

Early Childhood Environment Rating Scale

THIRD EDITION

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focus of the first field studies of the ECERS-3 has been on the degree to which the Third Edition maintains the ability of trained observers to use the scale reliably. Additional studies will be needed to document the continued relationship with other measures of quality, as well as to document its ability to predict child outcomes. As further studies are completed, these will be posted on the ERSI website (www.ersi.info).

After extensive revision, the authors conducted small pilot trials of the ECERS-3 in the summer of 2013, and a larger field test of the scale that autumn. The results of this field test indicated that further refinements in the ECERS-3 were needed. Subsequently, the authors completed another round of revisions in the first half of 2014 and launched a second field test in the late spring. In this second field test, a group of volunteer observers who were proficient in use of the earlier ECERS-R received training in the new ECERS-3, including field practice in which they demonstrated adequate levels of reliability. All 14 assessors attained reliability of 85% agreement within one point on the 35 Items of the scale. Thirteen of these observers were able to attain this level of reliability with a gold standard trainer in their first two joint observations in real-life classrooms operating normally. The 14th assessor took two additional trials to get to reliability. After attaining this baseline reliability, the trained assessors were paired with one another in order to conduct the reliability study. It should be noted that these assessors were all very experienced in using the ERS instruments. One should expect a more extensive training period will be needed to train assessors new to these instruments.

The sample of classrooms in the study consisted of 50 classrooms in 4 states—Georgia (12), Louisiana (4), North Carolina (24), and Pennsylvania (10). Classrooms were recruited with a goal of having approximately 1/3 of the total be low-quality programs, 1/3 be of mid-level quality, and 1/3 be of high quality, based on available data from state licensing and Quality Rating and Improvement System information. In the end, the sample is somewhat skewed, with relatively few high-scoring classrooms and more in the moderate- to low-scoring range, but adequate distribution was attained to allow for examination of use of the scale across the wide range of quality of programs available in these states. Results of the study are presented below. Assessors were rotated to the extent possible to ensure that reliability was measured across multiple assessor pairs. In each classroom two assessors rated the classroom environment independently of one another, but at the same time. The core assessment took place during a prime time of the day for exactly 3 hours, with some additional time allowed to examine the gross motor area if it was not used during the observation, and to examine materials in the classroom that were not able to be assessed during the formal observation period. In both of these added times, ratings were only allowed for the very specific Items in Gross Motor Space and Equipment, and in the Indicators related to the materials. All measures of child and teacher interactions were based on the 3-hour segment.

Indicator Reliability. Indicator reliability is the proportion or percentage of scores that exactly match for each Indicator by the two assessors independently completing ECERS-3. Across the 35 Items in the ECERS-3, there are a total of 468 Indicators. The Indicators were scored either *Yes* or *No*, with several Indicators allowed to be assigned a *NA* (not applicable) in certain circumstances. Assessors were instructed to score all Indicators for each classroom. The average reliability across all of the Indicators and assessor pairs was 88.71%. A few Indicators scored below 75%. Subsequent to the field test, the authors examined those Indicators to either eliminate the Indicators or to make minor adjustments that would improve the reliability.

Item Reliability. Because of the nature of the scoring system, it is theoretically possible to have high Indicator agreement but low agreement at the Item level. Two measures of Item agreement have been calculated. First we calculated the agreement between pairs of observers within 1 point on the 7-point scale. For the full 35 Items, exact agreement occurred in 67% of the cases, and agreement within 1 point was obtained in 91% of the cases. Item agreement within 1 point ranged from a low of 82% for Item 3, Room arrangement for play and learning, to 98% for Item 25, Understanding written numbers. Subscale scores within 1 point ranged from 88% for Program Structure to 100% for Learning Activities.

A second more conservative measure of reliability is Cohen's Kappa. This measure takes into account the difference between scores. The mean Kappa for the 35 Items was .54. Kappa's ranged from a low of .18 for Item 3, Room arrangement for play and learning, to a high of .84 for Item 27, Use of technology. Only 2 Items had Kappa's below .40 (Item 3, Room arrangement for play and learning, and Item 6, Space for gross motor play, with a kappa of .35). In both cases, the mean Item score was extremely low. A characteristic of the Kappa statistic is that for Items with little variability, the reliability is particularly sensitive to even minor differences between observers. The authors and observers agreed that the low scores on these Items accurately reflected the situation in the groups observed, and that any changes to substantially increase variability would provide an inaccurate picture of the features of quality reflected in these two Items. The edits made for Indicators discussed above should result in a somewhat higher kappa for the low-scoring Items without changing its basic content. These changes are included in the published version of the scale. Even using this more conservative measure of reliability, the overall results indicate an acceptable level of reliability for the instrument as a whole.

