

## **Learning Environment In Early Childhood Education Centers Of Lahore**

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**Abstract:** *In Pakistan, the focus of educators and policy makers has been primarily limited to curricular planning and policy making, with little or no attention given to the worldwide changing trend in early childhood education; the construction of a stimulating learning environment, and its subsequent influence on the performance of a child. The present study was aimed at assessing the quality of the offered learning environment in private early childhood education centers of Lahore, with the globally accepted tool for quality assessment of classroom environments, the Early Childhood Environment Rating Scale-Revised (ECERS-R). A non-probability convenience sampling method was used, primarily due to willingness to participate of private institutes offering early childhood education services for children aged between 3-5 years. From the findings it was concluded that while there is a varying range in quality of available learning environments, an overall low quality is under practice by majority schools. In the light of these findings, implications for further research to stress the overwhelming impact of learning environments on child performance are discussed, along with the need for policy makers and educators to re-think and re-design the current curriculum and practices of early childhood education accordingly.*

**Keywords:** *Early Childhood Education, Katchi, Learning Environment*

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### **I. Introduction**

Early childhood education (ECE) stands as a recent phenomenon for researchers, educators and parents globally. Credible evidence from international research (Barr, 2003) signifies the learning and experiences of early childhood education as crucial factors affecting an individual's intelligence, behavior, literacy, and well being in later life. Hardly any would conflict with the fact that the initial years of children's learning are primarily formative, and world over, educators and governments are spending their respective resources in the development and enrichment of learning opportunities for young children as this early period builds the fundamentals for learning in later life (Global Monitoring Report, EFA, 2007).

In developing nations like Pakistan, most children under the age of five years are exposed to multiple risks including mal-nutrition, poor health, poverty and non thought-provoking, dull home environments which results in the most detrimental effect on the child's overall development at this critical stage of their life, when rapid brain expansion leads to rapid transformations in cognitive, emotional, physical and social development (UNESCO, 2005). At present, no targeted work has been done on this particular subject by the government or non-government organizations in Pakistan, and focus has been primarily associated to curriculum formulation or policy making for ECE, which was one of the major reasons to look into the current topic. Only a few model government early education centers have been set up which refused to participate in the survey. This led to the limitation of the research to private sector schools only.

The purpose of the present research was to find out the prevalent condition of the learning environment that are available at early childhood education centers of Lahore. The study was a quantitative descriptive research, and a reliable and valid globally acceptable scale, namely the Early Childhood Environment Rating Scale-Revised (ECERS-R) was used for assessment of results.

### **II. Literature Review**

#### **2.1 Early childhood education**

The concept of early childhood education, which originated in the 1800s with the formation of kindergartens, focuses upon children between 3 to 8 years of age. In many arenas, early childhood education theories center on encouraging and supporting the educational needs of young children. Early Childhood Education (ECE) was introduced by the 18<sup>th</sup> and 19<sup>th</sup> century theorists namely, Jean Jacques Rousseau (1712-1778), Robert Owen (1771-1858), Johann Heinrich Pestalozzi (1746-1827), Friedrich Froebel (1782-1852), John Dewey (1859-1952), Maria Montessori (1870-1952) and later, Erik Erikson (1902-1994) and this concept was accepted and followed by educationists worldwide.

It is unanimously agreed worldwide that good quality early childhood programs are an important part of intellectual development, as they allow children to build a solid learning base, accumulate human capital at a higher rate in the future, and therefore perform better in school and in the labor market. The benefits may be especially important for disadvantaged children, since the early skill gap between them and their more advantaged peers can appear early and persist through time (Cunha et al., 2006).

## **2.2 Early childhood education in Pakistan**

In Pakistan, the International Standard Classification of Education had defined Early Childhood Education (ECE), termed *katchi* or pre-primary, as both, formal and informal, as well as public or private education services for children aged 3-5 years (Batool, 2011). ECE covers children of 3 and 4 years of age, i.e. above 3 years and below 5 years. As stated in the Journal of Elementary Education (Akhter, 2012), ECE became a hot topic in Pakistan only after it was focused by the world as an important Millennium Development Goal (MDG). The existence of ECE was sporadic in Pakistan, emerging mainly from the private sector or Non Government Organizations (NGO's) as, either Preschools Montessori's or Playgroups, until the signing of the Education for All (EFA) declaration in the year 2000 and the initial formulation of an ECE curriculum in 2002. Policy makers and educationists have been working towards improving ECE with revised policies and curricula (2007), ensuring the governments current interest and commitment in the field. It is highly notable however, that virtually all these critics and policy makers have analyzed pedagogical techniques and curriculum formulation rather than one of the most important component of learning; the environment in which the students learn.

