RESULTS & DISCUSSION

RESULTS AND DISCUSSION

In accordance with the objectives of the investigations, the results are organized in the following sequence.

I. Assessment of the quality and management of ECE centers
   a. Quality Assay
   b. Management Assay
   c. Interface and nexus between the quality and management of ECE centers
   d. Analysis of administrator/principal responses

II. Teachers' role and perception of ECE centers

III. Parents' views and awareness of ECE centers

IV. Observations

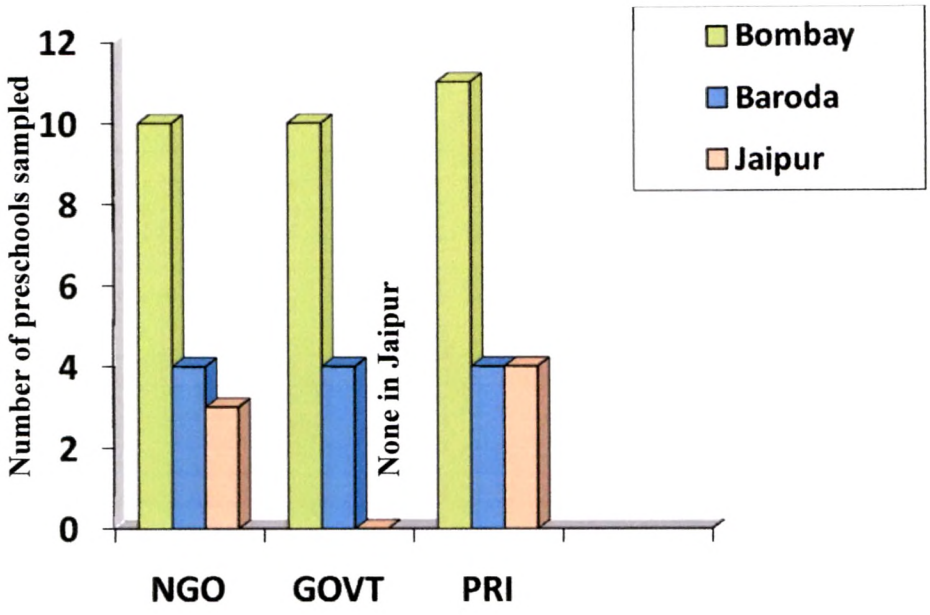
Children have a fundamental right to proper development irrespective of their age, social class, and gender. However, according to the Multi Indicator Survey of 2001 (Department of Women and Child Development, MHRD and UNICEF), only 48% of children have access to preschool facilities. In reality, the statistics are probably likely to be considerably lower.

The census of 2001 revealed that our country has approximately 60 million children in age group of 3–6 years. Preschool initiatives under ICDS and other initiatives (not inclusive of NGO initiatives, as variations in the expected coverage is 3–20 million children) cover approximately 34 million children; the remaining large segment of 26 million children in the population bracket of 3–6 years remains unattended.

Taking cognizance of the importance of ECE as an important factor and in the absence of any minimum specifications concerning ECE centers (although NCERT has laid down specifications, they were not being followed in the cities investigated in this study), the current study is conducted to determine whether sectoral fragmentation or duplication exists in ECE centers.

In order to gauge a better understanding of the macro environment of the ECE sector, a study was conducted to measure the quality and management domains of ECE centers in three Indian cities—Baroda, Jaipur, and Mumbai—across three types of management, namely, government (municipal-run ECE centers), non-government organizations, and private ownership. The cities and management of ECE centers, and the background information of the respondents are presented in Figure 6.

FIGURE 6: Number of samples from each city and management type



The quality of various ECE centers in Mumbai, Jaipur, and Baroda was determined. Services are critical in determining their developmental efficacy. In addition, the conditions or elements that are linked to quality require to be considered together as a system. As Penn (Penn, 1999:2) observed,

> "They (the essential conditions) all have to be addressed and their linkages established. Taken separately and without reference to each other, they lose their impact."

The researcher identified various elements of quality in ECE centers such as the available infrastructure, teaching methodology used to teach different concepts, and teacher-pupil ratio. Further, quality in ECE centers was not a static or unitary concept, and it requires to be revisited regularly.

The nucleus of the driving force, i.e., the management of ECE centers, was studied separately. In this regard, the major focus was to acquire information regarding the vision, mission, staff qualifications, hiring staff, and making budgets.

In addition, the study attempted to elucidate factors such as the commitment of the nursery teachers towards their profession, their work culture, frustrations, and disappointments.

Many approaches and research tools were employed to observe the functioning of all the ECE centers sampled for this study. The results of this study are presented in the subsequent sections.

I. Assessment of the Quality and Management of ECE Centers

a. Quality assay

Quality is the totality of features and characters of products or services that bears on its ability to satisfy stated or implied needs. There is no single ECE model that can be effective in all settings, but it is generally accepted that certain dimensions of quality are critical. The following analysis focuses on certain indicators of quality.

Table 5

Parameters of infrastructure.

	Mumbai			Baroda		Jaipur	
	Government/ municipal	NGO	Private	Government/ municipal	Private	NGO	Private
[2]Building*							
Very Good	20	50	20	0	75	0	50
Good	10	50	60	100	0	67	50
Satisfactory	30	0	0	0	25	33	
Needs Change	40	0	20	–	–	–	–
[2]Light*							
Very Good	20	90	27	100	25	0	50
Good	30	10	36	0	50	33	50
Satisfactory	50	0	27	0	25	67	0
Needs Change	0	0	9	100	100	–	–
[1]Ventilation*							
Very Good	20	70	10	100	25	0	75
Good	30	20	50	0	50	100	25

Satisfactory	30	10	40	0	25	–	–
Needs Change	20	0	0	–	–	–	–
SPACE							
[4]Indoor space*							
Very Good	20	70	12.5	100	75	0	75
Good	30	20	37.5	0	25	-	-
Satisfactory	30	10	37.5	-	-	100	25
Needs Change	20	0	12.5	-	-	-	-
Outdoor space							
Very Good	30	30	10	100	25	0	75
Good	40	20	30	0	50	-	-
Satisfactory	20	10	30	-	-	100	25
Needs Change	10	40	30	0	25	-	-
[2]Display*							
Very Good	20	40	50	0	75	67	100
Good	10	60	30	0	25		
Satisfactory	50	0	20	100	0	33	0
Needs Change	20	0	0	-	-	-	-
[2]Storage space*							
Very Good	20	30	10	0	75	33	50
Good	0	70	70	0	25	33	25
Satisfactory	50	0	10	100	0	33	25
Needs Change	30	0	10	–	–	–	–

Safety							
Very Good		50	60	100	75	50	50
Good	14	40	0				
Satisfactory	0	10	0	0	25	50	25
Needs Change	86	0	40			0	25
[2]Safe transportation**							
Very Good	0	40	0	0	50	0	25
Good	20	50	20			0	25
Satisfactory	20	10	0	0	50	0	50
Needs Change	60	0	80	100	0	100	0
[1]Safety from fires**							
Very Good	40	70	0	0	50	0	75
Good	30	0	11				
Satisfactory	0	30	44	0	25	0	25
Needs Change	30	0	44	100	25	100	0
AMENETIES							
[2]Sanitary facility**							
Very Good	0	70	0			0	33
Good	60	20	36	0	75	33	67
Satisfactory	20	10	45	0	25	33	0
Needs Change	20	0	18	100	0	33	0

[1]Drinking water facility**							
Very Good	0	22	18	0	75		
Good	20	78	18			0	100
Satisfactory	10	0	45			67	0
Needs Change	70	0	18	100	25	33	0

*≤ 0.05, **≤ 0.01, ***≤ 0.001*

[1]Significant for all three cities, [2]significant for Mumbai and Baroda, [3]significant for Baroda and Jaipur, significant for Jaipur alone

Table 5 shows the reported status of the physical location of the center, including the building, lighting, ventilation, indoor and outdoor space distribution, display, storage space, safety measures, and amenities across different organizations within each city. The chi-square test was used to determine significant associations between the type of organization and the different indicators related to infrastructure.

The findings revealed that in Mumbai, the quality of the building, in term of structure, lighting, and ventilation was marginally better in NGOs as compared to that in government/municipal or private facilities. For instance, more than half of the NGO administrators responded that their building lighting and ventilation was "very good" while the corresponding percentages of government/municipal and private facilities that responded similarly hovered from 10% to 27%. In Baroda, private facilities were found to be better in terms of building structures, but the lighting and ventilation facilities were more adequate in government/municipal facilities. Similarly in Jaipur, the physical set-up was more suitable in private facilities as compared to NGOs. The chi-square test revealed

a significant association between the type of organizations and the quality of infrastructure at a 5% level of significance.

In Mumbai, the indoor space availability was the best in NGO facilities. In Baroda, government/municipal ECE centers had more indoor space as compared to private centers. In Jaipur, the results revealed that there was more indoor space availability in private centers. The chi-square test revealed a significant association between the type of organizations and the availability of indoor space in Jaipur at a 5% level of significance.

The outdoor space availability was better in government/municipal settings of Baroda and private settings in Jaipur. In Mumbai had mixed responses ranging from 10–40% across different centers, pertaining to the availability of outdoor space.

For the display parameter, private centers in all the three cities had very good facilities. The chi-square tests for Mumbai and Baroda revealed significant associations between the type of organizations and the display parameter at different settings at a 5% level of significance.

There is ample availability of storage space in private centers of Jaipur and Baroda as compared to Mumbai. The chi-square tests for Mumbai and Baroda revealed a significant association between the type of organizations and availability at different settings at the 5% level of significance.

For the safety parameters with regard to transportation and fire, the responses were "nil" (100%) in government/municipal-run schools in Baroda and in NGOs in Jaipur.

With regard to amenities including sanitary and drinking water facilities, private centers reported the availability of good facilities in Baroda and Jaipur. However, private facilities in Mumbai reported satisfactory amenities. In government/municipal

organizations in Mumbai and Baroda, the respondents indicated the need for improvement of sanitary and drinking facilities at their respective schools. There was a significant association between the type of organizations and sanitary facilities available in Mumbai and Baroda ($p < 0.01$).

Table 6.

Parameters of Program Content

	Mumbai			Baroda		Jaipur	
	Government/ Municipal	NGO	Private	Government/ Municipal	Private	NGO	Private
[2]Program schedule**							
Very Good	22	60	55	0	25	67	50
Good	0	40	36	100	75	33	50
Satisfactory	67	0	9	-	-	-	-
Needs Change	11	0	0	-	-	-	-
[2]Planning by teacher***							
Very Good	20	80	27	0	25	100	75
Good	10	10	64	0	50	0	25
Satisfactory	0	10	9	100	0	-	-
Needs Change	70	0	0	0	25	-	-
[3]Age appropriateness of activities*							
Very Good	20	50	45	0	75	67	25
Good	40	50	55	0	25	33	75
Satisfactory	30	0	0	100	0	100	100
Needs Change	10	0	0	-	-	-	-
[2]Use of play materials**							
Very Good	20	60	36	0	25	67	50
Good	0	40	55	100	50	33	50
Satisfactory	20	0	9	0	25	-	-

Needs Change	60	0	0	-	-	-	-
Balancing learning							
Very Good	20	40	30	100	25	67	50
Good	10	50	30	0	50	33	25
Satisfactory	20	10	30	0	25	0	25
Needs Change	50	0	10	-	-	-	-
CLASSROOM MANAGEMENT							
[2]Use of lesson time**							
Very Good	20	44	9	-	-	100	50
Good	10	56	82	100	100	-	-
Satisfactory	50	0	9	-	-	-	-
Needs Change	20	0	0	-	-	-	-
[1]Routine and order in classroom***							
Very Good	20	50	27	100	67	67	75
Good	0	50	73	0	33	33	25
Satisfactory	50	0	0	-	-	-	-
Needs Change	30	0	0	-	-	-	-
[2]Children's behavioral problems**							
Very Good	20	50	33	0	67	67	75
Good	0	50	67	100	33	33	25

Satisfactory	50	0	0	--	--	--	-
Needs Change	30	0	0	-	-	-	-

*≤0.05, **≤0.01, ***≤0.001

[1]Significant for Mumbai and Baroda, [2]significant for Mumbai alone, [3]significant for Baroda alone

Table 6 indicates that the program content aspect of scheduling and planning by the teachers was parallel in NGO and private settings located in all three cities. In Mumbai and Baroda, 70% to 100% of the responses from government/municipal schools indicated the need of improvement in this aspect.

The responses to balanced learning activities revealed that combination of indoor and outdoor activities and individual and small group activities were followed in all three settings across the three cities.

Surprisingly, the government/municipal-run ECE centers lacked classroom management, whereas the remaining centers showed similar results (100% of government/municipal and private centers in Baroda responded "good" and 100% of NGO centers in Jaipur responded "very good"). There was a significant association between the type of organization and the classroom management facilities available in Mumbai ($p < 0.01$).

A child's behavioral problems represent conflict of his/her developing personality and that of his/her parents, teachers, siblings, and other children with whom (s)he comes in contact. The analysis of this feature shows excellent handling in both NGO- and privately run centers of Jaipur, followed by private schools in Baroda, although all three types of centers in Mumbai produced mixed responses ranging from 20% to 67%. The chi-square test for the responses for this aspect in Mumbai revealed a significant association

between the type of organizations and children's behavioral problems at the 10% level of significance.

