

Early Childhood Measurement and Evaluation Tool Review

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Infant/Toddler Environment Rating Scale- Revised Edition (ITERS-R)

Measurement Areas and Purpose:

The Infant/Toddler Environment Rating Scale - Revised Edition (ITERS-R) is a criterion referenced test designed to assess child care programs that provide programming for infants and toddlers between the ages of birth and 30 months. The scale is for program evaluation in which an observer makes ratings on the environment. The scale can be used by a teacher or outside observer.

The scale contains 39 items that form seven subscales:

1. Space and Furnishings
2. Personal Care Routines
3. Listening and Talking
4. Activities
5. Interaction
6. Program Structure
7. Parents and Staff

Length and Structure:

It is recommended that the assessor spend three hours observing and allow 20-30 minutes of additional time to ask questions of teachers or staff. Each subscale contains between 3 and 7 items. Each item on a subscale has a 7-point Likert type scale (1 = inadequate to 7 = excellent) to evaluate the quality of the environment. To assist with the rating of the subscale, under each level of quality (i.e. ratings 1, 3, 5, 7), are indicators with descriptions. The indicators can be checked yes, no, or not applicable. A description along with notes for clarification is provided to assist the observer in the evaluation. Given the number of Yes/No/NA boxes checked, the observer can then give an overall rating of the item on the 1 to 7 scale.

Materials:

The authors indicate that the ITERS-R is appropriate for use in research and program evaluation. It can be administered and scored by program directors for program improvement, teaching staff for self-assessment or monitoring as well as used in training programs. The ITERS-R is available

from the publisher for \$21.95 USD. The ITERS-R includes a manual with instructions for administration and scoring. The manual contains a score sheet and profile that can be photocopied; therefore, the purchase of additional record forms is not needed. For training purposes an observational training video can be purchased for \$59.00 USD and a video guide and training workbook are available for \$4.00 USD.

Accessibility:

The ITERS-R is available in the English, German, Japanese, and Spanish languages.

Administration, Scoring, and Interpretation:

The ITERS-R is an observational record and thus the effectiveness of this instrument relies on the ability of the observer to be accurate. The manual provides explanations of terms used as well as “notes for clarification” for items. The clarification gives a more detailed explanation of how to evaluate and rate the item. Average subscale scores are calculated by summing the scores for each item in the subscale and dividing by the number of items scored. The total average scale score is the sum of all of the items scale scores for the entire scale divided by the number of items scored. A scoring system is included in the manual.

Subscales:

The ITERS-R has 39 items organized into **7 subscales** each which yield a scale score. The authors list the subscales as:

Space and Furnishings:

1. Indoor space
2. Furniture for routine care and play
3. Provision for relaxation and comfort
4. Room arrangement
5. Display for children

Personal Care Routines:

6. Greeting/departing
7. Meals/snacks
8. Nap
9. Diapering/toileting
10. Health practices
11. Safety practices

Listening and Talking:

12. Helping children understand language
13. Helping children use language
14. Using books

Activities

15. Fine motor
16. Active physical play
17. Art
18. Music and movement

19. Blocks
20. Dramatic play
21. Sand and water play
22. Nature/science
23. Use of TV, video, and/or computer
24. Promoting acceptance of diversity

Interaction:

25. Supervision of play and learning
26. Peer interaction
27. Staff-child interaction
28. Discipline

Program Structure:

29. Schedule
30. Free play
31. Group play activities
32. Provisions for children with disabilities

Parents and Staff

33. Provisions for parents
34. Provisions for personal needs of staff
35. Provisions for professional needs of staff
36. Staff interaction and cooperation
37. Staff continuity
38. Supervision and evaluation of staff
39. Opportunities for professional growth

Documentation:

The manual for the ITERS-R contains procedures for administration, scoring, as well as a sample completed score sheet and profile. Information on interpreting the scale is not provided by the manual. The manual contains information on technical properties within the introduction section.

