

## Development of an Early Care and Learning Centre Rating Scale to Assess Quality in Early Childhood Care and Education

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### Abstract

Globally, quality early learning experiences are gaining importance, as it is the viable strategy for closing learning gaps; achieving lifelong learning and increase the potential for learning in young children. The first six years of development is considered the most essential one since the early experiences that a child receives will lay foundation for later developments. The Annual Status of Education Report (ASER, 2013) states that “in order to improve learning outcomes and sustain them in the long run, early years may be the best place to invest”. The investment in early years can be through providing quality early experiences.

A report on primary educational trajectories indicated that 53% of grade 5 children were not able to read grade 2 textbook and 52% had difficulty solving grade 2 math problems (ASER, 2015). This learning gap can be solved by providing quality foundation and achieving equality in the early education. This indicates a felt need for assessing early care and learning centres for quality aspects. Therefore, the present study focused on the development of an assessment scale. The developed scale is titled “Early care and learning centre rating scale (ECLCRS) and it focuses on the process and structural quality of the centre.

**Keywords:** early childhood care education, early care, learning centres, learning centre rating scale (ECLCRS), assessment.

### Introduction

A young child is born with the potential to learn and the early years is considered to offer a window of opportunity which sets path for further learning to take place. Quality early education is essential to generate the catalyst for learning in children. “Quality” in early care

and education centre is a multi-dimensional concept and is broadly defined at promoting well-being and positive development outcomes in children (Layzer and Goodson, 2006) (OECD, 2018). Quality in early care and learning centres can be viewed from two perspectives, “process” and “structural”. The curriculum, staff details; characteristics and staff-child interactions can be considered as “process” quality. The “structural” quality is the space, group size, safety standards etc.

Quality may differ between the countries as it is a culture and value-based concept, and the notion of quality is changed over time (Kamerman,2001). Quality early childhood education is considered as a precursor for further learning and development. It is a component for enrolment, retention and achievement in the primary grades. Research studies have shown that quality programs enhance the overall development. “Children in good quality ECCE (Early Childhood care and Education) centres had higher perceptual, memory, verbal and linguistic skills than the ones who attended low quality centres (Rao, 2010)”.

A study conducted by Centre for Early Childhood Education and Development (CECED) and Annual Status of Education Report (ASER) (2015), found that “children attending ECCE (Early Childhood care and Education) programs that were ranked high on the quality assessment gained significantly more from one year ECCE (Early Childhood care and Education) program than children who attended poor quality ECCE centres”. This highlights the need for providing quality early care and education.

India has reaffirmed the provision of providing quality education by signing the declaration on the 2030 agenda of Sustainable Development Goals (SDG). According to target 4.2, “by 2030 ensure that all girls and boys have access to quality in the early care/learning centres and ensure children being ready for primary school”. According to the draft NEP (2019) “over 5 crore students have not attained foundational literacy and numeracy, i.e., the ability to read and comprehend basic text and also to carry out basic addition and subtraction with Indian numerals”. Students without foundational knowledge tend to maintain a flat learning curve and will have extreme difficulty in achieving further developments. Therefore, it is imperative to tackle this issue by providing quality foundation and quality early education for children. Gregoriadis (2015) states that an evaluation procedure or instrument can be adopted by the stakeholders, policymakers or ECCE (Early Childhood care and Education) administrators to have a complete understanding of quality in early education centres and thus provide better services in the field. Therefore, the present study focused on the development of a scale to assess the quality of early childhood care and education / learning centres.

## **Objectives**

The broad objective of the present study was to develop an assessment scale to assess the quality of early childhood care and education centres.

The specific objectives were:

- To identify the components that could influence the quality of the early childhood care and education centres
- To identify sub-components under the identified components
- To develop a rating scale for assessing the quality of the early childhood care and education centres
- To develop a scoring pattern for the developed scale, to assess and grade the early childhood care and education centres' quality
- To field test the developed scale for its feasibility in assessing the early childhood care and education centres

### **Scale Development Process**

#### **Early Childhood Care and Learning Centre Rating Scale (ECLCRS):**

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The process of scale development involved 7 phases:

#### **Phase 1: Identification of Components for Scale Development**

Phase 1 was divided into 2 stages; in stage 1 scales which are already available in the market were reviewed for its suitability with reference to the Indian context.

In stage 2, extensive review of literature was carried out to identify different quality related components that could be included in the scale. 11 components were identified for inclusion in the scale (Refer Table 1).