Table 7

Parameters of Child Participation

	Mumbai			Baroda		Jaipur	
	Government/municipal	NGO	Private	Government/ municipal	Private	NGO	Private
Personal growth activities							
Very Good	20	56	30	0	67	67	100
Good	30	11	20	100	33	33	0
Satisfactory	30	33	50				
Needs Change	20	0	0				
Fine Motor activities							
Very Good	20	56	40	0	25	67	100
Good	40	33	20	0	50	33	0
Satisfactory	20	11	20	100	25		
Needs Change	20	0	20				
[3]Gross Motor activities*							
Very Good	20	56	27	0	75	67	50
Good	40	22	36	0	25	33	25
Satisfactory	20	22	18	100	0	0	25
Needs Change	20	0	18				

[3]Arts and Crafts activities*

Very Good	20	44	45	0	75	67	100
Good	40	56	27	100	25		
Satisfactory	20	0	18			33	0
Needs Change	20	0	9				

[3]Language activities*

Very Good	20	60	10				
Good	50	20	70	0	75	67	50
Satisfactory	10	20	10	100	25	33	50
Needs Change	20	0	10				

[3]Cognitive activities*

Very Good	20	50	27			67	50
Good	10	40	36	0	75	33	25
Satisfactory	50	10	27	0	25	0	25
Needs Change	20	0	9	100	0		

[1]Social and emotional development**

Very Good	20	40	18	0	75	33	75
Good	10	50	55	100	0	33	25
Satisfactory	10	10	27			33	0
Needs Change	60	0	0	0	25		

[2]Excursions / field trips**

Very Good	20	70	0	0	2	33	67

					5		
Good	0	20	20	0	5 0		
Satisfactory	10	10	40	100	2 5	0	33
Needs Change	70	0	40				
[2]Other activities**							
Very Good	20	50	0	0	2 5	0	75
Good	10	40	45	100	7 5	50	0
Satisfactory	10	10	45			50	25
Needs Change	60	0	9				

*≤0.05, **≤0.01, ***≤0.001

[1]Significant for Mumbai and Baroda, [2]significant for Mumbai alone, [3]significant for Baroda alone

Table 7 demonstrates that children's participation in various activities such as personal growth, fine motor and gross motor activities, arts and craft, language, cognitive exercises, excursions and field trips, and social and emotional development in NGO and private ECE centers in Jaipur and private centers in Baroda was rated "excellent," wherein approximately 50–75% of the respondents rated personal growth activities at the schools as "very good." A contrasting picture emerged in Mumbai where the NGO centers reported excellent personal growth activities as compared to government/municipal and private centers. For instance, 30–70% of the administrators of

government/municipal centers responded that children's participation in various activities could be improved. There was a significant association between the type of organizations and gross motor activities, arts and crafts, and language and cognitive activities in Baroda at a 0.05 level of significance.

Table 8

Parameters of Health and Nutritional Facilities

	Mumbai			Baroda		Jaipur	
	Government/ municipal	NGO	Private	Government/ municipal	Private	NGO	Private
[1]Routine health checkup*							
Very Good	0	11	20	0	67	0	50
Good	50	33	30	0	33	0	25
Satisfactory	25	33	30	-	-	67	0
Needs Change	25	22	20	100	0	33	25
[1]Nutrition*							
Very Good	20	60	25	0	75	50	50
Good	20	20	37.5	0	25	0	50
Satisfactory	40	20	12.5	100	0	-	-
Needs Change	20	0	25	-	-	50	0

*≤ 0.05, **≤ 0.01, ***≤ 0.001

[1]*Significant for Baroda*

Table 8 revealed good routine health checkups and nutrition in private centers in Mumbai, Baroda, and Jaipur. However, government-run centers in Mumbai and Baroda were found to be inadequate in this respect. Nutritious diets were provided in the NGO-

run centers of Mumbai and Jaipur. Routine health checkups were neglected, as indicated by approximately 55–100% of the respondents from NGO centers.

Table 9

Parameters of Staff Qualifications

	Mumbai			Baroda		Jaipur	
	Government /municipal	NGO	Private	Government/ municipal	Private	NGO	Private
Staff qualifications							
Very Good	20	56	9	0	25	0	50
Good	0	33	18	0	50	33	25
Satisfactory	70	11	64	100	25	33	25
Needs Change	10	0	9			33	0
Personal characteristics							
Very Good	22	30	27	0	25	33	25
Good	0	50	36	0	50	33	75
Satisfactory	67	20	18	100	25	33	0
Needs Change	11	0	18				
[1]Moral/Ethical dimension**							
Very Good	22	50	20				
Good	0	40	40	0	67	33	50
Satisfactory	11	10	40	100	33	33	50
Needs Change	67	0	0			33	0

Staff constancy							
Very Good	80	30	64	0	33	33	67
Good	0	40	18	100	67	67	33
Satisfactory	10	30	18				
Needs Change	10	0	0				
[2]Staff Co-operation*							
Very Good	20	60	60	100	0	33	50
Good	30	20	30	0	67	33	50
Satisfactory	40	20	10	0	33	33	0
Needs Change	10	0	0				
[2]Staff Professional growth*							
Very Good	20	40	64	0	67	100	25
Good	10	40	18	0	33	0	50
Satisfactory	30	10	18	100	0	0	25
Needs Change	40	10	0				

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* ≤ 0.05, ** ≤ 0.01, *** ≤ 0.001

[1]Significant for Mumbai alone, [2]significant for Baroda alone

As shown in Table 9, the results of the questionnaires for teaching personnel revealed the following features:

1. Staff qualifications were found to be good at private centers, and the qualification levels of majority of the personnel were found to be satisfactory.

2. Personal characteristics such as sensitivity, empathy, openness and honesty, willingness to assume responsibility, and humor were also found to be at the good and satisfactory levels.

3. Moral and ethical dimensions were highlighted to be only satisfactory.

4. Staff constancy was found to be good to some extent since the teachers continued their services for more than 5 years.

5. Responses for staff cooperation were primarily at a higher level but their validity requires verification.

6. Staff professional growth was marked by constant training given to the teachers in private and NGO-run centers.

Table 10

Parameters of Parent-Teacher Associations

	Mumbai			Baroda		Jaipur	
	Government/ municipal	NGO	Private	Government/ municipal	Private	NGO	Private
[1]**Parent involvement and participation***							
Very Good	20	10	9	-	-	67	25
Good	0	60	64	0	67	33	75
Satisfactory	50	20	18	100	33	-	-
Needs Change	30	10	9	-	-	-	-
Parent-teacher association							
Very Good	20	40	27	-	-	-	-
Good	40	50	55	100	67	33	50
Satisfactory	20	0	9	0	33	67	50
Needs Change	20	10	9	-	-	-	-
[2]**Parent information***							
Very Good	20	30	9	0	25	33	25
Good	20	70	64	100	50	67	75
Satisfactory	10	0	18	0	25	-	-
Needs Change	50	0	9	-	-	-	-

* ≤ 0.05, ** ≤ 0.01, *** ≤ 0.001

[1]Significant for Mumbai and Baroda, [2]significant for Mumbai alone.

Table 10 illustrates the high parent involvement in parent-teacher association activities in private sectors in Mumbai, Baroda, and Jaipur. However, the NGO-run centers in Jaipur were reported to be inadequate in this regard. Parent information and parent-teacher association exhibited equal goodness fit irrespective of the city and type of the organization running the ECE centers. The chi-square test rejects a significant association between the type of organizations and Parent information / involvement at 5% level of significance.

Table 11

Parameters of Children across Institutions

	Mumbai			Baroda		Jaipur	
	Government/ municipal	NGO	Private	Government/ municipal	Private	NGO	Private
[1]**Age group of children****							
Excellent	100	43	0	100	0	33	0
Good	0	29	82	0	75	0	75
Acceptable	0	14	9	0	25	0	25
Unsatisfactory	0	14	9	–	–	67	0
[1]**Group Size****							
Excellent	30	57	18	0	50	67	25
Good	0	29	18	0	50	33	50
Acceptable	0	0	55	–	–	0	25
Unsatisfactory	70	14	9	100	0	–	–
[3]**Adult child ratio****							
Excellent	22	86	25	100	67	50	50
Good	11	0	38	0	33	50	25
Acceptable	0	0	38	–	–	0	25
Unsatisfactory	67	14	0	–	–	–	–
[2]**Equality of opportunities****							
Excellent	20	60	73	0	50	67	100
Good	50	40	18	0	50	33	0

Acceptable	30	0	9	100	0	_	_
Unsatisfactory	_	_	_	_	_	_	_
[1]Greetings/Departure**							
Excellent	20	80	64	0	75	50	75
Good	0	20	36	100	0	0	25
Acceptable	60	0	0	0	25	50	0
Unsatisfactory	20	0	0	_	_	_	_
[2]Personal Grooming**							
Excellent	30	80	64	0	25	67	100
Good	50	10	9	0	75	33	0
Acceptable	20	0	27	100	0	_	_
Unsatisfactory	0	10	0	_	_	_	_
[1]Honoring birthday and holiday celebrations**							
Excellent	30	80	45	0	25	50	100
Good	0	20	45	0	75	50	0
Acceptable	50	0	0	100	0	_	_
Unsatisfactory	20	0	9	_	_	_	_

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* ≤ 0.05, ** ≤ 0.01, *** ≤ 0.001

[1]Significant for Mumbai and Baroda, [2]significant for Baroda alone and [3]for Mumbai alone

Table 11 indicates that the age group of children was well managed in government institutions as compared to moderately managed in NGOs and private schools. Overstuffing was prevalent in government institutions, acceptable in private organizations, and best managed in NGOs. The adult (teacher):child ratio was a concerning statistic to the government institutions while this is well managed in NGOs and private institutions. Equality of opportunities was well above the satisfactory level in all institutions across cities, except in government institutions in Baroda, where this factor was rated as only average. Children were well trained for greetings and departures in all institutions across cities, except in the government institutions of Mumbai and in the NGO-run centers of Jaipur. Focus on personal grooming was low in government institutions, particularly those in Baroda. Celebration of birthdays and holidays was an uncommon practice in government institutions, especially in Baroda. The chi-square test revealed a significant association between the type of organization and focus on individual grooming at a 5% level of significance.

Table 12

Comparison of the Mean Quality Indices of Different Indicators According to Type of Childhood Education Centers across Different Cities

Indices	ECE center type							
	Government/Municipal		NGO		Private		Total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
A. Mumbai								
Physical Set-up	27.1	9.8	40.6	4.1	29.5	5.5	32.3	8.9
Program Content	48.9	20.5	74.4	9.9	62.9	10.3	62.1	17.3
Staff/Personnel	14.7	5.1	19.4	3.9	18.1	3.3	17.4	4.5
Parent-Teacher Association*	6.8	2.9	9.2	1.5	8.5	2.0	8.2	2.4
Children	18.5	5.6	24.0	3.9	21.9	3.4	21.4	4.8
B. Baroda								
Physical Set-up	31.0	0.0	NA	NA	38.8	9.8	34.9	7.7
Program Content	55.0	0.0	NA	NA	71.1	10.8	63.1	11.1
Staff/Personnel	15.0	0.0	NA	NA	17.8	1.9	16.4	1.9
Parent-Teacher Association*	8.0	0.0	NA	NA	8.3	1.5	8.1	1.0
Children	17.0	0.0	NA	NA	21.4	1.6	19.2	2.6
C. Jaipur								
Physical Set-up	NA	NA	28.2	6.0	40.1	6.1	35.0	8.5
Program Content	NA	NA	73.0	9.5	76.4	9.7	74.9	9.0
Staff/Personnel	NA	NA	18.3	2.3	19.9	2.8	19.2	2.5
Parent Teacher Association*	NA	NA	10.3	1.2	10.0	1.4	10.1	1.2
Children	NA	NA	22.2	2.4	24.8	1.7	23.6	2.3

*NA: Data not available. *Result of the analysis of variance revealed that there was a significant difference between parent-teacher associations across different cities at a 10% level of significance.*

Table 12 presents the comparison of quality indices of different educational centers across different cities. The comparison is made by using the mean values of quality indices. Significant differences in the mean values were observed using one-way analysis of variance. Post-hoc comparisons were carried out using Tukey's test to identify the groups that significantly differ from each other. The analysis suggested that the program content scored higher mean values among all the other indices, irrespective of the type of school and cities. The program content was inadequate in government-run educational centers as compared to NGO- and privately run centers, and its mean score of program content was the lowest among all the three types of educational centers in all the cities. However, these differences were not statistically significant.

The result of the analysis of variance revealed a significant difference in the parent-teacher association across the cities and educational centers. For instance, the parent-teacher association in the government-run centers was considerably better in Baroda than in Mumbai. Similarly, the PTA was rated to be better in NGO-funded educational centers in Jaipur than in their counterparts in Mumbai. Furthermore, there was a significant difference in the extent of parent-teacher association in the private educational centers across the different cities.

Summary of the Quality Aspect of ECE Centers

Quality is defined as the conformance to requirements. After analyzing a variety of quality parameters, the following conclusions were made.

The basic structure of the buildings was found to be adequate in privately run ECE centers of demi-metros like Vadodara and Jaipur, while Mumbai government-run ECE centers and private institutions scored above NGOs. The best availability of indoor space was found in the NGOs of Mumbai among all other institutions surveyed. Outdoor space availability was observed to be the best in ECE centers run by government institutions of Vadodara, while this parameter required improvement in the NGO-run ECE centers of Jaipur. The National Association for the Education of Young Children (1991) states, "The quality of the physical space and the materials provided affects the level of involvement of the children and the quality of interaction between adult and children" (p. 43). Display and storage space were factors to which almost all institutions showed high levels of motivation and performance. Safety measures were inadequate and were in need of improvement in Mumbai, except for the privately run ECE centers of Mumbai and in all the surveyed institutions of Jaipur and Vadodara. Transportation provided for the staff/children was relatively poor across cities and institutions and should be seriously considered for improvement in order to improve the future education of the country. Further, privately run ECE centers of Mumbai and government- and NGO-run centers of Vadodara and Jaipur had poor fire safety provisions. This was in stark contrast to the ECE centers run by private institutions in Jaipur and government-run preschools in Mumbai, which had adequate fire safety provisions. The privately run ECE centers in Vadodara had

the best facilities in terms of drinking water and sanitation, while these were found to be strongly lacking in government-run centers in Vadodara and Mumbai.

Another important aspect of ECECs is the program management of the various activities and courses offered by them. Planning of programs, use of play materials, balancing time spent for learning, decorum of the classroom, and behavioral development of children were found to be best catered to by the NGO-run ECE centers in Jaipur, while the worst program conduct was found in the NGO-run centers in Mumbai. Overall improvement was observed in this parameter, and the future prospects appear promising.

