Centre for Early Childhood Education and Development (CECED)
Ambedkar University Delhi (AUD), Lothian Road, Kashmere Gate, Delhi–110006
Telephone: +91-11-23864867
Email: ceced.aud@gmail.com
Website: www.aud.ac.in
www.ceced.net
Portal: www.ecceportal.in

ecei 1 Quality and Diversity in Early Childhood Education CECED

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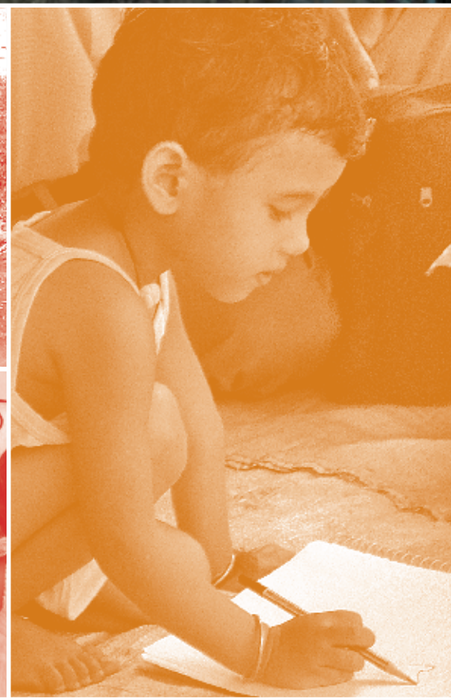
Indian Early Childhood Education Impact Study – 1

Quality and Diversity in Early Childhood Education

A view from Andhra Pradesh, Assam and Rajasthan



Ambedkar University Delhi

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Centre for Early Childhood Education and Development

1 Introducing the Study

EARLY CHILDHOOD CARE AND EDUCATION (ECCE) is emerging as an area of high priority in most countries across the world. A growing body of research in the field recognizes the range of social and economic benefits from it such as better child well-being and learning outcomes as a foundation for lifelong learning, more equitable outcomes and reduction of poverty, and increased intergenerational social mobility. But these positive benefits are directly related to the "quality" of Early Childhood Education. The current report is based on a comprehensive survey of the quality of Early Childhood Education centres in three states of India, namely, Andhra Pradesh, Assam and Rajasthan. The survey is part of a larger, multi-strand, longitudinal research which explores the differential impact, immediate and medium term, of variations in quality of early childhood experiences of children on their levels of school readiness at age 5, and subsequently on their cognitive and socio emotional levels, through the next three years. The depiction of the design of the larger study is annexed with this report (Annex 1). This report is limited to and based on data generated on quality of the ECE programmes during the *pre-test phase* of the larger longitudinal research.

The survey was undertaken in two districts of each of the three states, covering a sample of 298 Early Childhood Education (ECE) centres. These centres were purposively selected on the basis of regular attendance rather than on the basis of enrolment of the children. This sample selection, thus, also indirectly reflects the emerging trends in parental choices and preferences. The sampled preschools or early childhood education programmes for 3 to 6 year olds are thus spread across public, private and voluntary sectors. The sample also includes some low-budget innovative programmes referred to as *"known practices"* in the report, which serve as a reference point for assessing not only "what is", but "what is possible", given economic constraints.

1.1 The Context

The definition of Early Childhood Care and Education (ECCE) is theoretically located in an integrated and holistic paradigm, encompassing health, nutrition, care and early learning for children. It covers the entire early childhood continuum from prenatal stage to 8 years of age, using a lifecycle approach. However, this research primarily focuses on only one of the aspects of this definition, which is the educational or early

learning component for children in the age group of 3 to 6 years.

This ongoing longitudinal study is being undertaken in the context of the global thrust on advocacy for developing and developed countries to enhance their investment in this first stage of education and is the first of its kind in the South Asian Region. This thrust is emanating from the fact that within the last few years, there has been path-breaking multidisciplinary research in the field of Neuro-science, Child Development and Economics, which has established that the first few years of life actually lay the foundation on which children build their lives. Research in neuroscience has provided evidence that the pace of development of the brain is most rapid in the earliest years of life, to the extent that 90 percent of the brain growth has already occurred by the time a child is 6 years old. It has been further demonstrated that children's early experiences have an influence on the formation of the synapses or the neural pathways of the brain and, thus, have far reaching and solidifying effects on the overall development of the brain and behaviour. Young (2007) states that: *Diverse experiences affect the architecture (i.e. wiring) of the brain, the expression of genes and the biochemistry and physiology of the human body – all of which mediate ones cognitive, emotional and social outcomes*". There is thus

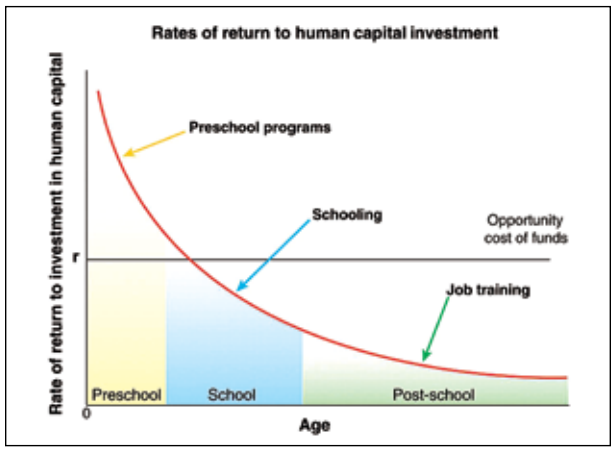

Figure 1.1.1: Rate of returns to investment

mounting evidence that early experiences are crucial for the child's lifelong development. On the contrary, it has been recently estimated that in developing countries, almost 215 million children below the age of 5 have not been achieving their full potential due to adverse early experiences, and are at risk of developmental delays and school failure (The World Bank, 2007). In this context, the Nobel Laureate, James Heckman (2007) demonstrated that investment in the early stage of childhood, when the brain growth is at its fastest pace, yields maximum returns as compared to the later stages of childhood and education (Figure 1.1).

As a further endorsement, longitudinal research such as the High/Scope Perry Preschool Study

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(The World Bank, 2007).

and the Abecedarian Experience have provided significant evidence that participation in early childhood education programmes in the early years can have significant benefits, particularly for children at risk, in terms of their subsequent cognitive learning and socio-emotional adjustment, with these benefits sustained even in adulthood. However, these benefits from early childhood education would accrue only if the quality of the programmes is ensured in terms of standards related to qualified teachers, validated developmentally appropriate curriculum, parent involvement, and feedback from assessment. The EPPE study in England took a national sample of over 3,000 children between the ages of 3 and 7, collected information on children's parents, home environments and preschool settings attended by them and demonstrated positive effects of preschool provisions on children's intellectual, social and behavioural development and also affirmed the value of high-quality preschool education (Sylva, Melhuish, Sammons, Siraj-Blatchford & Taggart, 2001). A Comprehensive Preschool Education Project in Turkey that followed up on children with and without a rich preschool enrichment programme demonstrated a striking impact of the educational intervention in fostering children's cognitive and social development. Children from the project preschools with a richer educational content were found to have higher scores on intelligence, analytical ability and achievement tests in language and mathematics. They were also found to be socially better adjusted (Kagitcibasi, 1998).

A research on a sample of 38,000 children across eight states of India has endorsed significant benefits of participation in ECE programmes in terms of enhancing rates of retention of children to the extent of 15 to 20 percent in the primary grades (NCERT, 1993). Another longitudinal study on a smaller scale demonstrated significant and sustained gains in learning of mathematics concepts through the primary grades, as a result of a well-conceptualised and systematically implemented number-readiness programme at the preschool stage (Kaul, 1998).

1.2 The Rationale

The Government of India's legislation, making elementary education a fundamental right of every child between the ages of 6 to 14 years came into force from 1st April, 2010. Unfortunately, children below six years were kept out of its ambit. The Government's flagship programme, Sarva Shiksha Abhiyan (SSA) supports the legislation and aims to universalize elementary education of satisfactory quality to all. This programme, initiated in 2002, demonstrated significant progress in terms of improvement in physical facilities, with 98 percent of the habitations now having access to a primary school, better teacher pupil ratios and a significant increase in enrolments and reduction in number of children out of school (DISE 2007-08). However, the outcomes related to quality of education are still far from satisfactory, as reflected in the low levels of learning and high drop outs. The annual ASER (2005-2014) and more recently, NCERT achievement surveys indicate low levels of learning in the primary grades, with even the basic competencies of Grades 1 and 2 not getting mastered by a large number of children. Overall dropout rate by Grade 5 continues to be on an average as high as 25.7 percent, with the SC and ST rates even higher at 32.9 percent and 39.8 percent respectively, (SES, 2005-06) which indicates a significant social equity issue. Another important finding is that the rate of drop outs is consistently

Children in an *Anganwadi* Centre in Andhra Pradesh

higher in Grades 1 and 2 as compared to the remaining grades at the primary stage (Cohort study NUEPA, 2003-04). This reflects the transition stage from home/preschool to grade 1 and 2 to be the most vulnerable, particularly for first generation learners and points towards the need for enhancing school preparedness through good quality early childhood education.

India implements one of the world's largest integrated programme for children, the Integrated Child Development Services (ICDS), which runs about 1.3 million centres across the country. The programme, offers six services related to overall development of the child following a life cycle approach and has preschool or early childhood education as one of its primary components. Thus, in terms of access and geographical distribution it covers most habitations so that through this programme India could have been more or less on the way to universalizing Early Childhood Education. However there has been very little empirical evidence of the extent to which it had delivered. Some of the issues that emerge are: (a) the extent to which children in the age group of 3 to 6 years really avail the facilities or some other ECE facilities (b) the kind of ECE experience the children get in the early years in the facilities that they attend and (c) the impact that these have on children's subsequent learning and development.

1.3 The Objectives

Thus, the objectives of the larger study, within which this study is located, are to *(a)* estimate trends in participation of children in ECE programmes; *(b)* assess the extent of variations in content and quality of ECE as offered by the current provisions across sectors; and *(c)* estimate the differential impact of the variations in quality on children's levels of school readiness and adaptive behaviour on an immediate basis, and on their cognitive and socio-emotional levels, on a more sustained, medium-term basis at the primary stage of education.

The design of this longitudinal study includes a *pre-test,* followed by quarterly tracking of the sampled cohort of children, and a *post-test* after a year of participation of the cohort in the respective ECE programme that was assessed for quality. While the first objective of the study, as indicated above, has been addressed in another report titled "*Trends in Enrolment and Participation of children in ECE"*, this report focuses mainly on the second objective, that is, assessing variations in content and quality across different types of ECE provisions available to children from selected rural and urban sites. It is based on analysis of the baseline data collected for the larger study during the pre-test phase.

1.4 The Sampling Method

As mentioned earlier, the study is being undertaken in three states, namely, Andhra Pradesh, Assam and Rajasthan. Two districts have been purposively selected from each state, with at least one district having some innovative ECCE programme—to ensure variation in quality. The districts sampled are Medak and Warangal in Andhra Pradesh, Dibrugarh and Kamrup in Assam, and Ajmer and Alwar in Rajasthan. For the larger survey of trends in participation, a systematic random sampling method was followed within each district. The urban component was not included due to complexities associated with sampling in terms of *(a)* no well-defined catchment area *(b)* possible large-scale attrition due to mobility *(c)* heterogeneity of urban population. For this particular strand of the study, which focuses on quality of ECE centres, the urban component is being included in a smaller, purposive mode. Urban sites were identified from the district town adjacent to the villages sampled for the study.

Selection of Sites (rural/urban): Initially, when the study was being planned, the selection of sites was proposed through random sampling, using the ECE centres as units of sampling. This was envisaged across public, private and voluntary provisions, in a proportionate manner. The requirement was to ensure adequate representation of programmes and adequate variance in quality to be able to assess impact of quality on school readiness. However, a preparatory field study conducted in two states (Rajasthan and Andhra Pradesh) indicated

a) significant variations in enrolment and attendance patterns of children, making the data from enrolment records of doubtful validity;
b) difficulty in identifying sites with adequate range of programmes in villages that had less than 2000+ population; and
c) non-participation of enrolled children in some of the centres under the ICDS programme

The sampling method was accordingly modified. It was decided to identify sites in each of the districts with *(a)* population between 2000 to 4000 so as to maximize the possibility of finding representation of ECE facilities across sectors, within a single site; *(b)* availability of, as far as possible, some innovative/"known practice" or "community preferred practice" in ECE to ensure adequate variance in quality; and *(c)* at the site level, adopt the strategy of *"following the children"* to the centres they are attending, rather than selecting the centres first, in order to ensure there is adequate and regular child participation in those centres. This was necessary to be able to subsequently study the impact of quality variations on child outcomes. The sampling method was, thus, devised in accordance with these principles, as discussed below.

In each district, a total of 60 sites with a population between 2,000 to 4,000 persons were selected for the study using systematic random sampling method. To meet the project objective of studying variations in ECE provisions, 10 sites in one of the two districts in each state was purposively selected where some known or innovative programme centres were reported to be located. In each district, an urban site was included from the block headquarters, with a view to broadly understand the specifics of the urban scenario in comparison to the rural.

Selection of children and centres: A total of 2,767 children in the age group of 3½ to 4½ years (born between March 2007 and February 2008) were selected as the sample across the sites, using the following procedure:

- The sampling frame comprised of the ICDS survey records maintained by *Anganwadi* workers in every site, which are expected to provide up-to-date records of all children living in the catchment area of the *Anganwadi*.[1]
- Field investigators visited all the *Anganwadis* operating in a given site and obtained the required details of all the children born between March 2007 and February 2008. In Rajasthan, since information pertaining to the children within the defined age range was in some cases not available from the records in *Anganwadis* (possibly due to high level of private preschool participation) all the preschools in the village were visited in addition to the *Anganwadis* and some children were identified directly from the pre-school registers.
- The households of all the listed children were surveyed to verify information about the ECE programmes they were attending, if any, and the regularity of their participation in these centres.
- The children were followed to see which centre they were attending and those centres were listed for selection of the sample, irrespective of sector.
- From the generated list of centres, only those centres were included in the sample where at least five or more of the listed children were participating regularly for at least three days in a week and for more than an hour every day. This was decided upon as the study required a full day of detailed classroom observation for assessment of quality of ECE for each child; this principle allowed for the observations to be carried out in a more cost-effective manner. In the case of Andhra Pradesh, due to wider dispersion of centres, this criterion was modified to three or more children instead of five. While the criterion of determining extent of participation was important to ensure adequate "quality dosage" to assess impact, it also reflected the range in parental choices of ECE centres.

1 In practice, states varied in terms of completeness of these records.

- The children who were not attending any ECE programmes, or attending irregularly, were also included in the sample as a control group. The initial estimate was 2,700 children (900 per state) across 60 sites. But due to the complexity of the field situation, 75 sites were visited in order to cover the required number of children. Thus, a total of 2,767 children were sampled from 298 centres, using the method described above. These 2,767 children form a sub set of 13,868 children covered under the larger study. The sample distribution of ECE centres by type is given below in Table 1.1.

The pre-test phase was completed in January 2012. The present report is based on the analysis of data generated from the comprehensive quality assessment of these 298 ECE centres sampled in the study.

1.5 Categories of ECE Centres

The selected ECE centres based on children's participation were categorized as follows: ICDS *Anganwadi*s, private preschools, "*known practice*" or innovative programme (which was purposively selected) and government primary school. Each category is operationally described below:

Anganwadis: As mentioned earlier, there are about 1.3 million *Anganwadi* centres across the country. These are Early Childhood Development centres that offer a holistic intervention of six services to pregnant and lactating women and children below 6 years of age. These include, services related to health, nutrition and early childhood education for children between 3 to 6 years. While the basic design of this programme is

An *Anganwadi* Centre with good physical infrastructure in Rajasthan

	Anganwadi	Private Preschool	Known ECE Practice Centre	Government Primary School	Total
Andhra Pradesh	54 (42.5%)	54 (42.5%)	13 (10.2%)	6 (4.8%)	127
Assam	101 (86.33%)	10 (8.54%)	6 (5.13%)	0	117
Rajasthan	10 (18.6%)	33 (61%)	9 (16.7%)	2 (3.7%)	54
Total	**171** (57.4%)	**97** (32.6%)	**22** (7.4%)	**14** (4.6%)	**298**

Table 1.5.1: Distribution of sampled centres by State and Type

A private school multi-grade classroom operating on a roof top

common across states, there are variations across states in terms of its implementation.

Private Preschools: There has been a mushrooming of low-budget private schools across the country, with the scale varying across states. These initiatives are now getting very popular among parents and are expanding to the rural and tribal areas as well, and across many states. In some cases, they are recognized by the state education authority—with large numbers remaining unrecognized—due to which there is no reliable estimation of their numbers and quality. These are often established by local educated youth entrepreneurs and, being unrecognized, are not required to conform to any specifications related to infrastructure, teachers, curriculum, and so on.

The private preschools category in the study refers to the preschool sections of low-budget private schools, in most cases. In very few cases, these were found to be independent "stand alone" preschools.

Known practices: As mentioned in Section 1.4, these practices were purposively selected in each state to ensure variance in quality, to be able to study impact. These innovative practices vary in content and structure across the three states. In Andhra Pradesh, the selected "*known practices*" are *Balbadi*s (ECE centres) for children between 3 to 6 years, which run as a part of a programme for rural and tribal communities. The programme is called *Indira Kranti Pratham* (IKP), under the Society for Elimination of Rural Poverty (SERP) programme of Government of Andhra Pradesh. This is an innovative and low-cost community-based model in which the local tribal community actively participates in its management and the pedagogy is reported to be activity based and child friendly.

In Rajasthan, the *"known practice"* are the low cost ECE centres run for the disadvantaged community by *Bodh Shiksha Samiti*. It is also a community-based model and runs its own primary schools with a pre-group section. It also works with government primary schools. In Assam, the known practice centres are the *"Ka-shreni"* centres. This is an initiative of the Department of Education under its flagship programme, the *Sarva Shiksha Abhiyan* (SSA), under which a pre-primary class for 4 year olds has been attached to some primary schools as a preparatory class, prior to grade 1.

Government primary school: The government school is not mandated at present to provide preschool education. However, some children in the specified age group were found to be attending these schools with their older brothers and sisters in Andhra Pradesh and Rajasthan. Since they were attending the school regularly, and were in some cases made to sit separately as a class, these were also included as one category.

Children during free play in a Known Practice Centre in Rajasthan

However, this category was not found in Assam, possibly since the *Ka-shreni* is located in the school and takes care of the younger siblings.

1.6 Scope of Data and Tools

Keeping in view the objectives of the study, data was collected in the pre-test phase on the following components:

Household information: Household survey of sampled children was conducted through a detailed questionnaire that was administered during the household visit. This questionnaire includes basic information on all household residents, indicators pertaining to socio-economic status, and specific questions related to the sampled child's participation in ECE programmes. It also covers parents' perceptions and attitudes towards ECE, reasons for sending the child to a particular preschool and quality of early learning environment available at home.

***Quality assessment of ECE centre*:** A comprehensive assessment of the quality of the programmes that the children were attending in terms of the content and processes observed in the centres was done through an Early Childhood Education Quality Assessment Scale (ECEQAS). This tool, which is inspired by the internationally known and widely used tool called ECERS (Early Childhood Environment Rating Scale), has been substantially modified from the original and adapted to suit the Indian context. It yields both quantitative and qualitative information. Unlike ECERS, it is comprised of

three parts, of which Part 1 records direct observations of activities being conducted in narrative form along with information on kinds of activities, materials used, classroom organization, level of participation of children, and so on. It follows a snapshot technique, requiring the observer to describe/record the activity in the classroom every 10 minutes for the full duration of a day's programme. Initially, it was proposed that each centre be observed for two days. This was done during the pilot phase and when the observations for the two days were analysed, the scores were found to be highly correlated (.93). It was, therefore, decided that the observations be carried out for a day.

Parts 2 and 3 of the ECEQAS constitute a three-point rating scale on the following parameters, in addition to the basic identification data, which is largely pre-coded:

- Physical infrastructure and materials
- Class management and organization
- Content and process of the programme in terms of
  - Language and reasoning experiences, including pre-literacy and numeracy
  - Creative activities
  - Self-help skills
  - Fine and gross motor activities
  - Social development
  - Teacher disposition

The tool also includes within the above domains aspects specific to the Indian context and related to social inclusion, particularly of children from marginalized communities and children with special needs. It also has items related to transition from home language to the school language.

***ECE Teacher Interview Schedule*:** The interview schedule captures general information on teachers in terms of their educational qualifications, experience, trainings attended and their perceptions and understanding regarding ECE.

Assessment of Child Outcomes:

***School Readiness*:** To establish the baseline for school readiness levels of children, the School Readiness Instrument (SRI), which had been developed and standardized by The World Bank (India), has been used. The instrument assesses the child on cognitive readiness in terms of pre-number and number concepts, reading readiness, sequential thinking, classification and language skills.

***Adaptive Behaviour*:** While the SRI focuses on the cognitive competencies, an Adaptive Behaviour Scale (ABS) was developed under this research, to be administered to parents/caregivers to get feedback on the child regarding personal social development of the child. This scale rates a child on self-help skills, communication, emotional control and social skills.

Both these sets of data on child outcomes were collected as baseline; in addition to *attendance* data, at the pre-test stage. This data has not been included in this report since it is more pertinent for studying the impact of quality variations in ECE experiences of children after the post-test, which is to be conducted after a year of ECE experience. This report primarily focuses on the data obtained from the ECEQAS observations across different categories of centres across the three states, and to an extent from the Teacher's Schedule and Household Survey data.

1.7 Analysis of Data

The data generated on the types of facilities or ECE centres on the ECEQAS during the pre-test phase were analyzed. Variance across different types of ECE centres was estimated through use of descriptive statistics, such as mean, percentages, and by computing correlations. The main analysis included:

- Within category differences across and within states
- Correlations between different domains and with total quality scores
- Correlations between quality scores and teacher factors

1.8 Findings of the Study

While this report is focused primarily on understanding the variations in quality of ECE programmes, the importance of this information lies in the context of understanding the kind of ECE environment most children in the country are being exposed to in these critical years. The discussion of the results of the study, therefore, begin by reporting on the emerging trends in participation of children across the four categories of centres in each state, which is also seen as a reflection of parental choice. After determining these trends, the report goes on to analyze and discuss in detail the trends in quality across states and types of centres, in terms of the domains linked to physical facilities, classroom composition and management, and content and methods related to different aspects of development, that is, physical and motor, language, cognitive and social development and development of creative activities. Given the interdependence of different developmental domains as well as the factors that might influence quality—such as space and classroom organization and teacher characteristics—the emerging associations are further analyzed and patterns identified. This analysis culminates in identification of different models operating in the country in ECE and some recommendations for the way ahead.

> The report focuses on the participation trends of the 4 year olds in ECE programmes which can be seen as a reflection of parental choice and the quality of these programmes

The thematic organization of the sections that follow related to the findings and recommendations is as follows:

- Enrolment and participation trends in ECE and parental perceptions
- Quality domains related to ECE
- Physical Facilities in ECE Centres
- Composition, Management and organization of ECE Centres
- The ECE Curriculum
  - Language development
  - Cognitive development
  - Development of fine and gross motor skills
  - Creative activities
  - Social development
  - The Teacher
- Factors affecting quality domains
- Recommendations

2

Participation Trends In ECE – Understanding Parental Choice

THIS CHAPTER FOCUSES ON THE TRENDS in participation of 3½–4½ year olds in Early Childhood Education programmes across 69 villages and six urban sites surveyed under the study in the three states, that is, Assam, Andhra Pradesh (AP) and Rajasthan. The surveyed sites, both urban and rural, were densely populated with a population between 2000– 4000. All 3½–4½-year-old children from these 75 sites were tracked to understand the extent to which these children were participating in ECE programmes, and if they were, which programmes were the preferred ones. The parents of the children were also interviewed to understand their reasons for sending their children to a particular programme, their perceptions regarding Early Childhood Education, their levels of satisfaction with the programmes and any suggestions they may have for its improvement.

2.1 Status of Participation in ECE

This study highlights a very important distinction that needs to be given due attention at the policy level, which is the distinction between "*enrolment*" and "*participation*". As mentioned earlier, the sample of 2,767 children identified across the three states included children from both enrolled and non-enrolled categories; however, those considered under the "enrolled" category for the purpose of this study were only those children who were regularly attending or participating in an ECE programme, "Regular" was defined as at least 3 days per week and for more than 1 hour per day. The "non-enrolled" category included children whose names were not registered as well as those whose names may have been there in the registers but were not attending any ECE centre, as per the above-mentioned specification.

A very positive finding from the study is that 83 percent of the children of the specified age group, that is, between 3 ½ to 4 ½ years across the three states were found to be attending some or the other ECE programme regularly, while the official data records indicate the national enrolment (and not participation) rate to be less than 50 percent. Only 17 percent children were found not attending any ECE centre or primary school, or if enrolled, were not attending it very regularly as defined above.

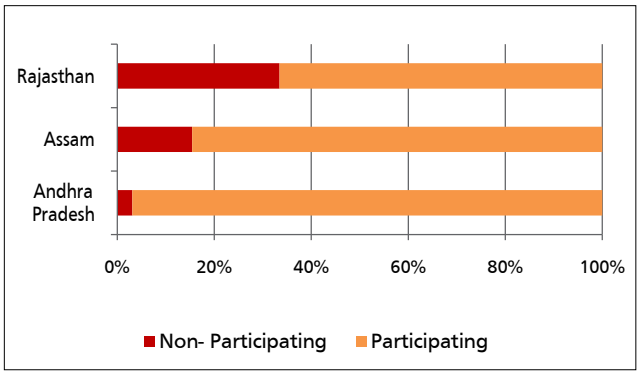


FIGURE 2.1.1: State-wise distribution of sample children into participating and non-participating

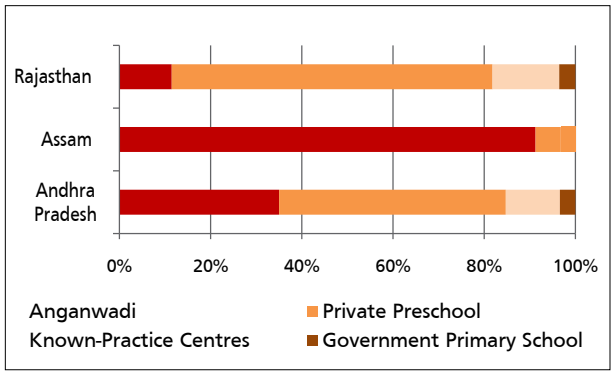


FIGURE 2.1.2: Distribution of children into different types of ECE programmes according to participation

State-wise Status: While this was the overall status, differences were observed across states in participation trends. As evident in Figure 2.1.1, Andhra Pradesh was found, at 97 percent, to have the highest proportion of participating children in the above age group as compared to the other states.

Assam and Rajasthan in comparison had about 85 percent and 65 percent children participating respectively; the percentage of non-participating children was found to be the highest in Rajasthan, with about one third of the sampled children not availing any ECE facilities regularly.

2.1.1 Trends in Choice of ECE Programmes

With a major proportion of children attending early childhood education programmes, it was important to understand the kind of centres accessible to them and, of these, the ones preferred by their parents. Since the basis for selection of the sample of centres was related to number of children attending, the distribution of ECE centres included in the study were also seen as a reflection of parental choice.

Overall, across the three states, 45 percent of the children who were participating in ECE were in the *Anganwadis* while 43 percent were attending private preschools. These programmes, therefore, seemed to be the more regular and accessible. The remaining 12 percent of children were found distributed between the known-practices centres (9 percent) and government primary schools (2 percent) in Andhra Pradesh and Rajasthan. Just 1 percent of the participating children included in the sample were attending the *Ka-shreni* classes in the primary schools in Assam. The lower percentage in the known-practices centres does not reflect any trend, as this category of centres are available only in a limited number of villages.

State-wise Profile: The state-wise analysis (Figure 2.1.2) reflects distinct differences in trends. While the overall scenario indicates almost equal participation in the *Anganwadis* and private preschools, in Assam about 91 percent of the sampled children were found to be attending *Anganwadis* as compared to 35 percent in Andhra Pradesh and only 11 percent in Rajasthan in the sampled districts. Private provisions seemed to be the preferred parental choice in Rajasthan in the

two identified districts, with almost 70 percent of the participating children attending private pre-schools. Even in Andhra Pradesh, a clear preference for private preschools could be observed, with half the children going to the preschools while the other half was distributed over *Anganwadis*, primary schools and known-practices centres. In Assam, the private preschools were not seen as the preferred choice of parents and catered to only to a small number (6 percent) of the children. However, this could also be due to less availability of private provisions in the state, and may not necessarily reflect parental choice.