#### **Phase 2: Identification of Sub-components**

In the previous stage 11 components were identified. 5 components were found to be broad and called for further sub-division. Again, extensive review of literature and related scales were studied, and 28 sub-components to be classified under the 5 broad components were identified (Refer Table 1).

#### **Phase 3: Identification of Items for Each Component and Sub-component of the Scale**

Items for inclusion under the components and sub-components were identified through extensive review of literature, standardised scales and theories. 164 items were generated for the scale and symbols were added for certain items as indicators to describe the item for facilitating accurate observations.

*Table 1: Components, sub-components and number of items in the scale*

Sl. No	Component	Subcomponent	Item
1.	Policies and Procedures	—	05
	<b>Total</b>		<b>05</b>
2.	Physical Infrastructure	Activity space	04
		Space for “Me” time	02

		Reading area	05
		Nap room	08
		Changing and Diapering	05
		Toilets	08
		Displays	05
		<b>Total</b>	<b>37</b>
<b>3.</b>	<b>Staff Profiling</b>	Staff details	09
		Classroom management skills	04
		Material management	03
		Support staff details	05
		<b>Total</b>	<b>21</b>
<b>4.</b>	<b>Health and Safety Practices</b>	—	01
		<b>Total</b>	<b>01</b>
<b>5.</b>	<b>Activity / Program Schedules</b>	Transition and Routines	05
		Arrival and Departure	03
		Snacks and Mealtime	04
		Field trips	04
		<b>Total</b>	<b>16</b>
<b>6.</b>	<b>Adult initiated experiences</b>	Curriculum basics	04
		Physical development / education	10
		Socio-Emotional development	03
		Cognitive development – Literacy	06
		Cognitive development – Numeracy	06
		Cognitive development – Science	07
		Cognitive development – Social Studies	04
		Aesthetic development – Arts	07
		Aesthetic development – Music	06
		Practical Skills	02
		Whole Group Activities	02
		<b>Total</b>	<b>57</b>
<b>7.</b>	<b>Play</b>	Adult initiated	03
		Child initiated	04
		<b>Total</b>	<b>07</b>
<b>8.</b>	<b>Record Maintenance</b>	—	04
		<b>Total</b>	<b>04</b>
<b>9.</b>	<b>Child Assessments</b>	—	08
		<b>Total</b>	<b>08</b>
<b>10.</b>	<b>Parental Involvement</b>	—	07
		<b>Total</b>	<b>07</b>

<b>11.</b>	<b>Community Involvement</b>	—	01
	<b>Total</b>		<b>01</b>
<b>Subtotal</b>			<b>164 Items</b>

#### Phase 4: Developing a Scoring Pattern for the Scale

A 4-point Likert type scaling technique was used for the developed scale. The rating for ECLCRS ranged from “absent” to “very good”. The scores range from 0 to 3 and the rating for each item is given as follows:

**Table 2: Scoring pattern**

<b>Rating</b>	<b>Score</b>
Very Good	3
Good	2
Satisfactory	1
Absent	0

#### Phase 5: Total Possible Scores for Each Component and Sub-component

The total possible score for each component and sub-component is calculated according to the number of items present. The minimum score is 0 and the maximum score would depend on the number of items present. For instance, if a component has 8 items, then the minimum score would be 0 ( $8 \times 0 = 0$ ); and the maximum score would be 24 ( $8 \times 3 = 24$ ) and the intermediate scores would be 8 ( $8 \times 1 = 8$ ), 16 ( $8 \times 2 = 16$ ). The total possible scores for components; sub-components and overall scores are as follows (presented in Table-3):

**Table 3: Total possible score for component and sub-component**

<b>Sl. No</b>	<b>Component</b>	<b>Subcomponent</b>	<b>Total possible score</b>
<b>1.</b>	Policies and Procedures	—	15
<b>Total possible score</b>			<b>15</b>
<b>2.</b>	Physical Infrastructure	Activity space	12
		Space for “Me” time	06
		Reading area	15
		Nap room	24
		Changing and Diapering	15
		Toilets	24