Child participation is a kind of "wow feedback" factor in any child education program. This was found to be best managed in privately run ECE centers of the "demi-metros" Vadodara and Jaipur, but was highly neglected in the NGO-run centers of Mumbai.

Further, health and nutrition were grossly neglected in all the cities surveyed, and impetus is strongly required in the government/NGO-run ECE centers of Vadodara and Jaipur. A similar pattern was observed for critical factors such as staff qualification and parent-teacher association, and a strong need for improvement is called for in this regard in the NGO-run centers in Mumbai.

All-round development of the children in terms of personality/identity development, grooming of soft skills, and leading children to self-actualization was found to be best managed in government and privately run preschools in Mumbai. However, a strong need for improvement in this regard was observed in the NGO-run preschools in Mumbai.

b. Management assay

Directing and managing different types of programs requires varying levels of administrative sophistication and scope and complexity. Thus, the administrator's role certainly affects the repertoire of competencies required to ensure the efficiency and effectiveness of the ECE organization. To ascertain this, the post-hoc test was used to determine the similarities and differences between the two groups.

Table 13

Parameters of Planning and Administration

	Mumbai			Baroda		Jaipur	
	Government/ Municipal	NGO	Private	Government/ Municipal	Private	NGO	Private
Organizational Framework[1]							
Excellent	20	30	45	0	75	0	25
Good	0	50	36	100	25	100	50
Acceptable	40	20	18	_	_	0	25
Unsatisfactory	40	0	0	_	_	_	_
Role of member[2]							
Excellent	20	40	18	0	75	33	25
Good	50	30	45	_	_	33	75
Acceptable	10	30	36	0	25	33	0
Unsatisfactory	20	0	0	100	0	_	_
Staff duties							
Excellent	20	70	50	0	50	67	50

Good	50	20	50	100	50	0	50
Acceptable	20	10	0	_	_	33	0
Unsatisfactory	10	0	0	_	_	_	_
Mission and Aims[1]							
Excellent	0	60	55	0	25	67	50
Good	30	10	45	0	75	0	50
Acceptable	20	10	0	100		33	0
Unsatisfactory	50	20	0	_	_	_	_
Mission statement and aims of education							
Excellent	0	40	10	0	25	_	_
Good	20	30	20	100	75	67	75
Acceptable	50	20	70	_	_	33	25
Unsatisfactory	30	10	0	_	_	_	_
Development							
Excellent	20	40	30	0	50	33	25
Good	50	40	50	100	25	0	75
Acceptable	10	10	20	0	25	67	0
Unsatisfactory	20	10	0	_	_	_	_
Safety measures[2]							
Excellent	20	40	20	0	25	33	0
Good	10	30	40	0	50	33	75
Acceptable	50	20	30	100	0	33	25

Unsatisfactory	20	10	10	0	25	_	_
Management of daily operations							
Excellent	0	50	27	0	25	33	25
Good	60	40	55	100	75	33	50
Acceptable	40	10	18	_	_	33	25
Unsatisfactory	_	_	_	_	_	_	_
ECE files							
Excellent	20	10	30	_	_	33	25
Good	0	60	40	0	50	33	50
Acceptable	60	30	30	100	50	33	25
Unsatisfactory	20	0	0	_	_	_	_

[1]*Chi-square test is significant at a 5% level of significance for Mumbai and Baroda.*

[2]*significant for Baroda alone.*

Management is of utmost important for the smooth functioning of any institution. Table 13 reveals that good organizational framework at municipal schools in Baroda, wherein the institutions had specific constitutions with a clear mission. Moreover, Jaipur's NGO-run ECE centers were rated as good by the respondents. However, the attitude of municipal schools in Mumbai was found to be discouraging. Perhaps the organizers are unaware of or neglect this aspect in administration of the centers.

The responses provided by the members involved in the management of the municipal centers appeared to be rather anomalous with regard to management. The responses given by all the three categories of preschools were incongruent. With regard to defining the duties and responsibilities to its staff, the members of NGO-run institutions in Mumbai and Jaipur gave equal scores. The responses by the municipal-run centers were rather discouraging.

All the institutions run by NGOs and private agencies responded well to the question regarding formulation of the "mission statement." However, their responses regarding the conveyance of this statement to the staff and parents were inconsistent. It is likely that none of the ECE centers investigated in the three cities had a clear concept of conveying the mission statement.

Responses regarding safety measure increase school centre were acceptable, indicating the center's readiness to deal with emergencies. The management of daily operations such as logistic work procedure, flexibility, and being systematic were reported to be good at preschool centers in Baroda.

The organizational framework was reported to be good in the municipal-run schools in Baroda and in NGO-run centers. The attitude of municipal schools in Mumbai was found to be discouraging.

The responses given by members involved in the management of municipal schools with regard to their role were found to be anomalous.

Table 14

Parameters of Leadership

	Mumbai			Baroda		Jaipur	
	Government/ Municipal	NGO	Private	Government/ Municipal	Private	NGO	Private
Professional knowledge[1]							
Excellent	20	50	20	0	50	0	25
Good	10	40	40	0	50	33	75
Acceptable	40	10	40	100	0	33	0
Unsatisfactory	30	0	0			33	0
Skills and abilities							
Excellent	0	20	30	0	50	_	_
Good	30	50	50	100	25	33	100
Acceptable	20	30	10	0	25	67	0
Unsatisfactory	50	0	10				
Management foster links[2]							
Excellent	0	70	27	_	_	33	25
Good	50	20	36	100	75	67	50
Acceptable	10	10	27	0	25	0	25
Unsatisfactory	40	0	9	_	_	_	_
Working relationship with staff							
Excellent	20	40	45	0	25	67	75

Good	60	40	27	0	50	33	25
Acceptable	0	20	18	100	25	_	_
Unsatisfactory	20	0	9	_	_	_	_
Management create a collaborative[3]							
Excellent	0	20	36	100	25	33	50
Good	30	30	45	0	50	33	50
Acceptable	10	50	18	0	25	33	0
Unsatisfactory	60	0	0	_	_	_	_
Relationship with parents							
Excellent	0	20	30	100	25	67	75
Good	20	30	50	0	50	_	_
Acceptable	40	40	10	0	25	33	25
Unsatisfactory	40	10	10	_	_	_	_

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[1]The chi-square test is significant at a 5% level of significance for Baroda and [2]for Mumbai. [3]Chi-square test is significant at a 5% level of significance for Mumbai.

The responses to management-related questions were inadequate. Responses regarding management fostering links and professional knowledge and skills and abilities were rather analogous. Except for municipal-run centers at Baroda, all the other centers reported high scores in response to the question regarding their relationship with the management.

It is rather surprising to note that the respondents of municipal centers of Baroda provided contradictory responses to their working relationships and collaborative culture. Further, there is a lack of collaborative culture in municipal-run ECE centers in Mumbai. Responses regarding the relationship with parents were positive in Mumbai and Jaipur, but the responses were lower in all the center types in Mumbai.

Table 15

Parameters of Staff Management

	Mumbai			Baroda		Jaipur	
	Government/ municipal	NGO	Private	Government/ municipal	Private	NGO	Private
ECE educators qualifications and allocation of duties[3]							
Excellent	22	40	0	0	25	33	25
Good	0	40	45	100	50	0	50
Acceptable	78	20	27	0	25	67	25
Unsatisfactory	0	0	27	–	–	–	–
Pre-primary educators[2]							
Excellent	0	40	27	–	–	33	0
Good	22	40	45	0	75	0	50
Acceptable	78	20	27	100	25	67	50
Unsatisfactory	–	–	–	–	–	–	–
Allocation of duties for other (Non teaching staff)[2]							
Excellent	0	30	36	–	–	33	50
Good	22	50	27	0	75	–	–
Acceptable	67	20	27	100	25	67	50
Unsatisfactory	11	0	9	–	–	–	–
Effectiveness of staff development							
Excellent	0	0	27	100	50	33	25
Good	22	40	55	0	25	33	50
Acceptable	44	50	9	0	25	33	0

Unsatisfactory	33	10	9	_	_	0	25
Effectiveness of staff appraisal[2]							
Excellent	0	10	40	0	75	67	50
Good	22	40	30	_	_	0	25
Acceptable	78	50	30	100	25	33	25
Unsatisfactory	_	_	_	_	_	_	_
Staff communication[1]							
Excellent	22	40	27	0	75	100	75
Good	0	30	55	100	25	_	_
Acceptable	78	30	18	_	_	0	25
Unsatisfactory	_	_	_	_	_	_	_
Staff collaboration[2]							
Excellent	0	30	55	0	75	33	50
Good	44	40	36	100	0	33	50
Acceptable	56	30	9	0	25	33	0
Unsatisfactory	_	_	_	_	_	_	_
Staff participation in management							
Excellent	0	40	45	100	75	100	50
Good	22	40	27	0	25	0	25
Acceptable	22	10	18	_	_	0	25
Unsatisfactory	56	10	9	_	_	_	_

[1]Chi-square test is significant at a 5% level of significance for Mumbai and Baroda and [2] for Baroda alone. [3]Chi-square test is significant at a 5% level of significance for Mumbai.

As seen in Table 15, the percentage of "excellent" responses is higher except in two centers—one in Mumbai and other in Baroda. It is probable that the teaching staff had postgraduate degrees from a discipline unrelated to preschool education.

The allocation of duties in centers at Baroda remained unspecified, and majority of the respondents scored this parameter as acceptable. In the ECE centers in Mumbai and Jaipur, the response of "excellent" for allocation of duties to non-teaching personnel ranged from 30–50%. The mean score of ECE centers in all the three cities was acceptable.

Surprisingly, regarding effective staff development, only the municipal- and NGO-run centers in Mumbai did not respond with "excellent" scores. The maximum number of respondents scored this parameter as acceptable.

The staff appraisal system was rated excellent at private centers in Mumbai, Baroda, and Jaipur, but this parameter was rated as acceptable in all the preschool centers in all the three cities.

The level of staff communication was found to be the highest in Jaipur and Baroda, whereas it was below the normal level in centers in Mumbai.

With regard to staff collaboration and participation, collaboration was rated excellent and good in the private centers of all three cities, whereas the highest percentage of

respondents in Mumbai municipal-run centers rated collaboration as acceptable. Staff participation in management activities was noted in all the centers, except in municipal-run centers in Mumbai.

Table 16

Parameters of Resource Utilization

	Mumbai			Baroda		Jaipur	
	Government/ municipal	NGO	Private	Government/ Municipal	Private	NGO	Private
Arrangement and utilization of space[2]							
Excellent	0	30	9	0	75	33	50
Good	78	40	64	100	25	0	50
Acceptable	22	30	27	-	-	67	0
Unsatisfactory							
Physical setting and facilities[1]							
Excellent	0	30	0	_	_	33	75
Good	78	60	50	0	75	_	_
Acceptable	0	10	40	_	_	67	25
Unsatisfactory	22	0	10	100	25	_	_
Provision of teaching resources in organization							
Excellent	0	10	27	0	25	67	75
Good	33	30	45	100	75	_	_
Acceptable	44	60	27	_	_	0	25
Unsatisfactory	22	0	0	_	_	33	0

Management and use of resources							
Excellent	0	10	0	0	50	67	50
Good	22	60	45	0	25	0	50
Acceptable	33	30	45	100	25	_	_
Unsatisfactory	44	0	9	_	_	33	0
Financial planning and management[3]							
Excellent	0	33	20	0	50	100	50
Good	22	33	70	0	25	0	50
Acceptable	22	22	10	100	25	_	_
Unsatisfactory	56	11	0	_	_	_	_
Monitoring by institution							
Excellent	0	13	20	100	50	0	50
Good	22	38	50	0	25	50	50
Acceptable	22	38	20	_	_	50	0
Unsatisfactory	56	13	10	0	25	_	_

[1]Chi-square test is significant at a 5% level of significance for Mumbai and Baroda, [2]for Baroda alone, and [3] for Mumbai alone.

As evident from the above table, a discrepancy can be observed in the responses for space utilization and arrangement and physical setting and facilities. Government-run centers reported synchronized responses of unsatisfactory for both these aspects. To some extent, respondents from private centers in Baroda and Mumbai also scored unsatisfactory. Jaipur excelled in provision and organization of teaching resources. All the three types of

centers in Mumbai scored this parameter as acceptable, and respondents belonging to the management of municipal-run schools in Mumbai responded with unsatisfactory to a greater extent.

The responses for financial planning were moderate in NGO-run and private centers in Mumbai, Baroda, and Jaipur. Respondents from municipal-run centers in Baroda and Mumbai responded as acceptable and unsatisfactory with regard to financial planning. Monitoring of finances in municipal-run centers in Baroda is considered to be the best; however, the responses for this question given by the management of private centers in Mumbai and Jaipur were identical. For this parameter, all types of centers in Mumbai responded as unsatisfactory.

Table 17

Differential in Institutional Evaluation

	Mumbai			Baroda		Jaipur	
	Government/ municipal	NGO	Private	Government/ municipal	Private	NGO	Private
Institutional evaluation framework[1]							
Excellent	0	30	20	0	25	0	50
Good	22	30	30	0	75	67	50
Acceptable	0	30	20	100	0	33	0
Unsatisfactory	78	10	30	_	_	_	_
Attachment to professional organizations/Bodies/Networking							
Excellent	0	30	20	100	50	33	25
Good	22	30	20	_	_	67	50
Acceptable	0	10	20	0	50	_	_
Unsatisfactory	78	30	40	_	_	0	25

[1]*Chi-square test is significant at a 5% level of significance for Baroda.*

Institutional evaluation was marked negative by all the three types of centers in Mumbai, with municipal centers scoring marginally lower scores. The respondents in private centers of all the three cities responded as excellent, but the excellent score was the highest in Jaipur centers (50%). Municipal-run centers in Baroda responded as acceptable.

Municipal and private centers in Baroda had the highest responses for affiliation to professional organizations. The responses from the centers in Mumbai were low in all the three types of centers.

Thus, the overall picture of the responses indicates that municipal-run schools require greater inputs. This could be achieved only after in-depth studies of these centers.