A small number of children were also seen participating in primary grades of the government primary schools, particularly in Andhra Pradesh (3 percent) and Rajasthan (4 percent). These children were not enrolled in the primary schools, as they were underage according to state government directions of age of entry to school, but were accompanying their elder siblings. They were made to sit informally as a group, or in some cases, with their older siblings. In the case of Assam, such a situation was not reported since the *Ka-shreni* programme, which is a preparatory class for 4 to 5 year olds, is already attached to the primary grades in some government primary schools. Also, the *Anganwadis* in Assam are in most cases within the school premises, which provide the required facility for the younger children accompanying their siblings.

Children playing with manipulative play material in an *Anganwadi* Centre in Andhra Pradesh

2.1.2 Impact of 'Known Centres' on Participation Trends

The trends discussed above pertain to the system as a whole, with the higher percentage of participation assumed to be indicative of parental choice. Parental choice is assumed to be influenced by both the accessibility of ECE centres and parents' own perceptions of quality. This principle was further explored through an analysis of the participation trends around the "known practice" sites in each of the three states, to investigate if these better-known programmes influence the trends in any way. The hypothesis was that wherever these exist, the preference of parents would be for these centres, rather than the more regular practices.

A total of 22 known-practice centres were included in the sample across the three states, which form 7.3 percent of the total sample of 298 centres. It was found that a very small percentage of children attend these centres (Figure 2.1.2), not because of lack of preference for these centres, but because these were geographically scattered and available only in small numbers in select sites. Only 12 percent of the sampled children in Andhra Pradesh, 15 percent in Rajasthan and about 3 percent in Assam were enrolled and regularly attending these known ECE practices in the respective states.

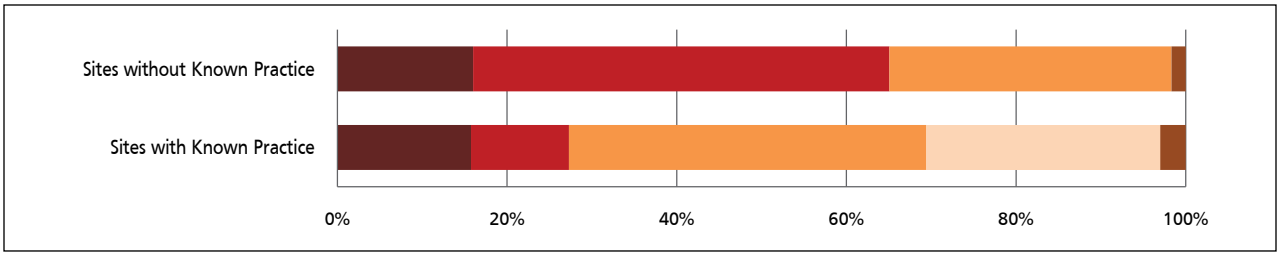


Figure 2.1.3: Participation trends in sites with & without known practice centres across Andhra Pradesh and Rajasthan

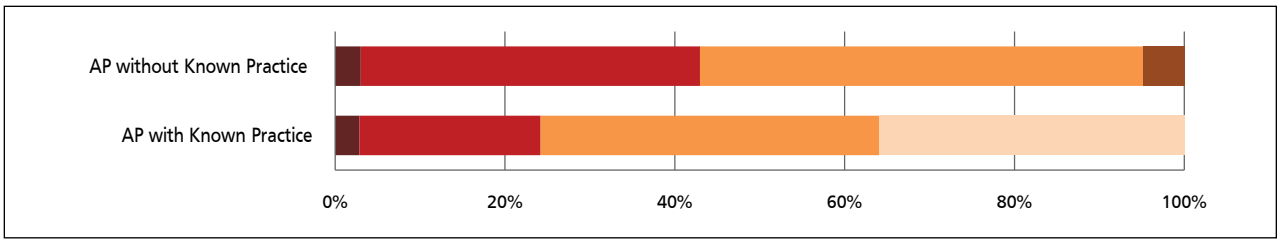


Figure 2.1.4: Trends in participation in sites with & without known practice in Andhra Pradesh

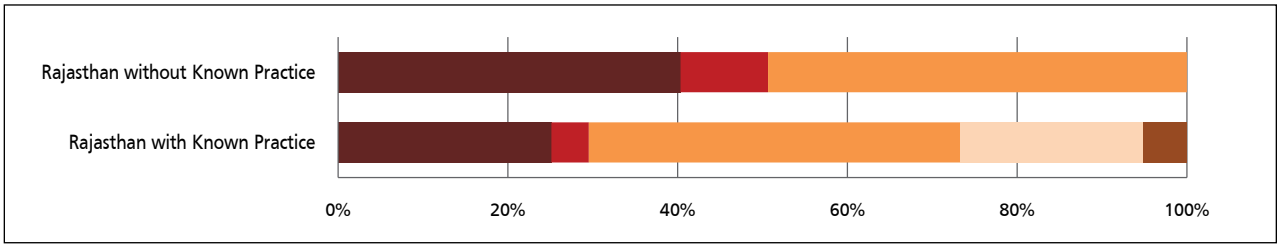


Figure 2.1.5: Trends in participation in sites with & without known practice centres in Rajasthan

However, when a more in-depth and localized analysis of the participation trend around the site of the known practice was carried out, it was found that in Andhra Pradesh and Rajasthan particularly, these became the preferred ECE centres wherever they were located. Almost 30 percent of the children were seen attending these centres, as indicated in Figure 2.1.3. However, it was interesting to note that these centres do not seem to have any significant impact on the trend in private-school participation. It is only the children who would otherwise have gone to *Anganwadis* who, given this choice, seemed to prefer these known practices, where available. However, with regard to impact on number of non-enrolled children, state-wise differences were evident, particularly in Andhra Pradesh and Rajasthan (Figures 2.1.4 & 2.1.5).

In Andhra Pradesh, the presence of known-practice centres in the sites has not reduced the ratio of non-participants but there are differences in the pattern of participation; in Rajasthan, the percent of children not participating in ECE centres was 15 percent lower in sites where the Bodh centres were operating. This may be

The 'Bodh Samuhik Pathshala (Bodhshala),' in Rajasthan caters specifically to some educationally backward communities since they target these primarily because of their low enrolments. The process adopted by the agency is conducive for meeting this objective and they start their work by carrying out a survey of the targeted community where they focus on the educational level, needs and requirements of the people. Then the opinion leaders of the community are involved in spreading awareness to people in the community. The focus of the awareness programme is on the importance of education and specifically on the early years.

attributed to the strong community involvement and awareness programme conducted by the *Bodh Shiksha Samiti in* Rajasthan.

To further understand the factors influencing participation trends and, in particular, choice of ECE centres, parents' perceptions and understanding of ECE were also studied.

2.2 Parental Understanding of ECE and their Choice of ECE Centers

2.2.1 Reasons for Sending Children to ECE Centres

The fact that 85 percent of the children across the three states were reported to be attending ECE centres regularly is indicative of both availability of different types of ECE centres as well as awareness among parents and community regarding the need to send their young children for early childhood education. Since these varied provisions were available, this gave the parents a choice, as reflected in the different types of centres the children were going to. The study further explored the perceptions of parents regarding the centres and their understanding of quality in ECE, which seems to influence the choices they make for their children. A total sample of 2,012 parents was interviewed in this context. An analysis of their responses indicated that about 40 percent of the parents believed that by attending the ECE centres, their children would get better prepared for primary education and would do well in the formal school (Figure 2.2.1). Another 26 percent

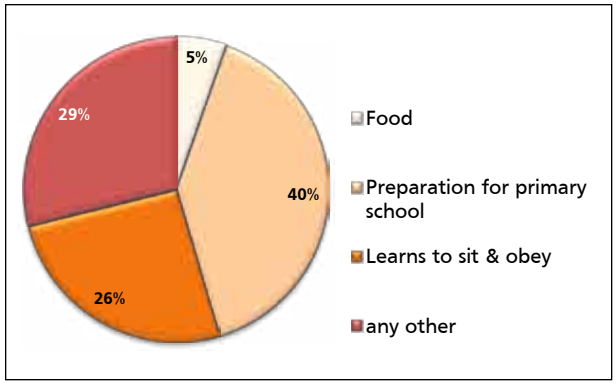


Figure 2.2.1: Reasons for sending children to ECE centres reported by parents

had a complementary view that participation in ECE would enable them to learn to sit in one place and obey, a competency associated closely with primary schooling! For a small number of parents (5 percent), food was an important incentive and reason to send their child to the ECE centre. These were possibly the parents of children who go to *Anganwadis* or government primary schools, since the other types of centres do not provide food. A quarter of the parents also gave other reasons such as "the centre is close to the home so it is easily accessible"; "the child accompanies older sibling"; "mother gets free to do other things, as the child is taken care of at the centre", and so on.

When the relationship between the type of centre where the child is sent and reason of sending given by the parents was explored, no specific associations were found (Figure 2.2.2). Irrespective of the category of centre attended by the child, the reasons reported by the parents were similar, except for the *Anganwadis*, which elicited more responses related to availability of food and preparation for primary school. Around 10 percent of the parents who send their children to *Anganwadi* centres mentioned that they send their children to *Anganwadis* because they get mid-day meal at the centre.

Contrary to the belief that the poor families only send their children to ECE centres for food data indicates that nearly half of the parents send their children to ECE centres to prepare them for primary classes and only 5 percent send their children to ECE centres for food

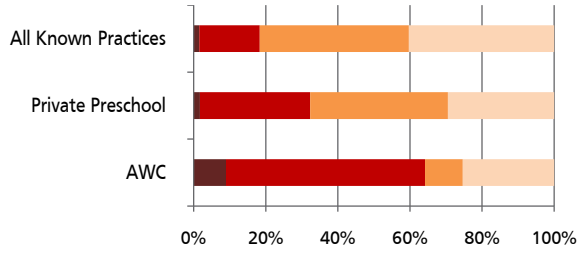


Figure 2.2.2: Reason reported by parents for sending children to different types of ECE centres

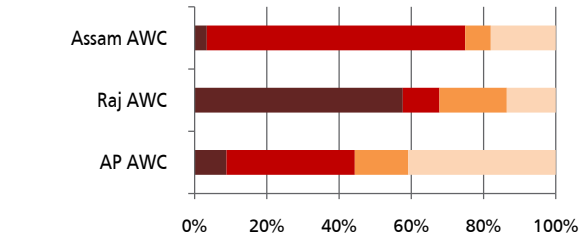


Figure 2.2.3: Reasons reported by parents for sending children to *Anganwadis* in different states

However, with regard to *Anganwadis*, state-wise differences were observed in parents' responses. As evident in Figure 2.2.3, majority of parents in Assam and Andhra Pradesh reported that they send their children to *Anganwadi* centres so that their children get prepared for formal schooling. However, this is in complete contrast to the responses of parents in Rajasthan, where most of them said they send their children to *Anganwadi* for food. This difference can be understood in the light of the priority given in the *Anganwadis* to food by the state machinery too, since in Rajasthan, the *Anganwadi* centres are considered to be primarily nutrition and health centres. The common understanding among the community is that the main functions of *Anganwadis* are to distribute food and immunize young children; preschool education is not considered to be a priority function of the *Anganwadis*. In many cases, it was observed that the *Anganwadi* centres

Teacher with children during a group activity in a Known Practice Centre in Andhra Pradesh

open only to distribute the mid-day meal, with children going to the centre only to collect food.

In Assam, in contrast, the *Anganwadi* centres were considered to be primarily places for young children to be prepared for formal schooling. Most of the *Anganwadis* in Assam were found located in the government-run primary school campuses. The perception and understanding among the community/parents regarding the close link with school education may be attributed to this physical linkage that is formed by sharing the physical space with schools.

2.2.2 Mothers' Education and Understanding and Choice of ECE Centre

A number of researches in India, and at the international level, have established a strong relationship between maternal education and child's participation in school and his/her achievement levels. The data yielded by this study was analyzed to explore this kind of relationship with regard to ECE.

According to the data analyzed from the three states, all categories of mothers—irrespective of their educational levels—considered ECE centres as places where their children would get prepared for formal school by acquiring specific skills, including learning to sit, obey and be quiet! (Figure 2.2.4). However, a comparison by academic

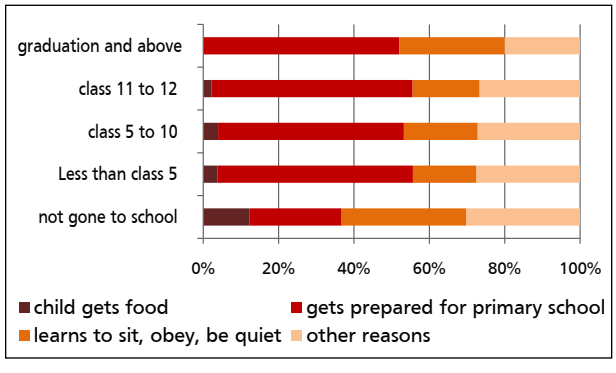


Figure 2.2.4: Reasons for sending children to ECE centres with respect to mother's educational level

levels indicates an inverse relationship between mothers' academic levels and reasons for sending children related to food and custodial care. The lower academic levels can be linked to socio-economic status as well and, therefore, the association can be attributed to a high possibility that mothers with lower socio-economic status have lower education levels and consider food and custodial concerns as more important. However, no association was observed between paternal education and the reasons for sending the child to the ECE centre.

When the mothers' education was related to the choice of ECE centres for their children, a clear preference for private preschools was found for mothers with higher education levels (Figure 2.2.5). The analysis elicited some interesting trends. Incidence of sending the younger underage child to the government school in company of the older sibling was found to be inversely linked to the education level of mothers. The percent of underage children attending primary school declined as the education levels of mothers increased. The choice of sending the child to *Anganwadi* also showed a diminishing trend, as mothers' educational levels increased. This may also be linked to a higher socio-economic status.

Mother and child from the community

However, an inexplicable anomaly noticed was that the preference for *Anganwadis* and private preschools was found to be almost equal in the case of illiterate mothers, possibly indicating a significant number of mothers who may be economically better off, yet illiterate.

Figure 2.2.5 also reflects that almost 15 percent of the total sample of mothers who have not been to school send their children to known practices, even though only 22 known ECE practice centres were surveyed in the study. It is important to note that the known programmes included in the study, particularly in Andhra Pradesh and Rajasthan, run in educationally backward areas where the incidence of maternal illiteracy is likely to be the highest.

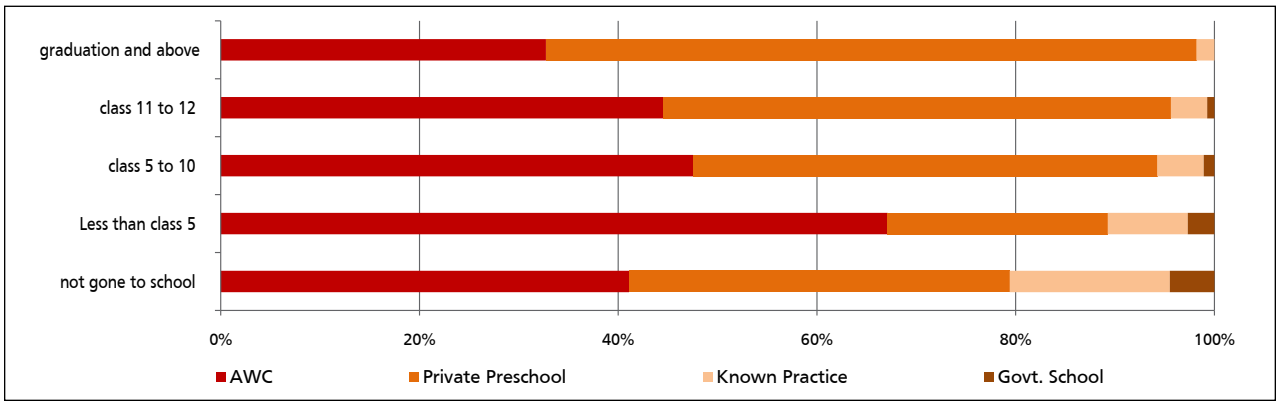


Figure 2.2.5: Maternal education with respect to child's participation in different types of ECE centres

Bodh Shiksha Samiti selects areas (villages and hamlets within villages) where enrolment, participation and retention rate of school going children in schools is very low and where prevalence of education as a whole is quite low. It is observed that parents in these communities have not been to school and, traditionally, they do not see any benefit of education; they would have otherwise not sent their children to school. Instead, the children would have worked in the fields with the parents. The fact that they are sending them to these known centres is because of the approach of *Bodh*. The organization works with the community to change their perceptions regarding education. After extensive awareness programmes, a community school is started with financial help from the community. The *Bodhshalas* cater only to the children of the community/hamlet and not the whole village. The known ECE practice in Andhra Pradesh, the IKP-run *Balbadi*, were also observed running in the tribal areas where again the parental educational level was seen to be low in comparison to the other areas. *Balbadis* again have a strong community involvement. In both the known practices, a significant role is played by the community; if the management of the centres is studied closely, it can be said the communities practically own the centres and are involved in every decision of the centre. Due to this intense community involvement in these centres, they are the preferred choices of the parents even if they are illiterate.

The number of underage children attending primary school was inversely proportional to the education levels of mothers. With increasing level of mothers' education, the choice of sending the child to *Anganwadi* centres was greatly reduced

2.2.3 What do Parents Want their Children to Learn in ECE Centres?

Parents of participating children were also interviewed to understand what they expect their children to learn in the ECE centre. Responses of parents sending their children to different categories of ECE centres were separately analyzed to understand the relationship between their expectations and choice of ECE centres.

It was observed that most of the parents across different types of centres predominantly want their children to learn to read and write (Figure 2.2.6). Hygiene and learning good behaviour were some other attributes expected by parents from the ECE centres, but in fewer numbers. Some minor differences could be seen in parents with different choices of centres with regard to their expectations ,other than those linked to formal schooling. In *Anganwadis,* hygiene was given relatively more importance as compared to the other categories of centres; in government primary schools and private preschools, good behaviour

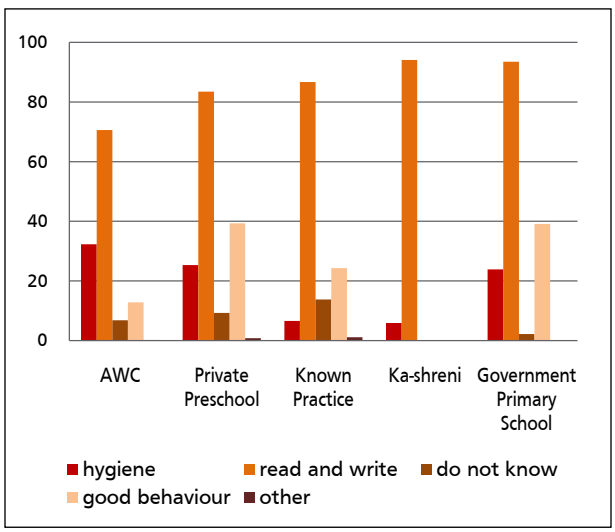


Figure 2.2.6: Parental perceptions—what habits should the child learn at ECE centres with respect to their choice of centre

was considered important. However, clearly the habits and skills related predominantly to academic learning were the priority, and these were in the form of learning of alphabets and numbers, irrespective of the category of ECE centres the children were being sent to.

2.2.4 Satisfaction Level of Parents

Parental satisfaction levels can be linked to their expectations from the centres. Interestingly, parents demonstrated maximum satisfaction with government schools, although there were only 8 government primary schools in the total sample (Table 2.2.1). Most of the children who were found in government primary schools tended to accompany their older siblings to the school. Parents believed that by sending them to the school, their younger ones will also learn to read and write with the older child and get used to going to the school. Perhaps, this is their concept of school readiness!

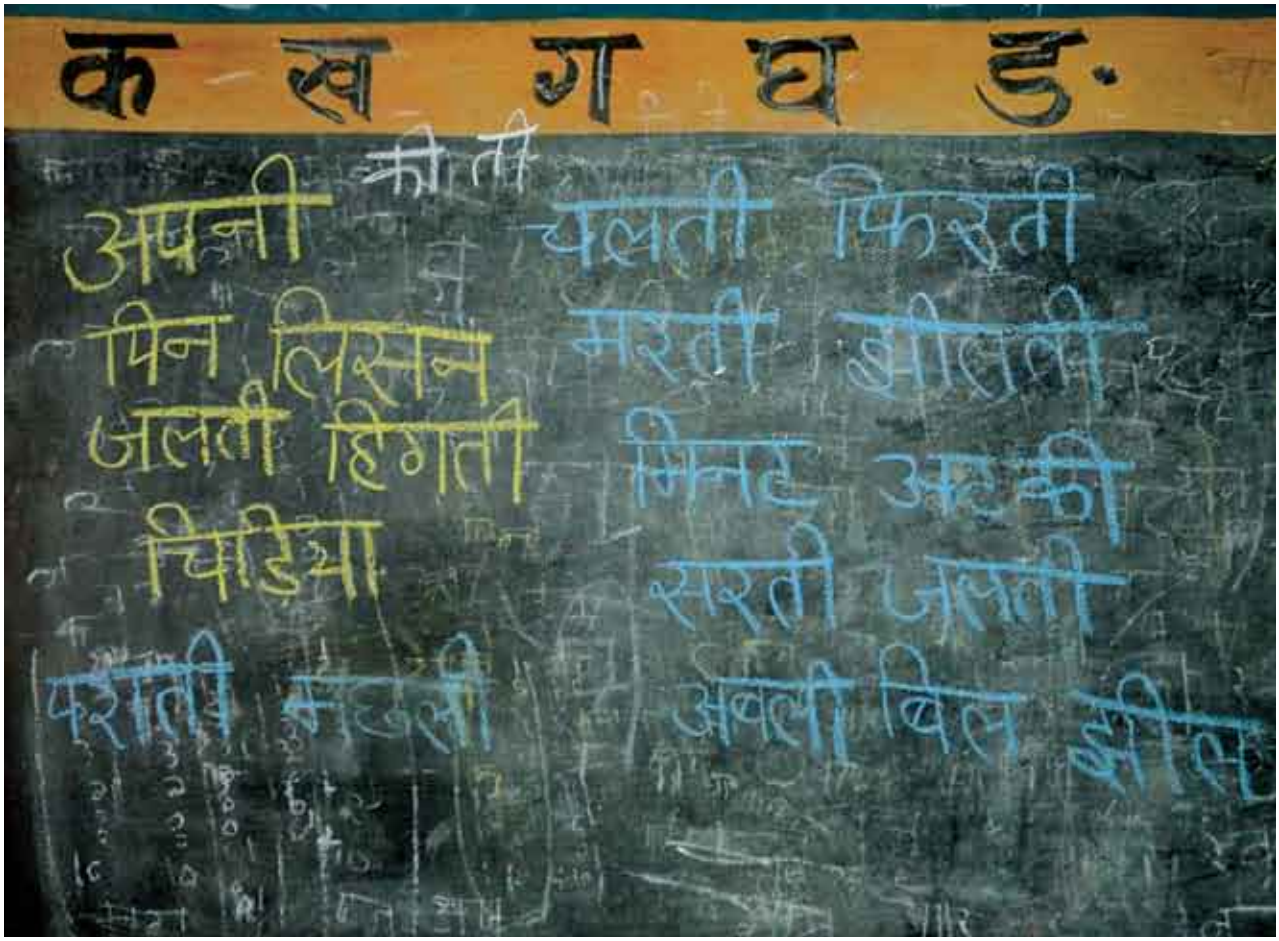
But when these schools were visited, it was observed that the schools were not conducive spaces for these very young children. The younger children were not welcomed by the teachers in the primary grades, but allowed to sit only so that the older child does not drop out. These 3½ to 4½ year olds were observed to be sitting in different grades across primary sections with no activities being conducted by the teacher for them. Sometimes, they could be seen wandering in the school campus, while their parents believed that their expectations of the child getting habituated to going to school were getting fulfilled!

Type of Centres	Very Satisfied	Somewhat Satisfied	Not at all Satisfied	Do not know
AWC	77.1	19.2	2.7	0.9
Private Preschool	84.7	11.5	1.6	2.3
Known Practice	87.8	11.0	0.0	1.1
Ka-shreni	55.6	44.4	0.0	0.0
Government Primary school	89.1	10.9	0.0	0.0

Table 2.2.1: Satisfaction level of parents according to type of centres

Parents expressed a similar level of satisfaction from the private preschools and were evidently happy with the activities, although the activities were observed to be based on rote learning, and formal reading and writing, through the day. The children attending private preschools tend to be introduced to formal education as soon as they join the preschool and are expected to learn the alphabet, counting and learning tables, even in pre-primary grades. In Rajasthan, the pre-primary sections were often found to be sitting in the same class with grades one and two. These multi-grade classes not only sit together but are often also taught the same content through the "rote learning" method. Another reason for sending children to private schools is parental preference for English medium schools. In Andhra Pradesh, which has good road connectivity, many children were found travelling for as far as 10-20 kms to attend schools located outside the village, as the parents want their child to learn English and get "good education", for which they were even ready to pay a high fee!

Parental satisfaction was also seen to be high in the case of the known practices in AP and Rajasthan. These centres are comparatively better with more developmentally appropriate practices in terms of curricular content. A possible reason for high satisfaction levels could be the community-awareness programmes conducted by them which



Downward extension of the primary grades in an *Anganwadi* Centre in Rajasthan

orient the parents to more developmentally appropriate practices so that their expectations are in consonance with the programme content and objectives. The parents are made aware that children in this age group should not be exposed to formal reading and writing; instead, they need to be prepared with pre-reading and writing skills before they move to formal education. Consequently, in the known-practice centres, parents expressed satisfaction with the school-readiness activities and play-based learning that children were exposed to. But parents were not very satisfied with the *Ka-shreni* programme running in the government primary schools under SSA in Assam. The expectation from this programme is that children would learn academic skills and knowledge, but not much of that happens in the centre. *Ka-shreni* is a concept wherein a pre-primary section has been added to the government primary school and is expected to help in gradual transition of the child from *Anganwadi*, which is also within the school campus, to *Ka-shreni* and then to grade 1. Unfortunately, the *Ka-shreni* classes face acute shortage of teachers, an indispensable resource for young children. Often, the primary grade teachers fill in for the *Ka-shreni* sections and, sometimes, the *Anganwadi* worker does the same

Food distribution in an *Anganwadi* Centre

after her *Anganwadi* closes. In the absence of a dedicated teacher for these classes, the programme quality suffers and, in turn, parental expectations perhaps do not get fulfilled.

With regard to *Anganwadis*, 77 percent of the parents did report satisfaction with the centres and with what the child was doing in the *Anganwadi*. In many cases, particularly in Rajasthan, the expectation in most cases is that children would get food and that expectation was getting fulfilled.

2.2.5 Improvements Suggested in ECE Programmes

The parents were interviewed to know their perceptions and views regarding the improvements they would like to see in the ECE centres attended by their child. Their views regarding improvement seemed to be guided by their expectations from the centre and their understanding of what goes on in the centre. Figure 2.2.7 describes the improvement suggested in different categories of ECE programmes, as indicated by the parents.