## **2.3 The learning environment**

According to the Florida Department of Education's Creative Curriculum 2010, the learning environments inspire students and educators to attain the knowledge and skills being demanded by the specific curriculum, because they are the 'structures, tools and communities that meet children's developmental needs. It includes items like space and furnishings, personal care routines, language and reasoning, various learning activities, communication and interaction, the curriculum or program structure and the parent and staff coordination in the process of imparting education to the young children. The learning environment consists of utilization and organization of the socio emotional atmosphere, the indoor physical space of a classroom, outdoor breathing space for play, the daily practices and timetable. The term "learning environment" implies a place and space which encourages interaction and a sense of formal and informal learning (21<sup>st</sup> Century Learning Environment Framework, 2007).

Children interpret the environment holistically and evaluate it for all the ways they can interact with it; they use the environment to aid their development and improve themselves (White, 2004). Children need to move within a safe and tolerable limit; they need moderate and varied levels of stimulation for all senses; they have a need for the feeling of success especially when negotiating and navigating the environment; and finally, they need to acquire increased levels of autonomy by making decisions on their own and exercising control (Fisher, 2000).

Young children learn by doing and play remains the occupation of a child. Educators and psychologist term play as a child's primary avenue to learning' and they suggest manipulating classroom designs for encouragement of play is bound to achieve higher developmental dividends (Myhre, 1993). Designing the educational setting to support a playful environment is therefore, the formidable and arduous task presented to designers of ECE environments today (Shaw, 2012).

## **2.4 Significance of the learning environment**

Many studies have concluded on the fact that the quality of the physical environment including the building where students spend time learning, considerably affects the student academic achievement (Cynader and Frost, 1999). Higher quality learning environments can predict child cognitive and social outcomes, and children experiencing better quality of learning environments do much better than children in low-quality learning environments (Grantham, 2007). Some researchers state that there is a link between classroom quality and children's cognitive and social development measured by observable processes (caregiver and responsiveness) and structures (teacher training) in early childhood settings (Belsky, Vandell, Burchinal, Stewart, McCartney & Owen, 2007). Specifically, researchers have found that learning environments that offer more space, toys, educational materials, and a more-structured curriculum compared to other programs are undoubtedly more beneficial in supporting a child's development (Dowsett, Huston, Imes, & Gennetian, 2008).

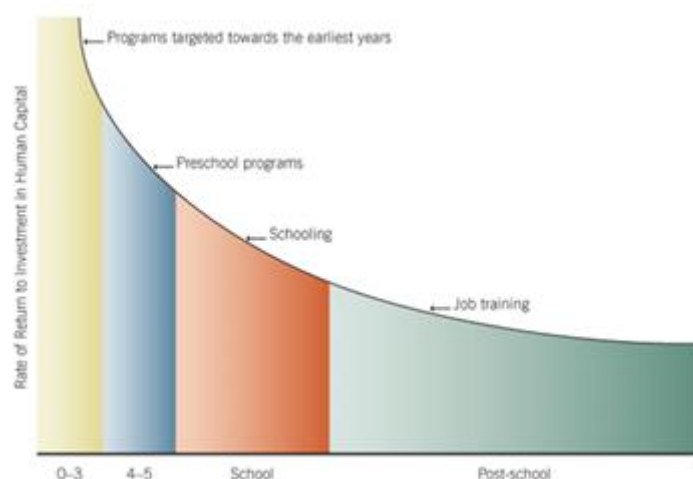
The development of many social and cognitive skills essential for school readiness according to research, is significantly affected by the quality of preschool a child experiences (NICHD Early Child Care Research Network, 2000). Latest findings from brain research; reports such as Eager to Learn and numerous studies such as the Perry Preschool project (Schweinhart, Barnes, & Weikart, 1993), the Abecedarian research,

the National Institute of Child Health and Human Development study (2001), and the Cost, Quality, and Outcomes study show that young children can, indeed, learn a great deal and that their development is highly impacted by the learning environment to which they are exposed (Young, 2002).