Table 18

Comparison of the Mean Values of Management Indices According to the Type of Childhood Education Centers across Different Cities

Management Indices	Type of ECE Center							
	Govt./Municipal		NGO		Private		Total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
A. Mumbai								
Planning and Administration	21.0	7.1	28.2	4.2	27.2	4.3	25.5	6.1
Leadership	12.4	4.9	18.4	2.2	17.8	3.9	16.2	4.6
Staff Management	17.7	4.7	23.6	2.6	23.8	3.5	21.8	4.6
Utilization of Resources*	12.8	3.1	16.9	2.6	16.4	2.9	15.4	3.3
Evaluation	3.1	1.8	5.4	2.0	4.6	1.9	4.4	2.1
B. Baroda								
Planning and Administration	22.0	0.0	NA	NA	29.0	4.2	25.5	4.7
Leadership	18.0	0.0	NA	NA	18.5	3.7	18.3	2.4
Staff Management	22.0	0.0	NA	NA	25.3	5.5	23.6	4.0
Utilization of Resources*	13.0	0.0	NA	NA	18.0	4.2	15.5	3.9
Evaluation	5.0	0.0	NA	NA	5.8	0.5	5.4	0.5
C. Jaipur								
Planning and Administration	NA	NA	27.0	4.0	28.0	2.6	27.6	3.0
Leadership	NA	NA	17.7	3.2	20.0	2.2	19.0	2.7
Staff Management	NA	NA	25.3	5.8	24.8	3.0	25.0	4.0
Utilization of Resources*	NA	NA	16.8	5.2	21.0	2.0	19.2	4.0
Evaluation	NA	NA	6.0	1.0	6.3	1.3	6.1	1.1

*NA: Data not available. *Result of analysis of variance shows that there was a significant difference between the utilization of resources and the city at a 5% level of significance*

The above table presents the comparison of management indices of different educational centers across different cities. The comparison is made using the mean values of management indices. The significant difference in the mean values was observed by one-way analysis of variance. The post-hoc comparisons using Tukey's test were used to determine the groups that significantly differed from each other. The analysis revealed that resource utilization scored higher mean values among all the indices irrespective of type of school and cities. The mismanagement in resource utilization was found to have equal disparity among all the three types of educational centers in all the cities. However, these differences were not statistically significant.

The result of the analysis of variance shows that there was a significant difference in the pattern of resource utilization across the cities and different educational centers. For instance, the financial planning and monitoring of daily expenses was a cause of concern for ECE centers in all the cities. Similarly, considering the government/NGO-funded educational centers, this association was better in Vadodara than in Mumbai and Jaipur.

Summary of the Management Aspect of ECE Centers

Fullan (1991) suggests that management involves getting things done by working effectively with people. Management of ECE centers is a dimension of study of this report that enforces the quality assay of the particular organization and is an imperative element for the success of an ECE center. In this study, the major factors considered for gauging the management effectiveness of ECE centers were planning and administration, leadership, staff management, resource utilization, and self-evaluation.

Planning and administration were weak in NGO-run preschools in Mumbai and in government-operated centers in Vadodara. The vision and mission of the organizations, role clarity of the staff, and safety measures were factors that required improvement. Hopkins (1991:58) makes the point that organizational characteristics alone do not inform our understanding of the dynamics of developing schools as organizations and that there are further "process factors," which "lubricate" the system and fuel the dynamics of interaction.

Leadership skills were found to be lacking in NGO-operated centers in Mumbai, while a strong collaborative sentiment was found in privately run centers. Areas for improvement were professional knowledge, skills and abilities, while strong sentiments existed for collaborative working and relationships with parents. Fullan (1985) suggested that process factors are related to the process of leadership, guiding value system, intense interaction, and communication providing support and pressure both horizontally and vertically within the school and collaboration in planning and implementing initiatives.

Managing people in the centers was a well-handled feature in demi-metros like Vadodara and Jaipur, where qualities such as staff communication, collaboration, and participative management were proactively practiced.

Resources allocated to ECE centers were best managed by private institutions in Vadodara and Jaipur, while mismanagement was strongly prevalent in NGO-operated ECE centers in Mumbai. Factors requiring improvement were effective financial planning and day-to-day monitoring of institutional expenses, while the strong points were utilization of space and layout of the facilities.

The factor of self-evaluation was analyzed and understood to give the ECE centers a vision for forward path and goal identification. While all the institutions performed at par on the parameters identified for this factor, irregularities were observed in NGO-run ECE centers in Mumbai. Factors of improvement are institutional framework and attachment to organizations, but a further evaluation on a macroeconomic basis is required, as it might have higher bearing on the success of these centers on a long-term basis.

c. Interface and nexus between the quality and management of ECE centers.

The effectiveness of the deliverables of quality can only be ensured if the management processes are executed in alignment with the quality statement of the organization. For ECE centers, a correlation test was conducted between the elements of quality and management taken for the study. The higher is the correlation between the elements, their dependency for the success of each of the quality and management elements becomes more critical. For instance, success of program content as a quality factor may be found to have a high dependency on the success of the planning and administration and utilization of resources.

Table 19

Correlations between Quality and Management

Quality		Planning and Administration	Leadership	Staff Management	Utilization of Resources	Evaluation
Physical Setup	Pearson Correlation	0.624 (**)	00.630 (**)	0.581 (**)	0.636 (**)	0.478 (**)
	Sig. (1-tailed)	0.000	0.000	0.000	0.000	0.000
	N	46	46	46	46	46
Program Content	Pearson Correlation	0.699 (**)	0.665 (**)	0.680 (**)	0.676 (**)	0.538 (**)
	Sig. (1-tailed)	0.000	0.000	0.000	0.000	0.000
	N	46	46	46	46	46
Staff/Personnel	Pearson	0.665 (**)	0.665 (**)	0.679 (**)	0.587 (**)	0.418 (**)

	Correlation					
	Sig. (1-tailed)	0.000	0.000	0.000	0.000	0.002
	N	46	46	46	46	46
Parent-Teacher Association	Pearson Correlation	0.680 (**)	0.582 (**)	.578 (**)	0.599 (**)	0.597 (**)
	Sig. (1-tailed)	0.000	0.000	.000	.000	0.000
	N	46	46	46	46	46
Children	Pearson Correlation	0.700 (**)	0.594 (**)	.632 (**)	0.700 (**)	0.600 (**)
	Sig. (1-tailed)	0.000	0.000	0.000	0.000	0.000
	N	46	46	46	46	46

** Correlation is significant at the 0.01 level (1-tailed).

Interpretation: The Pearson correlation value between all the aspects of quality (physical set-up, staff/personnel, parent-teacher association, and children) and management parameters (planning and administration, leadership, staff management, utilization of resources, and evaluation) lies between 0.5 and 0.75. Thus, there exists a moderate correlation between them, and their values are significant at a 0.01 level (1-tailed). However, amongst the observations, relatively higher correlation of planning and administration was observed with program content, staff association, parent-teacher association, and children.

Figure 7: Correlations

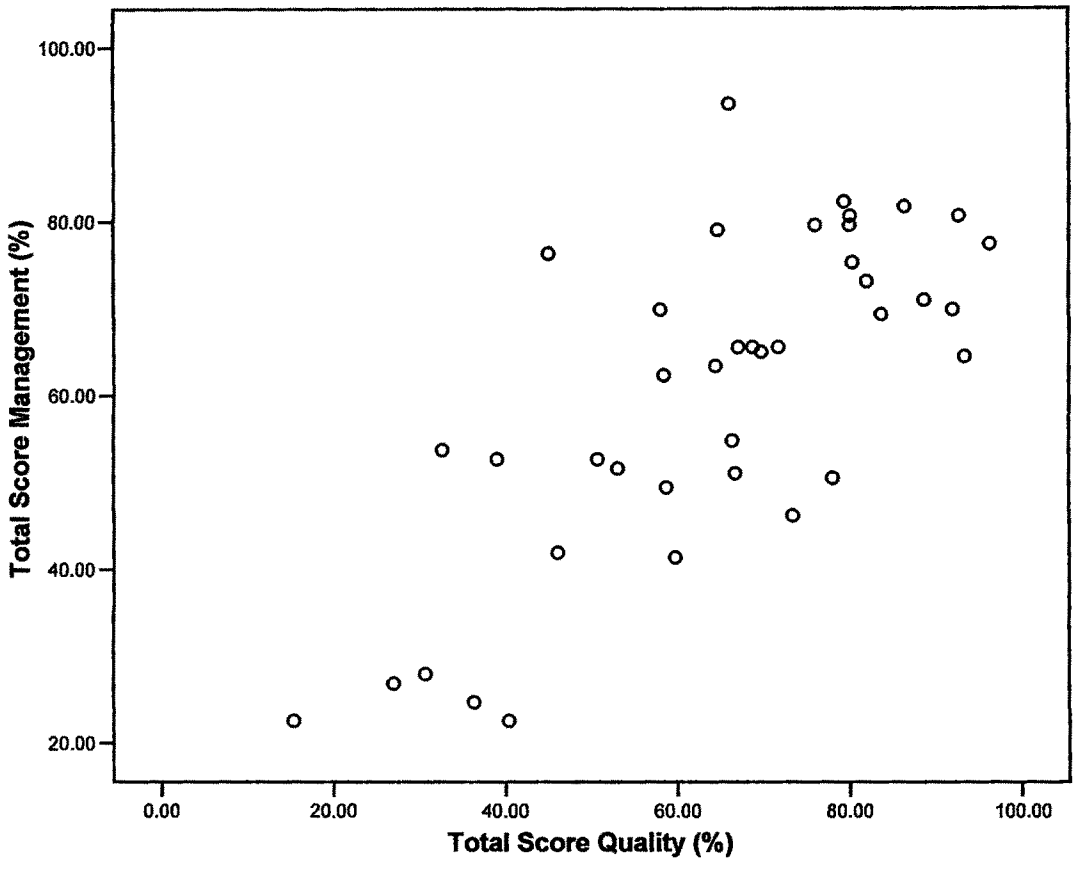


Table 20.

Correlation between the Total Score Quality and Total Score Management

		Total Score Management (%)
Total Score Quality (%)	Pearson Correlation	0.788 (**)

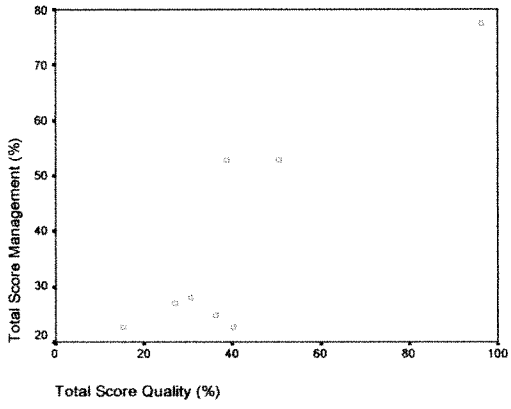
	Sig. (1-tailed)	0.000
	N	46

**Correlation is significant at the 0.01 level (1-tailed).

Interpretation: At the 0.01 level of significance, the rating of the maximum number of respondents for total quality management lay between 60–80%, and the total score for quality evaluated by majority of the respondents was above 60–80%, as per the scatter diagram given below. Thus, there is a strong correlation between the total quality management score and the total quality score.

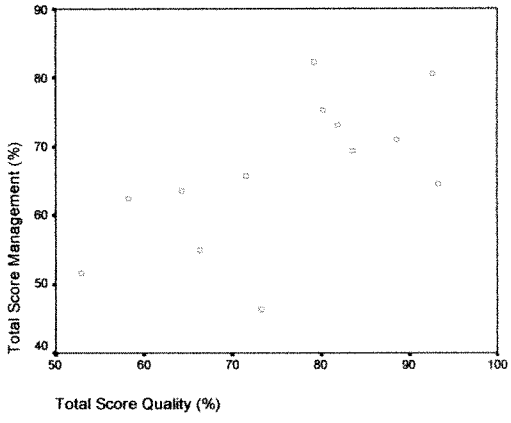
Figure 8: Scatter Plot between the Quality and Management of Different types of Educational Centers

A) Government/Municipal Centers



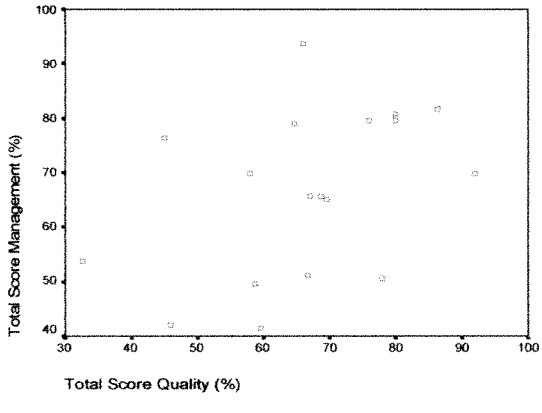
A valid comparison is not possible because of insufficient data points

B) Non-government Centers



A strong positive correlation exists. It means Y can be controlled by X

C) Private Centers



No relationship is perceived as data are scattered. Therefore, stratification of other causes is necessary.

As shown in Figure 8, overall, there exists a positive correlation between the quality of the school and its management. In other words, if the quality of the educational center is

good, then the management also performs well. However, the extent of this relationship varies according to the type of educational centers. For instance, there is a positive but weak relationship between the quality of government schools and its management. The relationship between these two factors is quite strong in private educational centers followed by NGO-funded schools.

d. Analysis of administrator/principal responses

Since the range of program models and governing auspices is so broad, a discussion concerning the administration of early childhood programs befittingly places the program administers at the focal point. The nomenclature referring to the program administrators is varied, and it includes directors, managers, principals, and supervisors.

Variations in the ECE program span a wide range of possibilities. Similarly, program administrators assume the role that encompasses a spectrum of functional accountability. The responses to this aspect of the study were collected from the principal administrator.

Table 21.