It is evident from the data that the parents are concerned about what is being taught at the centres, as they send their children with the aim of getting them prepared for primary schooling. Parents had high satisfaction levels across categories, yet, they wanted the teaching-learning processes to improve in all categories of centres. This was more so in private provisions, as there the parent was also paying fees for the child's education. Parents also seemed to be discontented with teachers in the government-run programmes like the *Anganwadi*, *Ka-shreni* and

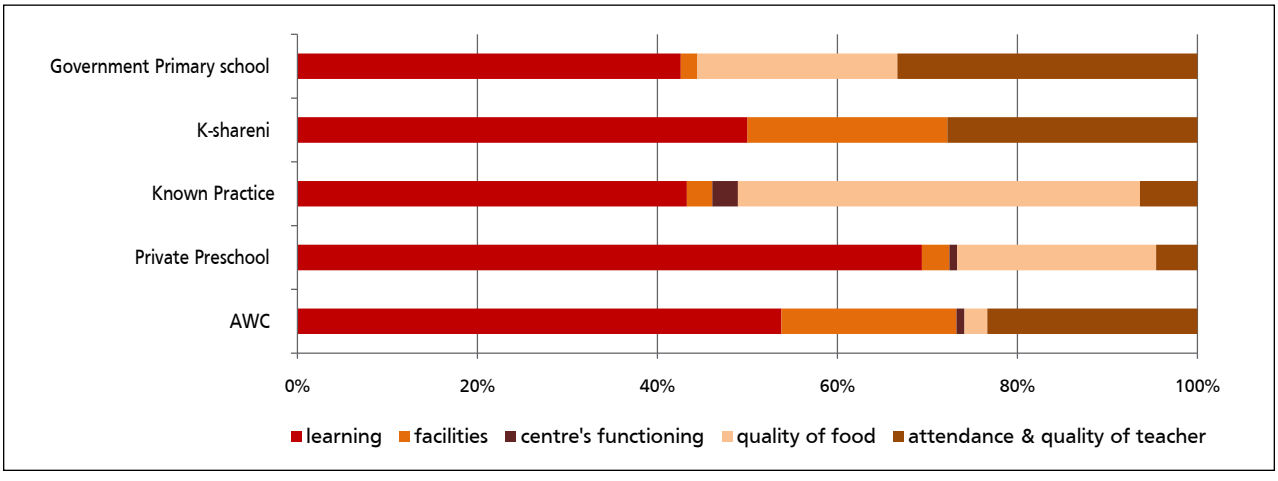


Figure 2.2.7: Parental perception of improvements required in different types of ECE centres

the government primary school, as they wanted improvement, particularly in quality of teachers and their attendance. The government-run ECE programmes like *Anganwadi*s and *Ka-shrenis* clearly lacked infrastructural facilities and, according to the parents, these stand out as a major area requiring improvement in these programmes. It is also observed that in case of centres where the children are not provided with mid-day meal, the parents have advocated for provision for food, particularly in the known-practice centres, which cater to the under-privileged and focus only on learning. The parents of children in government primary schools wanted improvement in the quality of the food given to children.

2.2.6 Conclusion

The findings from the study suggest that 83 per-cent of children between the age of 3½ to 4½ years were found to be participating regularly in an ECE programme, in even rural and tribal areas of the three project states. This finding reflects a major step forward in parental awareness and motivation regarding importance of initiating the child into an educational programme at an early age. The fact that villages with a population between 2,000–4,000 not only have *Anganwadi*s but also boast of a mushrooming of private pre- schools, reflects greater parental demand and interest and awareness about sending children to preschools at the age of around 3 years. It also indicates a gradual increase in number of parents even in rural and tribal areas who can and are willing to pay for their young child's education.

The choices parents make regarding their child's schooling are closely linked to availability and accessibility of ECE centres, as also to the mothers' education levels—which are again associated with the socio-economic status and priorities and perceptions of the parents regarding education of the children. The priority predominantly reflected by parents interviewed in the study across all categories is that children should learn to read and write and be prepared for formal schooling at this age. This is reflected in the high satisfaction levels with not only private preschools but also government primary schools, which do not even have ECE as their mandate. Although parents seem more aware and interested in educating their children, there is little awareness among them regarding children's developmental needs and the importance of appropriate play and development based ECE. When the parents are imparted awareness in this regard, as in the case of the known practices, it tends to influence the nature of their demand for more developmentally appropriate early education.

Parent's choice of their child's schooling is closely linked to availability and accessibility of ECE centres and the mothers' education level which is further associated with the socio-economic status and priorities and perceptions of the parents regarding education of their children. Parents are interested in educating their children, but unaware of children's developmental needs and the importance of appropriate play and development based ECE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3

Physical Facilities In ECE Centres

As mentioned in Chapter 1, Early Childhood Education Quality Assessment Scale (ECEQAS) was used to assess the physical setting and facilities available in the ECE centres from the perspective of both availability and use. The association between the availability of facilities and the extent to which these influence the quality of the programme was also explored. The specific components for the facility assessment were availability of space and appropriate sitting facilities for children; cleanliness of the classroom and surroundings; adequacy of classroom space for activities; availability and use of toilets and clean water; infrastructure support for children with special needs; safety level of the premises, level of noise pollution, overall quality of maintenance of the building and availability of learning and play materials and its use.

The assessment was done for all categories of centres sampled in the study, including government-sponsored *Anganwadi* centres (AWC), private preschools and a few innovative practices referred to in the study as "known practices"; each centre was rated on the ECEQAS for each of the above-mentioned components. The data obtained on physical facilities was subjected to disaggregated analysis, by components and by states and type of facilities. This chapter is divided into two sections—Physical Infrastructure and Learning Materials.

3.1 Physical Infrastructure

Infrastructure emerges as a concern across all categories of facilities. A comparative analysis of the aggregate mean scores on Physical Facilities across states is depicted in Figure 3.1.1. As evident, the ECE centres in Andhra Pradesh score relatively better on physical facilities with a mean score of 5.9 on a scale of 10, while the scores for Rajasthan and Assam are 5.3 and 4.5, respectively. The differences, however, are not significant.

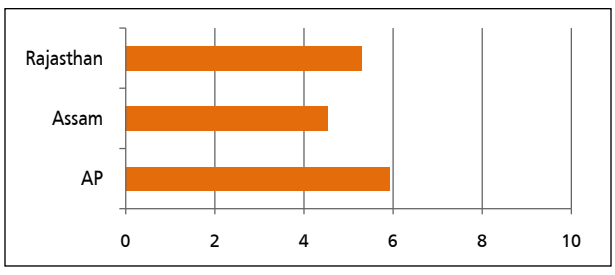

Figure 3.1.1: State-wise mean scores of ECE centres on physical infrastructure

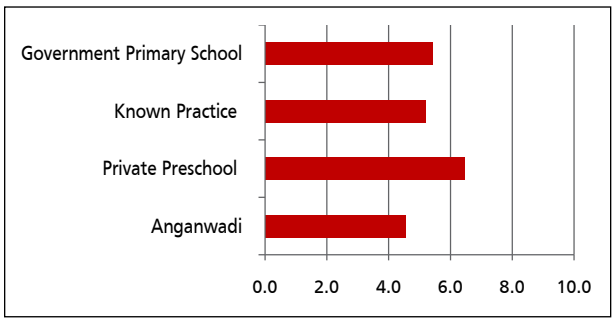

Figure 3.1.2 Mean scores of different types of ECE centres on infrastructure of the centres

A further analysis across different categories of centres for all states combined (Figure 3.1.2) indicates availability of better infrastructural facilities in private preschools in comparison to the *Anganwadi*s and the known-practice centres. The mean score for private preschools was 6.5 on a scale of 10, whereas the known-practice programmes, *Anganwadi*s and government primary schools yielded scores of 5.2, 4.6 and 5.4, respectively. The higher scores of the private preschools are possibly indicative of priority given by the managements of private preschools to infrastructure and building of the school, particularly with a view to have a façade that can attract parents for admission. The *Anganwadi*s score the lowest, since most of them do not even have their own buildings and often run out of homes or improvised structures.

However, a disaggregated analysis by states somewhat changes the picture (Figure 3.1.3).

Private preschools have relatively better infrastructure in comparison to *Anganwadi* centres and known practice centres, probably to attract parents

In terms of state-wise comparison of scores on different categories of ECE centres, the private preschools score better across Andhra Pradesh and Assam, but in Rajasthan, their scores are the lowest compared to all other categories. This is corroborated by field observations too. Many of the private schools were found being run in ruined, old *havelis*/households that do not fulfil the requirements of a preschool or school. The private preschools in Andhra Pradesh and Assam score better on infrastructure, as they were observed to be built in a planned manner with the specific aim of starting a school.

The government run ECE centres (*Anganwadi*s) and primary schools in Rajasthan have better infrastructure, as compared to the government provisions in Andhra Pradesh and Assam, reflecting the priority being given by the state generally to infrastructure. The *Anganwadi* centres and Known Practice centres in Andhra Pradesh were more often observed to be running in rented accommodation or community rooms. Most of the *Anganwadi*s in Assam were running in primary school premises, whereas the ones in Rajasthan had their own building. The known-practice centres in Rajasthan also had buildings of their

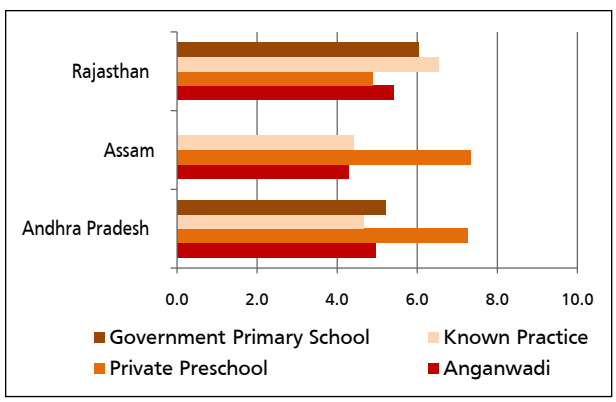

Figure 3.1.3: Comparison of mean scores of different types of ECE centres across states

own, which were reported to be co-owned by the community and the NGO, *Bodh Shiksha Samiti.* The community puts in around 50 percent of the finances to build and run the centres.

These state differences among the different categories of centres were further examined in detail with regard to each of the indicators related to physical setting and infrastructure.

3.1.1 Classroom Space

Availability of adequate classroom space for children to sit comfortably and for the teacher to move around is a key requirement for an activity-based classroom at the preschool level. Aggregated mean scores on this indicator, based on observation of all 298 ECE centres, across types, present a dismal picture. Space inadequacy emerges as an issue with more than 50 percent of the centres with no adequate space for children to sit comfortably and to allow for individual or small group activities. Again, a disaggregated analysis (Figure 3.1.4) reveals state-wise variations.

Rajasthan: The most dismal situation seemed to be in the private preschools of Rajasthan, where almost 48 percent classrooms were observed to not have adequate space for all children to sit and less than 25 percent classrooms had space for the teacher to conduct activities with the children. A similar situation was evident in 50 percent of the government primary schools included in the sample. The positive finding is that almost all the "known practice" centres, known as *Bodhshalas,* that were visited had adequate space for children to sit and to conduct activities. The space availability was favourable in 60 percent of the *Anganwadis* as well. It may, however, be noted that these *Anganwadis* were selectively chosen, where some preschool education was being conducted. So, this picture may not be representative of the state.

Andhra Pradesh: Almost 58 percent of the *Anganwadis* were observed to have adequate classroom space for children to not only sit, but also to conduct activities. Only 10 percent *Anganwadis* were found to have inadequate sitting

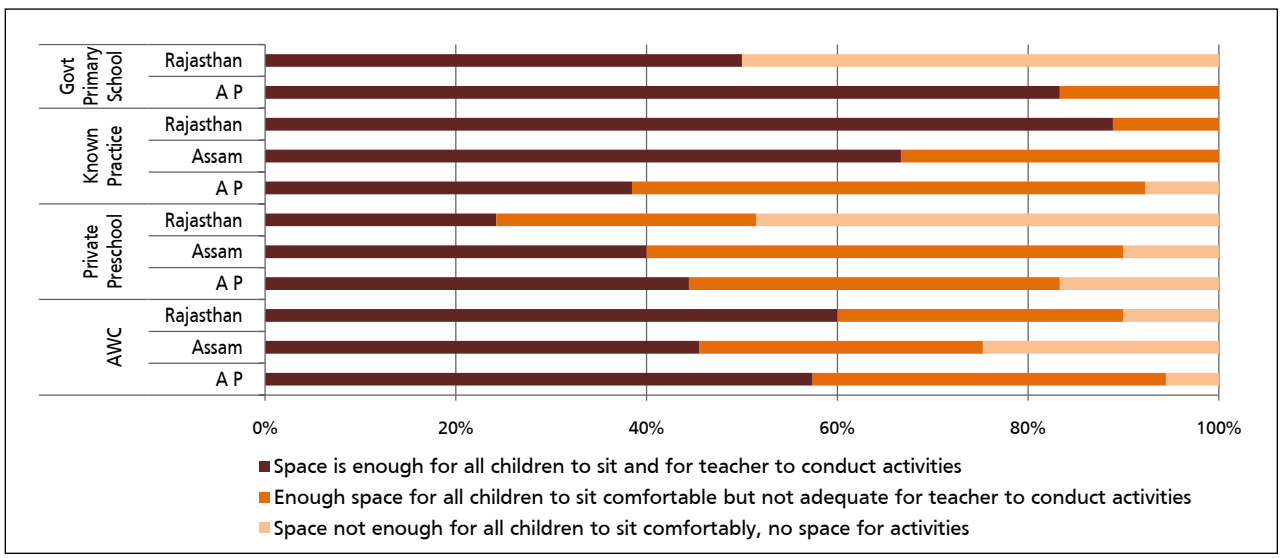

Figure 3.1.4: Percentage of centres across states and categories with adequate classroom space

space for the number of children present. The known practice centres were in some cases also located in the *Anganwadi* centres, in a separate shift. In a few cases these were in community spaces. As a result, the situation in terms of classroom space was dismal, with only 38 percent classrooms having adequate space. The government schools had adequate classroom space in 85 percent of the schools. This can again be possibly due to decline in school enrolments and less children per class. The problem was relatively more acnte with the private preschools, where only 45 percent of the classes had adequate space. This finding must be qualified with the observation that with the popularity of the private preschools, the number of children attending a class is also much higher.

Assam: In this state the space situation was most favourable in the known-practice centres, which were the *Ka-shrenis* with 65 percent of the classrooms having adequate space even for activities. There was no class that did not provide enough space for children to sit. This is possibly because, these *Ka-shreni* centres had the advantage of being located in the primary schools. In contrast, the *Anganwadi*s seemed to be smaller in size. While 45 percent of these did provide adequate space for activities, about 25 percent did not provide enough space for children to even sit and the rest had no room for children to move about and conduct

Children in a Government Primary School in Rajasthan

activities. The private preschools were the best, with 90 percent classes found to be adequate for children to sit, of which 40 percent had adequate space for activities as well.

3.1.2 Appropriate Seating Facility for Children and Cleanliness of Classrooms

The centres were also assessed on the kind of facility provided to children for sitting. An analysis of scores for all ECE centres put together indicates that 53 percent of the centres studied provided for a clean mat or chairs for the children to sit on, whereas the rest of the centres did not have any such facility; instead, they either used torn mats for sitting or often children were made to sit on the bare floor.

A disaggregated analysis as depicted in Figure 3.1.5 presents a more-nuanced, state-wise picture, as discussed below.

Rajasthan: In Rajasthan, it is heartening to see that in at least 40 percent of the *Anganwadis,* the children had a clean and proper arrangement for sitting. Another 48 percent had some arrangement in the form of mats, although these were torn or unclean. The concern is that 10 percent centres had children sitting on the bare floor. The torn or unclean mats also pointed towards the need to ensure recurrent supplies to *Anganwadis* to be able to maintain quality. It was disturbing to see that even in private preschools, which charge fees, about 22 percent of the classrooms had children sitting on the bare floor. Overall, the situation was worse than in the *Anganwadis*. In contrast, the known practice centres had a proper arrangement in place in 88 percent of their centres with only 12 percent centres with an unclean arrangement. In no case were the children sitting on the bare floor. The government schools also provided some arrangement, but again the maintenance was an issue.

Andhra Pradesh: In Andhra Pradesh, 45 percent of the *Anganwadis* visited had a proper arrangement while almost an equal percentage had children sitting on the bare floor! The private preschools

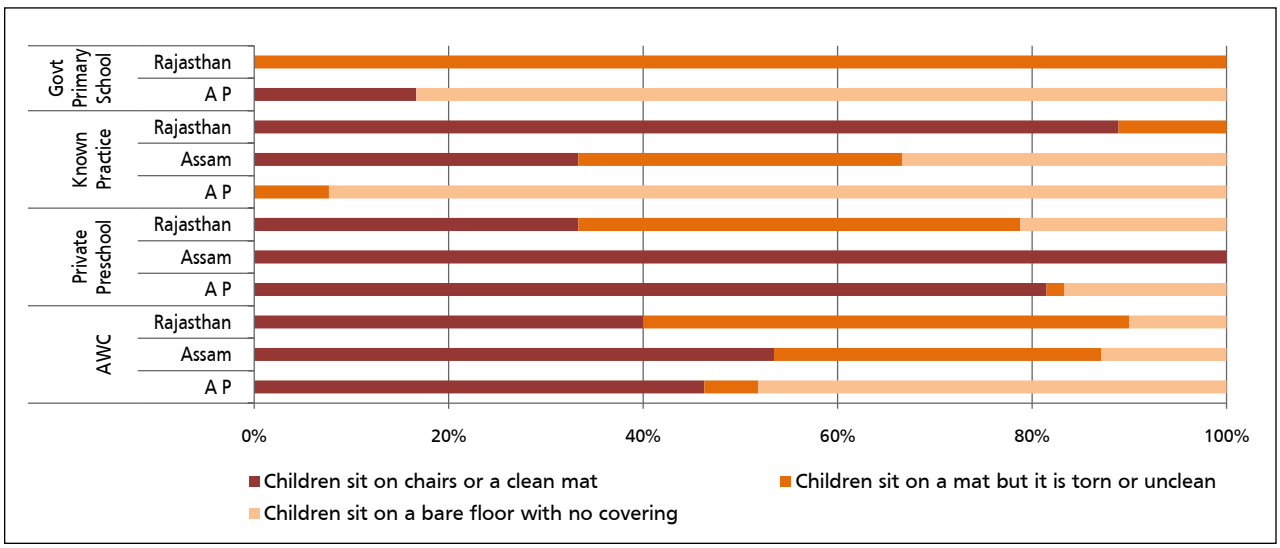

Figure 3.1.5: Percentage of centres across states and categories with appropriate seating arrangement for the children

Underage children in a Government Primary School in Andhra Pradesh

were found much better off in this respect, with about 82 percent of the classes having some proper seating arrangement for children. However, as with Rajasthan, 17 percent of the preschools had children sitting on the bare floor. The more disturbing trend was evident in the known-practice centres, attended largely by children from the tribal community, where 92 percent of the centres had children sitting on the bare floor; the remaining had some arrangement, but not well maintained. Even in the government schools, 82 percent classes were observed to be without any mats or facilities.

***Assam*:** In Assam, the private preschools stand above other categories on this parameter, with 100 percent of the classrooms visited found to be having a proper arrangement for children to sit. The *Anganwadi*s too had better facilities than in other states, with 53 percent having adequate space for conducting activities for children. Interestingly, a significant variance was observed across the *Ka shreni* classrooms, which are located in primany schools. Across all states, wherever proper arrangement was seen, it was in the form of either clean mats or chairs and tables for children to sit.

Overall, cleanliness in classrooms was also assessed, as it is important from the perspective of not only providing good sanitary conditions, but also for inculcating appreciation of cleanliness, aesthetics and good habits among young children. The data indicates that across the categories and states, about 61 percent of the classes were found clean with tidy sitting arrangements, whereas the remaining classrooms were not satisfactory from this perspective.

Again as with sitting arrangement, a similar state-wise trend was observed in the disaggregated analysis (Figure 3.1.6). Overall, all categories of centres in Andhra Pradesh, including a high proportion of private preschools, *Anganwadi*s

More than half of the ECE centres across the three states provided a clean mat or chairs for the children to sit on, whereas the rest of the centres which did not have any such facility either used torn mats for sitting or the children were made to sit on the bare floor

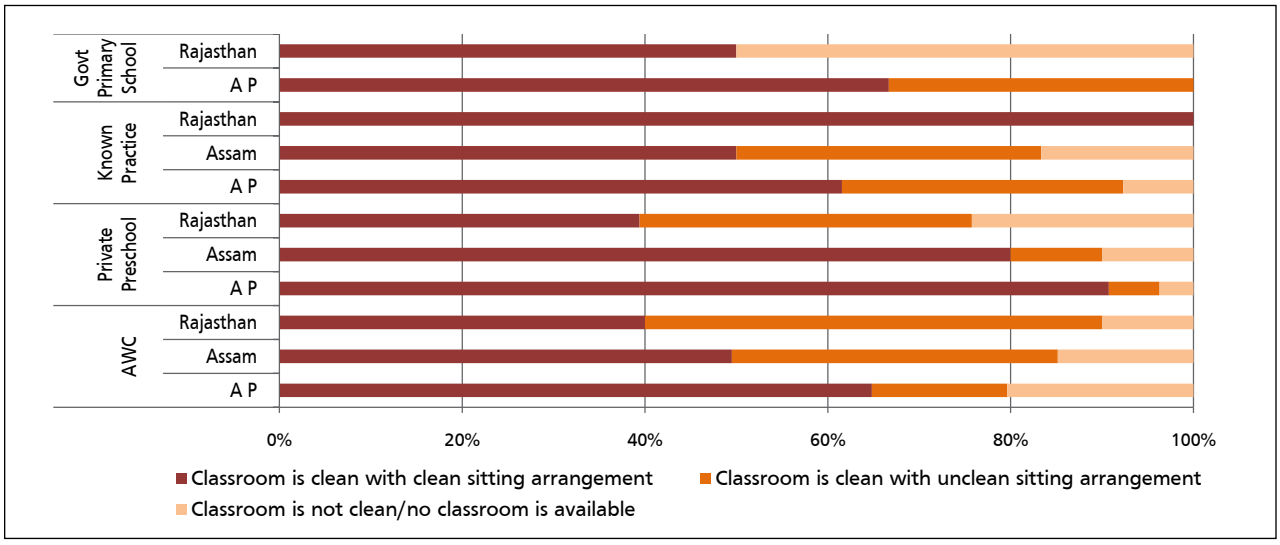

Figure 3.1.6: Percentage of centres across states and categories with clean classroom and sitting arrangement

and known-practice centres had adequately clean classrooms; in comparison, only around 40 percent of the *Anganwadi*s and private preschools in Rajasthan and less than 50 percent of the *Anganwadis;* and *Ka-shreni* centres in Assam were found to have clean and tidy classrooms. However, a significant finding was that all *Bodhshala* centres, that is, the known-practice centres in Rajasthan had clean classroom space and sitting arrangement, which is an indicator of the programme's priority on this aspect and on inculcating good health and hygiene habits in children.

3.1.3 Toilet Availability and its Use

Toilet availability is an important requirement for this stage of education, not only as a facility, but also from the perspective of toilet training and personal habit formation for these very young children. However, the data indicates that the state-run *Anganwadi*s and primary schools seem to generally lack provision of toilets, and where available, they are not used by the children (Figure 3.1.7). The *Anganwadi*s seemed to fare better than the *Ka-shreni* and government primary schools as some of them did have toilet facilities, especially when they were run in rented accommodation. Private provisions, on the whole, were found to have comparatively better availability and use of toilet facilities.

***Rajasthan*:** In Rajasthan, toilets were found available in about 75 percent of the cases but were being used appropriately in only about 58 percent preschools. One of the problems in private preschools in the state was, as described earlier, that these are often run in old ruins or *haveli*s and none of these old *haveli*s have any provision for a toilet; the facilities are constructed around the *haveli* but are not maintained. In contrast, in the *Bodhshala*s, that is the known-practice centres (which have been constructed with the help of the community members and are subject to availability of finance) the toilet facilities have also been constructed. In around 55 percent of the centres, toilets were available but used by children in only 30 percent of the cases. In the category of *Anganwadi*s, 40 percent centres had toilets of

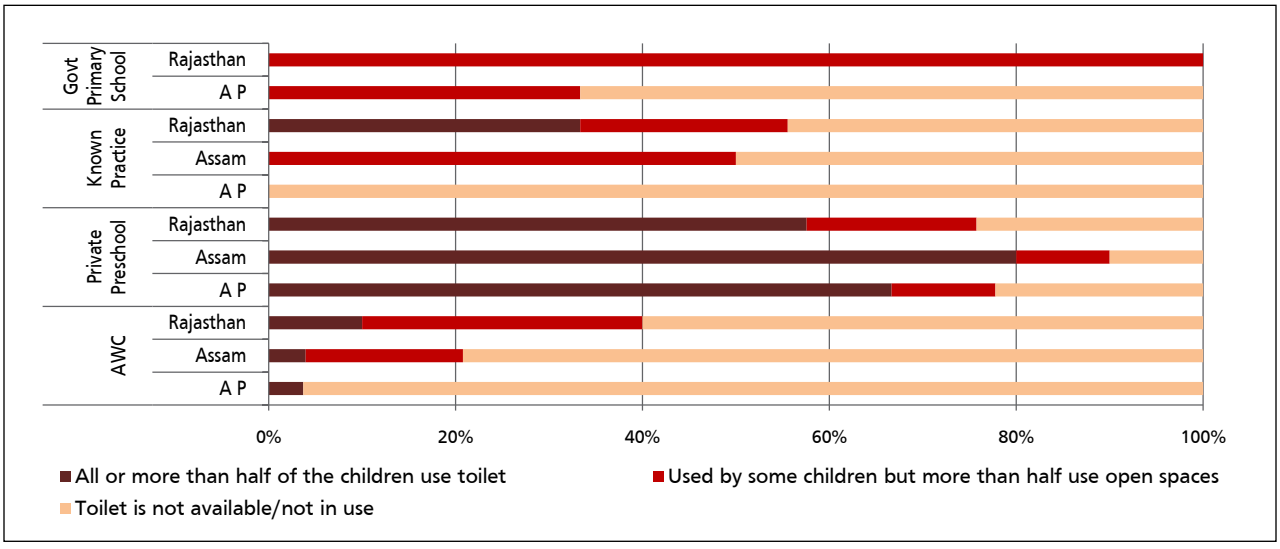

Figure 3.1.7: Percentage of centres across states and categories with toilet facility which is in use

which only 10 percent were in actual use, again raising the critical issue of maintenance and recurrent funding.

Andhra Pradesh: Compared to other states, the *Anganwadi*s in AP do not fare well on this parameter, with less than 5 percent centres having toilet facility. The positive aspect is that wherever they were available, they were in use. In the private preschools on the other hand, 78 percent toilet availability was seen, although of these, only 68 percent were functional and in use. Unfortunately, the known-practice centres did not have any toilet facility in the centres at all, with the understanding that children would be used to going out in the field. In the government schools, the disturbing finding was that of the 33 percent schools with toilets, none were found functional.

Assam: In Assam, the infrastructure in private preschools is definitely superior, with 90 percent preschools having toilet provision; of these 80 percent were also found functional. In comparison, in the *Anganwadi*s, while 22 percent centres had toilets, less than 5 percent were actually found to be functional. Among the known-practice, *Ka-shreni* centres, although 50 percent of them had toilets, none were found to be in use. This general lack of universal provision across states is a matter of concern, given that the early childhood stage is so critical for habit formation and good toilet habits.

Toilets in a Private Preschool in Andhra Pradesh

Children using a hand pump to drink water in a Government Primary School in Andhra Pradesh

3.1.4 Availability of Clean Drinking Water

Another aspect the centres were assessed on was the availability of clean and covered drinking water for children. Schools, both private and government, usually have water tanks and hand pumps especially installed as the source of drinking water. This facility is not available in *Anganwadi*s and known practice centres; instead, the water is stored in pots. A disturbing finding is that many of the centres did not store drinking water appropriately in a covered vessel and, in some of the cases, drinking water was not available at all for the children. The state-wise profile as depicted in Figure 3.1.8 is discussed below.

Rajasthan: As indicated in Figure 3.1.8, a heart-ening finding is that 90 percent of the *Anganwadis* provide water for children to drink, of which 80 percent were found to also maintain it in a covered and clean pot. Further, 100 percent of the government schools sampled also provide clean drinking water. On a comparative note, while 85 percent private preschools were found to provide water, only 63 percent of them actually ensured it is clean and covered. The disturbing finding was the low priority given to this provision by known-practice centres, which were otherwise more focused on quality. While 78 percent of these centres were found providing water, only 45 percent had arrangements for clean water and 22 percent centres had no water at all for children to drink.