## 2.5 The long reach of early childhood

The research “Rethinking Education and Training Policy” and many like it have revealed that positive early experiences definitely impart a positive influence on first a child’s and afterwards an adult’s development (Schweinhart, 1994). Early childhood programs can be used to close early skill gaps and assist in prevention of future skill gaps. There are many empirical analyses of small scale early interventions like the Perry Pre-School experiment, and larger ones like Head Start, that support these ideas by showing positive impacts on a variety of short and long term studies.

Dr. James Heckman, winner of the 2000 Nobel Prize in economics, tirelessly working in the promotion of investment of human capital in early childhood education, has demonstrated that educational investments in the early years generate the maximum economic benefits later in life. (see figure below)



**Fig. A:** rates of return to human capital investment at different ages.

This graph demonstrates that rates of return on human capital investment decrease with age, with the highest return on investments at preschool age (shaded in portion of the graph) (Heckman, 2008).

The current situation of early childhood in developing societies can be described by looking into the multiple environments in which children develop, primarily including child’s age, educational disciplines being offered and modalities of education accessible and available. Equalizing access to early childhood programs for disadvantaged children not only closes the socio-economic status gaps in school readiness but also improves future educational and occupational outcomes (Cheung, McGregor, Cueto, Glewwe, Richter & Strupp, 2007).

## 2.6 Pakistan and the early educational environment

Only recently has the Punjab Government initiated a project to build early childhood centers in 3 phases, starting from 2011-2021. This aims to provide good quality early childhood education to the nearly nine million population of 3-5 year old children in Punjab alone (Institutional Reform Group, 2012). In May 2012, there was the launching of an Early Childhood Education Syllabus held at Lahore, initiated by Plan International Pakistan (PIP), an NGO, aimed at introducing proper syllabus for early education of children, emphasizing on provision of quality early education in order to produce knowledgeable and confident leaders for tomorrow. This program is the first of its kind to be introduced into the public sector of Pakistan and its implementation on a large scale will surely take a great deal of time, money and expertise.

Currently, pre-primary education is of better quality in the private sector but due to high tuition fees it is not available to a majority of the nation’s children. In the public sector, the designing of the learning environment is nearly impossible at a large scale, due to insufficient budget allocations, infrastructure and trained staff for these “katchi” students (Shakil, 2002).

### **III. Methodology**

#### **3.1 Sample**

A sample of 30 schools from Lahore was selected after personally visiting a total of 35 private schools providing early childhood education services for children aged between 3-5 years, through a non-probability convenience sampling method upon and keenness of institutes to participate, as most of the Early Childhood Education centers were reluctant in getting the quality of their classroom environment assessed, which later poor results proved why.

Only one classroom from each Early Childhood Education center was selected for observation of the learning environment, limiting the age of pupils in the classroom within the 3-5 year span. The classrooms observed included Playgroups and Kindergartens in some schools and Reception I and Reception II in others; the choice being solely determined on the age of the pupils studying in that particular classroom.

#### **3.2 Instrument used**

The Early Childhood Environment Rating Scale-Revised, 1997 (ECESR-R) was used as the only instrument of Data Collection. The scale and its manual were purchased from the Teachers College Press, London. The original version of the scale was created in 1980 by Thelma Harms, Richard M. Clifford and Debby Cryer. It contains the original scale's broad definition of 'environment', including those spatial, programmatic and interpersonal features that directly affect the children and adults in an early childhood setting. The ECERS-R consists of 43 items divided into seven sub-scales: Space and Furnishings, Personal Care Routines, Language-Reasoning, Activities, Interaction, Program Structure and Parents and Staff. While the sub-scales in the ECERS-R are not identical with those in the ECERS, the comprehensive definition of environment is apparent. The revision also retains the same format, with each item expressed as a 7-point scale with descriptors for 1 (inadequate), 3 (minimal), 5 (good) and 7 (excellent). Each item is scored from these 7 scores in accordance with the indicator scores which include Y (yes) N (no) and in some cases NA (not applicable). No score is given for the NA category. All ratings are to be assigned in accordance to key given in the manual. These levels of program quality are based on current definitions of best practice and on research relating practice to child outcomes.

The ECERS-R is a tool for global assessment of quality in early childhood environment, so there was no need to make any alterations in it. This revised version maintains the same conceptual framework as well as the same basic scoring approach and administration. The focus of the scale is primarily on the needs of the children and how to meet those needs to the best of current global understandings regarding ECE. The standards of the ECE centers of Lahore were therefore, to be assessed in accordance with present international standards.