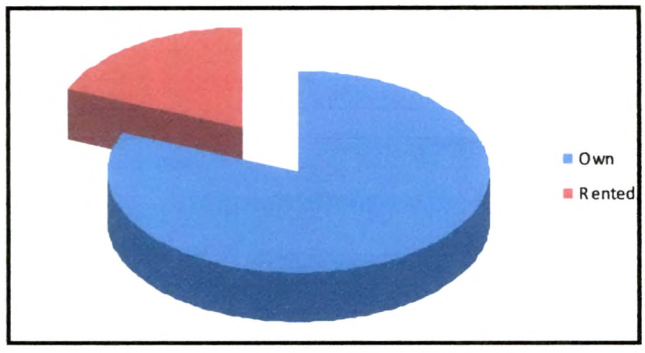
Years of Establishment of Pre-Primary Centers

Building (years)	Frequency	%
<5	4	8.7
6–10	1	2.2
11–20	11	23.9
>20	9	19.6
Did not reply	21	45.7

As seen in Table 21, 19.6% of the buildings had been constructed over 20 years ago. Only 8.7% of the buildings had been constructed less than 5 years ago.

Figure 9

Distribution of Schools by Ownership Status



Thirty-five buildings (76.1%) were owned by the management themselves, whereas the remaining 17.4 % of the buildings, in which the ECE classes were conducted, were rented. Nearly 6.5% of the institutions did not respond to this query.

Table 22

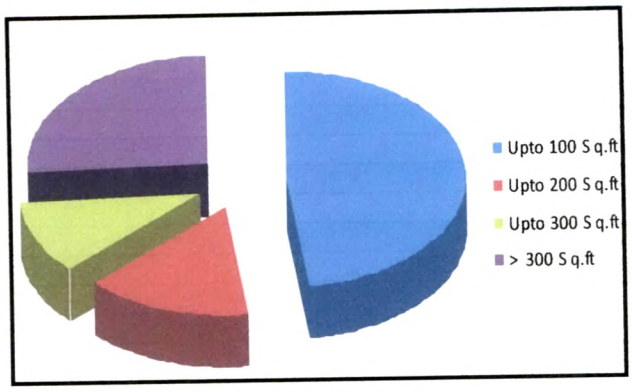
Areawise Distribution

Area	Number	Percentage
Up to 1000 sq. ft.	2	4.30
1000–2000 sq. ft.	2	4.30
2000–4000 sq. ft.	4	8.70
Total		

As shown in Table 22, areawise distribution of ECE centers revealed that 34 ECE centers did not respond. The percentage of centers having an area of up to 1000 sq. ft. and centers having an area of 1000–2000 sq. ft was equal.

Figure 10

Class Size

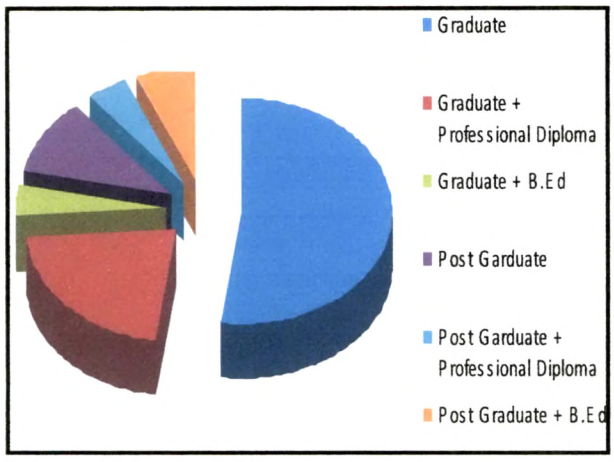


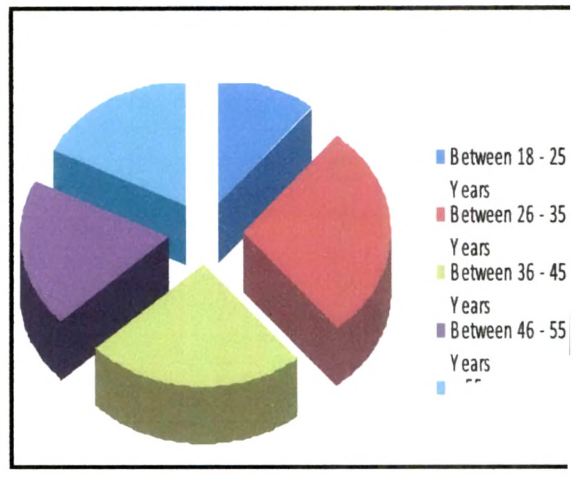
With regard to class size of ECE centers, only 27 centers responded, out of which 7 had an average class area of more than 300 sq. ft. It is noteworthy that among the study participants who did not respond to the parameters listed in Tables 20–21, the head teachers were neither aware nor keen to impart information regarding the physical features of the institution.

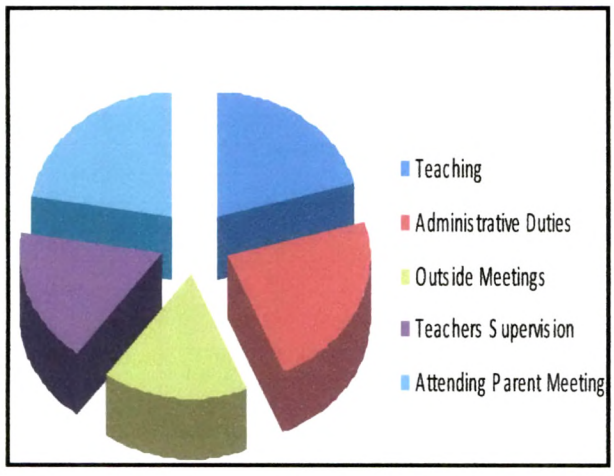
Research has shown that classroom size should be between 42 and 50 square feet, while many states require a minimum of 35 sq. ft. per child. A large classroom allows for greater program flexibility and decreases aggressive behavior of children, and provides space so that children can engage in concurrent quiet and active play (Moore, 1987; 5962).

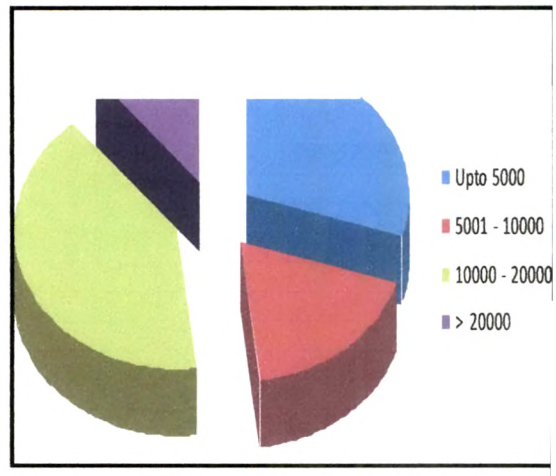
Figure 11

Educational Qualifications, Agewise Distribution, Performance of different Activities, and Salary of Head Teachers









Strong evidence has accumulated that director of early childhood programs are the gatekeepers to quality, setting the standard and expectations for others to follow (Bloom, 1992). In a number of powerful ways, the director/principal influences the climate of a center both as a workplace for the teaching staff and as an educational and nurturing environment for young children.

Of the 46 head teachers, 17 had professional training in the field of education while the remaining 29 did not have professional qualifications, i.e., they earned their degrees in fields other than early childhood education. Directors/head teachers played a major role in building and sustaining high-quality early childhood centers. As reported previously, higher quality centers have been found to employ directors with longer tenure at their site, with more years of formal early childhood training and more prior experience in child programs (Helburn, 1995). Previous research has also identified the important contribution that directors make for staff retention (Whitebook & Sakai, 2004)

Analysis of the table shows that the head teacher's age ranged from 26–45 years. Gender analysis of the 46 head teachers showed that 6 teachers were male whereas 40 (87%) were female.

As mentioned by the respondents, the number of activities in ECE centers varies up to five, but the maximum time is allotted to administrative duties.

The highest percentage of head teachers receiving salaries between Rs. 10,000–20,000 is 24%, and 65% of the head teachers receive salaries of more than Rs. 20,000. It must be noted that 41.3% percent of the head teachers participating in this study did not respond.

Table 23

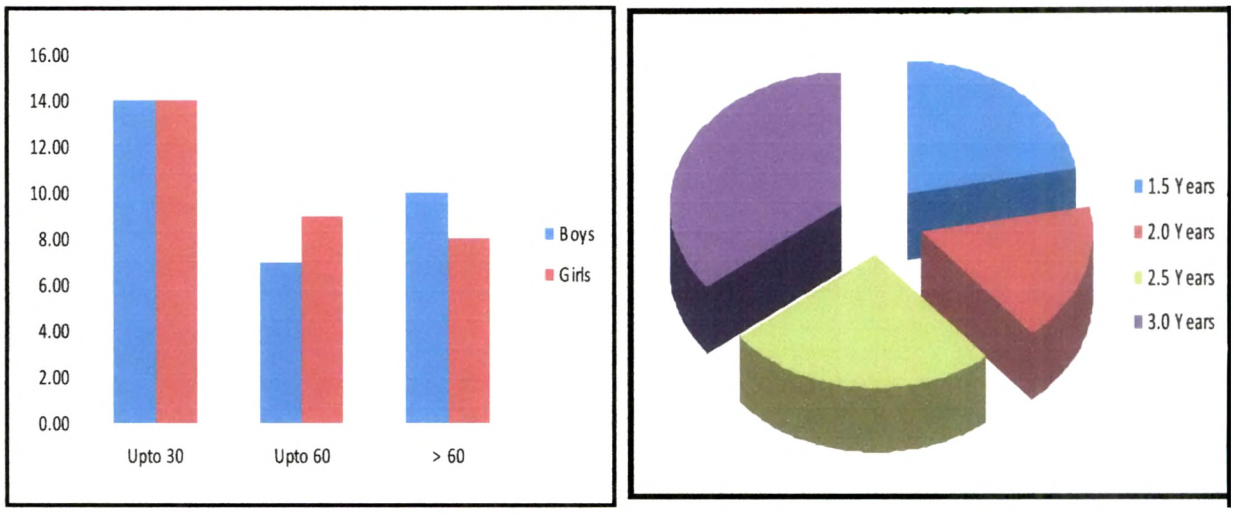
Teaching Experience of the Director

Years of Experience	As Teacher		As Head Teacher	
	No. of Years	Percentage	No. of Years	Percentage
< 3 Years	5	10.90	1	5.66
4 - 7 Years	11	23.90	4	15.20
8 - 15 Years	11	23.90	7	15.20
> 15 Years	19	41.30	6	13.00
Total	46	100	18	49.00

To better understand the directors' professional background, they were asked whether they had worked as teacher in any other setting prior to their current job. The head teachers had between less than three years to more than fifteen years of experience. However, 41% of the head teachers had experience of less than fifteen years.

Figure 12

a) Enrollment of Children in ECE Centers b) Age of Children at Admission Stage

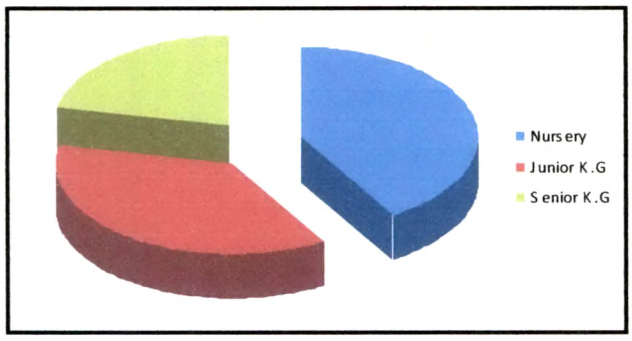


The center-wise enrollment varied across different centers from less than 30 to more than 60 children. The highest percentage of enrollment was present in the smallest group (<30 children), whereas the lowest percentage of enrollment was found in the group with 30–60 children.

The centers admitted children from eighteen months to three years of age, and the percentage of admission was the highest (approximately 36%) at the age of 3 years. The majority of children in the sample belonged to the age group of 2–4 years of age, and spent a considerable amount of time in the ECE centers.

Figure 13

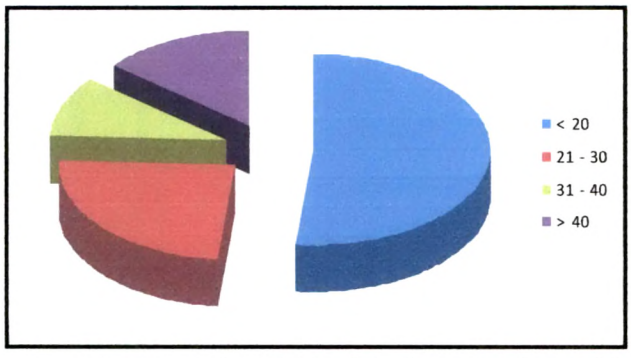
Number of Grades in ECE Centers



At the time of admission, the children were divided into three categories—nursery, junior K.G., and senior K.G. The percentage of admission was the highest at the nursery stage.

Figure 14

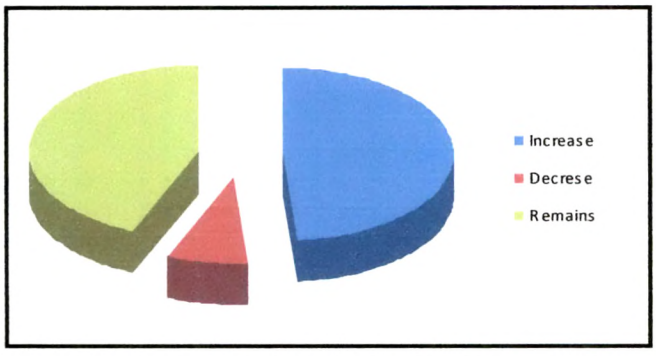
Number of Play Centers



The number of admissions in play centers in different schools varied from less than 20 to more than 40. The percentage of admission was the highest in the group of below 20. It must be noted that 37% of the head teachers did not respond to this part of the study. The national trend suggests that early education enrollment continues to increase, especially for infants and toddlers, the fastest growing subgroup of children, and early care and education program (Kagan & Neuman, 2000)

Figure 15

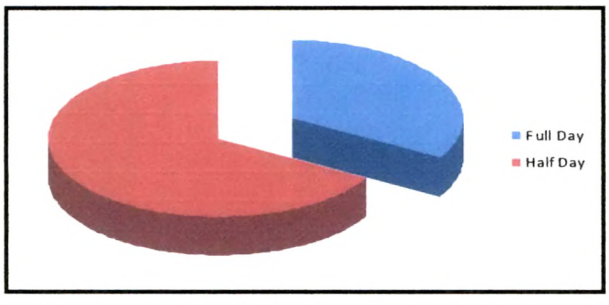
Fluctuation of the Number of Children in ECE Centers

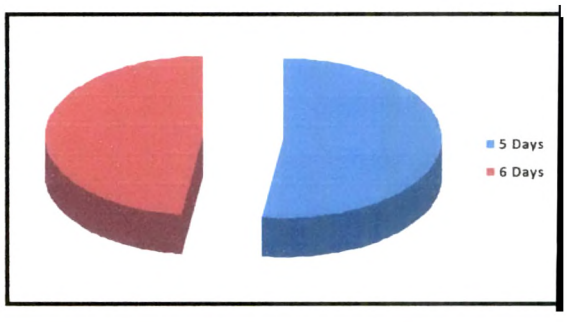


Besides admission, fluctuations in child enrollment to ECE centers must be considered. Figure 15 indicates that the decrease in the number is minimal and there is a variation of only 4%, indicating that the value is constant.