Andhra Pradesh: In Andhra Pradesh, a positive

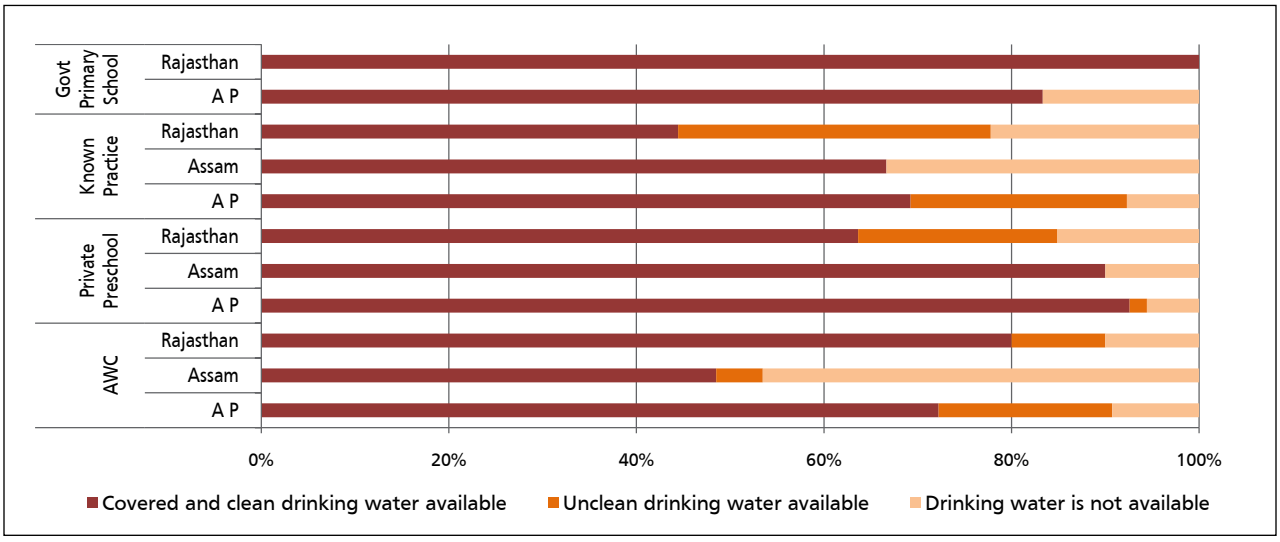

Figure 3.1.8: Percentage of centres across states and categories with clean drinking water

finding was that 92 percent of the *Anganwadis* were providing water for children to drink but only 72 percent of these centres ensured clean and covered drinking water. In contrast, 95 percent of the private preschools had provision of drinking water and 92 percent of these had ensured it was clean. In the case of known practice centres, 92 percent of these did provide water, but only in 68 percent of the cases was its cleanliness ensured. In the case of government schools, 82 percent of the schools had water provision and in all cases, it was found to be protected and clean.

Assam: In Assam, the private preschools again score better in terms of infrastructure on this parameter, with 90 percent of them having protected and potable drinking water available for children. The concern is that 10 percent of the preschools did not provide any water at all. The *Anganwadi* situation is not as favourable as in the other states regarding this provision with only 48 percent centres visited providing clean and covered water. In the case of the known practices, that is, the *Ka-shrenis*, 68 percent of these made water available and in all cases, it was found clean and potable.

3.1.5 Safety, Security and Cleanliness of Surroundings and School Building

The centres were assessed on the safety and security around their premises. Hazardous conditions such as open well, heavy traffic, pond, electrical equipments, roaming dogs, open drains, etc., were considered as hazardous. Overall, only 39 percent ECE centres observed had no hazardous condition around them. Almost 60 percent of the centres had one or more of these conditions within 10 metres of the centre's premises, which is a matter of great concern. Surroundings of the centre were also examined in terms of cleanliness and sanitation, particularly to see that they do not have garbage dumps, open drains, stagnant water, open defecating space, etc., around them. It is disturbing to note that only 42 percent of the ECE centres studied had a clean environment around, while more than half of the centres had unhealthy

surroundings. State-wise, the situation varied as depicted in Figure 3.9.

Rajasthan: In Rajasthan, only 10 percent of the *Anganwadi*s observed were found to have secure surroundings. A notable aspect in the state is that even though the *Anganwadi*s are specially constructed on panchayat-allocated land, only 10 percent of those in the sample were actually found to be in safe areas. These *Anganwadi*s were found in some cases constructed outside the hamlets, near the fields, which are normally not a secure space for children. In comparison, the government schools visited in all cases were secure with no hazards seen in their immediate proximity. This perhaps makes a case for constructing and locating *Anganwadi*s in primary school premises. The private preschools presented a mixed situation with about 25 percent found on safe locations, whereas 35 percent were on some hazardous sites. About 55 percent of the known practiee centres sampled were found to be located in unsafe surroundings. These *Bodhshala* centres in some cases had their own building for which the land and 50 percent of the construction cost was contributed by the community. However, the land allocated by the community is, in many cases, of lower value and is far away from the settlement. This also makes the site less secure.

Cleanliness of the surroundings again indicated a disturbing picture with 40 percent *Anganwadi*s located in unclean areas, leading to infections and disease. In locations where the *Anganwadi* centres had their own building, it was often observed that these sites were away from the hamlets and closer to the fields, which were used for defecation or storing cow dung for manure. The known-practice centres were a little better off but not entirely, with more than 50 percent locations demons-

Classroom of a private school operating on a roof top with no safety measures in Rajasthan

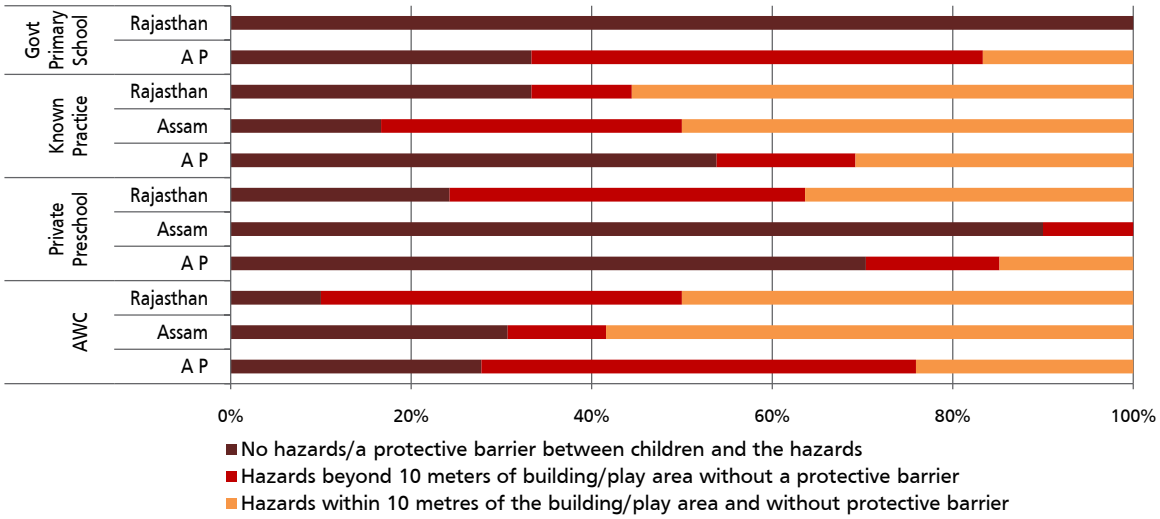

Figure 3.1.9: Percentage of centres across states and categories with no hazardous conditions around

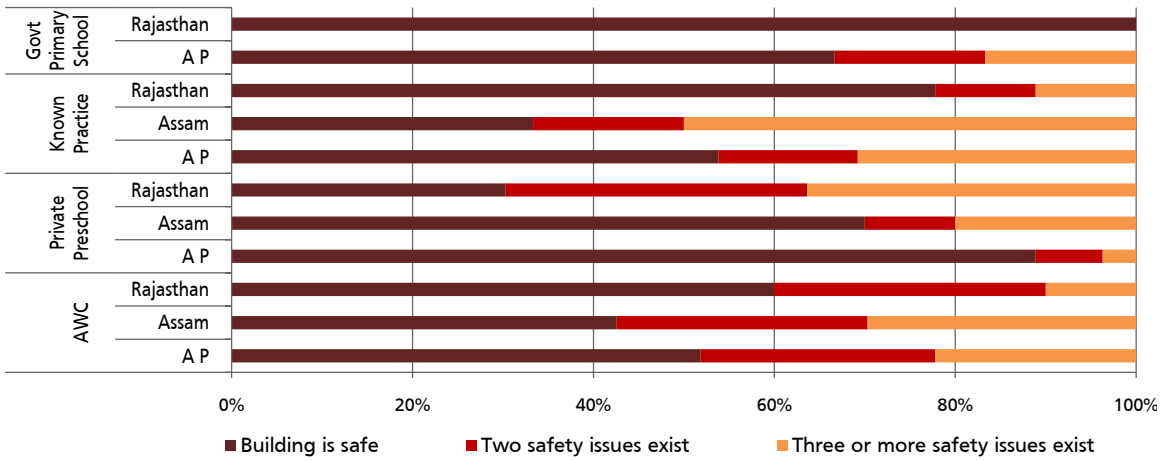

Figure 3.1.10: Percentage of centres across states and categories with safe building

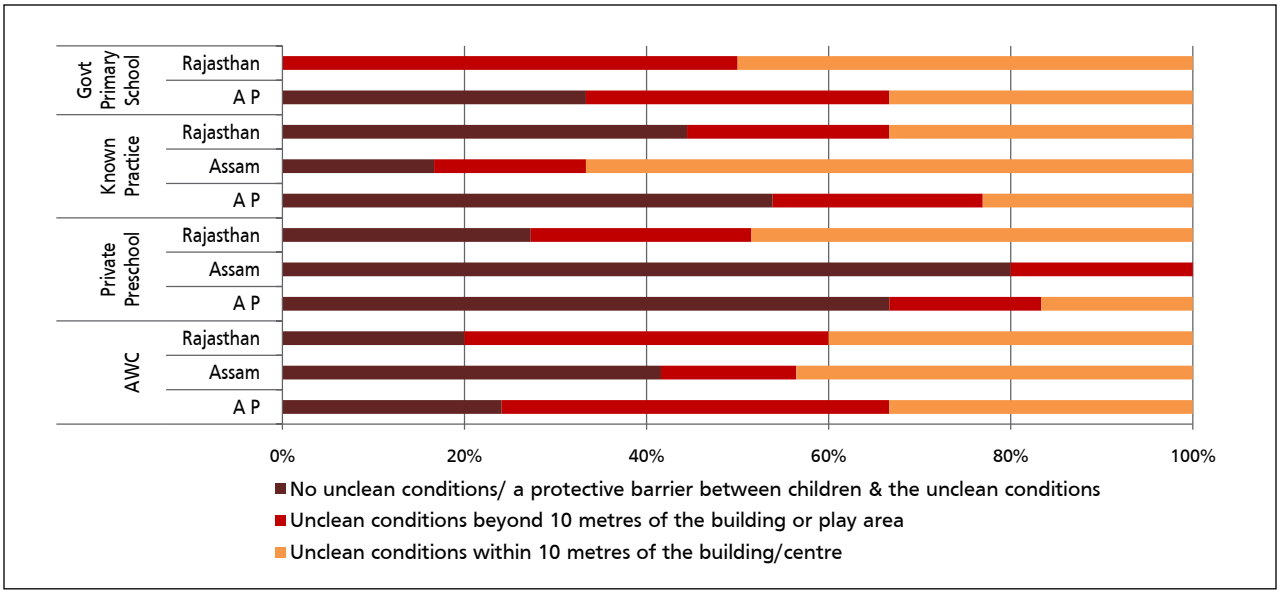

Figure 3.1.11: Percentage of centres across states and categories with clean surroundings

trating unsanitary conditions. The location of private preschools were even worse with almost 50 percent preschools being located in unclean areas.

Along with the surroundings, the safety level of the buildings were also assessed, given the frequent accidents that small children succumb to in many school sites and, therefore, an area of high priority. This was assessed in terms of maintenance standards. As evident in Figure 3.1.11, in Rajasthan, the infrastructure provided by the government for schools and *Anganwadi*s was found to be generally better maintained as compared to other states. About 60 percent of the *Anganwadi* buildings and all the school buildings visited were running in well-maintained buildings with proper lighting, ventilation, flooring, ceiling and walls, as many of them were newly constructed structures. However, of concern were the remaining *Anganwadi* centres, which had some unaddressed issues of safety.

The private preschools projected a mixed picture, with only 30 percent of the buildings visited rated as safe and well maintained, while the remaining 70 percent had safety issues; of these, 35 percent centres could even be considered unsafe. In most of these unsafe centres, the classes ran in small dingy rooms with no source of natural or even artificial lighting. Sometimes, the classrooms were so dark that even the blackboard was not visible. Broken/uneven floor, plaster coming off from the walls, broken handles of doors or absence of doors were commonly observed. The known-practice centres were found to have relatively safe buildings in almost 78 percent of the cases, which is a positive finding.

***Andhra Pradesh*:** In Andhra Pradesh, the situation with regard to safety of surroundings was a mixed one, especially for *Anganwadi*s. About 28 percent of the centres sampled were in safe surroundings; while another 25 percent were in actual hazardous locations, either near open drains, or wells or near heavy traffic. In contrast to this situation, the

Broken rooftop in an *Anganwadi* Centre in Andhra Pradesh

private preschools were in a better-off situation with about 70 percent in safe areas and only 15 percent on hazardous sites. The known-practice centers were found to be secure in 52 percent of the cases, although almost 30 percent centres did have issues of safety and security. In the case of the government primary schools, unlike in Rajasthan, in AP only about 32 percent sites were found to be safe.

Cleanliness of surroundings was evidently better in the case of private preschools, with about 68 percent of the preschools located in areas with no sanitation issues. In contrast, only 25 percent *Anganwadi*s and 33 percent government schools that were visited had clean surroundings. The situation in the case of known practices was a little better with 55 percent centres located in clean areas.

An assessment of the safety of the buildings indicated that around 52 to 55 percent *Anganwadi* centres and known-practice centres respectively, maintained safe standards but the remaining had unaddressed issues of safety. In contrast, about 88 percent of the private preschools were found to have safe buildings. The school buildings were also safe in only 66 percent of the cases. These findings again point to the need for quality standards.

***Assam*:** In Assam, the most positive finding is related to the private preschools, with 90 percent of them in safe and secure surroundings and the remaining 10 percent also in areas with no immediate hazards. In contrast, about 58 percent of the *Anganwadi*s sampled were found to be in hazardous conditions with only 18 percent in sites that could really be labelled as safe. Often, the *Anganwadi*s were found to be running in just a shed; at times, it was observed that the centre did not have a roof or walls and many did not have safe buildings. Even in the case of the *Ka-shrenis*, almost 58 percent of them were in unsafe areas, with immediate hazards and only 18 percent were in safe sites.

More than half of the ECE centres had at least one hazardous condition such as open well, heavy traffic, pond, electrical equipments, roaming dogs, open drains etc. within 10 metres of the centre's premises

With regard to cleanliness of surroundings, in Assam, the private preschools could be considerd again exemplar, with 80 percent of them located in clean surroundings and none had any immediate sanitation issues. The *Anganwadi*s and known-practice centres, in comparison, had significant issues with 42 percent of the AW centres and 65 percent of the known-practice centres sampled found located in unclean areas.

Assessment of the safety of the buildings highlighted concerns with 58 percent of the *Anganwadi*s demonstrating poor safety standards. A similar situation was evident in the case of the known practices. The private preschools in Assam were significantly better in infrastructure with 70 percent having buildings that were well maintained and safe from all perspectives. The managements of the private preschools across Assam and AP reported that renovation of the building is done every year, during summer vacations.

3.1.6 Infrastructure Facilities for Children with Special Needs

With the emphasis now on "every child in school", it is expected that the children with special needs would be getting enrolled at the preschool level too in more numbers. Therefore, the extent to which these preschools are "disability friendly" was examined. It was disturbing to find that very few centres had required facilities for these children (Figure 3.1.12). Only 7 centres were some-what equipped to receive the children with special needs, out of a total of 298 centres studied. Other centres did not have even basic facilities such as ramps with railings.

As the centres across categories and states were not equipped adequately to receive children with special needs, participation of children with special needs was extremely limited. These children were observed to be present in only 23 centres. Since in Rajasthan, *Anganwadi*s have been provided with their own newly constructed buildings, the maximum number of centres with

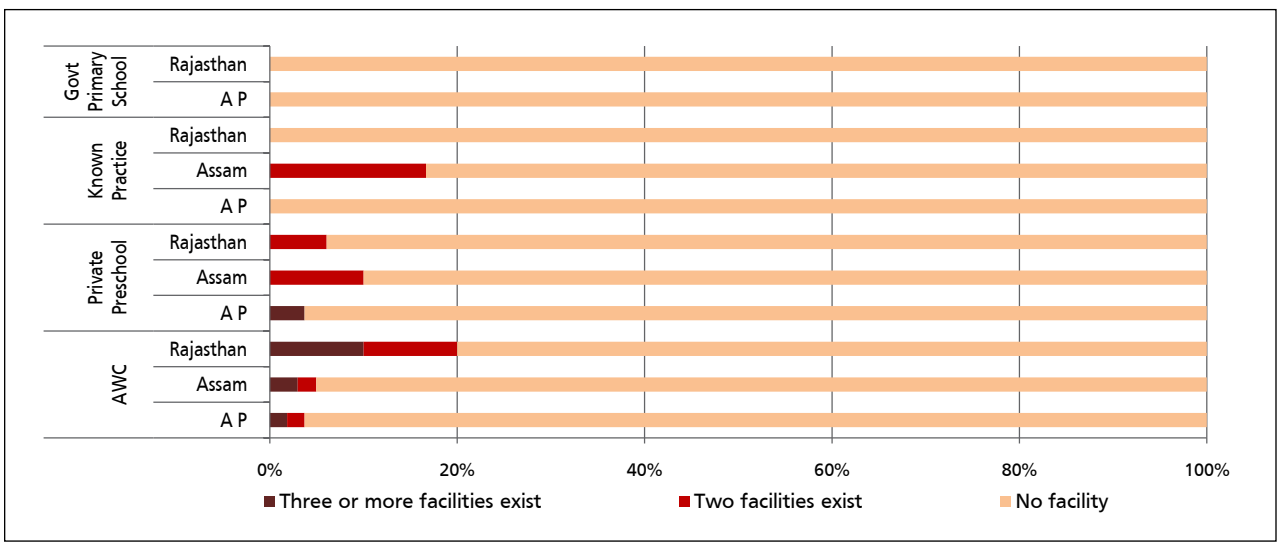

Figure 3.1.12: Percentage of centres across states and categories with facilities for children with disabilities

Location of an *Anganwadi* Centre in Rajasthan

facilities for children with disabilities was found in this category. (Figure 3.1.12) A few *Anganwadi*s and known-practice centres in Assam and some in AP had some facilities, mostly in the form of ramps for children with physical disabilities. This overall lack of facilities emerges as a major concern in the context of ensuring inclusive educational opportunities to all children.

3.1.7 Storage Space for Teacher to Keep Material

In addition to storing of materials such as food grains, stationery, registers, and so on, which are typically required to be kept in an *Anganwadi*, the activity-based pedagogy advocated in all ECE centres also necessitates storing of a great deal of play and learning material for children. It is very important, therefore, for all ECE centres to have adequate storage space, which does not encroach upon children's activity space and also facilitates an efficient and effective classroom organization. Even under the Right to Education (2009), a store room is included as an essential requirement of a school. This aspect was assessed in the study under the domain of necessary infrastructure. Overall, it was disheartening to see that 40 percent of the ECE centres studied under the project did not have any storage space for teachers. A state-wise analysis provided a more nuanced picture.

Rajasthan: As indicated in Figure 3.1.13, in the *Anganwadi* sector, Rajasthan reflects a clear edge over other states in terms of infrastructure. A positive finding was that 60 percent of the *Anganwadis* and all government primary schools visited had adequate storing space for the materials. The known-practice centres were even better off than *Anganwadi*s with 78 percent of the centres found with appropriate storage space. The private preschools, however, were not so well equipped, with 42 percent of the centres having no space for storage; this is expected since they were being run in buildings that were not designed to be schools.

Andhra Pradesh: In AP, among the *Anganwadi*s visited, only 42 percent had adequate storage space while 25 percent did not have any space at all. The government schools were better off with 67 percent providing some space. In the known-practice centres, only 25 percent had adequate space. The private preschools were better off with about 50 percent ensuring adequate storage in the classrooms.

Assam: In Assam, the private sector again stands out as a better practice in infrastructure, with 60 percent of the preschools visited found to be providing adequate storage space for teachers. In complete contrast, in *Anganwadi*s, only 5 percent centres visited had appropriate space, which is a severe limitation for the teachers. Sixty-five percent *Anganwadi*s had no space at all for storing materials. The known-practice centres, which are located in schools, also had adequate provision in only 50 percent of the cases. This

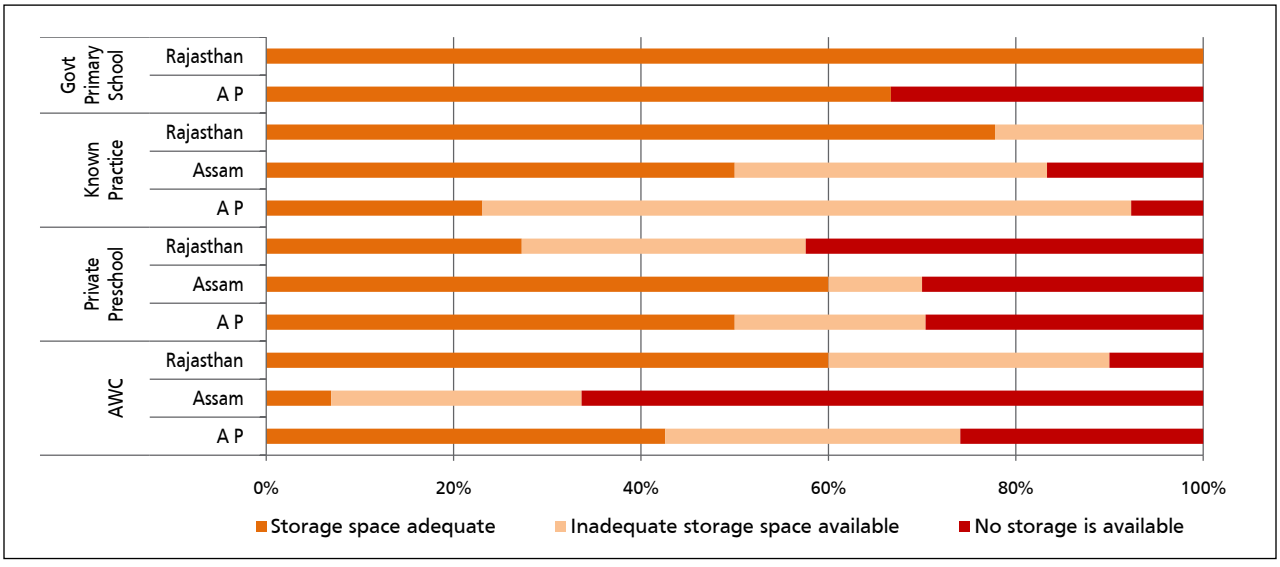

Figure 3.1.13: Percentage of centres across states and categories with adequate storage space for teacher

points to the need for designing *Anganwadi* or ECE centres in ways that can support the kind of pedagogy advocated for small children.

Along with assessing provision for storage space, utilization of the given space was also assessed. Overall, it was disheartening to see that in most cases, even if space was available, it was not being optimally utilized. In most cases, it was observed that the teachers did not have any resource material or teaching-learning material with them that needed storage. The best utilization was seen in the *Bodhshala* centres, the known-practice centres in Rajasthan, where the teachers had developed their own teaching-learning material and used the limited storage space to the maximum, to arrange and store the material.

3.1.8 Emerging Trends in Physical Setting and Infrastructure of ECE Centres

A comparative analysis of the infrastructural facilities by type of centres and by state presents a complex picture. While the aggregated picture indicates better infrastructural facilities in private preschools, the state differences emerge as very distinct and make the comparisons more complex and varied. These infrastructural facility differences can be attributed to the space where the centres were found to be running. In Rajasthan, the *Anganwadi*s were found to be better in infrastructure as compared to private schools and also compared to *Anganwadi*s in other states. It was observed that most of the *Anganwadi*s have their own separate well-lit and ventilated buildings, with relatively sufficient space for movement of children and for conducting activities. In Andhra Pradesh on the contrary, many of them were running in rented accommodations. In Assam, *Anganwadi*s were operating in some cases from a classroom of the primary school and in other cases, there was no building assigned to the *Anganwadi* and they were running in semi-*pucca or katcha* accommodation.

The better-performing private schools in Assam and Andhra Pradesh have their own buildings. These are considered an asset by the management, to attract the parents to send their children to the school. These structures are built keeping functions of the school in mind. In Assam, a small number (10) of private preschools were studied, and they seem to have good, well-maintained facilities. But the data also reflects that even the better-performing private preschools, in terms of infrastructure, do not have any facilities for children with special needs. The private preschools running in Rajasthan demonstrate a major infrastructure deficit, which can be attributed to the fact that they operate from old abandoned *haveli*s in the villages. These *haveli*s are rented by the school management and some superficial touch up is done to the old, dilapidated building before it starts housing a school in it. The preschools are part of a larger primary school. The rooms are small, dingy and stuffy with no source of natural light or ventilation. These buildings, which are often within abandoned structures unsuitable for a school setting, are even recognized in many cases by the state board!

The "known practice" centres, particularly those running in Rajasthan, were found to have relatively better infrastructure facilities, but on several infrastructural aspects like building, availability of toilets, cleanliness of surroundings even the known-practice centres are more or less comparable to the *Anganwadi*s and private preschools and far from satisfactory. However, these innovative programmes do give more attention to the more functional aspects like sitting facilities, classroom space, cleanliness of classroom, and so on. In that regard, they may be rated somewhat higher than the *Anganwadi*s. Since the known practices have a strong community involvement, this works as a positive factor in Rajasthan, which is evident from the fact that the centres under this category have their own buildings, which are built with the help of the community, keeping in mind the needs of the children. The "known practice" centres in Andhra Pradesh, on the other hand, are a part of a government-run programme and operate from either *Anganwadi* centres or *panchayat bhawans* or community centres. Non-availability of toilets and clean drinking water stand out as major infrastructural issues that need urgent attention, not only from the perspective of basic facilities but also from their importance in promoting sound health habits. Another gap that gets highlighted from this survey is the significant lack of facilities for children with special needs, making the national mandate of bringing every child into the fold of education almost unachievable.

3.2 Play and Learning Materials

For any children's activity and play-based programme to be successful, materials become an essential ingredient—since the essence of this practice lies in providing the child with the opportunity to interact not only with adults and peers and with the environment, but also with materials, and learn from these interactions. For a developmentally appropriate ECE programme in particular, the provision of materials becomes an important requirement. These materials support different categories of activities and are required for free-play corners such as blocks' corner, dolls' corner, picture books corner, and so on; for art and craft activities; for language and cognitive development activities related to concepts of colours and shapes, picture dominoes, word, number and alphabet cards, matching and seriation

cards, conversations cards and charts, puzzles, sound and smell boxes, equipment for outdoor play, such as swings, slides, see saws, balls and bats and so on. Along with availability of materials, there is a requirement of space, too, both for storing materials in an accessible mode and for children to use the materials freely. The centres sampled in the study across the three states were assessed on availability of outdoor space and equipment and availability and use of indoor play and learning material.