		Displays	15
<b>Total possible score</b>			<b>111</b>
<b>3.</b>	Staff Profiling	Staff details	18
		Classroom management skills	12
		Material management	09
		Support staff details	15
<b>Total possible score</b>			<b>63</b>
<b>4.</b>	Health and Safety Practices	—	03
<b>Total possible score</b>			<b>03</b>
<b>5.</b>	Activity / Program Schedules	Transition and Routines	15
		Arrival and Departure	09
		Snacks and Meal time	12
		Field trips	12
<b>Total possible score</b>			<b>48</b>
<b>6.</b>	Adult initiated experiences	Curriculum basics	12
		Physical development / education	30
		Socio-Emotional development	09
		Cognitive development – Literacy	15
		Cognitive development – Numeracy	18
		Cognitive development – Science	21
		Cognitive development – Social Studies	12
		Aesthetic development – Arts	21
		Aesthetic development – Music	18
		Practical Skills	06
Whole Group Activities	06		
<b>Total possible score</b>			<b>171</b>
<b>7.</b>	Play	Adult initiated	09
		Child initiated	12
<b>Total possible score</b>			<b>21</b>
<b>8.</b>	Record Maintenance	—	12
<b>Total possible score</b>			<b>12</b>
<b>9.</b>	Child Assessments	—	24
<b>Total possible score</b>			<b>24</b>
<b>10.</b>	Parental Involvement	—	21
<b>Total possible score</b>			<b>21</b>
<b>11.</b>	Community Involvement	—	03

<i>Total possible score</i>	<b>03</b>
<b>Overall possible score</b>	<b>492</b>

### Phase 6: Calculation of Obtained Scores

After the observations are made by the observer, the scores are calculated. The observer while scoring the items should give accurate scoring according to the range. For example, the item under absent should be scored 0, minimal 1, good 2 and very good 3. The scores are multiplied by the number of the items scored under each rating 0, 1, 2, 3 (absent to very good). For instance, under the rating 3 if 1 item is scored, then the score obtained would be  $3 \times 1 = 3$ , under 2 if 2 items are scored, then the score would be  $2 \times 2 = 4$ , for 1 if 2 items are scored, the score would be  $1 \times 2 = 2$ , thus the total obtained score would be  $9 (3 + 4 + 2 = 9)$ .

### Phase 7: Interpreting and Rating the Scores

Early care and learning centre rating scale follows a 3-tier approach. The interpretation begins at the sub-component level, progresses to the component level and then the overall scores are calculated.

According to the observations the items are scored; the sub-components are rated under the sub-component rating chart. The sub-component interpretation would aid in reviewing individual items.

The second-tier interpretation examines the component responses. The total score of the sub-component, will provide the component score. For example, staff profiling is the component, and the sub-components are staff details, classroom management skills, material management and support staff details.

The overall score is the third- tier in the interpretation process. The sub-component and the component scores together would provide the overall scores. This will determine the range in which the early care and learning centre falls and classify the centre according to the rating chart.

**Table 4: Rating chart of components and sub-components**

Sl.No	Component / Sub-component	
<b>I.</b>	<b>Policies and Procedures</b>	
	Very Good	11 – 15
	Good	6 – 10
	Satisfactory	1 – 5
	Absent	0
<b>II.</b>	<b>Physical Infrastructure</b>	

i.	Activity Space	
	Very Good	9 – 12
	Good	5 – 8
	Satisfactory	1 – 4
	Absent	0
ii.	'Me' time space	
	Very Good	5 – 6
	Good	3 – 4
	Satisfactory	1 – 2
	Absent	0
iii.	Reading space	
	Very Good	11 – 15
	Good	6 – 10
	Satisfactory	1 – 5
	Absent	0
iv.	Nap room	
	Very Good	17 – 24
	Good	9 – 16
	Satisfactory	1 – 8
	Absent	0
v.	Changing and Diapering	
	Very Good	11 – 15
	Good	6 – 10
	Satisfactory	1 – 5
	Absent	0
vi.	Toilets	
	Very Good	17 – 24
	Good	9 – 16
	Satisfactory	1 – 8
	Absent	0
vii.	Displays	
	Very Good	11 – 15
	Good	6 – 10
	Satisfactory	1 – 5
	Absent	0
<b>III.</b>	<b>Staff profiling</b>	
i.	Staff details	
	Very Good	13 – 18
	Good	7 – 12
	Satisfactory	1 – 6



	Absent	0
ii.	Classroom management skills	
	Very Good	9 – 12
	Good	5 – 8
	Satisfactory	1 – 4
	Absent	0
iii.	Material Management	
	Very Good	7 – 9
	Good	4 – 6
	Satisfactory	1 – 3
	Absent	0
iv.	Support staff details	
	Very Good	11 – 15
	Good	6 – 10
	Satisfactory	1 – 5
	Absent	0
<b>IV.</b>	<b>Health and Safety practices</b>	
	Very Good	3
	Good	2
	Satisfactory	1
	Absent	0
<b>V.</b>	<b>Activity / Program Schedules</b>	
i.	Transition and Routines	
	Very Good	11 – 15
	Good	6 – 10
	Satisfactory	1 – 5
	Absent	0
ii.	Arrival and Departures	
	Very Good	7 – 9
	Good	4 – 6
	Satisfactory	1 – 3
	Absent	0
iii.	Snacks and Mealtime	
	Very Good	9 – 12
	Good	5 – 8
	Satisfactory	1 – 4
	Absent	0
iv.	Field trips	
	Very Good	9 – 12
	Good	5 – 8