Figure 16

Length and Number of working days in ECE Centers





Just as the number of admissions is vital in ECE centers, the number of working hours is equally important. The percentage of centers that work for half day is 65%, which is more than double the percentage of centers that work for full day.

With regard to number of working days per week, 50% of the centers worked for five days a week, whereas 46% of the centers worked for six days a week.

Table 24

Activities of ECE Centers

Sr. No.	Activities	Baroda		Jaipur		Mumbai		
		Pvt.	Govt.	Pvt.	NGO	Govt.	Pvt.	NGO
		Rating Index						
1	Fine Motor	3.00	1.00	8.14	6.71	2.71	7.23	3.03
2	Art	3.00	1.00	8.14	6.71	4.00	7.23	3.42
3	Music and Movement	3.00	1.00	8.14	4.43	4.00	6.97	3.42
4	Blocks			8.14	6.71	1.97	7.23	2.77
5	Sand and Water			8.14	6.71		6.97	0.90
6	Water Play							
7	Nature							
8	Number			8.14	6.71	1.71	6.32	2.26
9	Language			8.14	6.71	2.71	6.97	2.26
10	T.V. Video			8.14	6.71	2.71	7.23	2.90
11	Any Other			3.43	6.71	2.71	5.94	2.90
				3.43			6.03	2.19

The rating index was higher for the activities undertaken by the ECE centers conducted by private as well as NGO-funded centers, but this index was higher because there were fewer centers in these categories.

As compared to Mumbai and Jaipur, there were fewer activities conducted by preschool centers in Baroda. This could be because the teachers did not comprehend the question or the activities may have been restricted to only three. Variations can be observed in the number of activities undertaken in all three categories. More ECE centers were sampled

in Mumbai than in Jaipur and Baroda. The rating indices for the activities undertaken by private centers were higher than in those of the remaining two categories.

The field of education is becoming increasingly attuned to the importance of preschool programs. Educators believe that such programs facilitate children's academic and social adjustment while contributing to their acquisition of skills and knowledge associated with academic success. The functioning of the preprimary centers is divided into specific schedules in all the three categories of ECE centers. The schedules followed in various institutions are given below.

Full-day Schedule:

9:00–9:15	Arrival of children, children ready for the day
9:15–10:00	Cleanup
10:00–10:45	Free play
10:45–11:00	Bio-break
11:00–12:05	Story time (language activity)
12:15–1:00	Lunch
1:00–2:00	Nap time
2:00–2:30	Children self-care/hygiene
2:30–3:00	Drawing/painting, etc. (creative activity)
3:00–4:30	Outdoor activity and math activity
4:30–5:00	Snacks and winding up.

Half-day schedule:

9:00	Arrival and greetings
9:00 to 10:00	Free play
10:00 to 10:15	Toilet and wash
10:15 to 10:30	Group discussion and stories (language activity)
10.30 to 10:45	Singing and dancing
10.45 to 11:00	Snacks
11:00 to 11:30	Creative activity
11:30 to 12:00	Individual activity and departure

Studies have documented that schedules and routines influence children's emotional, cognitive, and social development. For example, predictable and consistent

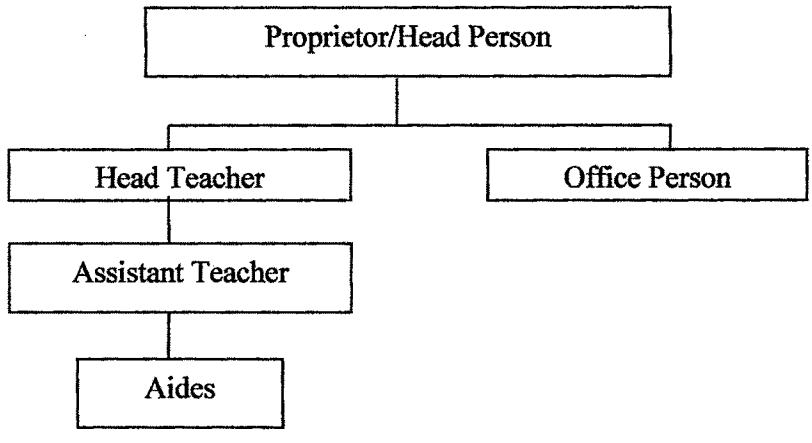
schedules in preschool classrooms help children feel secure and comfortable. Schedules and routines help children understand the expectations of the environment and reduce frequency behavior problem, such as tantrums and activities of aggression. Activity schedules that present the child choices, balanced and planned activities (e.g., small vs. large groups, quiet time vs. active time, teacher-directed activities vs. child-directed activities, indoor vs. outdoor) and individualized results with a high rate of child engagement (Ostrosky, Jung, Hemmeter, & Thomas 2008, p. 2).

Geographically, our study is based in India for a specific reason, and the chosen organizations were selected because they serve the clientele under study. Given the similarity in the characteristics of our sample organization, we expect that the institutions under study would have developed similar organizational structures to enable their optimal functioning.

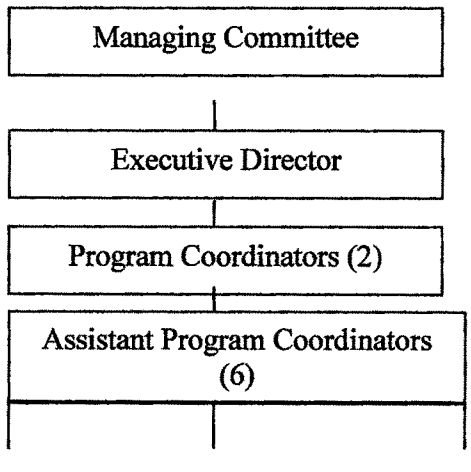
Figure 17 shows the variation in the organization of early childhood programs that span a wide range of possibilities. The administrator and personnel likewise assume roles that encompass a spectrum of functional accountability.

FIGURE 17: ORGANIZATIONAL STRUCTURE

1. Private ECE Center

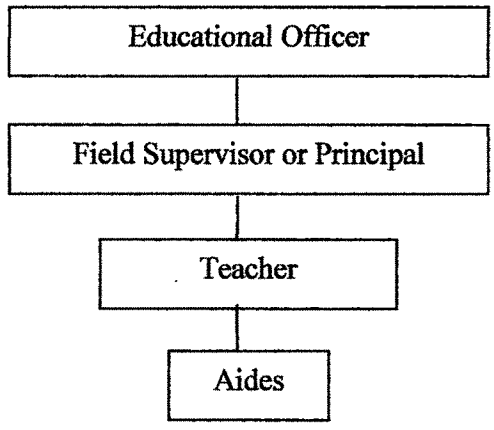


2. NGO ECE Centers



Field Staff	**Administrative Staff**
Program Officers (11)	Accountant (1)
Supervisors (15)	Supply In-charge (2)
Teachers (26)	Office Assistants (2)
Creche Workers (28)	Helpers (3) Driver (1)

3. *Municipal Conducted ECE Centers*



The ethos of generating care and wellbeing is the goal of most non-profit organizations. This is clearly different from the ethos of organizations in the for-profit sector that focus on generating profit and the government sector, which strives to fulfill political agendas.

II. Teachers' Role and Perception of Early Childhood Education Centers

Teachers are an integral part of any educational institution in general and for ECE centers in particular. A teacher's service quality has an impact on the quality of services and the effectiveness of the management. In our present study, every attempt was made to understand the quality of the employed teachers and their perception towards various management aspects.

Table 25

Demographic Characteristics of Teachers

		BARODA			JAIPUR			MUMBAI			
Age Group		Government	Private	Total	Private	NGO	Total	Government	Private	NGO	Total
18 - 25 Years	f				4	0	4	2	7	3	12
	%				22.2%	0.0%	19.0%	11.1%	22.6%	20.0%	18.8
26 - 35 Years	f	2	1	3	7	2	9	5	15	8	28
	%	40%	33.3	37.5	38.9	66.7	42.9	27.9	48.4	53.4	43.8
36 - 45 Years	f	2	2	4	6	1	7	6	7	4	17
	%	40%	66.7	50	33.3	33.3%	33.30%	33.3	22.6	26.7	26.6
46 - 55 Years	f	1	0	1	-	0		4	2	0	6
	%	20.0%	0%	12.5	_	0		22.2	6.5	0	9.4
More than 55 Years	f	-	-		1	-	1	1	0	0	1
	%	-	-	-	5.6	-	4.8	5.6	00	1.6	1.6

As shown in Table 25, the age group of the teachers ranged between 18 to 25 years, and 2.2%, i.e., two teachers were over 55 years of age. Nearly 73% of the teachers were between 26 to 45 years of age.

Open-ended questions were asked regarding the teacher's awareness of school's philosophy. Very few teachers responded to these questions, and the responses were lacking in specificity. The responses of the teachers included, "to make good citizens;" "to impart good education;" "to develop mentally, physically, and socially;" and "to develop creativity" (1% each). Then, 26.88% (f = 25) of the respondents gave a general response of "all-round development."

With regard to the status of ECE centers, while status is considered good, the responses had many inconsistencies. For instance, 59.14% of the respondents responded with terms such as best, excellent, good, no comparison, most popular, very good, very innovative, well reputed, one of the top nursery schools that is better than the others, irrespective of the city or category.

The strong point was getting admission in a good school family type of environment.

Improvement in the ECE centers regarding cleanliness, with respect to toys, equipment, space, playground, computer, and toilet facility was reported.

Table 26

Distribution of Teachers by Educational Qualification

	Qualifications	Number of Teachers
1.	Eighth standard or below	10
2.	Diploma/Certificate Course after 10^{th} standard	14
3.	Diploma/Certificate Course after 12^{th} standard	15
4.	Graduate	32
5.	Graduate with ECE Centers	11
6.	Postgraduate	8
7.	Postgraduate in ECE centers/B.Ed.	3

Data related to the qualification of the teachers revealed that almost all the teachers were qualified for their job, although the variation observable in the table may be due to the type of organization to which the teacher belongs.

Studies indicate that a bachelor's degree and specialized early education training affected the teacher's behavior and quality of the early childhood program. Teachers with bachelor's degree were more responsive to children and provided more activities that promoted language development and emergent literacy then teachers without one. Thus, teachers with bachelor's degree and specialized training were considered to be most competent. A teacher's level of education is a critical factor in the quality of the program (Saracho & Spodek, 2007).

Table 27

Teaching Experience of the Teachers

Number of years of experience	Number of teachers
Less than 1 year	10
1 – 5 years	26
6 – 10 years	29
11 – 15 years	17
16 – 15 years	6
21 – 25 years	2
26 – 30 years	2
More than 30 years	1

As shown in Table 27, the teaching experience of the teachers varied from 7–8 months to more than 30 years. Difficulty in recruiting and retaining qualified teachers is an established dilemma.

The average number of years of service of the teachers indicates a low staff turnover, which in turn provides the center and children with stability and continuity on one hand and instability and discontinuity on the other side of the spectrum.

Table 28

Analysis of Responses for Different Aspects of Role Description from Teachers in Baroda, Jaipur, and Mumbai.

Sr. No	City Aspect Categories	Response	Baroda			Jaipur			Mumbai			
			Private	Govt	Total	Private	NGO	Total	Govt	Private	NGO	Total
1	Description of total responsibility	Not needed										
		%	0	5	0	8	0	8	0	0	0	0
		F	0	100		44.4	0	38.1	0	0	0	0
		Not needed										
		%	0	0	0	0	0	0	1	0	0	1
		F	0	0	0	0	0	0	5.6	0	0	1.6
		Included										
		%	3	5	8	9	2	11	13	27	15	65
		F	100	100	100	50	66.7	52.4	72.2	87.1	100	85.1
2	Salary Information	Not needed										
		%	0	0	0	6	0	6	2	0	0	2
		F	0	0	0	43.3	0	25.6	11.1	0	0	3.1
		Not needed										

		%	0	0	0	0	0	0	1	0	0	1
		F	0	0	0	0	0	0	5.6	0	0	1.6
		Included										
		%	5	5	8	10	2	12	14	27	15	56
		F	100	100	100	55.6	66.7	57	77.8	87	100	87.5
		Not needed										
		%	0	0	0	7	0	7	1	2	4	7
3	**Benefits**	F	0	0	0	38.9	0	33.3	5.6	6.5	26.7	10.9
		Not needed										
		%	0	0	0	0	0	0	11	5	3	19
		F	0	0	0	0	0	0	61.1	16.1	20.0	29.7
		Included										
		%	2	5	7	4	1	5	4	8	8	30
		F	66.7	100	87.5	22.2	33.3	23.8	22.2	63.4	53.3	46.9
		Not needed										
		%	0	0	0	7	0	7	2	1	4	7
		F	0	0	0	38.9	0	33.3	11.1	3.2	26.7	10.9
4	**Resignation and Termination**	**Not needed**										

		%	0	0	0	3	0	3	10	2	2	14
		F	0	0	0	16.7	0	14.3	55.6	6.5	13.3	21.9
		Included										
		%	3	5	8	4	2	6	3	21	8	32
		F					28.6	16.7	16.7	67.7	53.3	50.0
			100	100	100	22.2	66.7					
		Not needed										
		%	0	0	0	7	1	8	1	2	4	7
5	**Grievance Procedure**	F	0	0	0	38.9	33.3	38.1	5.6	6.5	26.7	10.9
		Not needed										
		%	0	0	0	3	0	3	8	5	3	16
		F	0	0	0	16.7	0	14.3	44.8	16.1	20.0	25.0
		Included										
		%	3	2	5	4	0	4	7	16	7	3
		F	40	40	62.5	22.2	0	19.0	38.9	51.6	46.7	46.9

The above data representation revealed that the teacher's schools provided the description of job responsibilities. However, 1.6% respondents did not include the job description. Further, 43.3% respondents from Jaipur did not need information regarding salary and 11.1% of government teachers of Mumbai did not need information related to salary. However, 87.5% of Mumbai schools revealed that salary information is included in their job description followed by Jaipur (57.5%). In Baroda, 87.5% respondents revealed that they were given information pertaining to the benefits followed by 46.9% of Mumbai teachers. Jaipur, at 23.8%, had the least information related to their benefits. A similar picture emerged regarding the resignation and termination policy. The grievance procedure was detailed by the maximum number of respondents in Baroda, followed by Mumbai and Jaipur. In conclusion, respondents from Baroda had a clear picture of their job description as compared to their Mumbai and Jaipur counterparts.