3.2.1 Outdoor and Indoor Play Material

All the centres were assigned scores on three dimensions of *(a)* availability of outdoor space and materials, *(b)* availability of indoor play and learning materials and *(c)* use of indoor play and learning materials on a scale of 10. As indicated in Figure 3.2.1, the ECE centres in Rajasthan are relatively better equipped with outdoor and indoor material in comparison to those in Andhra Pradesh and Assam. The ECE centres in Rajasthan had an average mean score of 3.8 on a scale of 10 whereas the other two states, Assam and Andhra Pradesh, had lower mean scores of 3.1 and 2.7, respectively. The ECE centres, especially the known-practice centres in Rajasthan and also a few of the *Anganwadi*s, were observed to have a variety of indoor learning materials and

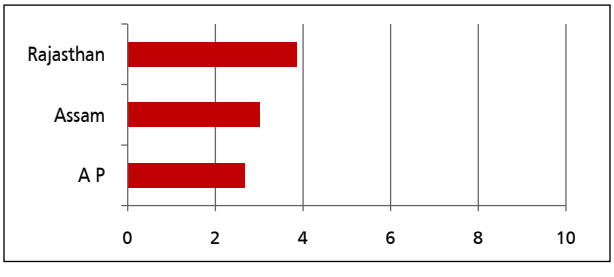

Figure 3.2.1: State-wise mean scores of ECE centres on availability and utilization of indoor and outdoor play equipments

Child with manipulative play in a Known Practice Centre

these were found being used in the classrooms by teachers to conduct activities. This is evident in Figure 3.2.2 wherein the different types of ECE centres are compared on availability and utilization of indoor and outdoor equipment. The analysis of the data indicates that known-practice centres across the three states were found to give the best environment to the children for learning as they had a variety of indoor and outdoor equipment available. The mean score for these centres across the states was 5.59 on a scale of 10. In comparison, *Anganwadi*s had a mean score of

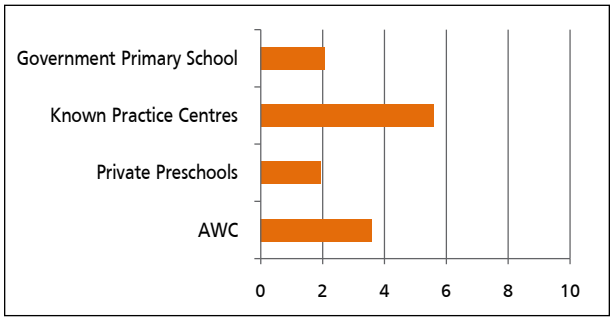

Figure 3.2.2: Mean scores of different types of ECE centres on availability and utilization of indoor and outdoor play equipments

3.6 which was lower, but still better in comparison to the private preschools.

Further analysis, on the overall scores, disaggregated by states and category of centres, (Figure 3.2.3) further supports the above findings, as discussed below.

Rajasthan: The known-practice centres in Rajasthan, that is, *Bodh Shiksha Samiti* centres, score significantly higher with a score of 7 on the scale of 10, on the parameter of availability and utilization of indoor and outdoor play equipment and aids. The lowest score is of the private preschools at 1.5, which is confirmed by observations

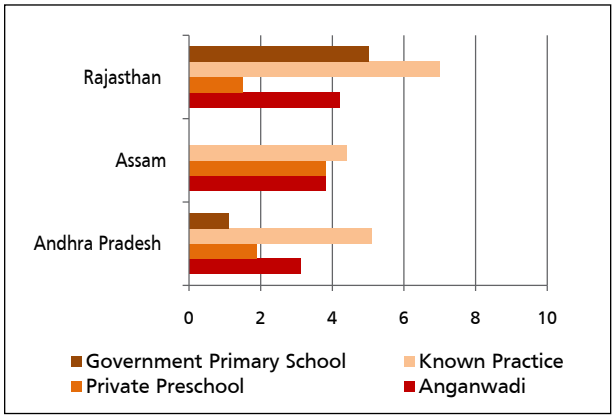

Figure 3.2.3: Comparison of mean scores of different types of ECE centres across states on availability and utilization of indoor and outdoor play equipments

too, since the classroom practice in these preschools is essentially in the form of formal teaching and rote memorization with little or no activity. Therefore they have very little of play or learning materials. In comparison, the *Anganwadi*s get a higher score of around 4.2, since the ICDS does provide a play and learning kit to each centre and often more material is available from other innovative projects being implemented by some other agencies. Interestingly, the government primary school gets a score of 5, which possibly reflects the thrust under the *Sarva Shiksha Abhiyan* on activity-based teaching, especially for the first two grades. The underage children were observed in the school too since they sit in these classes, often with their siblings.

Andhra Pradesh: In Andhra Pradesh, too, the best availability and use of indoor and outdoor materials is seen in the known-practice centres, which get a score of 5.2 on the scale of 10. These centres follow an activity and play-based pedagogy and that explains the better scores. The *Anganwadi*s have the next highest score at 3.2, which is lower than the score for Rajasthan *Anganwadi*s. This is an interesting finding, since in terms of the programme content, the AP *Anganwadi*s were found to be performing better. Again, the private preschools score lower at 1.8, which is to be expected for the reasons mentioned above. The government primary schools that were visited and to which underage children go, evidently did not provide a play-based environment at all.

Assam: In Assam too, the known-practice centres scored the highest among the three categories of centres at about 4.3, although among the known-practice centres of all states, it has the lowest score. This is the *Ka-shreni* programme in the school and perhaps the learning materials available in

The private preschools in Assam tend to be better than in the other two states, in terms of infrastructure. This compensates for lack of material in the class-room and are, therefore, not lagging behind the *Anganwadi* centres in terms of their overall scores i.e., the *Anganwadi* centres were better off in terms of availability of materials

most cases may be the activity books given to the children. Interestingly, the private preschools and *Anganwadi*s are both completely at par with a score of about 3.8; the private preschools in Assam tend to be better than in the other two states, in terms of infrastructure, as discussed earlier. Unlike in the other two states, the better infrastructure compensates for less material and these are, therefore, not lagging behind the *Anganwadi*s in terms of their scores.

Disaggregated analysis was further undertaken in terms of outdoor and indoor play with regard to both availability of space and materials and their utilization. The specific findings for each state as depicted in Figure 3.2.4 are discussed below in detail.

3.2.2 Availability of Space and Equipment for Outdoor Play

Outdoor play is an essential requirement for any ECE centre since it allows for development of children's gross motor skills and coordination, which is one of the specific objectives of ECCE. It also lays the foundation for their subsequent engagement in sports. For this objective to be realized, planned outdoor play is important, which should involve different gross motor skills such as catching, throwing, jumping, hopping, running, crawling, balancing, etc. For this to be possible, both adequate space and equipments are required. The ECE centres were accordingly assessed in this context. As evident in Figure 3.2.4, a positive finding is that overall about 50 percent of the

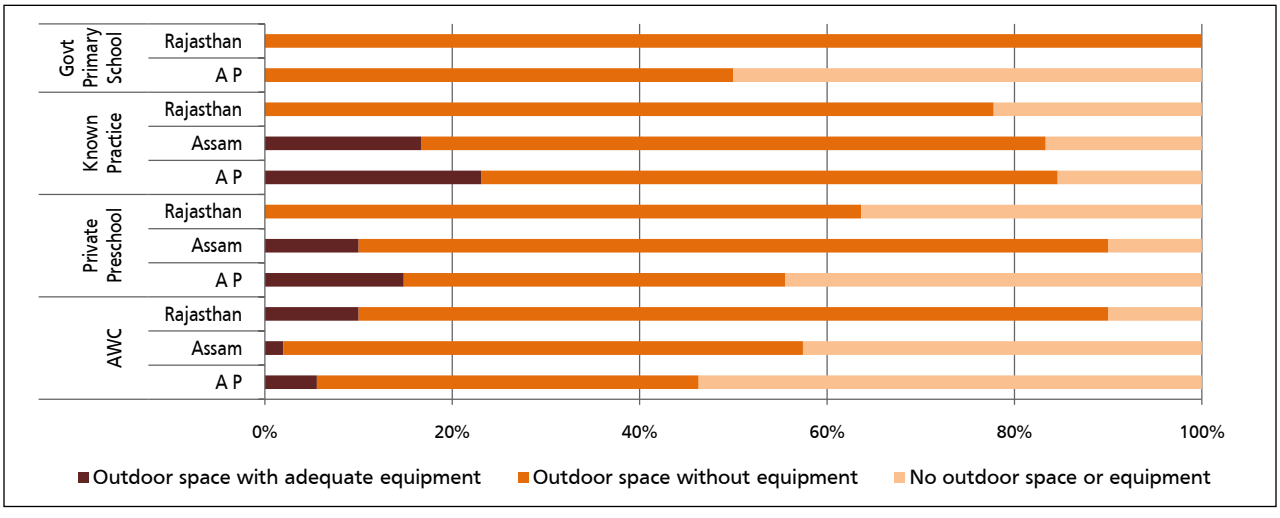

Figure 3.2.4: Percentage of centres across states and categories with outdoor space and adequate equipment

Children playing in an *Anganwadi* Centre in Assam

ECE centres visited across different states and categories had outdoor space available for children to play; however, of these, very few ECE centres provided any access to outdoor play equipment for children.

Rajasthan: In relative terms, the only category of centres that gave any evidence of space and availability of equipment was in the *Anganwadi*s, although the percentage with this facility was as low as 10 percent. The disturbing finding is that across all other categories, including the otherwise "good practice" known centres, outdoor play equipment was not available in any centre or private preschool. Space was, however, available for outdoor play in all categories, although to varying extent. While 90 percent of *Anganwadi*s and all government schools had some outdoor space, it was also available in 80 percent of the known centres and 65 percent of the private pre schools. Its utilization was, however, not commonly seen.

Andhra Pradesh: The known-practice centres in AP have the highest percentage of centres with outdoor space and equipment (23 percent) as compared to all categories across states, while 85 percent of the centres have space, but no equipment. Relatively speaking, this does indicate a "better practice".

In comparison, while 45 percent *Anganwadi*s that were visited had space for outdoor play, only 5 percent had any equipment for play. The situation in the private preschools in the sample was better than in *Anganwadi*s, with 55 percent observed to have outdoor space, of which 15 percent of the centres had play equipment as well. In the category of the government primary schools, which some underage children attended, only about 50 percent had outdoor space but none had any equipment, although outdoor play is an important part of the curriculum.

Assam: In this state, the known practice centres which are located in the government primary schools, emerged as the 'best off' category, with 83 percent of the centres having outdoor space, although only 18 percent of these could boast of any outdoor play equipment. In terms of outdoor space, the private schools were even better with 90 percent of these having outdoor space; but of these only 10 percent had play equipment. The *Anganwadi*s were deficient in this regard with only 58 percent of the *Anganwadi*s visited having any outdoor space for play, with only 3 percent having any play equipment.

Overall results indicate that across all categories of centres, none of the managements seem to invest in outdoor play equipment, even when space is available. Most of the time, the outdoor space was not being used by the teacher to conduct any play activities for the children. On a few occasions, however, children were observed engaging on their own in unguided outdoor play.

3.2.3 Availability and Utilization of Indoor Play/Learning Materials

With regard to availability and utilization of indoor materials, it was found that only 10 percent of the centres visited across the three states and across categories had adequate play material for all children attending the centres. In the rest, either the play or learning aids were not available or if available, they were in inadequate quantity. This is a matter of concern for quality of ECE, which is expected to rest on a play-based teaching-learning methodology which requires a variety of play and learning materials.

The state and category-wise analyses depicted in Figures 3.2.5 and 3.2.6 examine the emerging trends in each state with regard to this variable.

Rajasthan: The known-practice centres in Rajasthan emerge as a good practice for activity based teaching-learning with all centres visited demonstrating availability of learning materials, and in at least 88 percent of the centres, these were also being used. In terms of adequacy of material, 55 percent of the centres assessed had sufficient materials for all children, whereas in the remaining centres, the material was available, but not enough to engage all children. Among the *Anganwadi*s, too, about 70 percent of the centres had some materials available, with about 10 percent centres having sufficient materials for all children to engage with;

Children playing with indigenous play material in an *Anganwadi* Centre in Andhra Pradesh

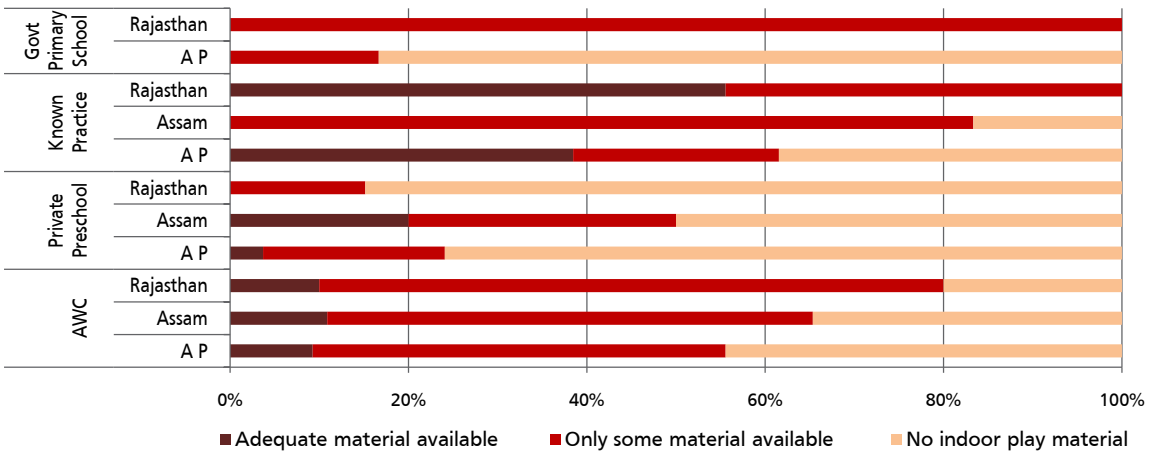

Figure 3.2.5: Percentage of centres across states and categories with adequate indoor play and learning material

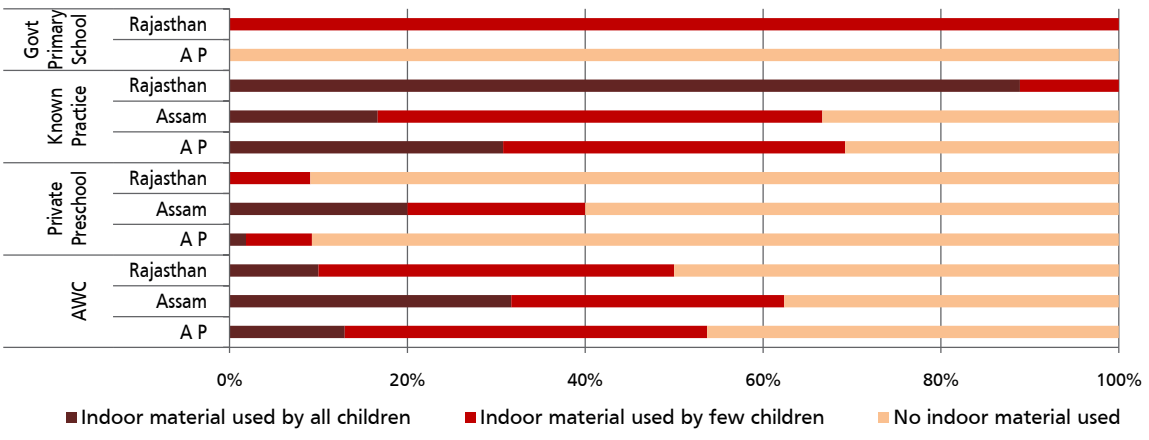

Figure 3.2.6: Percentage of centres across states and categories with indoor play/learning material used by all children

this is because, a kit is provided by the government to each centre, which may not be sufficient. In most centres, where materials were available, they were being used as well, by at least a few children, if not all. In contrast to this, in the private preschools, only 15 percent classrooms gave evidence of some learning material and only in about 8 percent pre- schools these were being used. Interestingly, in the government primary schools visited—which were attended by some underage children—some materials were available and were also seen being used by some children in the class.

Andhra Pradesh: In Andhra Pradesh too, the known-practice centres demonstrated best availability of learning materials, with about 62 percent centres giving evidence of at least having some material in the classrooms. Of these, about 38 percent centres had sufficient material for the children's use. The materials were not only available but were also seen being used by children. In comparison, while 55 percent *Anganwadi*s also had at least some material available, only 8 percent *Anganwadi*s had sufficient material for all children. The positive finding was that where available material was being used, even if it was by only some children. The private preschools were not equipped with learning materials, again perhaps due to the formal pedagogical methods adopted by them. As a result, only 25 percent of the pre-schools had some material. In the government primary schools, while 15 percent classrooms did have some materials, it was not seen being used at all.

Assam: In Assam, availability of learning materials was best in the known-practice centres, that is the *Ka-shrenis*, with 82 percent of the classes giving evidence of at least some play and learning materials. Only in about 17 percent of the classes were all children seen engaged with whatever material was available; in most cases, only some children were seen using it. Interestingly, in Assam, the private preschools are evidently more child centred as compared to other states, with at least 50 percent of them giving evidence of availability of some learning or play material and also of it being used. The *Anganwadi*s also had some learning and play material in at least 65 percent of the centres that were visited and in most cases, where it was available, it was observed to be in use. This was a positive finding.

3.2.4 Emerging Trends in Availability of Play and Learning Aids

Overall, a clear finding is that the regular ECE centres, that is the *Anganwadi*s and private preschools, do not focus on activity-based teaching and on ensuring availability of learning materials. Most of these centres seem to be focusing more on either formal education or on a minimalist curriculum of songs and rhymes, rather than focusing on providing children with a developmentally appropriate learning environment.

Private preschools in Andhra Pradesh and Assam had comparably better infrastructure but when it came to providing learning aids that are critical for children's learning in these early years, these were evidently not the priority of the management. The good practices in this domain were again the known-practice centres across states, especially in Rajasthan, where children had access to learning material and were observed in most cases to be using it. A positive finding was that, in most cases, wherever materials were available, they were seen being used.


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4

Composition, Management and Organization of ECE Centres

THE SAMPLED ECE CENTRES WERE ASSESSED on indicators related to class composition, management and organization, using the quality assessment scale, ECEQAS. The specific indicators studied to assess class composition, were presence of teacher in the class, the age composition of the children in a classroom and the teacher-child ratio. In addition, indicators like seating arrangements, flexibility in seating arrangement of children according to activities, age appropriateness of activities, weekly/daily schedule, display of relevant information for the children, display of child's products in the classroom were the aspects observed, with a view to understand the management and organization components of the ECE centres. The aim of assessing these specific indicators was to explore the extent to which the guiding principles of planning underlying Early Childhood Education are being followed in the centre.

The assessment was conducted for all the sampled centres across different categories in all three states. The data obtained from the quality-assessment scale was disaggregated for analysis, indicator and component wise, by types of ECE centres and state.

4.1 Management and Organization of ECE Centres

The analysis of the scores aggregated for each state on classroom composition, organization and management indicates a higher score for the ECE centres in Andhra Pradesh (in Figure 4.1) at a score of 5.7 on a scale of 10. The ECE centres in Rajasthan and Assam score much lower at 3.9 and 3.8, respectively.

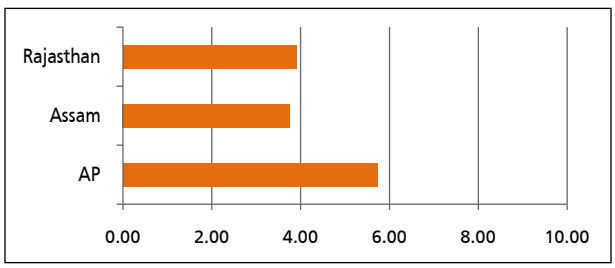


FIGURE 4.1.1: State-wise mean scores of ECE centres on classroom management and organization (maximum score 10)

The aggregated analysis according to type of ECE centres shows higher scores in known-practice centres on this domain, in comparison to the *Anganwadis* and private preschools (Figure 4.2). The known-practice centres scored a mean score of 6.1 out of 10, whereas *Anganwadis* and private

preschools are almost at the same level, with mean scores of 4.4 and 4.5, respectively. It is surprising that the mean score of government primary schools, which are not expected to even cater to this preschool age group, is 5.8 on the scale of 10. The higher scores in the "known practice" category clearly indicate that managements in these centres focus on the composition, planning and organization of the classroom, with a view to enable teachers to provide an ECE curriculum that is aimed at meeting specific developmental needs of the children in a focused manner.

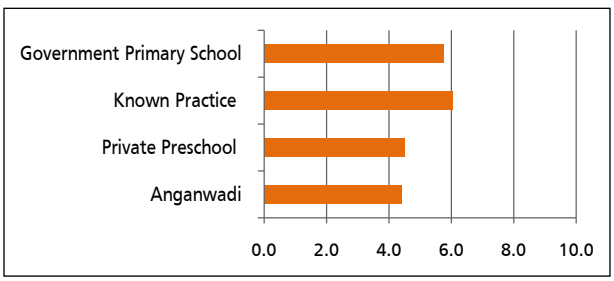


Figure 4.1.2: Mean scores of different types of ECE centres on classroom management and organization (maximum score 10)

It is unfortunate that the regular ECE practices where maximum number of children participate, that is, the *Anganwadis* and private preschools, do not score well on this category; the latter, in particular, were observed to follow a more formal school-like setup with a whole-class seating arrangement, with little opportunity for children to work together in small groups or to interact and learn from each other. Also, this kind of an arrangement does not provide the flexibility to adapt to specific requirements of different kinds of activities within the curriculum. The teacher-child ratio in private preschools was also seen to be too large, sometimes going up to 80 children in a classroom. Even though the class composition was in most cases multi-age, the activities were observed to be usually not conducted keeping age appropriateness in mind. In most cases, the private preschools also did not have any specific display in class and children were not exposed to any print-rich environment. In comparison, the *Anganwadi* centres were often observed to have displays of materials, but it was in most cases, irrelevant for young children and had nothing to do with their curriculum. In some cases, although relevant, it was found placed too high from the eye level of the children.

However, these features specific to each category of centres were not necessarily uniform across states. A state-wise analysis indicates some differences across states with regard to each category, as evident in Figure 4.3. For instance, the known-practice centres scored comparatively better than the regular-practice centres when the scores were aggregated, but when disaggregated state-wise, the picture changed. The *Ka-shreni* centres in Assam, which were considered to be "known practice" in the study, scored lower on the planning and management component, as compared to other categories. These *Ka-shreni* centres, which run as pre-primary sections in the government primary schools, follow a more formal mode of classroom planning and organization. The children are made to sit in a "whole class" formal arrangement. The teacher-child ratio is found to be very high in these centres, as they are community preferred practices. Even though multi-age children participate in the centre, age-appropriate activities are not planned for the children and the programme has no pre-planned schedule, and often no dedicated teacher. The classroom also does not have a print-rich and stimulating environment. In comparison, the known-practice centres in Rajasthan and Andhra Pradesh had a more favourable teacher child ratio, often with pre-

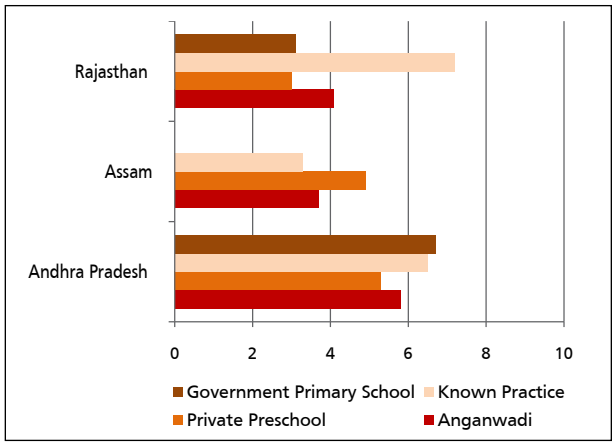


Figure 4.1.3: Comparison of means scores on class composition, management and organization across state and types of centres

planned schedules and age-appropriate activities and a print-rich environment. The known practice in Rajasthan actually stood out as a good practice over and above all other categories, with a score of 7.2 on the scale of 10.

Similarly, the *Anganwadi* centres observed in the three states also showed some variations. The *Anganwadi*s in Andhra Pradesh have a mean score of 5.8 on the scale of 10, as compared to the scores in Assam and Rajasthan. This was supported by researchers' observations also that there was a defined ECE curriculum being followed there in the *Anganwadi*s, unlike in Assam and Rajasthan. In accordance with this curriculum, the class arrangement was also flexible and child friendly in almost 50 percent of the centres. In Assam, the teacher-child ratio is high as the *Anganwadi*s are the preferred centres, possibly due to less availability and non-affordability of the private preschools. About 85 percent of the centres had a teacher-child ratio above 1:25. With limited space and no defined curriculum, the *Anganwadi*s in Assam were possibly constrained. Rajasthan did not have the problem of large number of children; yet did not score well as it lost scores on all parameters, including flexible class arrangement, age appropriateness of activities and pre-planned schedule.

Private preschools across all states scored low on this domain, but some variation was observed. The private preschools in Assam scored the highest across different categories of programmes within the state, reflecting better practice. However, in comparative terms within the category of private preschools, Andhra Pradesh scored marginally higher. The private preschools in Rajasthan were much lower on the scale. These scores are reflective of the fact that many of the preschools in these two states, Andhra Pradesh and Assam, were found to have homogeneous age-wise classes in the private preschools, making their curriculum and classroom organization more age appropriate. These centres were also observed to follow a pre-planned weekly schedule of activities. In comparison, in Rajasthan, the classrooms were not homogenous, as children from different grades were made to sit together in a class due to lack of a class-wise teacher; no pre-planned weekly schedule was followed in most cases. In Andhra Pradesh, the government primary schools, which only allow underage children to accompany their siblings and just sit, were found

In most cases, the children in private schools were not exposed to print rich environment and the class-rooms were devoid of print materials. The *Anganwadi* centres generally had display of materials, but irrelevant for young children in most of the cases and had nothing to do with their curriculum

to be better planned and organized for these children as compared to the Rajasthan primary schools, which did not show similar responsiveness to the young children.

These "state by category (type of centres)" differences are examined further in more detail in terms of the different indicators related to assessment of the classroom composition, management and organization.

4.2 Teachers Presence in Class

Teachers absence in a classroom is a common phenomenon at the primary school stage across the developing world, and this remains a concern in India as well. This concern gets extended to the *Anganwadis* also, where because of the official deputation of the *Anganwadi* worker for duties outside of the *Anganwadi,* she is often not present in the centres. While the expectation was that this would emerge as a major concern, it is very heartening to see that overall teachers and *Anganwadi* workers were found present in the classrooms in 93 percent of the ECE centres sampled in the research, across the three states. (Figure 4.4) It is particularly commendable since the visits were in most cases unannounced.

***Rajasthan*:** In this state, the known-practice centres, that is, the *Bodhshalas*, were found to have all teachers in place at the time of the visit. This again establishes this programme as a good practice. However, in the other categories, there was some absence of teachers observed. 30 percent of the *Anganwadis* that were visited were found without the worker, often with the helper supervising the children. This is seen as a common situation in the *Anganwadis*. It may also be noted that the sampled *Anganwadis* are the ones which were selected because some ECE programme was seen to be happening with children there. Thus, it is a selective sample and not representative at all. The rate of absence may be still higher in a larger sample. In about

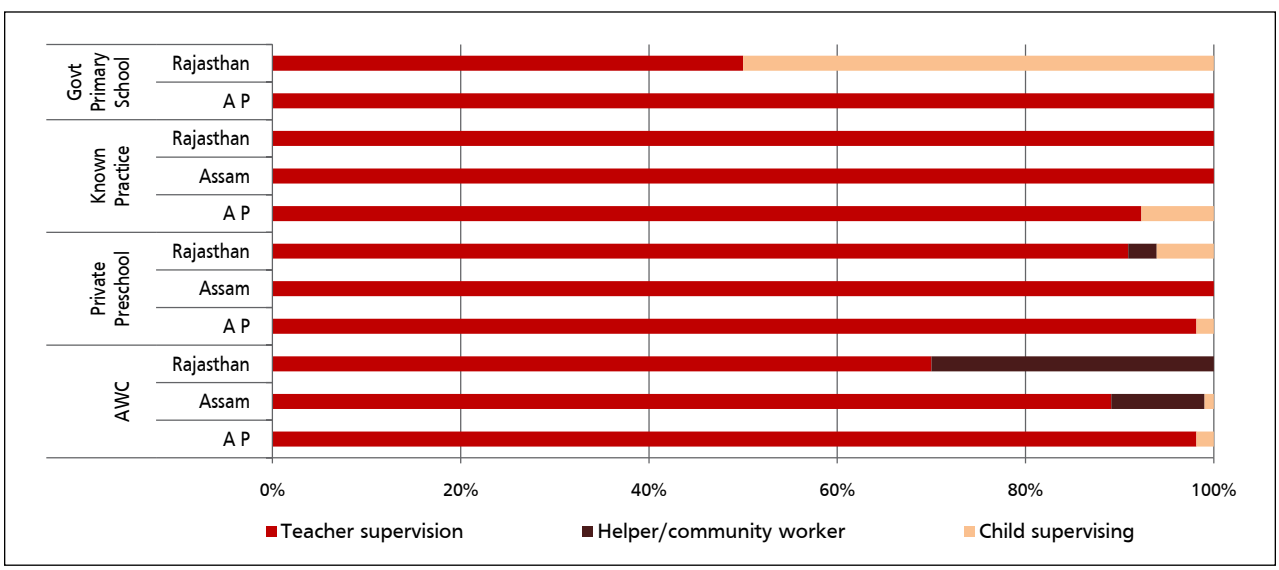


Figure 4.2.1: Percentage of centres across states and categories with teacher in class

Guided play in a Known Practice Centre in Rajasthan

9 percent of the private preschools either some helper or community worker was substituting for a teacher, and at times a child monitor was conducting the class. The private preschools in Rajasthan had limited number of teachers and to overcome the limitation different classes were often found to be combined with just one teacher, in a multi-grade situation. In some cases, one teacher was made to supervise three to four classes at a time. Overall, in a majority of the centres in the state, teachers/*Anganwadi* workers were present. The rate of absence was highest in the case of the primary school teachers, with 50 percent teachers not observed to be in class at the time of the visit.