	Satisfactory	1 – 4
	Absent	0
<b>VI.</b>	<b>Adult initiated experiences</b>	
i.	Curriculum basics	
	Very Good	9 – 12
	Good	5 – 8
	Satisfactory	1 – 4
	Absent	0
ii.	Physical development / education	
	Very Good	21 – 30
	Good	11 – 20
	Satisfactory	1 – 10
	Absent	0
iii.	Socio-emotional development	
	Very Good	7 – 9
	Good	4 – 6
	Satisfactory	1 – 3
	Absent	0
iv.	Cognitive development – Literacy	
	Very Good	11 – 15
	Good	6 – 10
	Satisfactory	1 – 5
	Absent	0
v.	Cognitive development – Numeracy	
	Very Good	13 – 18
	Good	7 – 12
	Satisfactory	1 – 6
	Absent	0
vi.	Cognitive Development – Science	
	Very Good	15 – 21
	Good	8 – 14
	Satisfactory	1 – 7
	Absent	0
vii.	Cognitive Development – Social Studies	
	Very Good	9 – 12
	Good	5 – 8
	Satisfactory	1 – 4
	Absent	0
viii.	Aesthetic Development – Arts	
	Very Good	15 – 21

	Good	8 – 14
	Satisfactory	1 – 7
	Absent	0
ix.	Aesthetic Development – Music	
	Very Good	13 – 18
	Good	7 – 12
	Satisfactory	1 – 6
	Absent	0
x.	Practical Skills	
	Very Good	5 – 6
	Good	3 – 4
	Satisfactory	1 – 2
	Absent	0
xi.	Whole Group Activities	
	Very Good	5 – 6
	Good	3 – 4
	Satisfactory	1 – 2
	Absent	0
<b>VII.</b>	<b>Play</b>	
i.	Adult initiated play	
	Very Good	7 – 9
	Good	4 – 6
	Satisfactory	1 – 3
	Absent	0
ii.	Child Initiated Play	
	Very Good	9 – 12
	Good	5 – 8
	Satisfactory	1 – 4
	Absent	0
<b>VIII.</b>	<b>Records maintained</b>	
	Very Good	9 – 12
	Good	5 – 8
	Satisfactory	1 – 4
	Absent	0
<b>IX.</b>	<b>Child assessments</b>	
	Very Good	17 – 24
	Good	9 – 16
	Satisfactory	1 – 8
	Absent	0
<b>X.</b>	<b>Parental involvement</b>	

	Very Good	15 – 21
	Good	8 – 14
	Satisfactory	1 – 7
	Absent	0
<b>XI.</b>	<b>Community involvement</b>	
	Very Good	3
	Good	2
	Satisfactory	1
	Absent	0

**Table 5: Overall total scores**

<b>Range</b>	<b>Interpretive Guidelines</b>
329 – 492	Very Good
165 – 328	Good
1 – 164	Satisfactory
0	Absent

### **Field Testing of the Developed Scale**

12 early learning programs were shortlisted. They were anganwadi, balwadi, Montessori school, early learning centre attached to ICSE schools, early learning centre attached to IGCSE schools, early learning centre attached to CBSE schools, early learning centre attached to IB schools, early learning centre attached to SSLC schools, early learning centre attached to NGO's, independent early learning centre, early learning centres from different franchises, early learning centres attached to factories.

The developed scale was used to assess the quality of these programs and it was found that the developed scale is suitable to assess the Indian early childhood care and education / learning centres.

### **Conclusion**

The Early care and learning centre rating scale is a comprehensive scale which focuses on the process and structural quality of the centre. This scale provides detailed information about the centre and is easy to administer. The ECLCRS can be used to analyse, assess and interpret the centres on the quality aspect and rate the centres on the parameters provided. A SWOC analysis can be carried on the centres to address the strengths, weaknesses, opportunities and challenges the centre is facing. This scale can be used by policymakers, teachers, parents, administrators, social workers, and other professionals in the field of early childhood. Field testing of the scale indicates that the developed scale is suitable for assessing the Indian early childhood care and education centres.

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