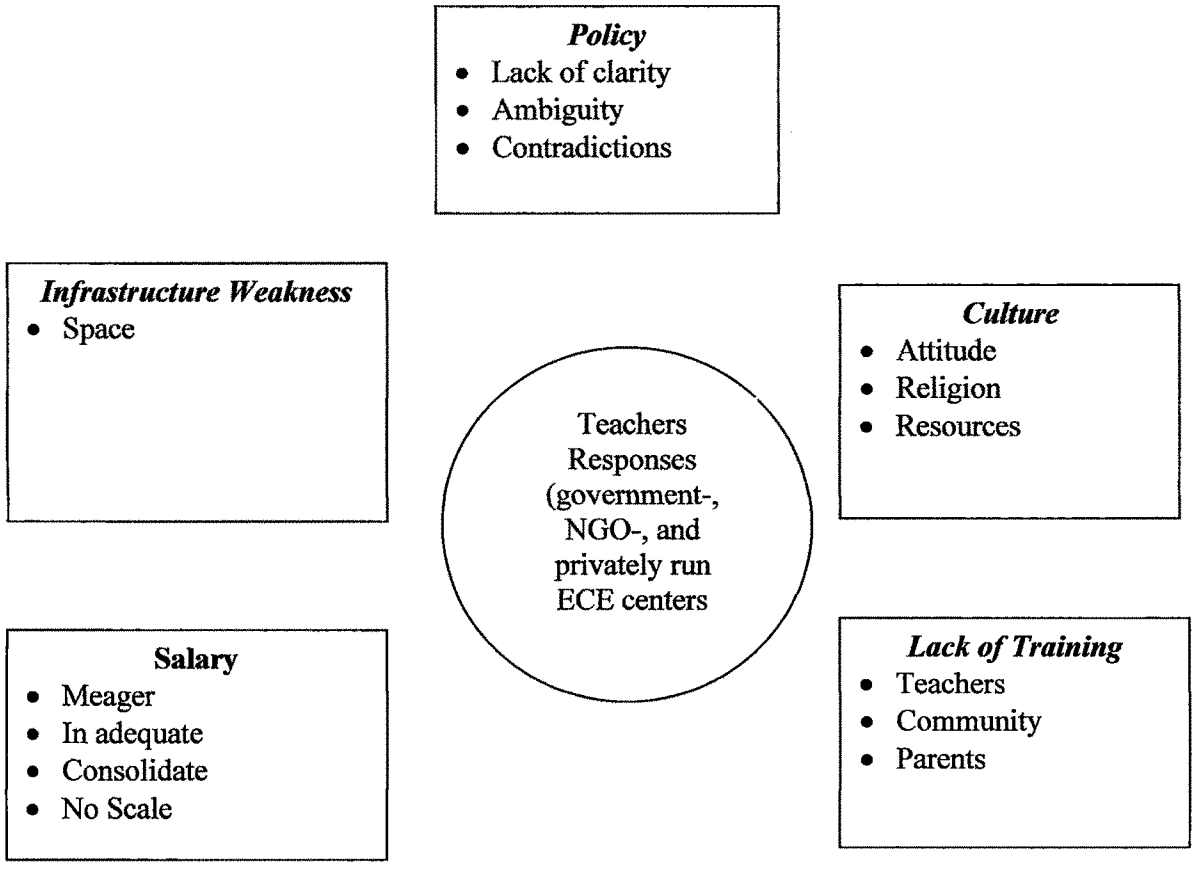
The quality of communication between the staff and administrator was perceived as excellent by 45% of the teachers and as very good by 35% of the teachers. Additionally, the communication among the staff members was perceived as excellent (42.9%) and very good (39.6%) by the respondents. Rating indices for the above parameter were 3.13, 2.50, and 3.52 for Mumbai, Baroda, and Jaipur, respectively.

With regard to staff development, most of the teacher felt that the offsite workshops help to improve their working style, knowledge, and skill (82.6%). The teachers also confessed that their visit to other programs elsewhere was adequate (74.3%). Additionally, the access to resource material is perceived as adequate by most of the

teachers (85.7%). Further, 73.2% of the teachers stated that they received adequate service training sessions. However, with regard to training on campus, 45.5% of the teachers felt that their training was adequate, while 59.5% disagreed and responded that the training was inadequate.

Responses to open-ended question were reviewed and the answers were transcribed in electronic form. The answers were then analyzed and grouped into categories according to their similarities. Figure 18 reflects the most common responses categorized, for the categories for the identified responses were are not mutually exclusive, i.e., the individual responses to each question was sometimes multifaceted, and could be coded as falling under more than one response category.

Figure 18: An Illustration of Teachers' Responses



Well-educated professionals are a prerequisite for ECE. The knowledge skills and attitudes of each teacher are of great importance. After all, the quality of their teaching has a direct effect upon the learner's level of attainment and their learning experiences. The teacher's responses to problems faced in their profession revealed that majority of ECE teachers are women, making this an issue of gender inequality. Like many other predominantly female professions, teachers in ECE are often underpaid. Salary parity and inadequate benefit packages serve as major bars to attracting qualified teachers.

The same argument applies to other working conditions. Teacher's working conditions vary greatly across cities, e.g., lack of space in Mumbai, poor infrastructure in NGO- and government-operated ECE centers.

In our country, there is no general qualification or education level for ECE teachers and other staff. Lack of training programs was also observed. There was a wide disparity in the qualification and compensation for comparable work in different early childhood settings.

Although the teachers were happy in their profession, they felt that career opportunities in ECE are unacceptably limited. In conclusion, these issues need to be addressed on a priority basis in order to improve the overall quality and experiences for both children and teachers with respect to early childhood education.

III. Parents' Views and Awareness of Early Childhood Education Centers

Young children do not grow up in isolation; rather, they are part of a family and community. Parents "structure the experiences and shape the environment within which early development unfolds" (National Research Council and Institutes of Medicine, 2000; p226). The early childhood settings ultimately judge themselves by locating their practice against what they perceive to be the current parental perception of their work. The following tables reveal the same.

Table 29

City-wise Distribution of Parents.

City	Frequency	Percent
Jaipur	18	13.1
Mumbai	95	17.5
Vadodara	24	69.3
Total	137	100

Table 30

ECE Center Category-wise Distribution of Parents.

Category	Frequency	Percent
Government	58	42.3
Private	45	32.8
NGO	34	24.8
Total	137	100

From tables 29 and 30, it is evident that the responses were received from 137 parents from three cities and categories.

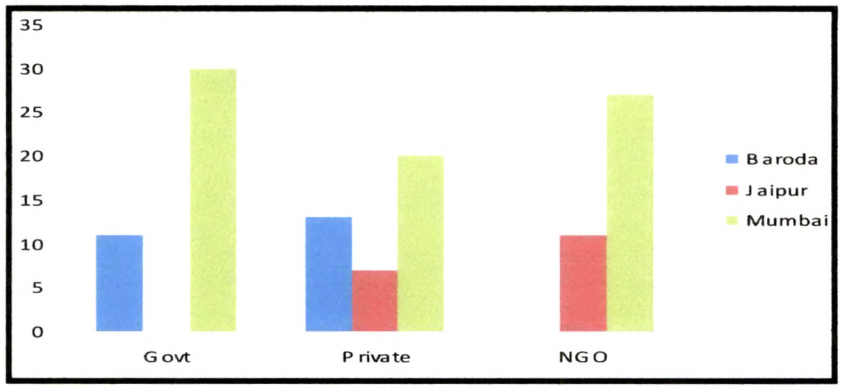
For a complete interpretation of the responses to the questionnaire for parents, the responses were categorized into three classes:

1. Parents' perception about the school program and about their children
2. Information provided by the school to parents
3. Parents' participation in the ECE centers

1. Parents' Perception about school:

Figure 19

Location- and Category-wise Analysis of Parents' responses about ECE Centers Planning Activity and Schedule



The parents are the first and overwhelmingly the most powerful influence on the learning and development of young children. The graph illustrates that nearly 97.5% of the responding parents are satisfied with planning activities and schedules of the ECE

centers. Even in Mumbai, where ECE centers of all the three categories exist, the responses were found to be favorable across all categories.

However, during investigations, it was noticed that private and NGO-run centers function more methodically with respect to planning activities and schedules as compared to government-run centers.

Table 31 Evaluation on Operational Aspects of Preschool Centers

	City	Baroda				Jaipur				Mumbai				Total
	Rating Scale	No Response	Satisfactory	Good	Very Good	No Response	Satisfactory	Good	Very Good	No Responding	Satisfactory	Good	Very Good	Rating Index
	Aspect													
1	Care of Child	1	6	17	-	-	-	14	4	13	43	29	10	1.37
2	Availability of Care Given	-	21	3	-	-	2	14	2	-	42	49	4	1.42
3	Curriculum	-	6	17	1	-	1	15	2	-	26	59	10	1.85
4	Clarity of Policy	-	21	3	-	-	5	12	1	-	39	46	10	1.61
5	Flexibility in Meeting Requirements from Parents	-	20	3	1	-	3	14	1	-	42	39	14	1.65

	Rating Scale	No Response	Not at All	Rarely	Regularly	No Response	Not at All	Rarely	Regularly	No Response	Not at All	Rarely	Regularly	Total
	Aspects													
6	Newsletter	-	0	21	3	2	5	5	6	-	13	55	17	2.1
7	Fundraising	-	0	0	16	8	4	5	1	55	14	8	18	1.31
8	Parents Meeting	-	0	16	8	-	-	16	8	3	0	5	10	1.74

Table 31 dealt with the evaluative aspects of the centers as judged by the parents. The first part of this table (1-5) consists of qualitative aspects whereas the second is related to the time interval.

The responses from the first part were evaluated using a rating scale. The scale was divided into four categories, namely, no response, satisfactory, good, and very good, with each score assigned values ranging from 0–3. Based on the total score, rating indices were calculated for each of the five aspects, namely, childcare, availability of caregiver, curriculum, clarity of policy, and flexibility in meeting requirement from parents. The curriculum was highly rated by the parents whereas childcare had the lowest rating index. The second aspect consisted of newsletter, fundraising, and parent meetings, and was categorized into four parts, with each score assigned values ranging from 0–3. Newsletter was highly rated whereas fundraising received the lowest rating index.

Parental Participation in ECE Centers

Figure 20

City- and Category-wise Analysis of Material and Experiences Provided by ECE Centers to Parents

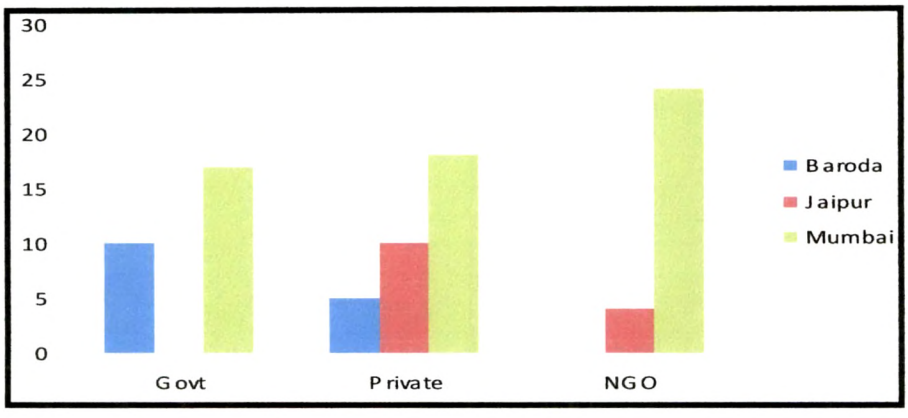
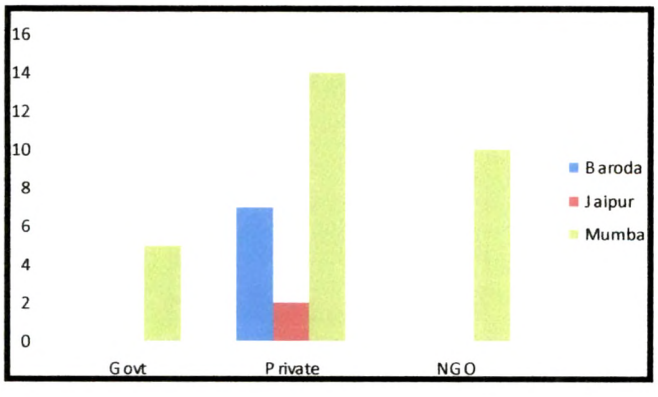


Figure 20 presents an analysis of responses given by parents according to the different categories of centers. The material might be related to vocabulary, number, creativity, etc. Note that merely 78% of the respondents have given a positive response.