Andhra Pradesh: In Andhra Pradesh, the situation of *Anganwadis* is better, with almost 98 percent *Anganwadi* workers in place at the time of the visit. This is a shade better than the known practice centres too, where the corresponding percentage is 92 percent. The private preschools also seem to be in the same bracket as *Anganwadis* with 98 percent teacher presence. In the government schools, too, there was 100 percent teacher attendance noted for supervising the underage children, which is commendable for the state.

Assam: In Assam, the situation of *Anganwadis* is better than Rajasthan but not as good as Andhra Pradesh, with 88 percent *Anganwadi* workers in place at the time of the visit. In about 10 percent of the cases, the helper was present and there was a very insignificant percentage of centres where nobody was supervising the children. In contrast, in the known-practice centres, which are located in government primary schools and in the private preschools, teacher presence was 100 percent, which is a very positive finding. In *Ka-shrenis,* in most of the cases, specific teachers were not allocated to *Ka-shreni* section and the children were made to sit with the other primary classes; in cases where the *Anganwadi* centre was running in the school campus, even the *Anganwadi* worker was found supervising the *Ka-shreni* classes; the important observation being the children were not left unsupervised at all. While the emerging picture is heartening with regard to teacher presence and supervision across categories, the quality of the supervision and interaction in terms of the teaching-learning process was also observed. This is reported later in the chapter on Curriculum and Teachers.

4.3 Age-Wise Composition of Children

Another indicator examined for classroom organization was the nature of classroom composition, in terms of children's ages. It was observed that most centres across states had children from different age groups in the same classroom, indicating a multi-level composition. Different ECE programmes address the maturational age-wise differences in children differently. Overall, across categories, only 21 percent centres were identified in which children either

sat separately in age-wise categories in the same classroom or were divided into separate class-rooms. In most classrooms, children from different age groups were observed to be sitting together.

As depicted in Figure 4.5 across the three states, the age range of children in *Anganwadis* was between the ages of 2 to 6/7 years, although the prescribed age range is clearly 3 to 6 years. All these age groups sat together in one room. Only in as few *Anganwadis* in Andhra Pradesh (9 percent) and Assam (4 percent) was there any evidence of addressing age-wise distinctions, particularly in the form of age-wise groupings to facilitate age-appropriate activities. Private preschools seem to pay greater attention to the age of children and accordingly assign the class to each child; this was particularly seen in Andhra Pradesh and Assam.

State-wise profiles of classrooms across different categories present an interesting picture.

***Rajasthan*:** In Rajasthan, 3-to-6-year-old children were seen sitting together in 90 percent of *Anganwadi*s and were being addressed as one group. This is as per the prescribed model of the *Anganwadi*. In about 10 percent of the centres, the range was even wider, considering that children from as young as 2 years were sitting together with children even above 6 years in age, with one worker and helper. Interestingly, in the private preschools category, 70 percent of the preschools had age-wise groupings while the remaining preschools had mixed age groups of children sitting together, as in the *Anganwadi*s. In most cases, the children were ideally divided into separate classes, depending on the age and learning level, but due to lack of space and teachers, all the children were made to sit together. These included children assigned to nursery, LKG, UKG, class 1 and class 2, often sitting together with just one teacher. In 32 percent of the known-practice centres, children were sitting in age-wise groupings. In the remaining centres, 3-to-6-year olds were sitting together, and the same was the case in the primary schools.

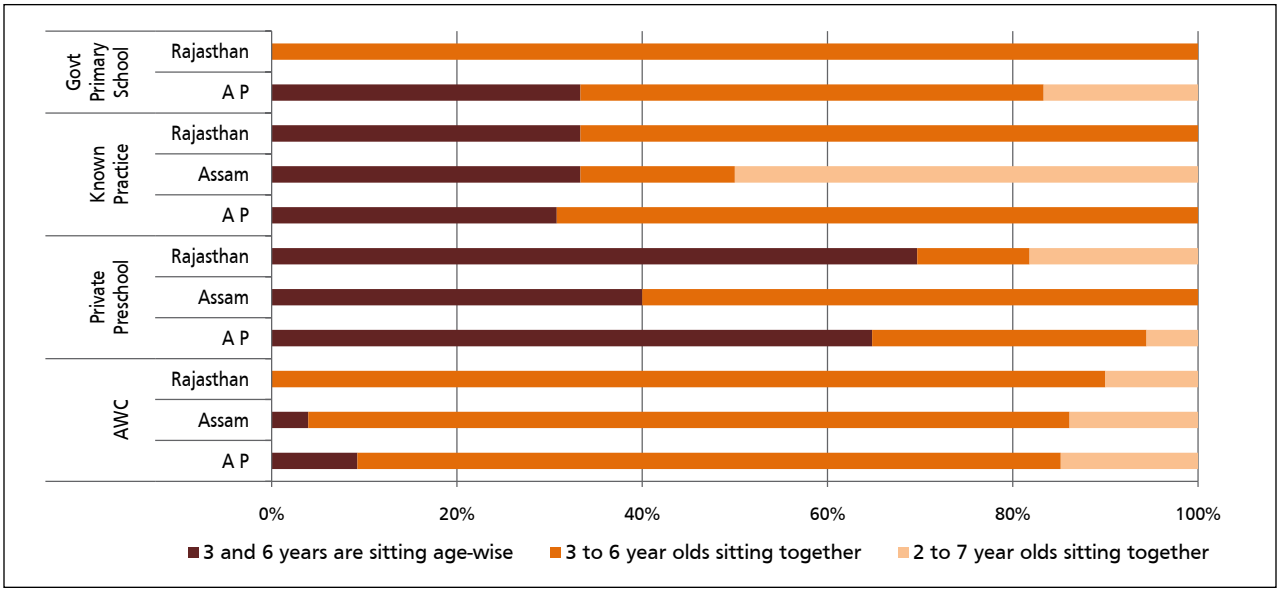


Figure 4.3.1: Percentage of centres across states and categories with homogenous age composition of the class

Homogenous age group children in a pre-primary class in a Private School in Andhra Pradesh

This kind of an arrangement in the known-practice centres was often purposively used by the teacher for enabling peer or cooperative learning, where the older child served as a mentor to the younger children in the group.

Andhra Pradesh: In Andhra Pradesh, 78 percent of the *Anganwadi*s had children from 3 to 6 years sitting together in one group, which is more or less the norm for the ICDS. Only in 9 percent of the cases were children observed to be sitting in age-wise groupings and in another 15 percent of the *Anganwadi*s, the age range was found extended both ways, from 2 year olds to 7 year olds. The known-practice centres were better organized, with the children found sitting age wise in about 32 percent of the centres. In the remaining centres, they sat in groupings similar to the *Anganwadi*s. In contrast to these, in 65 percent of the private preschools, the groupings were observed to be age wise, whereas in only about 30 percent of the centres, 3-to-6-year olds sat together. In 33 percent government primary schools, children were made to sit age wise but in the remaining cases, they were organized in mixed-age grouping. The younger children accompanied by the older siblings were either made to sit with their siblings in their respective classes or class 1, making the primary classes also multi-age. All government primary schools visited in Rajasthan and two-third schools in Andhra Pradesh had mixed-age group of children in the primary grades.

Assam: The *Anganwadi*s in Assam organize the children in a majority of cases as per the prescribed grouping of 3 to 6 years. Only about 3 percent centres demonstrated age-wise groupings and another 15 percent had children from 2 years to even 7 years of age. In the *Ka-Shrenis,* which is the known practice, 33 percent of the classes had children sitting in age wise groupings but in 50 percent of the cases they were sitting with other primary grades in a completely multi-grade situation. The *Ka-shreni* classrooms are part of the

formal education set up in the primary school and according to the prescribed rules children can take admission in *Ka-shreni* and primary grades only after a particular age. But it was observed that often younger children were found accompanying their older siblings to the school and these younger children were made to sit in the *Ka-shreni* section, thus leaving only one-third centres with homogeneous age composition. Interestingly, in the private preschool category while 40 percent preschools did have age-wise classification, the rest had mixed age group of 3-to-6-year olds. The fact that all multi-age groupings are characteristic of all categories of centres, including private pre-schools *establishes* the mixed age composition as the norm rather than the exception in all categories of low cost preschools and public provisions in the country.

4.4 Teacher-Child Ratio

The desirable teacher-child ratio for ECE is expected to be around 1:20 to 25 as per the ECCE Policy. By this standard, an appropriate teacher-child ratio was observed in only about one-third of the ECE centres across different categories. About 17 percent of the centres had a teacher-child ratio higher than 1:40. Most of these centres with high teacher-child ratio were private preschools, wherein in some cases the ratio was found to be even as high as 1:80. Less than 20 percent private preschools had a favourable ratio. This ratio included mixed age class compositions also.

Children queued up to get their homework checked in a Private Preschool in Rajasthan

*Anganwadi*s generally did not have a high attendance of children and almost 70 to 80 percent *Anganwadi*s across states had 25 or less children in the centre with a worker. On the whole, the *Anganwadi*s and "known practice" centres, seem to have a better teacher-child ratio, whereas the private preschools seem to have overcrowded classrooms, possibly for financial gains. Individual attention to these small children, a key aspect of quality in ECE, often gets compromised.

A state-wise analysis reflects some differences from the overall profile, as evident in Figure 4.6.

Rajasthan: As mentioned above, the issue of teacher/adult child ratio is not significant in the *Anganwadi*s, since the average daily attendance of children is not very large. In fact, there are evidently many more 2 year olds coming into the centre, which adds to the numbers. There are possibly two main reasons for these smaller numbers. On the one hand, increased migration of children to private preschools, even in rural and tribal areas, has resulted in lower numbers of children attending *Anganwadi*s; on the other hand, with the Supreme Court directive to the government to universalize *Anganwadi*s to all habitations under the ICDS at a reduced population norm, the catchment area of each *Anganwadi* centre has got significantly reduced. In contrast to this situation, the private preschools are reflecting the high teacher-pupil ratio with 35 percent of the preschools having over 40 children in a class. In most preschools, the numbers were found to be between 25 and 40, and these could be mixed age groups too in each class. It is to be noted that the known practice in the state, which implements a more child-friendly curriculum, has in 68 percent of its centres, less than 25 children to a teacher. There were no centres with over 40 children. In the government primary schools, all classes were found to have more than 40 children.

Andhra Pradesh: In Andhra Pradesh, again it is the private preschools that really face the problem of high teacher-pupil ratio. About 37 percent of

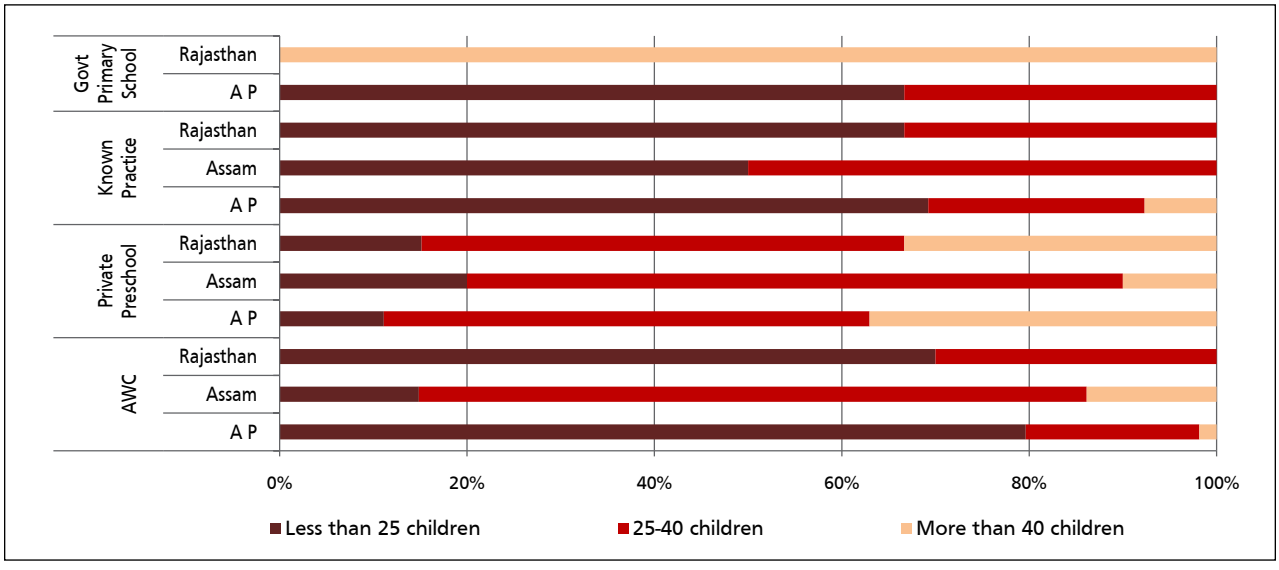


Figure 4.4.1: Percentage of centres across states and categories with appropriate teacher-child ratio

these preschools had strength of over 40 children to a class and another 50 percent had between 25 to 40 children per class, which is way above the desired ratio. In comparison, the *Anganwadi*s had a very comfortable number with 80 percent having less than 25 children and only 2 percent having over 40. In the case of the known practices, too, 68 percent of these had children below 25, which is very much the desired ratio and amenable to an effective child-centred curriculum. Unlike in Rajasthan, the government schools too had a fairly favourable student-teacher ratio.

Assam: Assam stands out as an exception with only 15 percent *Anganwadi* centres in all having a favourable adult-child ratio, with less than 25 children. Seventy percent of the *Anganwadis* were found to have 25 to 40 children to a class, and another 15 percent had over 40 children. This situation is there in Assam, mainly because *Anganwadi*s are the preferred ECE centres. This is possibly due to less availability and affordability of private preschools. As a result, almost all children attend the *Anganwadis,* which therefore have a high concentration of children. A similar situation can be seen with regard to the *Ka-shrenis*, which are located in the primary schools and which also have over 40 children in 50 percent of the cases. Of course, in this case, this may also be due to the fact that there is a shortage of teachers, and the *Ka-shreni* children often sit with older grades in a multi-grade situation, and with the same teacher. In the private preschools, only 20 percent preschools were found to have a favourable ratio of less than 25. The majority, that is, 70 percent of the schools had between 25 to 40 children in the class. About 10 percent preschools even had over 40 children in a class.

4.5 Display of Learning Material in the Classroom

Classroom display is an important aspect of any ECE classroom, since it not only makes the classroom look colourful and attractive, but it also stimulates a lot of interest in children and provokes thinking. Display can be of many kinds—it can be according to the different themes which are part of the ECE curriculum and which the teacher may introduce periodically. It can also be in the form of conversation charts or large pictures of some things familiar to children, which may stimulate conversation among them; it can be a set of story cards that children can use for narration to each other or even funny cartoons. It can also have print in appropriate places, such as names of objects displayed, etc., to create print awareness in children. Periodically changed displays evoke a sense of curiosity in children as they look forward to new displays. An ECE classroom without an attractive display does not at all reflect the essence or flavour of the methodology for this level of education.

Multi-age groupings are characteristic of all categories of centres, including private pre-schools. It *establishes* the mixed age composition as the norm rather than the exception in all categories of low cost preschools and public provisions in the country

Display material in an *Anganwadi* Centre in Rajasthan

Given its importance, it was disheartening to see that across the three states, only 19 percent of the ECE centres covered in this study were found to have a classroom display, which was interesting and relevant for children and also displayed at their eye level. Almost 50 percent of the centres had no display at all on the walls, and even if it was present, it was not relevant to the children, which is a matter of concern. In 35 percent of the cases, centres across categories did have some display which was relevant for the children, but then it was seen placed very high on the wall and not at the eye level of children. Often, the display was placed too high on the wall to keep it protected from children, with the concern in mind that children may damage it.

The status of classroom display was also examined state-wise for each of the categories of ECE centres separately.

Rajasthan: Interestingly, among the *Anganwadi*s, there was a fairly normal distribution of scores on this parameter, with about 30 percent of the centres visited having a relevant and interesting display for children on the walls, 40 percent having it but not at children's eye level and another 30 percent not having any display or having

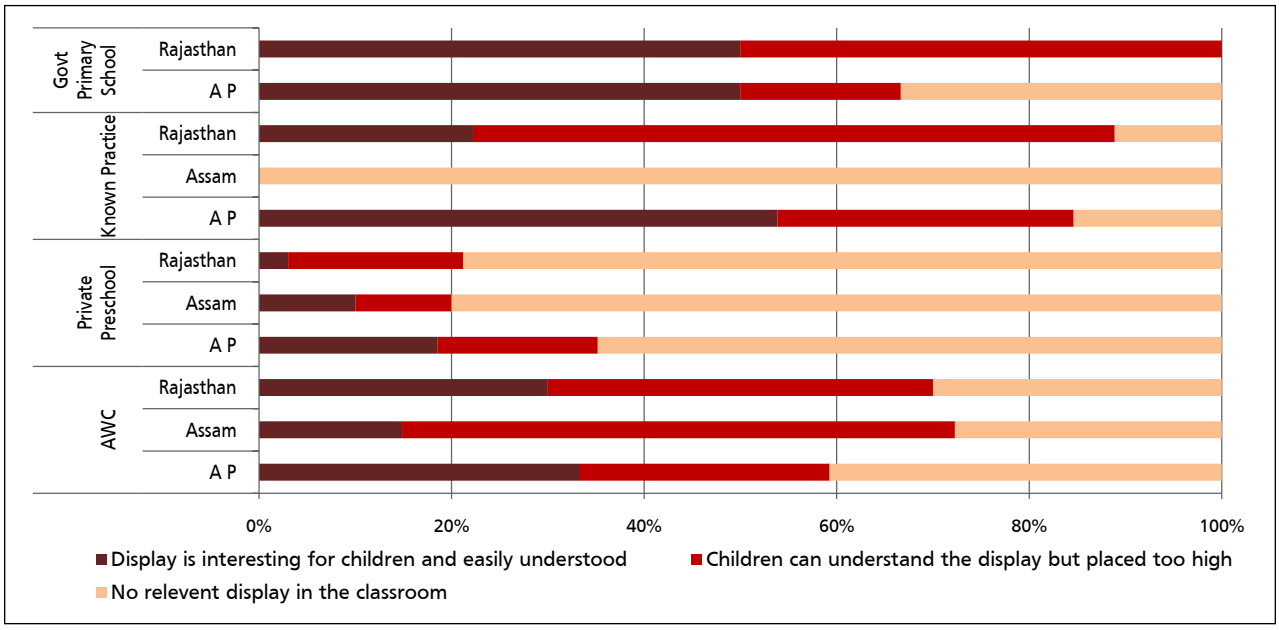


Figure 4.5.1: Percentage of centres across states and categories with interesting and relevant display for children

something which was not relevant for children. Surprisingly, in the known-practice centres, that is, the *Bodhshalas*, which were otherwise demonstrating good practice, in over 60 percent of the cases, the display—though relevant—was found way above the eye level of the children. In 12 percent of the cases, there was no display at all. As expected, among the private preschools, in 78 percent of the cases, classrooms did not have any display for children. In 18 percent cases, there was a display but it was much above the eye level of children. A positive finding was that in 50 percent of the government schools, there was a classroom display and it was at the appropriate level for children to see.

Andhra Pradesh: In Andhra Pradesh, too, the distribution of *Anganwadi*s on this indicator was fairly balanced with 33 percent centres having classroom display relevant for children and at their eye level. However, 42 percent of the centres did not have any display on the walls, or if they did, it was in the form of departmental ICDS charts given out for communication and information for the community, particularly with health and nutrition messages. In the remaining cases, display was there but not at the eye level of the children. The known-practice centres, in comparison, demonstrated better practice with 53 percent of the centres displaying relevant and interesting materials for children, and at their eye level. Another 30 percent centres had a display, too, but was too high for children to see and respond to. The private preschools, as expected, did not evidently give any importance to classroom display, with 65 percent of the preschools visited having no display at all. In comparison, the government primary schools had display for children, which was meant for them and was at their eye level.

Assam: Although in Assam, most *Anganwadi*s

Child produced drawing displayed in a Known Practice Centre in Rajasthan

were found to have some display in the room, in most cases, it was much above the eye level of the children. In 15 percent of the *Anganwadi*s, it was of interest to children and at their level, while in 28 percent of the centres, there was no display at all. In the private preschools, as expected, in 80 percent of the cases, no display was seen. A silver lining is that in 10 percent of the private preschools, there was a display and at the right level. Again, what comes through in the findings is that in Assam some of the private preschools present a better picture as compared to other states. Surprisingly, while in the other two states, classroom display was seen even in the government schools at the primary level, in Assam, there was none at all even in the *Ka-shrenis*, which was for the younger children.

***Display of material produced by children*:** In addition to the display of materials for children, an effective ECE programme also ensures a display of children's work in the classroom. This is a very important motivator for children, since they take pride in their own work—"they feel good"—which provides an incentive for them to participate actively. It also gives them a sense of how different children/persons see things differently.

The ECE centres were, thus, assessed on whether or not material produced by children is displayed in the classrooms and changed regularly. It was very disheartening to note that only 3 percent of the total sample of ECE centres across the three states had some kind of display of material prepared by children, which was not more than a month old. Half of these "few" centres that had the display of children's products were from the "known practice" category, which were the innovative programmes and available only to a few children. The more regular ECE practices which are attended by most children, such as *Anganwadi*s and private preschools did not have any display of children's work on their walls.

Figure 4.8 clearly indicates the predominant pattern across the different categories of centres with no display. The most striking deviation from this pattern is in the case of the known practices in both Rajasthan and AP where at least in about 40 percent of the centres, there was some display of children's work. Another interesting finding is the 20 percent private preschools in Assam had the practice of displaying children's work, although in 10 percent of the cases, it was not renewed every month. The private preschools in Assam consistently reflect a more child-centred practice as compared to the other two states. In the other two states, a very small number of preschools had some display but it was not updated. The

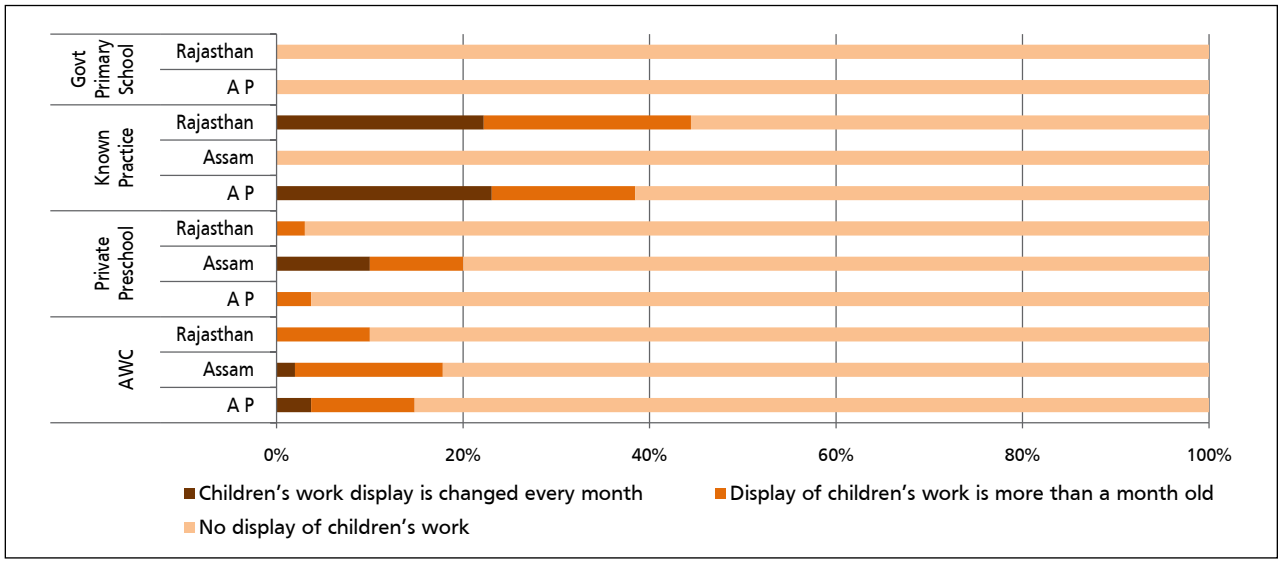


Figure 4.5.2: Percentage of centres across states and categories with display of children's work in classroom

Anganwadi centres were more or less similar across states with less than 20 percent centres displaying some children's work on the wall, but not anything recent. Display of children's work was evidently not given importance by the government primary schools and *Ka-shrenis*. A significant limitation in the government run programmes is the inadequate recurrent funding which is important for replenishing the stationary and other items necessary to maintain these practices.

Child produced drawing in a Known Practice Centre in Rajasthan

4.6 Planned Weekly/Daily Schedule Followed

In any effective activity-based, child-centred classroom practice, systematic planning and following of monthly/weekly/daily schedules of activities has a key significance. This can be in the form of thematic planning, with a set of themes identified for a month or for each month in a year; it can also be in terms of activities for different developmental domains. ECE methodology also places significant emphasis on a balanced schedule, with an effective blend of free and guided activities, outdoor and indoor activities, active and quiet activities and activities for different developmental domains. The methodology recommended is the play way and activity-based method and the focus is expected to be on helping children attain the developmental objectives related to different domains and readiness for schooling.

The analysis of the data on the ECE centres indicates that only one-fourth of the centres across the three states gave any evidence of maintaining and following a weekly or daily plan. More than half the centres where these plans were followed were private preschools, but these were in terms of content, which was more academic and not necessarily developmentally appropriate. Even at the nursery and pre-primary stage, they were found to have weekly subject-wise time tables! It was observed that even though a curriculum framework designed by the respective state departments was present and often hung on the wall in almost every *Anganwadi* centre that was visited, in most cases it was not followed. Only 13 percent of the *Anganwadi*s, across the three states, gave some evidence of actually following it. In comparison, the known-practice centres were observed to have a flexible planned timetable, which was more focused on developmentally appropriate activities.

Figure 4.9 depicts the state-wise status on this quality indicator related to a planned schedule.

Rajasthan: The known-practice centres in Rajasthan, that is, the *Bodhshala*s clearly stand out as a good practice on this indicator, with all centres visited displaying a planned schedule and about 78 percent of them actually using it. The teachers of these centres were observed preparing the lesson plan for the next day after the classes got over in the afternoon. They evidently planned a flexible schedule for the class as a whole, as well as for each individual child. The *Anganwadi*s and private preschools were more or less at par, with only about 10 percent of the centres seen following a schedule. In the case of *Anganwadi*s, another 10 percent had the schedule displayed but were not using them. The government schools, of course, had the underage children sitting there but were not mandated to plan for them.