#### **3.3 Pre-test**

Prior to finalize the interview schedule, the researcher pre-tested it with five respondents. By this pre-testing, the researcher identified some short-comings in interview schedule like the need of observing some classes for more than one working day as the schedule did not include certain activities on one day. The researcher noted down these points before proceeding onto the real survey.

#### **3.4 Procedure**

The purpose of the study was explained to the administration and after getting permission from the Heads of the schools, a date and time was finalized for the observations. Out of the two categories of scores on the scale, one 'numeric scores' from 1-7 and the other 'indicator scores' including Y (yes), N (no) and NA (not applicable), a score was to be given for each item on the scale and the numeric score was to be encircled clearly in accordance to the procedure ascribed for giving the ratings, to avoid any later problems in understanding. One whole academic day was spent in the assessment of every classroom of every institute. Also, a total of 16 schools had to be visited for two days instead of one as certain activities (Art & Music), were not scheduled in the time table on the first day of observation, and the scale could therefore not be completed.

The observer had the complete manual and a detailed score sheet in front of her at all times during the observation for accuracy in assessment. In accordance to the rules of administration of the scale, the observer maintained a pleasant, neutral facial expression throughout the observation and did not disrupt the ongoing activities of the learning environment whether indoors or outdoors, not to interrupt the teaching staff and had completely no interaction with the children, since the students were not being judged, only the learning environment was assessed. As there was to be no interaction with the children and the researcher/observer, there was no need to take out any special time from the daily academic schedule and it was not disturbed.

At the end of each observation session a short interview was scheduled upon the request of the observer after the teacher was completely free from her responsibilities of the students. Approximately 25-35 minutes

were needed for the interview with the classroom teacher where the observation was carried out, solely for the purpose of better completion of any parts of the scale which were not understood by observation alone. A separate record of these interviews was therefore, not documented.

#### **IV. Results And Discussions**

**4.1 Results:** Findings of the present study suggests that the current learning environment being offered at the private Early Childhood Education centers of Lahore is substantially low in quality. It does not complete the requirements to be termed “good”, according to the tool used for assessment (ECERS-R) in the present research. Results show that the early environment planners lay more emphasis on provision of child-sized furnishings, a practical daily schedule, supervision of children, overall discipline, and staff-child interactions as major components of the environment. The essential elements of a good learning environment are given minimal attention, which include a wide variety of age-appropriate activities through exploration in a safely designed classroom environment and use of language skills to promote communication and reasoning. Findings indicate that insufficient indoor space in classrooms inhibits free movement and the construction of well-defined learning/interest centers for children, which may result in reduced feelings of autonomy and self confidence. It was also concluded that equipment for fine motor/gross motor activities, art activities, sand/water play, dramatic play and T.V/Video/computers are insufficiently available in the school’s learning environments. Findings are shown in Tables & Figures, given below.

**Figure 1:** The box plot provides an easy-to-interpret summary about the sample's range, median, normality of the distribution, and skew of the distribution. The location of the boxes for each of the seven sub-scales within the two whiskers points towards an overall negative distribution of the sample. The median of the sample indicates the same negatively skewed distribution with the horizontal line present towards the lower end of each box. This clearly suggests that there is an overall low-quality learning environment available in the ECE centers of Lahore with all median scores falling below the suggested score of “5/good” according to the ECERS-R.

**Table 1** indicates the criteria for rating the Scores as stated in the ECERS-R along with the total percentage of schools from the sample falling under each score/category. It can be seen from the table that half of the schools (50%) of Lahore provide an “inadequate” learning environment in their early childhood classrooms. Only 20% schools provide a “good” quality learning environment for the students studying there. Remaining 30% schools are seen to provide a “minimal” quality learning environment. There was no school that gained an average score of 7 and therefore, no ECE center provides an “excellent” learning environment in Lahore.