Figure 21

City- and Category-wise Analysis of the Responses Regarding Parents Offering to Work as Resource Person



The figure shows that only 38, i.e., 27.8% of the parents offered to work as a resource person for the preschool.

Table 35

City- and Category-wise Analysis of Responses Regarding Parents Offering Their Services to the Center

City		Baroda		Jaipur		Mumbai			
Category		**Government**	**Private**	**Private**	**NGO**	**Government**	**Private**	**NGO**	**Total**
Options									
	f	1	1	0	3	1	6	1	13
Regularly	%	100.00	8.30	0.00	33.30	5.00	25.00	3.00	12.1
	f	9	4	2	2	4	3	7	31
Sometimes	%	40.00	33.30	40.00	22.20	20.00	12.50	25.90	29
	f	0	7	3	4	15	15	19	63
Regularly	%	0.00	68.30	60.00	44.40	75.00	62.50	70.00	58.9

As evident from the above table regarding the offering of services, the result indicates meager responses from all the categories of all the three cities. It is also to be noticed that the participation even in government-run centers in the city of Mumbai is highly discouraging.

Table 36

City and Category-wise Analysis of Responses Regarding the Frequency of PTA Meetings Arranged by the Centers

City		Baroda		Jaipur		Mumbai			Total
Category		Government	Private	Private	NGO	Government	Private	NGO	
Alternate									
	f	3	7	2	10	9	8	6	45
Monthly	%	27.30	53.80	28.60	90.90	22.50	33.30	19.40	42.8
	f	1	3	3	0	13	9	8	37
Quarterly	%	9.10	23.10	42.90	0.00	32.50	37.50	25.90	34.2
	f	0	1	1	0	3	2	8	15
Half Yearly	%	0.00	7.70	14.30	0.00	7.50	8.30	25.80	13.3

The above table shows that the percentage of parents arranging for monthly PTA meetings was almost 43%; further, these meetings were arranged to a greater extent by privately run ECE centers.

Table 37

City- and Category-wise Analysis of the Frequency of Attendance in PTA Meetings by Parents

City		Baroda		Jaipur		Mumbai			
Category		Government	**Private**	**Private**	**NGO**	Government	**Private**	**NGO**	**Total**
Option									
Regularly	f	1	10	2	9	18	22	23	85
	%	9.10	90.90	40.00	81.80	64.30	91.70	82.10	72
Sometimes	f	10	1	1	1	5	1	3	22
	%	90.90	9.10	20.00	9.10	17.90	4.20	10.70	18.6
Never	f	0	0	2	1	5	1	2	11
	%	0.00	0.00	40.00	9.10	17.90	4.20	7.10	9.3

Table 37 indicates that the attendance of the parents at PTA meetings is quite satisfactory in all the three cities, but it is highest in the private centers in Baroda and Mumbai, followed by the NGO-run ECE centers of Jaipur.

Table 38

City- and Category-wise Analysis of Parents' Responses Regarding Discussing Their Children's Problems

City		Baroda		Jaipur		Mumbai			
Category		Government	Private	Private	NGO	Government	Private	NGO	Total
Option									
Yes	f	11	13	7	11	34	24	26	126
	%	10.00	100.00	1000.00	100.00	47.10	100.00	92.90	97.7
No	f	0	0	0	0	0	0	1	1
	%	0.00	0.00	0.00	0.00	0.00	0.00	3.60	0.8
Not Needed	f	0	0	0	0	1	0	1	2
	%	0.00	0.00	0.00	0.00	2.90	0.00	3.60	1.6

As indicated in Table 38, 14.48% of the parents discussed their children's problems with the respective teachers, and only 1.6% of the parents responded that they felt "no need" to discuss their children's problems with the teacher. In response to the question related to their grievances, 25 of the 137 respondents (18.25%) replied negatively saying that there was no grievance, whereas the remaining 92 (67.15%) stated that the grievances were resolved either individually by the group teacher or during a meeting with the parent. The responses for the question about dealing with the child's attitude towards the school and parents recommending the center to others were 100% positive.

IV. Observation of Similarities and Differences across Cities in ECE Centers

Observational practices have been an integral part of ECE for many years. The current study provided insight into the functioning of ECE centers of each type (Government Non Government & Private) and cities (Vadodara, Mumbai & Jaipur) which strengthen the qualitative data, is depicted in the below given table

Table 39: ***Observation of Similarities and Differences across Cities and Categories in ECE Centers***

	VADODARA	MUMBAI	JAIPUR
Government schools	**Buildings** were well maintained but with unkempt surrounding. Classroom had ample ventilated space but with no furniture, due to which the children had to sit on mats. The centre lacked spare toilet facility. The **teacher**:student ratio was 1:45, hence the students received less attention.	**Buildings** were not well maintained. The playground was equipped with cultural equipment such as swings and slides. Water facilities were available. Common unhygienic toilets for both girls and boys. Both BMC and NMMC lacked provisions for good furniture. The **teacher:**student ratio was 2:50. Two teachers were found in the nursery: one was dedicated towards the job	

		and the other was not.	
	Teacher qualification required by the preschool center is PTC (Pre-Primary Certificate) **Children** came from a low socioeconomic background. The **curriculum** is based on a prescribed syllabus in Hindi, Guajarati, or Marathi language. Activities such as singing, dancing, outdoor plays, informal talks, and storytelling sessions are conducted. All the children were given 15–20 minutes to complete the task together. The **toys** provided lacked quality and the teacher was unaware of its significance.	**Teacher selection** was based on an entrance test followed by training session. **Children** who came to this center were of low-income parents and those who live in slums. The **curriculum** is based on the format given by BMC and NMMC. Activities such as storytelling, reading, and writing numbers are conducted. The medium of instruction is Marathi. The **toys** provided were in collaboration with a toy library, which had developmental significance.	

	The **teaching methodology** is more informal and play way method. **Records** of children's personal data and progress report were well maintained by the teacher. **Teacher-parent interactions** are informal. Meetings were conducted rarely. **Child-child interaction** is very good because of the play way method.	The **teaching methodology** is mostly formal teaching. **Records** of children's personal data and progress report were submitted to the BMC and NMMC education bodies. **Teacher-parent interactions** are informal. However, formal meetings for parents were also conducted in order to discuss the child's progress. **Child-child interactions** were few when they are accomplishing the task but more in outdoor activities.	

Non-government organization.	**First NGO** run by ICDS focused on providing food to the children. Classroom comprised of just one room. Some teachers were qualified whereas some were not. Children were mainly from low socioeconomic background. There was no fixed curriculum but sessions included songs, mathematics, and storytelling. The centers were supervised by field officers of the NGO. The **second NGO-run preschool** was conducted by an industry in clean and hygienic surroundings.	Many organizations were studied. The NGOs were committed to its job and stayed true to their focus. Some *balwadis* had good **classrooms** with proper drinking and sanitary facilities, but the remaining *balwadis* were in bad condition. **Teachers** available were of two types: volunteer and permanent teachers. Street **children;** children of migrant workers, construction workers, prostitutes, urban slums; and socially, economically	The **first organization** worked towards educating poor and disadvantaged children. The organization has developed innovative curricula for young children. Teachers were qualified and some teachers were trained to deal with children. The **second NGO** engages in quality improvement in the school pedagogy through its own four schools and various projects; through foundation courses and workshops for both

	The classroom was utilized for multipurpose tasks; thus, it lacked furniture setup. Basic requirements such as water facility, toilets, lighting, and ventilation were given more importance. The teacher-child ratio ranged from 4:25 and 12:50. A healthy and positive atmosphere was observed in the classroom. The **curriculum** was formulated by the NGO itself, and consisted of songs and indoor and outdoor activities. Extracurricular activities were also planned. Parent-teacher meetings were held every 3 or 6 months. The **third and fourth NGO-run preschools** were project-	and emotionally deprived children were its main focus. The **curriculum** was based on the philosophy and goal of the organizations. The centers primarily taught the children how to live in a society. One of the NGOs had a thematic approach. The **teaching methodology** was formal education. **Records** of children were well maintained by the NGO. **Teacher-parent interaction** was very rare. **Child-child interactions** were more as the NGO provide good learning and social opportunities to the children.	teachers and educational functionaries. The surroundings were clean but the building required some maintenance The **third NGO** was established by UNICEF, who provides education to the underprivileged children of India. They have a set curriculum that teaches mathematics, alphabets, songs, language, music, etc. The teachers were well qualified. The surroundings were clean and tidy. There were separate toilets, and drinking water was also available.

Private ECE centers.	based centers. Their main focus was the slum population. The physical structure was one dingy room. The **curriculum** included of songs, reciting words, etc. There were no parent-teacher interactions. It was supervised by field officers, but even they lacked complete knowledge of ECE. The **physical surroundings** were very clean and hygienic, but the building was for multipurpose use. The **classroom** size was sufficient depending upon the number of children. Readymade display materials	The **physical structure** was very hygienic and found suitable for the children's health **Classrooms** were not sufficiently big, but some schools had air conditioning in the classroom. Seating arrangement was	The **physical structure** was well maintained but most schools faced tremendous traffic noise. **Classrooms** were sufficiently spacious. The classroom was made attractive by display of

	were placed. The seating arrangements were flexible in nature. Water and toilet facilities were same for both the sexes. **Play material** varied from school to school but was of better quality as compared to other centers. **Teacher-child** ratio ranged between 1:10 and 1:40. **Teacher selection** was done on the basis of CD diploma on some pre-primary teaching course. The **curriculum** consisted of teaching songs, storytelling, creative activities, etc.	flexible enough. Proper drinking water and unisex toilet facilities were observed. **Play material** of most schools had contributed to the development of the child. The **teacher-child ratio** varied from 1:30 and 2: 60. **Teachers** were graduates from different fields of education. The **curriculum** was a mixture of Montessori method and play way method. **Records** of the children were well maintained by the	charts and posters. Seating arrangement included small tables and chairs. Water and toilet facilities were very well maintained and the toilets were unisex. **Play material** were in large sets and were significant for children's development. The **teacher-child ratio** was 2:40 in most of the schools. **Teachers** were selected on the bases of degree or diploma in the field of preschool education. The **curriculum** included songs, creative activities, indoor and outdoor play, extracurricular activities, and mathematics. **Records** of the children

	Records of children were well maintained by the teacher. **Teacher-parent interaction** was the highest in these centers and it also involved parental participation. **Child-child interaction** was also very good; thus, the children were very well developed socially.	teachers. **Teacher-parent interaction** was very strong. **Child – child interaction** was also very good as the children were given many group tasks to accomplish.	were well maintained by the teacher. **Teacher-parent interaction** was slightly lower and occurred mostly during PTA meetings. **Child-child interaction** was found to be good.

Salient Findings

The key findings were that the results were distinct according to the type of organization running the ECE center and the city where it was located. While the quality was above average for Mumbai, the management aspect was found stronger in Vadodara and Jaipur. Further, there were few aspects that were characteristic of private organizations across all the cities while some features were distinct in government organizations and NGOs, regardless of the city.

The maximum need for improvement was observed in NGO-run ECE centers, while the best ECE centers were the privately run ones, both in Mumbai. However, the government-run ECECs in Mumbai finished second, followed by the privately run ECE centers of Vadodara and Jaipur. Further, the government- and NGO-run ECE centers in the respective cities also put up a strong standard of performance on both the quality and management standards.

Moreover, it was found that the dynamics of the quality and management were not independent of each other. There existed a strong correlation between the planning and administration of the management assay and program content, staff association, parent-teacher association, and children of the quality assay. Resource utilization was one of the factors that was observed to be detached from the management assay and required alignment with the management facet for the success of ECE centers.

Study Limitations

In any study of this scope spanning three different types of institutions across three different cities, there are bound to be limitations that in some way impact the final outcome of the study. However, despite these limitations, a reliable study could be conducted, which provides deep and rich insights into the quality and management of different ECE centers.

1. The sample selection of sites for this study was not scientifically bound. Mumbai was a logical choice since it hosts an abundance of services in ECE in all the three categories. However, the other two cities in the research were not selected for similar reasons. The common denomination for these two studies was that both Jaipur and Vadodara are equipping in nature.
2. Although the diversity of the selected sites was one of the strengths of this study as it enabled the investigation of a range of ECE centers, it also posed a problem in that the primary data collection instrument proved more effective in capturing informative data in some sites than in others. Additional inter-site variations occurred in terms of the ability to make site visits coinciding with relevant community events.
3. Random assignments were not possible because of the nature of field research in school settings. Despite these limitations, post-hoc analysis was conducted to assess the comparability of the three groups regarding demographic characteristics.

Generalization of the findings and ability to replicate the study to produce similar results is not a major concern. The main aim of this study was to attempt a value-based perspective on the quality and obtain a working sample on an interesting variety of centers rather than investigating a large national representative group of centers. Indeed, I hope that this study will be helpful to organizations seeking quality and management in ECE centers.

Recommendations

There is an urgent need for creating an effective link between nursery schools and support agencies such as social work, health, and educational psychology to ensure that the needs of all the children are met.

2. High-quality development and training is imperative for all the staff working with children equipping them to completely meet the learning and developmental needs of children.

(a) All the staff members should conduct rigorous self-evaluation to identify their strengths and areas for improvement.

(b) There is a need to observe the differences in performance of teachers with different levels of professional training.

(c) Appropriate and relevant parameters of assessment must be developed.

3. Minimum standards for ECE centers should be established to ensure that quality education is imparted.

4. All preschool centers should be registered with an authorized body, through a diligent mechanism to ensure effective implementation.

5. This study revealed that NGOs across cities offer very similar services, albeit practiced differently depending on the context. NGOs should recognize that there is an opportunity to work cooperatively and collaboratively, and thus maximize resources in serving this vulnerable population.

This study has shown the importance of values for a cross-section of people concerned about the quality of ECE centers. Such perspectives might have been previously

emphasized, but they widen and enrich early childhood literature. I hope that the study encourages people at all levels (in the centers, policy makers, administration, training staff, and academia) to look at quality and management of the centers as value-based concepts and to closely examine the implications of these findings from the perspective of their involvement or interest in quality education.