Andhra Pradesh: In terms of planning daily or weekly schedules, Andhra Pradesh takes a lead in both private preschools and *Anganwadi* categories. In the former category, over 60 percent of the preschools were found to be not only having

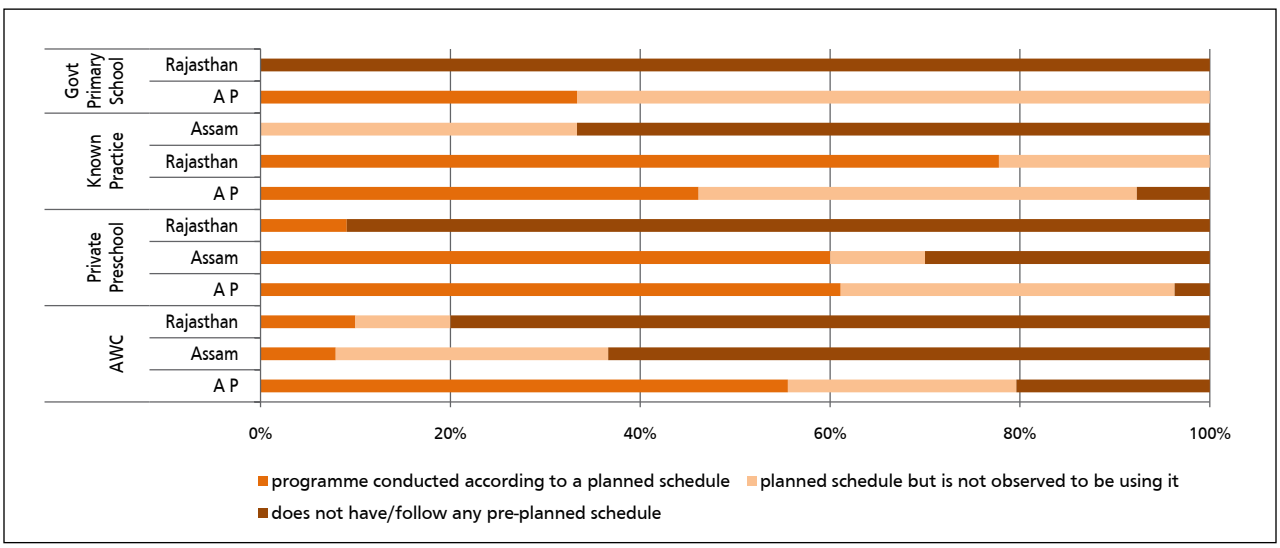


Figure 4.6.1: Percentage of centres across states and categories with a planned weekly schedule

Yearly planner in an *Anganwadi* Centre in Rajasthan

planned schedule but also using them; of course, it may be reiterated that this does not mean that the planning content and process is developmentally appropriate. Yet, the plans give some structure to the daily routine, which is found missing in other centres and can lead to quite a *laissez faire* situation.

Among the *Anganwadi*s, too, almost all centres had a schedule and about 55 percent of the centres were also following it. A possible factor in AP is the emphasis on preschool education from the Department of Women and Child Development, Government of Andhra Pradesh and corresponding investment in training of *Anganwadi* workers in the implementation of the schedule. In other states, the schedule was given but was not followed up with training. In the known-practice centres, too, almost 92 percent centres had a schedule, although only 45 percent were actually using it. Even the government primary schools had plans, which might not necessarily have been for the small children, but they were observed to be participating in whatever was happening.

Assam: In Assam, the private preschools perform better on this indicator, with 70 percent of the preschools having schedules and 60 percent actually using them. In contrast, 38 percent *Anganwadi*s had schedules with less than 10 percent of the centres actually using these schedules. Even in the known-practice centres, which are located in the primary school, 33 percent had schedules with not even one centre observed following it. *Sarva Shiksha Abhiyan* (SSA) in Assam has designed a reference book for the *Ka-shreni* teacher and workbook for the children, but it was not observed to be used in a planned manner in most cases, especially since there was no specially allocated teacher for this class.

4.7 Age Appropriateness of Activities

Given that the majority of ECE centres covered under the study were multilevel and multi age, the extent to which the classroom activities were planned and conducted in an age-appropriate manner was examined. It was observed that in 58 percent of the ECE centres across the three states, the teacher did take care of the age of the children before conducting at least one activity. But it was only in one third of the centres that the age of the children was considered every time activities were conducted.

As indicated in Figure 4.10, the teachers in private preschools and known-practice centres tended to pay more attention to the age of the children while designing activities as compared to the *Anganwadis.* However, while age was taken into account in private preschools and the activities were differentiated age wise, these were not necessarily age-appropriate activities since there was a tendency towards downward extension of primary school curriculum. The teachers of known practice centres, on the other hand, were observed to be more sensitive to the differences in age and learning levels of children and provided more age-appropriate activities. The extent to which this was done varied across states, as discussed below.

Rajasthan: The known-practice centres in Rajasthan again emerge as a good practice with all centres assessed in the study giving evidence of some amount of age appropriateness in the activities conducted, of which about 68 percent centres indicating consistent pattern for all activities. The *Anganwadis* in comparison did not indicate a child-centred perspective at all, with only 30 percent of the centres showing some evidence of age appropriateness. Only 10 percent of these actually had a consistent age-appropriate programme. In 70 percent of the cases, whatever activity was done was evidently with the whole class of 3 to 6 year olds. In the private preschools, on the other hand, 58 percent of the preschools demonstrated some evidence of considering the different ages of children in their

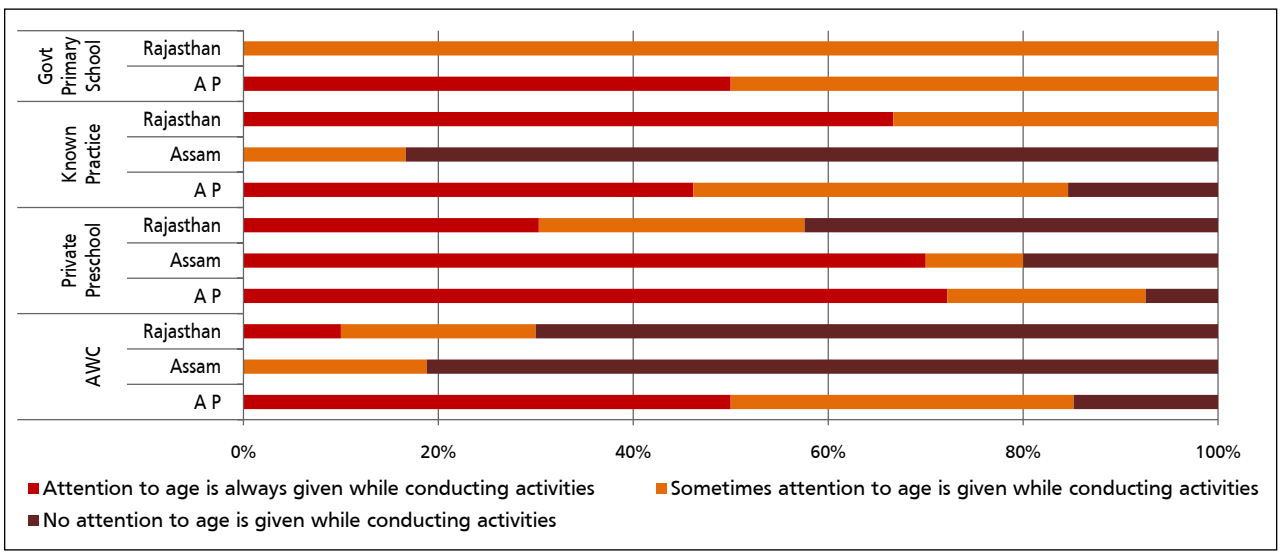


Figure 4.7.1: Percentage of centres across states and categories with activities according to age of the children

activities. In 30 percent of these cases, this was consistently evident. But this was more likely to be "age wise" rather than age appropriate, as reflected in the qualitative observations. These centres are more likely to be different class groupings such as Nursery, Kindergarten, Preparatory, etc., in which the classification may be age wise and the curriculum may also be graded, but would still remain an academic curriculum rather than a developmentally appropriate one. In the case of the primary schools, for under-age children, some activities were conducted, possibly to keep them busy.

Andhra Pradesh: In Andhra Pradesh, a very positive finding was that in 85 percent of the *Anganwadi* centres, age-wise activities were seen being conducted at some time or the other in the day, while in 50 percent of the cases, the entire programme was found to be planned and conducted in an age-appropriate manner. In the known-practice centres, too, in 85 percent of the cases, some activities were at least guided by the age of children whereas in 45 percent centres, all activities were planned and carried out keeping age appropriateness in view.

Children during free play with materials in an *Anganwadi* Centre in Andhra Pradesh

> Age was taken into account in private preschools and the activities were differentiated age wise. These were not necessarily age-appropriate activities since there was a tendency towards downward extension of primary school curriculum

Interestingly, 92 percent of the private preschools were also found to have age-wise activities, of which in 72 percent of the cases, all activities were conducted age wise. Again as mentioned above, these could have been age wise but not necessarily age appropriate. In 50 percent of government schools, age-appropriate programmes were provided for the under-age children; in the others, it was a mixed package.

Assam: In Assam, the more predominant mode across categories appears to be to address a mixed age group together rather than age appropriately. In 82 percent of the *Anganwadi*s, all children in the mixed age group were given the same set of activities with no age differentiation. In only 18 percent of the cases, some evidence of age appropriateness was visible and that too in the case of a few activities. In comparison, 80 percent of the private schools showed age differentiation with 70 percent maintaining this consistently. However, again the qualitative data indicates that these practices, while being age specific, were not always age appropriate. In the *Ka-shrenis*, too, which is the known practice, in 84 percent of the cases, children sat in multi-age/grade arrangements with no age specificity in the programme. In only 16 percent of the centres, some age differentiation was seen and that too was only in the case of a few activities and not all.

4.8 Flexible Seating Arrangement

A flexible seating arrangement is necessary in the Early Childhood Education classrooms, where the basic methodology requires a balance of varied activities, as mentioned earlier. This implies moving from individual to small group to whole-class activity or from active, energetic activity to a passive activity like storytelling. Maintaining this balance requires flexible classroom arrangements and seating patterns that depend on the need and requirement of the activity to be conducted. Ideally, young children should not be made to sit in a whole-class arrangement in rows, facing the teacher, with no eye-to-eye contact with their peers. However, this was observed to be the reality in 54 percent of the centres visited under the study. According to the composition of these centres, majority were *Anganwadi*s (60 percent) and most of them were those running in Assam. Unfortunately, almost 20 percent of the centres did not even have a defined seating arrangement and children were observed sitting in a haphazard manner. Only about a quarter of the ECE centres observed in the study had flexible seating arrangements, which is the ideal.

A fixed classroom arrangement in a Private Preschool in Andhra Pradesh

As indicated in Figure 4.11, some state-wise variations were observed.

Rajasthan: The best practice on this indicator from across the three states came again from the known-practice centres in this state, that is, the *Bodhshalas,* with almost 88 percent of the centres demonstrating flexible seating arrangements. In contrast, in the *Anganwadis,* only 10 percent centres gave some evidence of this flexibility, while in about 40 percent of the cases, there was no arrangement seen at all. In the private preschools too, where the expectation could be of more structured arrangements, there was no class arrangement seen in 52 percent of the preschools. In the remaining centers, only in about 3 percent of the cases a flexible arrangement was observed. Interestingly, in the government primary schools, too, where children are expected to conventionally sit in neat rows in a fixed arrangement, this was observed only in 50 percent of the cases. In the remaining, there was no arrangement at all.

Andhra Pradesh: In AP, the situation with regard to seating arrangement seems more child friendly across all categories, in comparison to the other states. Flexible seating arrangements were observed in most *Anganwadis,* with 50 percent centres visited demonstrating this kind of arrangement. Again, this may be an impact of the training received by the *Anganwadi* workers on activity-based pedagogy. However, of the remaining centres, 42 percent had a formal classroom arrangement and the remaining 8 percent had no arrangement at all. In the known-practice centres, too, unlike in Rajasthan, only 32 percent of the centres had flexible sitting arrangement. In majority of the centres, there was a whole-class arrangement, with just a few with no arrangement. Interestingly, 32 percent of the private preschools also displayed flexible sitting arrangements, which is higher than the other states and is a positive finding. However, 50 percent of the preschools had a whole-class arrangement and the remaining had no arrangement at all.

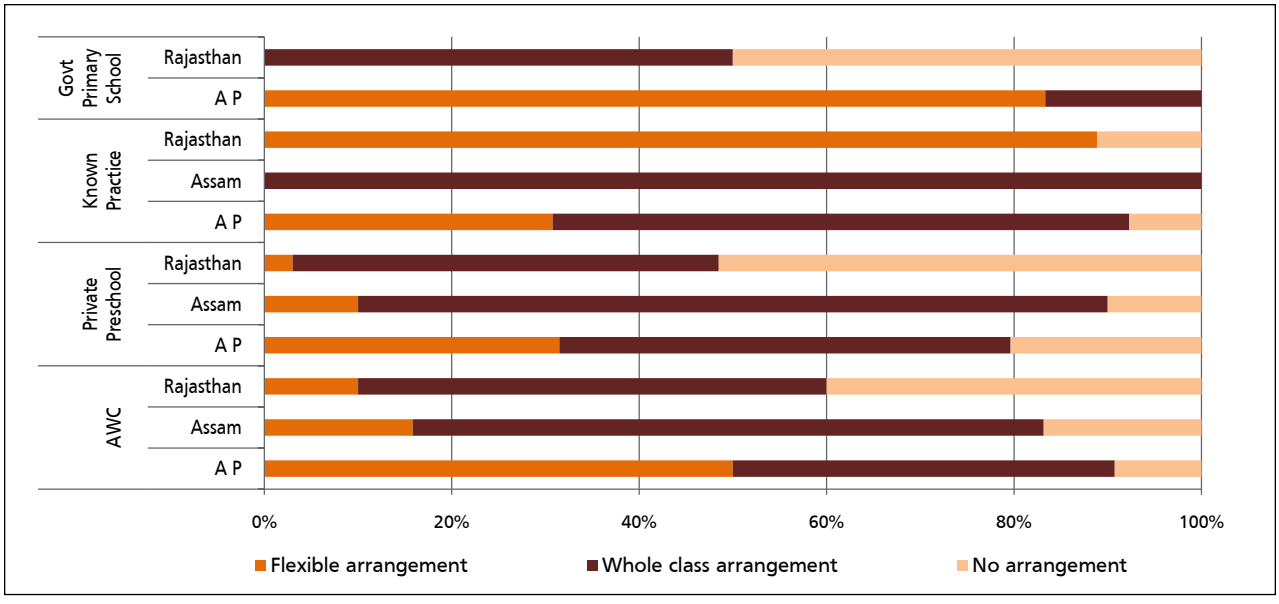


Figure 4.8.1: Percentage of centres across states and categories with a flexible seating arrangement

Assam: In Assam, about 70 percent of the *Anganwadi*s had a whole-class fixed arrangement, 15 percent of *Anganwadi*s had flexible arrangement and a similar number had no arrangement at all. The private preschools were on more or less a similar pattern with 80 percent of the preschools following a whole-class arrangement, while 10 percent were flexible and 10 percent had no arrangement. The *Ka-shreni* classes were in most cases part of the multi-grade situation following a whole-class arrangement, within which they tended to have children sitting in specific rows.

4.9 Class Arrangement According to Activities

A child-centred curriculum requires not only a flexible class arrangement but also a conducive class arrangement that allows for easy access for children to a variety of materials through an organized classroom space (often in the form of activity corners), an attractive classroom environment and safe and adequate space for easy movement for children.

While flexible class environments are necessary for an activity-based classroom, it was observed, as evident in Figure 4.12, that even when the classrooms had flexible seating arrangement, the classrooms were not arranged according to the activities. Only 10 percent centres across categories and states had classrooms arranged into corners and areas for different kinds of learning or play activities. A large percentage of centres had classrooms decorated with materials, but not keeping in view the activities to be done. Again, the best practice that emerged was of the "Known Practice" programme in Rajasthan, in which 88 percent of the classrooms were not only with flexible classroom space, but also had the room organized in activity corners in ways to promote activity-based learning. The known-practice centres in AP also

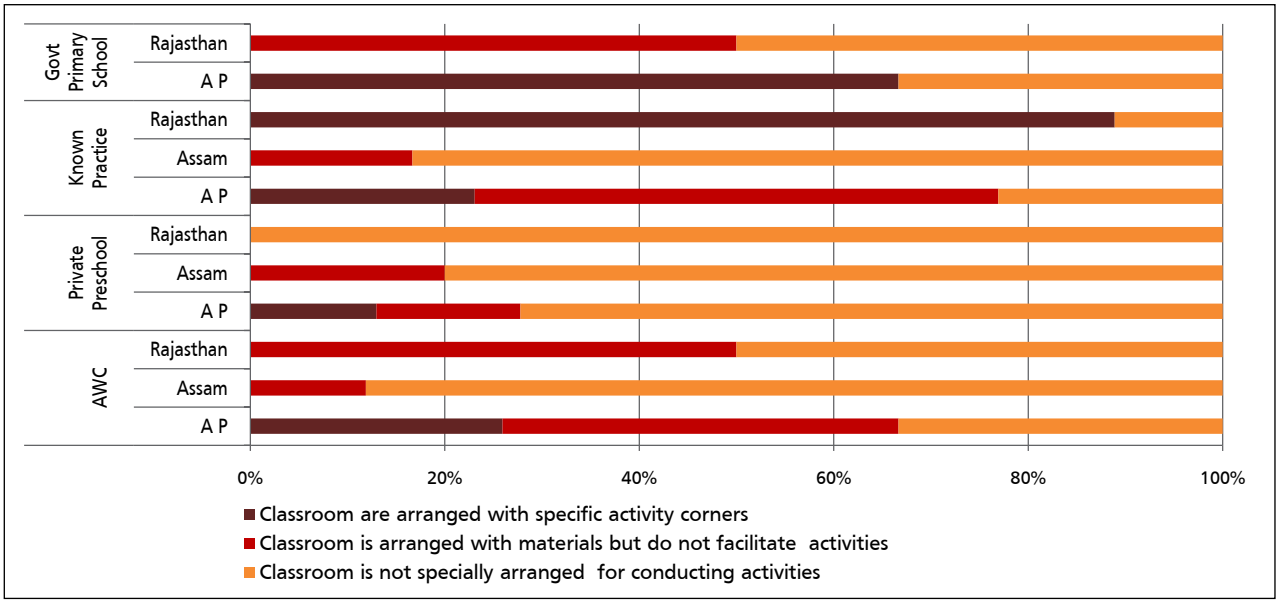


Figure 4.9.1: Percentage of centres across states and categories with a classroom with specific activity corners

had some centres with activity corners, but these were much fewer. While about 77 percent of these centres were organized with materials around the room, only about 23 percent actually had activity corners arranged with appropriate materials. A similar situation was seen in the *Anganwadi*s in which about 78 percent centres had materials organized for activities, but only 25 percent had activity corners. Interestingly, activity corners were also seen in about 68 percent of the primary schools in Andhra.

In complete contrast, in none of the private preschools of Rajasthan was there any evidence of classroom organization for conduct of activities, since they were found to mostly use rote learning methods. The Assam preschools at least had materials in about 20 percent of the classrooms while the *Ka-shrenis* in Assam as well as the *Anganwadi*s had only about 17 percent centres in which some materials were seen and none of these were with activity corners. Overall, activity corners and organized classrooms were more the exception than the rule across the three states.

4.10 Emerging Trends in ECE Classroom Management and Organization

Comparative analysis of the class composition, management and organization of different types of ECE centres presents a clear trend. The more innovative "known practice" centres are found to be focusing more on the planning and management aspects of ECE as compared to the more accessible *Anganwadi*s, private preschools and government primary schools.

Anganwadi centres, although found in every village visited and accessible to most children, are not attended by many children, as these are not the preferred choice of parents. This is particularly so, for those who can afford to pay for their child's education. As a result, these centers were found in most cases to have less than 25 children in a class with an *Anganwadi* worker and helper. Thus while these had a favourable teacher-child ratio the socially "preferred" private preschools were

observed to have unmanageable teacher-child ratio, sometimes peaking at 80 children to a class. The "Known Practice" centres tend to maintain a favourable teacher-child ratio, so as to be able to pay individual attention to the children. Assam is an exception where *Anganwadi*s and *Ka-shrenis* (known practice) were both the preferred centres, possibly since private preschools are less available. In many centres, the teacher-child ratio was as high as 1:40 and sometimes even higher. A positive and significant observation was that almost all centres across types and states had a teacher or attendant in the class supervising the children.

All the centres studied cater to children of different age groups. These children have different age and maturational levels, but most of them were made to sit together in a particular classroom without any specific distinction, except in private pre-schools. It is only in the private preschools that the children are categorized into different grades, depending on their age and learning levels. However, Rajasthan is an exception where in the private preschools, even after the children are distributed into different grades—based on age group and learning levels, they often sit together as one group, due to lack of space and teachers.

Anganwadi centres, although found in every village visited and accessible to most children, are not attended by many children, as these are not the preferred choice of parents. This is particularly so for those who can afford to pay for their child's education in a private preschool

The classroom organization of most of the *Anganwadi*s and private preschools is a replica of the primary schools with a formal whole-class arrangement and no display or an irrelevant display on the wall. Known-practice centres, especially those in Rajasthan, do pay attention to the seating arrangement and also the display in terms of both relevance and eye level of children. The ideal flexible seating arrangement was observed in some of the "known practice" centres.

Since ECE centres are observed to be often catering to multi-age children, planning and following a schedule for the ECE programme becomes an essential requirement. However, this was observed only in private preschools and "known practice" centres. The private preschools follow weekly subject-wise timetable, but this focuses on formal education through rote memorization, whereas the known practice centres, especially in Rajasthan, follow an individualized plan for each child, which allows them to learn at their own pace. Known-practice centres also tend to more often focus on the maturational level of the children in a multi-level classroom situation, while designing and following the programme.

In the more regular provisions such as *Anganwadis* and private preschools across the states, age-appropriate activities are also usually not carried out with the children. Flexible class arrangements with activity corners and child centred classroom organization, which are accompaniments to activity-based teaching learning, are therefore also an exception rather than the rule. Even when a few activities are undertaken, these do not involve all children, thus, raising the issue of each child's average '*time on task*.'

5

The ECE Curriculum

A MAJOR ISSUE IN EARLY CHILDHOOD EDUCATION in India is the dichotomy visible in the system between the "prescribed" and the "practised" curriculum. While the prescribed "*developmentally appropriate curriculum"* for ECE is informed by Child Development theory, which focuses on all-round development of the child and school readiness through play and activity method, the more visible form of curriculum practised in preschools and often desired by parents is the "*academically oriented curriculum".* This, in most cases, is a downward extension of the primary curriculum and focuses on formal teaching of the 3 R's, that is, reading, writing and arithmetic. This dichotomy exists even though the National Policy on Education (1986) clearly articulates that "*there shall be no formal teaching of the 3 R's at the pre-primary stage".* While this dichotomy is reported mainly on the basis of anecdotal evidence, there is to date, no empirical data on what is the more prevalent practice in ECE across sectors and, if there is a dichotomy, to what extent is it a clear dichotomy or a blend of both approaches. This study attempts to find an answer to this question.

For the purpose of this report, the term "curriculum" refers to the content, methods and materials used in an ECE programme, as observed for a full working day with the use of the quality-assessment scale, ECEQAS. This chapter explores the existing trends in curriculum as observed in the sampled ECE centres across sectors and states, on the basis of these detailed classroom observations.

The content and quality of curriculum transaction in ECE classrooms or centres has been assessed on the different domains of child development, namely, language, cognitive, socio-emotional creative, physical and motor development, while acknowledging the interdependence of these domains. In addition, it also looks at the curriculum for developing school readiness. For each domain, the "developmentally appropriate practice" advocates different kinds of activities aimed at helping children develop the necessary skills and concepts. The analysis under each domain, therefore, focuses on assessing the extent to which the programme adheres to these prescribed practices, as opposed to the more academic and didactic methods of teaching that are not considered developmentally appropriate for the preschool stage. The chapter is divided into different sections. Each section is dedicated to a

specific domain, and concludes with exploration of associations across domains and profiling of emerging models across sectors.

5.1 Language Development

In the preschool years children's language and communication skills grow by leaps and bounds. These early childhood years are characterized as the sensitive or critical period for language development when children must be "immersed" in a rich language environment to be able to develop these skills optimally. Language and communication skills are important not only in themselves, but have significant implications across other domains of development and learning too, since language is integral to emotional, social and cognitive development. Language development activities and experiences, thus, form an important part of any developmentally appropriate ECE curriculum.

Language development activities at the preschool stage are linked primarily to development of the four language skills of listening, speaking, readiness for reading and for writing. Recommended activities, thus include conversation, both free and guided, which provides children opportunity to talk and express themselves spontaneously. Free conversation usually precedes guided conversation; with a view to first establish rapport with the children. Free conversation allows for opportunity for unstructured interaction on any topic of interest to the child; a good example is an activity often called "Today's News", where children can share any experience or anecdote they want. Guided conversation, on the other hand, is used

Two way conversation between the teacher and the children in a Known Practice Centre in Rajasthan

by the teacher to talk, discuss and introduce a theme or concept to children and help them to extend their thinking further, often in a creative manner. The themes identified are largely from the child's environment. Songs and recitation of rhymes are other common child-friendly activities at this stage, which expose children to new vocabulary and expression and are required to be enacted with music, action and expression. Storytelling is universally a favourite activity of children, with a great deal of significance for not only language learning but also for social and cognitive development of children, in terms of understanding social relationships and learning to think sequentially. Guided language and vocabulary games are also organized in the pre-school classroom to expand children's vocabulary and enhance their expressive skills. While all these activities contribute to development of listening and speaking skills, specific activities linked to phonetics, print awareness, picture-sound matching and book handling serve as pre-reading experiences that facilitate children's learning of reading subsequently. Similarly, activities such as "make believe" writing, joining dots, pattern drawing, colouring within enclosed space, and so on, requiring eye-hand coordination facilitate writing readiness in children, and enable them to see meaning in writing.

The data obtained from classroom observations of all sampled ECE centres was analyzed on specific indicators included in the ECEQAS. These assess if children are being given adequate opportunities for development of the four language skills through developmentally appropriate activities, as described above. The analysis also focused on whether the children understood the language used by the teachers and the extent to which the teacher uses language to extend children's thinking. The overall objective of the analysis was to assess the extent to which activities for language development are given focus in the curriculum of the respective ECE programmes.

The data was disaggregated according to category of ECE centres, overall and within states, for the purpose of the analysis. The results obtained on each domain are discussed by states. Subsequently, the models emerging across states from this analysis are profiled in terms of different programmes.

5.1.1 Overall Focus on Language Development

As mentioned above, the first level of analysis was of the total scores on language development, by states and categories of centres. The results obtained from this analysis are depicted in Figure 5.1.1 and discussed below for each state separately.

Assam: As evident from the total scores, on language development on the ECEQAS, (Figure 5.1.1), the representation of activities and opportunities for language development for children was marginally higher in private schools

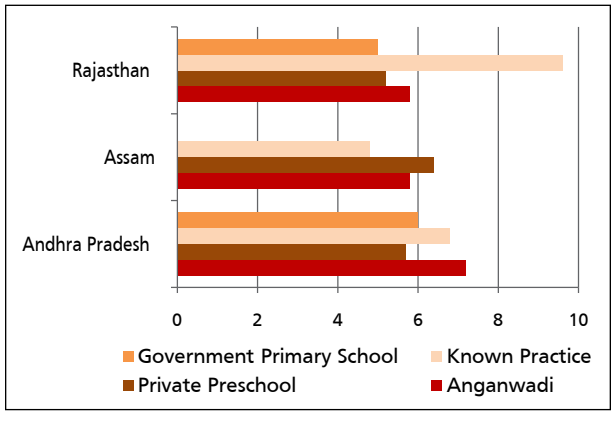


Figure 5.1.1: Comparison of mean scores of different types of ECE centres across states on focus on language development

in Assam as compared to the *Anganwadi*s. Overall, the scores ranged between 4.5 and 6.5 from a maximum score of 10. This is indicative of medium level of priority given to language activities across programmes. Interestingly, the *Ka-shreni* classes reflect the lowest score, indicating very few opportunities for language activities and games in the class, although this was categorized as a "known or innovative practice". This may be attributed to the fact that while *Ka-shrenis* have been initiated as an innovative model of preschool attached to primary classes, and given inputs such as an activity/workbook under SSA, there is no dedicated teacher allotted to these classes. The children often sit in multi-grade classrooms with primary grades and the teacher uses language mainly to control them; with no separate trained teacher for them. They work on their activity book individually with little planned interaction or activities to engage in, that can facilitate development of language skills in them.