Intraclass Correlation. A third way of looking at reliability, intraclass correlation, looks at the level of agreement between observers when they assess quality independently. It accounts for both the correlation between two observers and also takes into

Inadequate
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Minimal
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Good
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Excellent
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5. Child-related display*

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| <p>1.1 No materials displayed for children.</p> <p>1.2 Inappropriate materials for predominant age group are displayed (Ex: materials displayed in preschool classroom are intended for older, school-aged children; materials give a negative social message or show frightening images).</p> <p>1.3 Staff do not talk about display with the children.*</p> | <p>3.1. Some appropriate materials, including photos of some children in the group, are displayed, and none are inappropriate (Ex: colorful posters; charts and graphs).</p> <p>3.2 At least 2 pieces of children's artwork displayed.*</p> <p>3.3 Staff talk about display materials at least once during the observation (Ex: discuss the calendar during circle time; point out a child's family photo; talk about who will do the classroom jobs; discuss weather chart).*</p> | <p>5.1 Many items displayed for children throughout the room.</p> <p>5.2 Some of the display is related to topics of current interest to the children in the group (Ex: pictures related to current topic of discussion; seasonal pictures; photos of events children participated in).*</p> <p>5.3 About one-third of the display materials are children's individualized artwork.*</p> <p>5.4 Staff talk about display materials at least two different times during free play and/or routines in a way that interests the children.*</p> | <p>7.1 About half of the display is related to current interests of children in the group, and one can easily tell what children's interests are, or what they are discussing.*</p> <p>7.2 Staff use display to encourage informal conversations with the children.
<i>Observe once</i></p> <p>7.3 Staff are observed pointing out and reading the words in the display in a way that interests the children.</p> <p>7.4 Three-dimensional child-created work is displayed, in addition to flat work.</p> |
|---|--|---|---|

Notes for Clarification

*To score, use guidance from the Consumer Product Safety Commission's *Public Playground Safety Handbook*, *Caring for Our Children*, and the ASTM guidelines as needed, but still consider whether in the specific circumstances, problems are major. Gross motor safety information used to score is available at www.ersi.info. Look under the Supplementary Materials for the scales.

1.1, 1.2, 3.1, 3.2, 5.1, 7.1. No stimulating environment can be completely safe for young children. Therefore, the intent of this Item, and others where safety is a consideration, is to lower risk of injury to children by minimizing hazards and providing appropriate supervision for the age and ability of children in the group. During the observation, both indoor and outdoor safety hazards are considered. Not all hazards are given the same weight in scoring, however. A major safety hazard is one where the risk of serious injury is very high. A minor hazard is either one where the consequences would not be as great, or the accident would be less likely, due for example to the nature of the supervision, the characteristics of the children in the group, or the amount of exposure to the hazard. When noting hazards, do not try to imagine every possible accident that could occur. Instead, consider the seriousness of the hazard and how likely it is to happen. Here are some examples of major hazards compared to minor hazards:

- An uncovered outlet is located within reach, close to the water table where children are playing on a wet floor, compared to an uncovered outlet that is not within children's reach or not in a place where it is likely to cause a problem.
- A bottle of full-strength bleach is left within reach on a table where children are playing or eating, compared to a bottle that is stored up high, out of reach, but not locked.

- A low climber has no fall zone and is located on cement, compared to the same climber with a fall zone that has almost enough cushioning to meet the Consumer Product Safety Commission's requirement for cushioning.
- A playground fence is not protected by bollards from traffic on a very busy street with speeding cars, compared to a small part of a fence being unprotected on a similar street.
- An entrapment hazard on frequently used piece of playground equipment, compared to the same type of hazard located between the gate and fence, in a place where it is much less likely to cause a problem.
- Exposed tree roots located where children usually run, and tripping would result in a fall onto a cement surface, compared to tree roots on a soft surface where children rarely run.

