philippines • Vietnam 	<ul style="list-style-type: none"> • Communication and General Knowledge • Emotional Maturity • Language and Cognitive Development • Physical Health and Well-Being • Social Competence 	Population monitoring	Yes

Analysis and Recommendations

Analysis

There is a lack of measures utilizing caregiver and teacher ratings and reports of child development.

Recommendations

As this type of measure tends to be more cost-conscious, more studies should focus on the development of valid and reliable caregiver and teacher reports of child learning.

ASSESSMENTS OF THE EARLY LEARNING ENVIRONMENT

A young child’s early learning environment plays a key role in determining learning and development. Assessments of the early learning environments typically include the measurement of the “structural” and “process” indicators. Assessments of structural indicators include ratings of the physical aspects of the environment, such as presence of teaching and learning materials, safety of the physical environment (e.g., presence of broken glass), and class size. Assessments of process indicators include ratings of interactions with children, such as instructional styles, emotional tone of the teacher, and communication between teacher and child. The tables below show details of an environmental assessment and analysis and recommendations.

Environmental Assessment

Title	Country	Domains Measured	Purpose	Reliability and Validity in LMICs?
<p>Early Childhood Environment Rating Scale, Activities and Program Subscales – Revised (ECERS-R) (Harms, Clifford, & Cryer, 1998)</p> <p>ECERS–Extension Literacy and Math Subscales (ECERS-E) (Sylva, Siraj-Blatchford, & Taggart, 2003)</p>	<ul style="list-style-type: none"> Indonesia India—Tamil Nadu Early Childhood Environmental Rating Scale (TECERS): Preschool (Chopra, 2012) Cambodian Early Childhood Environment Rating Scale (CECERS): Preschool (Rao & Pearson, 2007) India & Sri Lanka—Early Childhood Education Quality Assessment Scale (ECEQAS) – Plus (Kaul et al., 2017) 	<ul style="list-style-type: none"> Creative Activities Fine and Gross Motor Activity Infrastructure Language and Reasoning Experiences Personal Care and Routine Physical Learning Aids Social Development Literacy Activities Numeracy Activities 	Guide country/ regional progress and needs; has been used in connection with child outcomes	No

Analysis and Recommendations

Analysis

Only three were found, the TECERS, CECERS, and ECEQAS, that had been developed for use specifically in Asian contexts, and all of these were adapted from an existing measure of quality in Western contexts.

Recommendations

As global indicators move from access to the quality of education provided, it will be important to increase our understanding of early learning settings. There is no firm agreement on the components that make a quality early learning environment across countries. More research is needed to appropriately test adapted measures and to develop new instruments.

REFERENCES

- Chopra, N. (2012). A study of early childhood education programs in Delhi, India. *International Journal of Early Years Education*, 20, 1-16. 10.1080/09669760.2012.715398.
- Harms, T., Clifford, R. M., & Cryer, D. (1998). *Early childhood environment rating scale* (Rev. ed). New York: Teachers College Press.
- Fernald, L. C. H., Prado, E., Kariger, P., & Raikes, A. (2017). *A toolkit for measuring early childhood development in low- and middle-income countries*. Report prepared for the Strategic Impact Evaluation Fund, the World Bank. Washington, DC: World Bank.
- Janus, M. & Offord, D. R. (2007) Development and psychometric properties of the Early Development Instrument (EDI): A measure of children's school readiness. *Canadian Journal of Behavioral Science*, 39(1), 1-22.
- Kaul, V., Bhattacharjee, S., Chaudhary, A. B., Ramanujan, P., Banerji, M., & Nanda, M. (2017). *The India Early Childhood Education Impact Study*. New Delhi: UNICEF.
- Loizillon, A., Petrowski, N., Britto, P., & Cappa, C. (2017). *Development of the Early Childhood Development Index in MICS surveys*. MICS Methodological Papers, No. 6, Data and Analytics Section, Division of Data, Research and Policy, UNICEF. New York.
- Pisani, L., Borisova, I., & Dowd, A. J. (2015). *International development and early learning assessment technical working paper*. Working Paper. Save the Children, London.
- Rao, N., & Pearson, E. (2007). *An evaluation of early childhood care and education programs in Cambodia*. UNICEF, Geneva.
- Rao, N., Sun, J., Richards, B., Weber, A.M., Sincovich, A., Darmstad, G.L., & Ip, P. (2018). Assessing diversity in early childhood development in the East Asia-Pacific. *Child Indicators Research*. DOI: <http://dx.doi.org/10.1007/s12187-018-9528-5>
- Sylva, K., Siraj-Blatchford, I., & Taggart, B. (2003). *Assessing quality in the early years: Early Childhood Environment Rating Scale-Extension (ECERS-E): Four curricular subscales*. Stoke-on Trent: Trentham Books.
- United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Children's Fund (UNICEF), Brookings Institution, & the World Bank. (2017). *Overview: MELQO Measuring early learning quality and outcomes*. Retrieved from <https://www.brookings.edu/wp-content/uploads/2017/06/melqo-measuring-early-learning-quality- outcomes.pdf>

For further information, please contact:

Mitch Kirby, USAID Asia Bureau, Senior Education Advisor, mkirby@usaid.gov