Early Childhood Measurement and Evaluation Tool Review

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Early Childhood Environment Rating Scale Revised Edition (ECERS-R)

Measurement Areas:

The ECERS-R is designed to assess the quality of early childhood environments and assist in the development of early childhood programming. The scale targets seven categories:

1. Space and Furnishings
2. Personal Care Routines
3. Language-Reasoning
4. Activities
5. Interactions
6. Program Structure
7. Parents and Staff

The ECERS-R should be used for **groups** of children ages 2 ½ through 5 years.

Purpose:

The ECERS-R is a criterion-referenced tool designed to assess the quality of early childhood learning environments. The scale is designed for single groups of children, such as a classroom or day home. The ECERS-R provides a profile of the overall social/cognitive learning environment on a 1 – 7 rating scale.

Length and Structure:

According to the manual, the ECERS-R takes a minimum of 3 hours to record observations and score; yet an observation period of more than 3 hours is considered preferable.

The ECERS-R contains 7 subscales (see "Measurement Areas" section above for scales) that trained ECERS-R observer/scorers must complete. Each subscale consists of 4 – 10 items that provide an overall profile of the subscale based on observer ratings. The observer assigns a descriptive value, on a scale from 1 – 7 (1 = Inadequate and 7 = Excellent), that describes the quality of the early childhood environment for that subscale. A final score for the group can be tabulated as an average (mean) of the scores of the subscales and items that were used in the tool.

Materials:

The complete paper-based ECERS-R tool can be purchased for approximately USD $21.95 through its publisher. The ECERS-R scoring sheets and profiles can be photocopied free-of-charge. The Teachers College Press (publisher) provides a training package consisting of a DVD and instructor's guide for a fee of USD $59 that can be used to train new observer-scorers. Each ECERS-R trainee requires a "Video Guide and Training Workbook" available through the publisher for an additional USD $4.

Accessibility:
The ECERS-R is available in English, French, German, Hungarian, Norwegian, and Spanish.

Administration, Scoring, and Interpretation:
As an observational rating tool, the ECERS-R requires fairly sophisticated observational and interpretive skills. The included manual provides extensive descriptions of terms used throughout the subscales that are specific and readable. The scale is best scored and interpreted by multiple observer-raters such as consultants, researchers, program coordinators or teachers.

Subscales:
Each of the 7 subscales yields a single score based on an average of the items used in the subscale. The tool does not require the use of all subscales or items, and adjusts scoring accordingly. Scores for each subscale (based on the recorded observations) are tabulated using a scoring guide described in the manual.

Documentation:
The manual, included in the purchase of the ECERS-R, outlines specific procedures for administration (observation), scoring, and interpretation. Information pertaining to validity and reliability are described in the introduction section of the manual.

Reliability:
The ECERS-R depends upon high inter-rater reliability for observation and scoring. According to the supplied manual, inter-rater reliability was maintained at .921 (Pearson product-moment correlation) and .865 (Spearmen) based on a sample of 21 classrooms and two observers. While an inter-rater reliability scoring table is *not* included with the manual, one can be downloaded in Adobe PDF format online (http://www.fpg.unc.edu/~ecers/). Internal consistency for the subscales used in the ECERS-R ranged from .71 to .88; resulting in a total scale consistency of .92.

It should be noted that according to Schwarting (1998), due to the scale's reliance upon mean rather than median scores, subscale scores might be skewed by the number of items used and outliers. Furthermore, empirical evidence on the test-retest reliability is unavailable for this tool.

Validity:
The authors of the ECERS-R claim that the previous version of the scale has demonstrated good predictive validity and this revised version should demonstrate the same properties. Furthermore, a study conducted by Sylva et al. (2006) has demonstrated the predictive validity of the ECERS-R in relation to "children's language... and social/behavioral development".

In terms of construct validity, research has indicated that the ECERS-R can be broken down into two subscale constructs: one related to caregiver-child interaction, and the other related to the quality of activities and facilities (Scarr, Eisenberg, & Deater-Deckhart, 1994; Sylva et al., 1999; Sylva et. al, 2006).

Furthermore, several authors (Essa & Burnham, 2001; Sylva et al., 2006; Perlman, Zellman, & Le, 2004) have suggested that the ECERS-R statistically yields a single construct related to the general quality of an early childhood developmental environment. Therefore, the authors suggest, the total ECERS-R score averaged across all subscales provides the most valid measure of the quality of the early childhood environment.

Publication Information:
Thelma Harms, Richard M. Clifford and Debby Cryer collaborated in the development and revision of the ECERS-R. This review is based on the Early Childhood Environment Rating Scale Revised Edition, published in 2005 by the Teachers College Press.

Materials Used for Tool Review:
- ECERS-R Manual
- Journal Articles
- Published Reviews

References

Publisher's website: www.teacherscollegepress.com

Harms, T., Clifford, R.M., & Cryer, D. (2005). Early Childhood Environment Rating Scale – Revised Edition. New York: Teachers College Press.

Perlman, M., Zellman, G.L., & Le, V. (2004). Examining the psychometric properties of the Early Childhood Environment Rating Scale-Revised (ECERS-R). *Early Childhood Research Quarterly, 19*, 398-412.

Scarr, S., Eisenberg, M., & Deater-Deckhard, K. (1994). Measurement of quality in child care centers. *Early Childhood Research Quarterly, 9,* 131-151.

Schwarting, G. (1998). Review of the Early Childhood Environment Rating Scale – Revised Edition. *Mental Measurements Yearbook, 14.*

Sylva, K., Siraj-Blatchford, I., Melhuish, E., Sammons, P., Taggart, B., Evans, E., et al. (1999). *The Effective Provision of Pre-school Education Project (EPPE), Technical Paper 6, Characteristics of the centres in the EPPE Sample: Observational profiles.* London: DfES/Institute of Education, University of London.

Sylva, K., Siraj-Blatchford, I., Taggart, B., Sammons, P., Melhuish, E., Elliot, K., Totsika, V. (2006). Capturing quality in early childhood through environmental rating scales. *Early Childhood Research Quarterly, 21*, 76-92.

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