- 1.1, 3.1. Observe any on-site outdoor spaces/stationary equipment regularly used to determine safety. If the space/equipment is not used during the 3-hour observation, observe before or after the observation is completed. Score *NA* if no on-site outdoor space is used by the program. This may include non-gross motor space used, for example, for science, art, or other non-gross motor activities.
- 3.3. "Some supervision" will depend on whether the supervision is related to major or minor safety issues. However, in general, "some" indicates that the supervision is about halfway between what would be found in 1.3 (grossly inadequate) and in 5.3 (always stop dangerous behavior).
- 5.3. Staff should stop all behavior that is likely to cause major problems. It is impossible for staff to stop any and all behavior that could possibly cause minor injuries, or that has a minimal risk.

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Minimal
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Good
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Excellent
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16. Becoming familiar with print*

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| <p>1.1 Print only used in a way that is not clearly associated with spoken language or pictures (Ex: word labels used without pictures; rote word or letter identification expected with no clues as to meaning).</p> <p>1.2 Staff respond negatively when children show little or no interest in activities used to teach letters or words (Ex: scold child or send to time-out; make child work on letter activity until finished even though others get to play).</p> <p>1.3 No connection is made between print in the classroom and its immediate function for children (Ex: word labels on furniture not used in a meaningful way; children's printed names not used to show possessions)</p> <p>1.4 Children who are not yet able are often asked to identify or write letters or words (Ex: children lose interest in group during letter naming activity; struggle over writing names).
<i>Observe twice</i></p> | <p>3.1 Some visible print is combined with pictures so that children can understand meanings or sounds that go with what they are viewing.*</p> <p>3.2 Staff point out and read print to children (Ex: read names on displayed pictures; point to words in books; sing alphabet song while pointing to letters).*
<i>Observe once</i></p> <p>3.3 Printed names of children used in the classroom (Ex: on cubbies, put on artwork; name cards used by children to show they are present; more advanced child encouraged to write own name).*</p> | <p>5.1 Most visible print is combined with pictures.*</p> <p>5.2 Staff show that print is a useful tool as they explain how or why they use it (Ex: label child's toy, or encourage more able child to do it to be sure that it is taken home; write note with child to remind parent to bring in snack; child asks what is for lunch and staff points to and reads menu for the day).</p> <p>5.3 Staff write down what a child says, more advanced child encouraged to write (Ex: staff write what child says about artwork; makes chart based on child input during small-group time; more advanced and interested child writes in book he creates).*
<i>Observe once.</i></p> | <p>7.1 Picture/print materials relate to current classroom topics and show a variety of words.*</p> <p>7.2 Staff observed writing down what a child says in a way that engages the child.*
<i>Observe twice</i></p> <p>7.3 Staff frequently point out letters and words as they read print, helping children hear the sounds of the letters or words in a way that engages children.</p> <p>7.4 Picture/word instructions are used to guide children through multi-step activities (Ex: cooking recipes; planting seeds instruction; proper handwashing).*
<i>Observe once</i></p> |
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35. Whole-group activities for play and learning*

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| <p>1.1 Content of learning activities required in group is often too difficult for most children, or not interesting to them.</p> <p>1.2 Group activities are carried out in a way that creates problems for children (Ex: staff speak in monotone voice; children can't see what they are supposed to be learning about; not comfortable; have to listen to peers for too long).</p> <p>1.3 Activities used require only passive, rather than active involvement (Ex: children mainly have to sit, listen, and look).</p> <p>1.4 Staff are usually negative with children who have difficulty participating according to staff expectations.</p> | <p>3.1 Content of most group activities is somewhat interesting to most children in the group (Ex: not too hard or easy; most children behave well; few reminders needed by staff to get children's attention).</p> <p>3.2 Group activities are set up with the basics to encourage child engagement (Ex: crowding does not cause problems; children can see book being read; no long periods when children must sit and just listen without active participation).</p> <p>3.3 Some active involvement included for children in group activities (Ex: singing; exercise; group response to questions).</p> <p>3.4 Staff are rarely negative with children who have trouble participating, and do not cause undue distress when reminding them to pay attention.</p> | <p>5.1 Staff are responsive and flexible in ways that maximize child engagement (Ex: stop story and move to a more active experience when children have trouble sitting still; staff speak with animation; avoid having children listen to peers for long periods).</p> <p>5.2 Staff provide support for children who have trouble participating (Ex: allow child to hold toy to keep hands busy while participating; child can sit on adult's lap or chair).*</p> <p>5.3 Staff use group times to introduce children to meaningful ideas in which children are interested (Ex: review theme of the week; explain how to use new material; tell children what will happen on field trip).</p> | <p>7.1 All children in the group are actively engaged in group activities.</p> <p>7.2 Group activities are usually carried out in smaller groups, rather than in one large group (Ex: younger children or those who have trouble attending are placed in smaller groups).</p> <p>7.3 Children in large group are allowed to leave whole group in order to work in another area that is more satisfying to them.</p> |
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INTERACTION