Reliability:

To determine the reliability of the ITERS-R a two phase study was conducted. The first phase of the study (pilot phase) was composed of 10 trained observers that worked in groups of two or three, and used the first version of the revised scale. They conducted a total of 12 observations in nine centers. Based on the observations made in the pilot phase, modifications were made to adjust for issues that arose. The second phase of the study was a more formal examination of the reliability of the tool. In this phase, six trained observers conducted 45 paired observations. This study consisted of a representative group of quality programs within North Carolina. In North Carolina, child care licenses are distributed depending on the number of quality points earned. The authors describe the licensing as follows: "A center receiving a one-star license meets only the very basic requirements in the licensing law while a five-star center meets much higher standards" (Harms, Cryer, & Clifford, 2006, p. 2). The 45 programs observed also represented a

range of age groups, seven of which included children with disabilities. Overall, 90 observations were made with two paired observations conducted in 45 group settings.

Interrater reliability: The ITERS-R manual lists several measures of interrater reliability. According to the authors, for the 39 items included in the ITERS-R there are 467 indicators. It was found that the raters reached agreement on 91.65% of all of the indicator scores. The authors noted that sometimes the researchers omit the Parent and Staff subscale resulting in “child only” subscales of which there are 378 indicators. The observer agreement on these indicators was found to be 90.27%. Interrater agreement on the indicators ranged from 80% to 97.36%.

In terms of item reliability, the authors noted two methods to measure item agreement. The authors looked at the agreement between pairs of observers who were within 1 point of each other on the 7-point rating scale. For the child related items, agreement was found 83% of the time. For all 39 items the authors found scores within 1 point for 85% of the cases. Interrater agreement on the items ranged from 64% to 98%.

Second, the authors used Cohen’s Kappa as a measure of reliability. For the 32 child related items the average was found to be .55 and the full 39 item scale kappa was found to be .58. The weighted item kappa’s ranged between .14 to .92. The authors noted that any item with a kappa lower than .50 was reexamined and adjustments were made to improve reliability but meanwhile leaving the basic content of the item intact.

In terms of overall agreement of the scale, the authors note that the interclass correlation for the scale is .92. Interclass subscale correlations range between .73 and .92.

Internal Consistency: An analysis of internal consistency yielded a Cronbach’s alpha of .93 for the overall scale. The child related items yielded a Cronbach’s alpha of .92. Cronbach’s alphas for the subscales range between .47 to .68. The author’s note that due to lower reliability coefficients on the Space and Furnishings (.47) and Personal Care Routines (.56), caution should be used when using these two subscales.

Validity:

The ITERS-R manual does not include predictive or concurrent validity information. The authors indicate that because the ITERS-R is an improved version but very similar to the original ITERS, it can be assumed to retain the same properties of validity as the original version.

In order to evaluate the content and criterion validity of the instrument, two previous reviews of the unrevised ITERS were used (Constantine, 1995, Iverson, 1995)

Content Validity: Content validity of the ITERS was determined by comparing the instrument with seven other infant/toddler assessment tools. It was found that approximately 82% of the items were covered by other tools. In addition, five nationally recognized experts rated each ITERS item for the provision of high quality care using a 5 point scale anchored by the descriptors 1=low and 5=high. An average rating of 4.3 with a range from 3.0 to 5.0 was given to the ITERS items. It was also noted that 86% of the ratings were either 4 or 5 (Iverson, 1995). ITERS items were also designed to match one of six competency goals of the Child Development Associate (CDA) standards further providing evidence for content validity (Iverson, 1995)

Criterion Related Validity: Criterion related validity was determined by the agreement between the ITERS items and expert ratings of 6 classrooms into high or low quality groups (Constantine, 1995). It was noted that an overall agreement of 83% was obtained (Iverson, 1995).

Publication Information:

The Infant/Toddler Environment Rating Scale – Revised was developed by Thelma Harms, Debby Cryer, and Richard M. Clifford. This review is based on the revised edition published in 2006 by Teachers College Press.

Materials Used for Tool Review:

- Manual
- Mental Measurements Yearbook

References:

- Constantine, N. A. (1995). Review of the Infant/Toddler Environment Rating Scale. *Mental Measurements Yearbook*, 12.
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