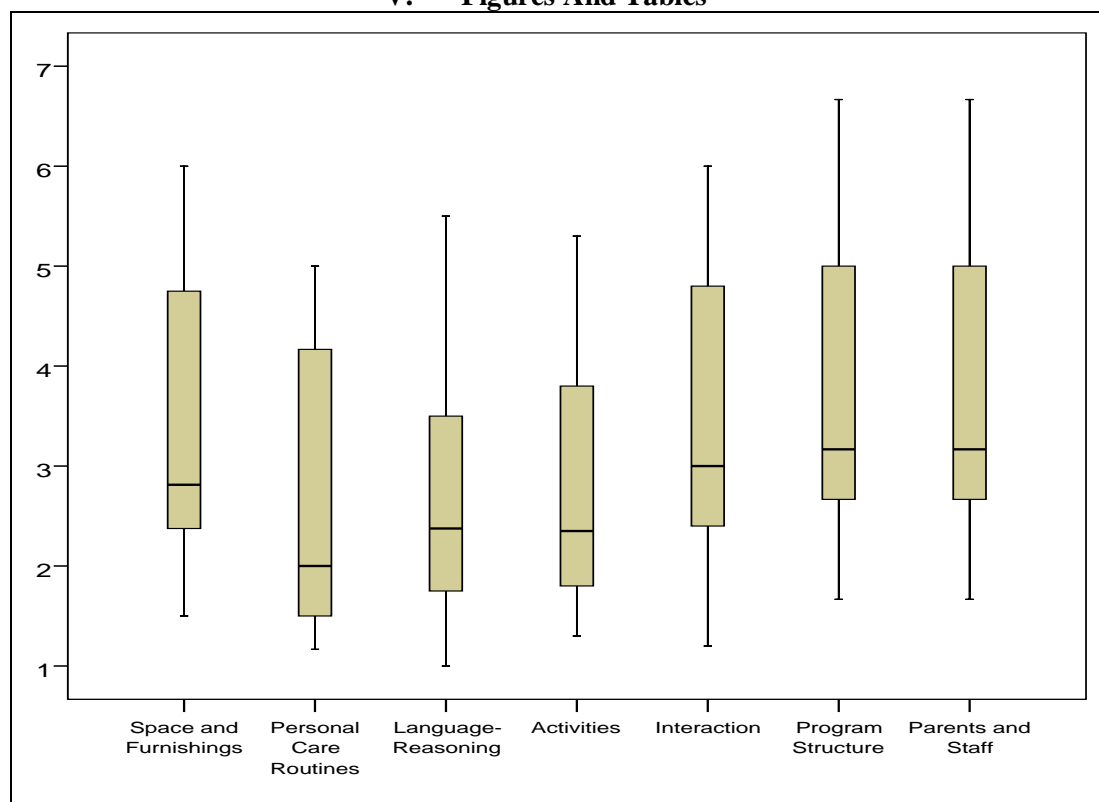
**Table 2:** The table indicates that the overall quality of the learning environments at ECE centers/schools of Lahore falls way below the score of 5 or “good” as stated in the ECERS-R. It also points out the major components of the existing learning environments in ECE centers of Lahore with those sub-scales scoring the highest (Program structure, space and furnishings and interaction). It can be seen from the table that highest average score (3.80) was attained in the sub-scale “Program-structure” which includes the schedule assigned for activities to be carried out throughout the day, followed by a score of 3.52 in sub-scale “Interaction” and a score of 3.40 in “Space & Furnishings”. The table shows that “personal care routines”, “language-reasoning” and “activities” have all scored below the “minimal” value with scores 2.73, 2.75 and 2.85 respectively, indicating a low quality of these components in the learning environments at the ECE centers of Lahore. A score of 3.18 is the average of all the 6 sub-scales of the ECERS-R which shows a “minimal” quality of learning environment is available according to the scale’s scoring system.

**Table 3:** The table above shows the average scores for all the items of sub-scale 4 (Activities). An overall low-quality of available activities in the learning environment at the ECE centers of Lahore is indicated by the total average score of 2.85. According to the ECERS-R, the ECE centers fail to provide an overall “good” quality of activities. The highest mean score (3.70) is given to item 26, Math/number activities, followed by 3.60 in Art, 3.10 in Music/movement, 3.00 for Dramatic play and Fine motor, 2.90 in Promoting acceptance of diversity and 2.50 in Blocks. The lowest scoring items are item 23 (sand/water activities) with a score of 2.10 and item 27 (Use of T.V/video/computers) with a score of 2.20. All these scores fall below the recommended score of 5 “good” by the ECERS-R.