28. Supervision of gross motor

1 2 3 4 5 6 7

Y N	Y N	Y N	Y N
1.1 <input type="checkbox"/> <input type="checkbox"/>	3.1 <input type="checkbox"/> <input type="checkbox"/>	5.1 <input type="checkbox"/> <input type="checkbox"/>	7.1 <input type="checkbox"/> <input type="checkbox"/>
1.2 <input type="checkbox"/> <input type="checkbox"/>	3.2 <input type="checkbox"/> <input type="checkbox"/>	5.2 <input type="checkbox"/> <input type="checkbox"/>	7.2 <input type="checkbox"/> <input type="checkbox"/>
1.3 <input type="checkbox"/> <input type="checkbox"/>	3.3 <input type="checkbox"/> <input type="checkbox"/>	5.3 <input type="checkbox"/> <input type="checkbox"/>	

29. Individualized teaching and learning

1 2 3 4 5 6 7

Y N	Y N	Y N	Y N
1.1 <input type="checkbox"/> <input type="checkbox"/>	3.1 <input type="checkbox"/> <input type="checkbox"/>	5.1 <input type="checkbox"/> <input type="checkbox"/>	7.1 <input type="checkbox"/> <input type="checkbox"/>
1.2 <input type="checkbox"/> <input type="checkbox"/>	3.2 <input type="checkbox"/> <input type="checkbox"/>	5.2 <input type="checkbox"/> <input type="checkbox"/>	7.2 <input type="checkbox"/> <input type="checkbox"/>
1.3 <input type="checkbox"/> <input type="checkbox"/>	3.3 <input type="checkbox"/> <input type="checkbox"/>	5.3 <input type="checkbox"/> <input type="checkbox"/>	
1.4 <input type="checkbox"/> <input type="checkbox"/>	3.4 <input type="checkbox"/> <input type="checkbox"/>		

30. Staff-child interaction

1 2 3 4 5 6 7

Y N	Y N	Y N	Y N
1.1 <input type="checkbox"/> <input type="checkbox"/>	3.1 <input type="checkbox"/> <input type="checkbox"/>	5.1 <input type="checkbox"/> <input type="checkbox"/>	7.1 <input type="checkbox"/> <input type="checkbox"/>
1.2 <input type="checkbox"/> <input type="checkbox"/>	3.2 <input type="checkbox"/> <input type="checkbox"/>	5.2 <input type="checkbox"/> <input type="checkbox"/>	7.2 <input type="checkbox"/> <input type="checkbox"/>
1.3 <input type="checkbox"/> <input type="checkbox"/>	3.3 <input type="checkbox"/> <input type="checkbox"/>	5.3 <input type="checkbox"/> <input type="checkbox"/>	7.3 <input type="checkbox"/> <input type="checkbox"/>
1.4 <input type="checkbox"/> <input type="checkbox"/>			

31. Peer interaction

1 2 3 4 5 6 7

Y N	Y N	Y N	Y N
1.1 <input type="checkbox"/> <input type="checkbox"/>	3.1 <input type="checkbox"/> <input type="checkbox"/>	5.1 <input type="checkbox"/> <input type="checkbox"/>	7.1 <input type="checkbox"/> <input type="checkbox"/>
1.2 <input type="checkbox"/> <input type="checkbox"/>	3.2 <input type="checkbox"/> <input type="checkbox"/>	5.2 <input type="checkbox"/> <input type="checkbox"/>	7.2 <input type="checkbox"/> <input type="checkbox"/>
1.3 <input type="checkbox"/> <input type="checkbox"/>	3.3 <input type="checkbox"/> <input type="checkbox"/>	5.3 <input type="checkbox"/> <input type="checkbox"/>	7.3 <input type="checkbox"/> <input type="checkbox"/>