**4.2 Discussions:** Findings of the present study suggests that the current learning environment being offered at the private Early Childhood Education centers of Lahore is substantially low in quality. It does not complete the requirements to be termed “good”, according to the tool used for assessment (ECERS-R) in the present research. Results show that the early environment planners lay more emphasis on provision of child-sized furnishings, a practical daily schedule, supervision of children, overall discipline, and staff-child interactions as major

components of the environment. The essential elements of a good learning environment are given minimal attention, which include a wide variety of age-appropriate activities through exploration in a safely designed classroom environment and use of language skills to promote communication and reasoning. Findings indicate that insufficient indoor space in classrooms inhibits free movement and the construction of well-defined learning/interest centers for children, which may result in reduced feelings of autonomy and self confidence. It was also concluded that equipment for fine motor/gross motor activities, art activities, sand/water play, dramatic play and T.V/Video/computers are insufficiently available in the school’s learning environments.

**V. Figures And Tables**



**Figure 1:** Above, a ‘boxplot’ has been used to represent the results for quality assessment of the learning environment currently available at ECE centers of Lahore.

Note: The scores (indicated on the vertical axis) are assigned in accordance with the ECERS-R (1 = inadequate, minimal, 5 = good, 7 = excellent)

**Table 1:** The Table indicates the criteria for rating the Scores as stated in the ECERS-R along with the total percentage of schools

Scores	1 (Inadequate)	3 (Minimal)	5 (Good)	7 (Excellent)
% of Schools	50%	30%	20%	0%

Note: schools with a score of less than 2.5/4.5 are included in the 1 (inadequate)/ 3 (minimal) group and schools with a score of 2.5/4.5 or more are included in the 3 (minimal)/5 (good) group.

**Table 2:** Total average scores for 6 sub-scales measuring quality according to ECERS-R

Subscales	Average scores of 20 schools
Space & Furnishings	3.40
Personal Care	2.73
Language-Reasoning	2.75
Activities	2.85
Interaction	3.52
Program Structure	3.80
<b>Total Average Score</b>	<b>3.18</b>

Note: schools with a score of less than 2.5/4.5 are included in the 1 (inadequate)/ 3 (minimal) group and schools with a score of 2.5/4.5 or more are included in the 3 (minimal)/5 (good) group.

**Table 3:** Average scores of all activities present in ECE centers of Lahore

Activities	Average Scores of Schools
<b>Fine motor</b>	3.00
<b>Art</b>	3.60
<b>Music/movement</b>	3.10
<b>Blocks</b>	2.50
<b>Sand/water</b>	2.10
<b>Dramatic play</b>	3.00
<b>Nature/science</b>	2.40
<b>Math/number</b>	3.70
<b>Use of T.V/video/computer</b>	2.20
<b>Promoting acceptance of diversity</b>	2.90
<b>Total Average Score</b>	<b>2.85</b>

Note: The scores are assigned in accordance with the ECERS-R (1 = inadequate, 3 = minimal, 5 = good, 7 = excellent)

## VI. Conclusions

The significance of good quality ECE services and its influence on development of the child and later adult cannot be overlooked. Both government and educators need to take strong interest in promoting construction of good quality learning environments equipped with age-appropriate materials and defined activity corners/centers to increase cognitive, social and emotional skills of children aged between 3-5 years.

The current research indicates the need for considerable improvement in this particular field of education as the present scenario of early childhood education (ECE) in Pakistan is devastating, with no special allocation of funds, buildings or teachers for ECE, and lack of interest by policy makers and educators towards improving these conditions. The deplorable conditions in the public ECE centers and high fee structure of the private side, reduces the accessibility of majority of our nation's children to be educated in good quality early learning environments, imparting serious effects on the country's prosperity, as high investments in the early years can lead to greater economic savings in the future (Heckman, 2008).

The provision of better learning environments in the classrooms of early childhood education centers points toward positive experiences and increased academic performance. These environments enable the 'stimulus-seeking learner' gain self-confidence and autonomy in a safely constructed classroom through age-appropriate play and learning activities. Utilizing finances on designing such motivating, vibrant learning environments should be of foremost importance for policy makers, as building the future of our nation on weak foundations is not an intelligent decision. Policy makers and educators should realize the impact of these environments and work collectively towards improving quality of these facilities in Pakistan. In light of the knowledge gained from this research, it is recommended to future researchers to assess the public sector early childhood centers quality, and also for the government of Pakistan to run long term longitudinal studies to assess the impact of good quality early childhood environment on the later performance of children in academic, socio-emotional and cognitive developmental areas.

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