***Andhra Pradesh*:** In Andhra Pradesh, the *Anganwadi*s were observed to have a higher score on language development opportunities on the ECEQAS as compared to the other categories of programmes. This may be attributed to the fact that, in Andhra Pradesh, at the highest levels of bureaucracy, there has been a significant thrust given to the ECE component of the ICDS and a local NGO serves as the resource centre for the

Anganwadi worker during a story telling session in Andhra Pradesh

state to train the functionaries at all levels and provide them with a structured weekly curriculum and materials. These are based on the developmentally appropriate thematic approach.

The known-practice centres, which are also very closely aligned with the *Anganwadi*s, have a marginally lower score than the *Anganwadi*s. The private preschools demonstrate the lowest score and qualitative observations also reflect that these programmes focus on external discipline and control with little opportunity provided to children to interact and play or do activities. The government schools are, of course, not intended to provide preschool education and that, to an extent, justifies their low score.

***Rajasthan*:** The significant finding from this analysis was that while in other states the overall scores remained below 7 out of a maximum score of 10, in Rajasthan, known-practice centres have scored 9½ out of 10, indicating an emerging "good practice" with regard to the language domain. This finding is also supported by qualitative observations from the field, which indicate observation of an activity based and interactive teaching learning process consistently in the *Bodh* centres. With regard to the other categories in Rajasthan, the *Anganwadi*s demonstrate a higher score on language development opportunities as compared to the private pre-schools and the government schools; although, overall, the scores are much lower for all categories, as compared to the *Bodh* centres. This, again indicates a medium focus on language development in the curriculum among the regular ECE programmes.

5.1.2 Opportunities for Developing Listening and Speaking Skills

The data obtained on the language domain was disaggregated and analyzed in terms of specific language aspects, including the four language skills. The results are discussed below for development of listening and speaking skills, which are mutually linked and complementary. The development of reading and writing readiness skills is discussed later in the chapter under school readiness.

Figures 5.1.2 and 5.1.3 provide a graphic representation of the results, again by state and sector.

***Assam*:** Overall, as reported earlier, the score of private ECE centres for language development opportunities was found to be higher as compared to the other categories of ECE centres in Assam. A further disaggregation in terms of opportunities provided specifically for development of listening and speaking skills indicates that in 80 to 100 percent private preschools, some opportunities were observed related to listening and speaking, primarily in the form of nursery rhymes and songs and teaching of English by rote. But actual

One of the key features in Andhra Pradesh is that at the highest levels of bureaucracy, significant thrust has been given to the ECE component of the ICDS. A local NGO serves as the resource centre for the state to train the functionaries at all levels and provides them with a structured weekly curriculum and materials

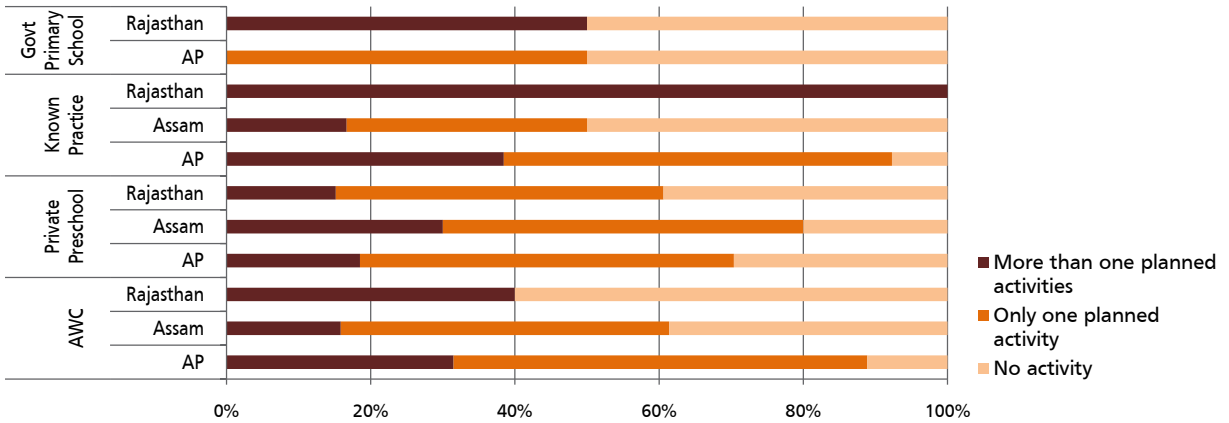


Figure 5.1.2: Percentage of centres across states and categories that provide planned listening opportunities for children

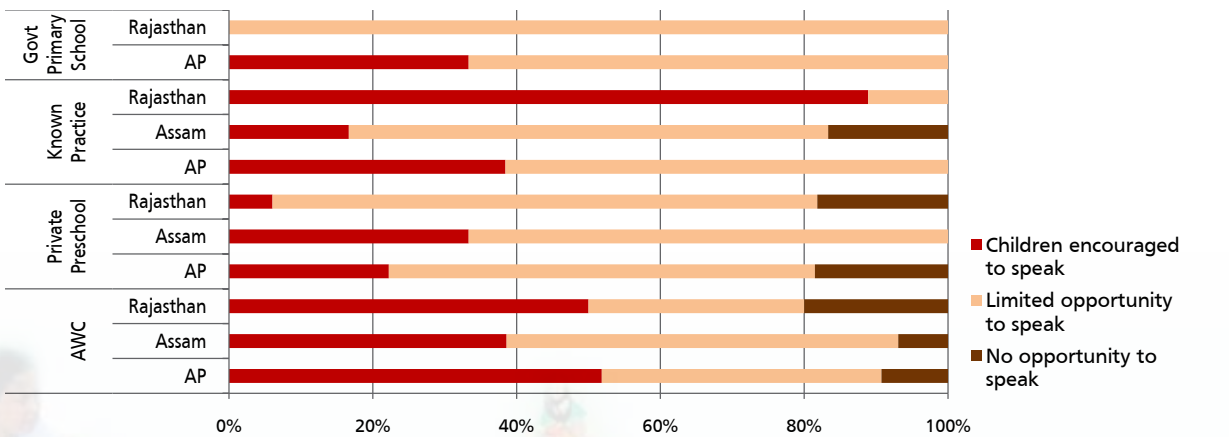


Figure 5.1.3: Percentage of centres across states and categories that provide opportunities to encourage speaking skills in children

encouragement of speaking and listening through developmentally appropriate planned activities was found in only about 30 percent of the private preschools. In the *Ka-shrenis,* the corresponding figure was even less satisfactory at below 20 percent, with almost 80 percent centres not giving any evidence of appropriate listening opportunities, such as conversation or story telling; in fact, in almost 50 percent of these centres, there was no planned listening activity at all. A possible reason for this could be, as mentioned above, the absence of a dedicated teacher since children cannot do these activities on their own. Interestingly, while the overall language score and score for listening opportunities was highest for the private pre schools, the opportunities for planned activities for speaking were found to be highest in *Anganwadi*s as compared to the other categories of centres. Overall, the fact that more than 50 percent of the centres across categories do not reflect any planned activities for developing these skills of listening and speaking is a matter of concern.

***Andhra Pradesh*:** In Andhra Pradesh, the disaggregated analysis of the scores on listening and speaking opportunities of different categories of ECE centres indicates a higher score for *Anganwadi*s as compared to the other categories. While about 90 percent *Anganwadi* centres were observed to provide at least some opportunity for development of both listening and speaking skills, almost 52 percent also gave evidence of planned activities. Only about 10 percent centres did not demonstrate any activities at all, planned or otherwise. The *Balbadi* (known practice*)* centres that cater to the tribal population have a different challenge—where the home language of children is different from the school language and the children need active opportunity and facilitation to make the transition to the school language. It is heartening to observe that almost all centres under this innovative category did offer some opportunities for listening and speaking, with about 38 percent providing planned activities. Only about 5 percent centres did not demonstrate any activities in this context.

In the private preschool category, only around 20 percent of the centres demonstrated any planned activities for listening and speaking, although around 70 percent showed some evidence of listening opportunities and around 80 percent for speaking opportunities. Interestingly, almost 30 percent of the government primary schools to which children accompanied their siblings also demonstrated some organization of planned speaking opportunities, but not for developing listening skills; almost 50 percent centres did not have any activity at all for the children in this context. Overall, in Andhra Pradesh, the *Anganwadi*s and the known-practice centres have a score of around 7 out of 10, which is quite favourable, yet at a medium level. The concern is the private schools that have an average of around 5.5 only, especially since these centres or schools are attracting more and more children to them. The qualitative data recorded supports this finding since the curriculum in the private schools is described in most cases in the sample as focused on rote memorization of alphabets and numbers.

***Rajasthan*:** The data from ECE centres from across sectors in Rajasthan was subjected to a similar analysis as with other states. The most significant finding was the confirmation of the known-practice centres, that is, the *Bodh Shiksha Samiti* centres, as a good practice. In terms of

provision of planned opportunities for developing listening and speaking skills in children, there was evidence of activities being conducted for promoting listening in all the *Bodh* centres visited and for development of speaking and expressive skills in almost 90 percent of the centres. Even in the remaining 10 percent there were some indications of opportunities being provided, although to a limited extent.

The *Anganwadi*s, private preschools and government primary schools (which interestingly are not meant to offer preschool education) were more or less at par with each other with a score of around 6 out of 10. In terms of the distribution, in *Anganwadi*s while the positive feature was that around 40 percent of the centres did demonstrate planned activities for listening and speaking, it was disheartening to note that 60 percent of the *Anganwadi*s did not demonstrate any activity at all for developing listening skills and 20 percent did not have any activities for promoting speaking skills in children. In the private preschools, only about 18 percent classes had planned activities; 40 percent did not show any activity for listening skills and 95 percent of the centres did not give evidence of any planned activities for speaking. Most of the centres showed very limited activity in this sphere.

In 90% centres children were allowed to speak in the class but were limited to only answering the teacher in single word. Only in one third of the centres planned opportunities were provided for children to express themselves.

5.1.3. Overview of Activities Observed for Language Development

The overview across states indicates that in approximately 90 percent of the centres assessed across states, children were given opportunity to speak, but this was limited to answering teacher's questions when asked; usually these answers were also limited to yes or no. In only about 36 percent of the centres were the children given planned opportunities and encouraged to speak on their own and express their feelings, ideas and experiences.

This practice was more evident in the known-practice centres wherein about 50 percent of the centres covered in the sample did present evidence of encouraging children to express themselves in the classroom. The known-practice centres in Rajasthan, in particular, had a high proportion of centres where children were provided with an enabling environment for self-expression. However, the known-practice centres in Assam, that is, the *Ka-shreni* centres, did not give any evidence of a stimulating environment for children to express themselves, possibly because of lack of a regular teacher in the class. Among the more regular ECE practices, *Anganwadi*s were observed to be providing a more encouraging environment for the children to express themselves as compared to the private preschools and government primary schools, wherein with a more formal setup, children were not only not encouraged but also not allowed to talk freely! The *Anganwadi* workers are provided training in ECE, which possibly contributes to the better and more child friendly environment. The private preschools, on the other hand, had no training.

The detailed observation of the sampled ECE centres also shows that the teachers in the known-practice centres focused a great deal more on conducting "conversation" as an activity with the children. These free and guided conversation activities were usually observed when the programme started for the day and also towards the end of the day. A similar trend was also observed in the *Anganwadi* centres in Andhra Pradesh where the *Anganwadi* worker started the programme with free conversation with the children to capture the attention of the children. This was rarely observed in the private preschools where the children were exposed to formal teaching of the 3 R's.

A further review of the actual activities observed being conducted in the centres across states indicates that a developmentally appropriate activity such as story telling was observed in most of the known-practice centres in Andhra Pradesh and Rajasthan, but very few regular programmes such as the *Anganwadi*s and private preschools had any story-telling sessions. Andhra Pradesh was an exception, where many of the *Anganwadi* workers did story telling with the children. This may be attributed to the fact that, as mentioned earlier, in Andhra Pradesh the Department of Women and Child Welfare prescribed a developmentally appropriate curriculum developed by a resource agency, which included story telling as a regular activity. In almost half of the centres in AP, where story telling was conducted, *Anganwadi* workers were also observed using visual aids that had been prepared and shared with all the *Anganwadi*s; whereas, in none of the other centres (including the known-practice centres in Rajasthan) any aids were used during story telling.

Children singing in an *Anganwadi* Centre in Andhra Pradesh

5.1.4. Language to Extend Children's Thinking

The study also explored the extent to which the teacher uses her conversation with children to extend their thinking and thereby further their learning. The overall findings in this regard are quite disheartening. It was observed that in 13 percent of the centres sampled, the teachers used language only to control and discipline the children and almost half of these centres are private preschools. In another 50 percent of the centres, the teacher talks to the children only to ask questions, which require one word answers like yes or no. Most of these centres belonged to the regular ECE programmes like the *Anganwadi* centres, private preschools and government primary schools, with the exception of a few known- practice centres.

However, the state-wise picture that emerges from this analysis, as depicted in Figure 5.1.4, indicates distinct state differences from the overall profile discussed above.

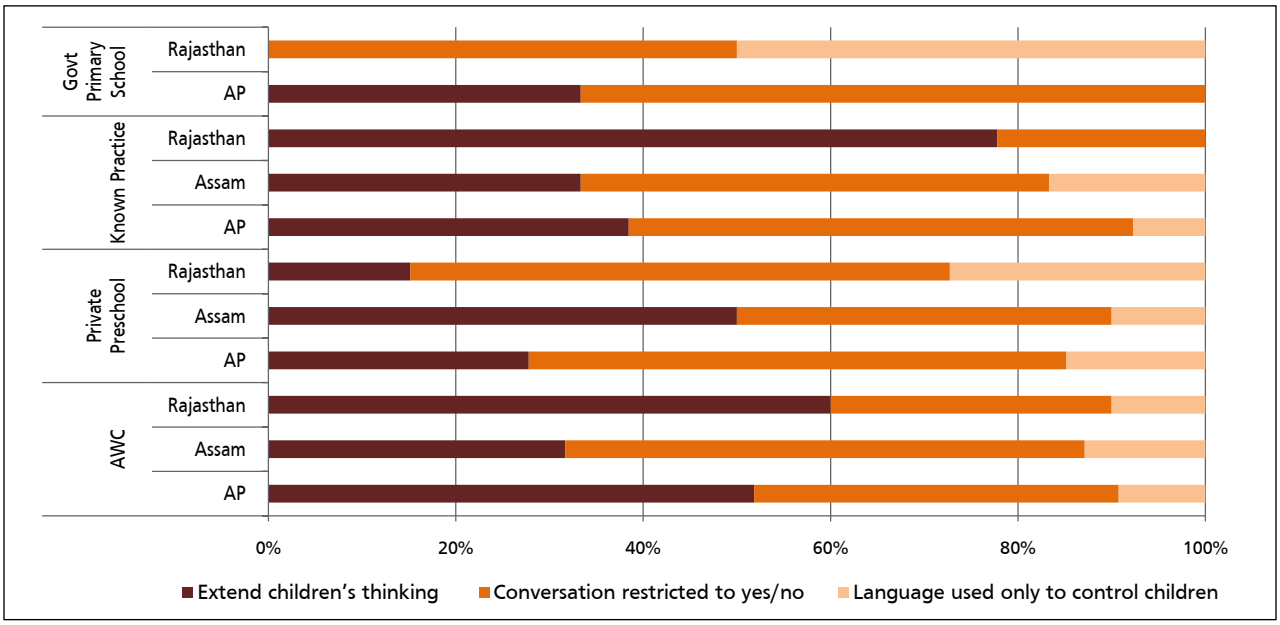


Figure 5.1.4: Percentage of centres across states and categories that demonstrate extending children's thinking through conversation

Assam: In Assam, the private preschools tend to use conversation more to extend children's thinking as compared to other categories of centres, including the *Ka-shreni* centres. About 50 percent of the private centres do demonstrate this process in the teaching-learning dynamics in the class while about 40 percent restrict to single-word answers. Only about 10 percent limit interaction to controlling children, which is a positive finding. The *Ka-shreni* centres and *Anganwadi* centres depict a pattern that is more or less similar, with only about 32 percent of the centres demonstrating this practice of extending children's thinking. Overall, the Assam experience possibly reflect a more child-friendly cultural environment in the state.

Andhra Pradesh: In Andhra Pradesh, a significant finding is that it is the *Anganwadi*s that provide maximum evidence of this positive practice of using conversation to extend children's thinking, with over 50 percent centres demonstrating it. Only about 8 percent of *Anganwadi*s restrict communication with children to merely controlling them. The known-practice centres also give evidence of a positive process of interaction between the teacher and the children in about 38 per cent centres, but a larger percent of these centres tend to restrict communication to single-word answers. In the case of the private pre-schools, it is disconcerting to note that almost 60 percent of the centres limit communication to single word answers to teachers' questions and only about 28 percent centres follow the practice of using conversation to extend children's thinking.

Rajasthan: The known-practice centres—that is, *Bodhshalas*—again emerge as a good practice in this context, with over 78 percent centres demonstrating this kind of interaction which extends children's thinking. A positive feature

also is that there are no centres in this category that limit communication merely to controlling children. Another positive finding is that among the *Anganwadi*s sampled in Rajasthan, about 60 percent centres demonstrate a process of communication with children, which enables them to extend their thinking. Only 10 percent centres indicate the practice of limiting the communication to controlling or disciplining children. However, Rajasthan also demonstrates unfavourable practice in the private preschools, wherein about 28 percent centres were observed to be limiting conversation to only disciplining and controlling children. Only about 15 percent of the private preschools gave any indication of conducting conversation with children in ways that would lead them to further their learning. On a similar negative note, the government primary schools that young children often attend also showed a tendency in about 50 percent of the schools of limiting language to controlling children.

5.1.5. Children Understand Language of Teacher

A related aspect investigated was the extent to which the children are able to understand the language used by the teacher. This becomes a vital element for enhancing communication between the teacher and the children. The issue of disparity between the home language of the child and the school or regional language in which instruction happens, emerge as a major impediment in education of children in some communities, since it has an impact on their ability to process information and learn and express themselves. Although, as per policy, the teacher should be from the local community; this is not always the case. Often the teachers in ECE centres are not from the community and come from outside the village.

Anganwadi worker using display material with the children in Assam

This issue was explored in the study since it has direct implications for the process of communication related to the ECE objective of development of language skills in children. While the problem did not emerge as acute in the sample studied, it was observed that in 14 percent of the centres observed across the states, about 50 percent children were not able to understand the language used by their teacher. More than half of these centres where the children could not understand the language of the teacher were *Anganwadi*s, one third were private preschools, 9 percent were known-practice centres and a very small proportion were government primary schools. Most of these centres where almost half of the children were not able to understand the language of the teacher were found in Assam and Andhra Pradesh. This problem was more specific to some tribal communities where, in some cases, the teacher or the *Anganwadi* workers were not from the tribal community.

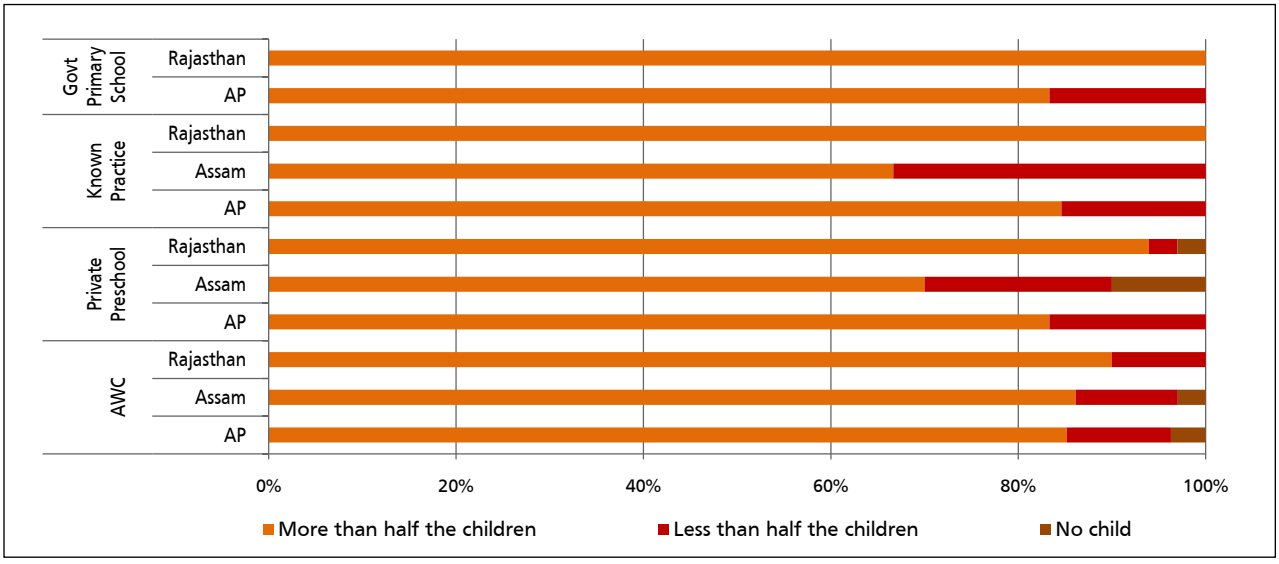


Figure 5.1.5: Percentage of centres where children understand the language used by the teacher

In Assam, one of the districts in the sample was Dibrugarh, where a large proportion of sampled children belonged to the tea garden workers' community. Their language was different from what is spoken in school, as the teachers who were recruited by the management were usually not from the same community and did not know the *"adivasi"* language of the children. Assam had a higher proportion of centres where there was discrepancy in the language used by the teacher and the children. This was also observed in one third of the *Ka-shreni* centres in Assam, where children were not able to follow instructions.

In Andhra Pradesh too, one of the districts sampled had a high tribal population and the children used the tribal language. The *Anganwadi* workers or teachers came from outside the community and used Telugu, the official language of instruction. Rajasthan reported very few of these cases where children were not able to understand the language used by the teacher. All children in the known-practice centres in Rajasthan and Government Primary schools understood the teacher, whereas in a few private preschools and *Anganwadi*s, some children had a different dialect than the teacher. However, it was also observed that in most private preschools, particularly in Rajasthan, which are known as English Medium, the teachers were mostly local and interacted with children in their dialect, and not in English.

5.1.6 Activities for Language Development

All centres conduct some activities for language development, which is the core of any ECE curriculum. However, often these are in the form of rote learning or formal teaching-learning rather than activity based. The findings regarding incidence of specific language activities observed in the ECE classrooms indicate that language-development activities such as storytelling, free conversations and language games were not seen being conducted with children in almost half of the ECE centres assessed. Almost no activity that can be termed developmentally appropriate

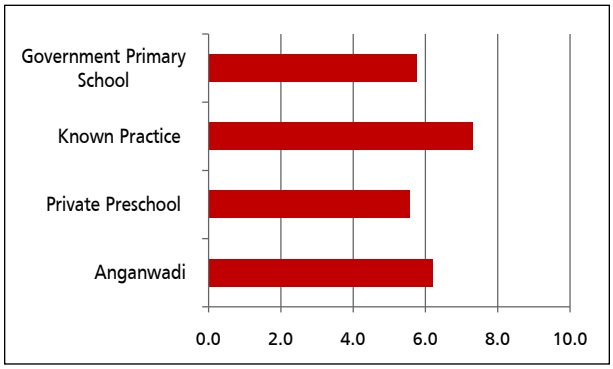


Figure 5.1.6: Mean scores of different types of ECE centres on language development

was being organized by the teacher to promote language development among the children in these centres. Even where these were conducted, in almost 23 percent of the centres, these involved only a few children in the class. It was only in 31 percent of the centres the activities organized involved all the children. In contrast, in the known-practice centres, activities for language development were conducted and involved all children of the classes.

The observation of the ECE centres shows that free and guided conversation was more liberally used by the teachers at known-practice centres in Rajasthan and Andhra Pradesh, and also in *Anganwadi*s in Andhra Pradesh. It was observed that free conversation was used as a tool to attract the children to the classroom, as teachers spend the first few minutes of the programme letting children discuss whatever they want to express, or used the forum to introduce a theme or recapitulate what was done the day earlier. Story telling was also observed in some of the known-practice centres and the *Anganwadi*s in Andhra Pradesh.

5.1.7 Emerging Trends in Curricular Focus on Language Development

Overall, the results for language development across states and sectors vividly highlight the distinctiveness of each state, confirming even within the sphere of ECE, the immense diversity that defines the Indian sub-continent! The diversity is reflected not only in the aggregated data but also within it, the practices that are observed within each sector or programme. The prescribed curriculum of the programme followed in *Anganwadi*s in Andhra Pradesh may be common in structure to all *Anganwadi*s across the country, but is quite different in terms of content and methodology from that practised in *Anganwadi*s in Assam and in Rajasthan. Similarly, the private preschools may be broadly similar in terms of their structure and priorities across states, but the actual practice within each state differs depending on possibly both state and cultural factors. On the same lines, the "known practices" in each of the three states are all innovative in their own way and yet they are so diverse! This makes it difficult to make any generalizations at all. Yet, the findings serve to provide a better understanding of the nature of provisions across sectors.

The analysis of the aggregated scores of different types of ECE centres show that the known-practice centres, on an average, obtained the highest score of over 7 out of 10 as compared to the *Anganwadi*s and private preschools. However, this average camouflages the differences within the category of known practices, with the Rajasthan programme establishing itself as a good practice with a score of over 9. The AP programme was operating at a positive yet more medium level while the Assam one suffered possibly due to lack of allocation of teachers.

Similarly, the *Anganwadi*s in AP were operating more or less at par with the known-practice centres, but in Rajasthan, these were way behind the known-practice centres. However, they demonstrated better practice as compared to the private preschools, even though these are the more popular practice for the parents. In Assam, the trend was reversed with the private preschools demonstrating more instances of developmentally appropriate practices as compared to the *Anganwadis*. However, on the whole, over 50 percent of the centres did not demonstrate developmentally appropriate language-development activities such as free conversation, storytelling, picture reading, vocabulary games, etc. Wherever these were being conducted, these were often only with a few children.

An important finding that emerges from the high score of 9 out of 10 obtained by the *Bodhshala* programme in Rajasthan is that it is possible for a low-cost programme to set a benchmark for ECE quality and demonstrate possibilities within the context of programmes for the underprivileged. The qualitative case study of Bodhshala programme which is under way as part of the Strand C of this study will throw more light on elements that contribute to this quality.

Bodhshala, the known practice centre in Rajasthan, emerges as a good example of a low cost ECE programme and sets a benchmark for ECE quality. It demonstrates a possibility of a good quality ECE programme through well planned curriculum.

5.2 Cognitive Development

The preschool child is developmentally at a stage when his/her thinking, which has till then been very perception bound, begins to progress in the direction of becoming more logical. This process towards developing a conceptual foundation is initiated both maturationally and also through concrete experiences and interactions in the immediate environment. These can be with adults, peer group and/or with materials. This conceptual foundation rests on formation of some basic concepts and skills that enable the child to understand the environment better. These include concepts related to the physical, natural and social environment, such as concepts of colour, shape, space and pre-number and number concepts. The latter are associated with different dimensions of measurement such as size, length, weight, distance, temperature, and so on.

The conceptual development takes place through a constructive learning process, which is mediated by use of cognitive skills related to logical thinking such as classification, seriation, sequential thinking, problem solving, memory, reasoning and creativity. While there is undoubtedly a great deal of this cognitive activity happening informally all the time, as the child plays and grows, this process gets further facilitated by involving the child in planned and structured play activities and interactions. This process is enhanced qualitatively if a child is located in a psycho-socially stimulating environment in these critical early years of life. With a significant number of children not having the benefit of such an environment at home, a good-quality ECE programme serves to compensate for possible home deficits. Activities for development of

cognitive skills and concepts are, therefore, expected to form a part of any developmentally appropriate ECE curriculum, especially for children between 4 to 6 years who by this age are maturationally more "ready" for structured play activities.

The cognitive domain was also explored in the study through classroom observations. The focus was on estimating the extent to which activities were being conducted for *(a)* concept formation and *(b)* development of cognitive skills in the sampled ECE centres and *(c)* reading, writing and number readiness or inversely, formal teaching of the 3R's. The observations also made note of how many children were involved in the activities in a given class, as and when these were being conducted.

5.2.1 Overview of Activities Observed for Cognitive Development

An aggregated analysis of scores of all 298 ECE centres across the three states shows that, as expected, the known practice centres demonstrate a greater focus on cognitive development in their curriculum as compared to the other more regular types of ECE centres vis-à-vis *Anganwadi*s and private preschools. The known-practice centres

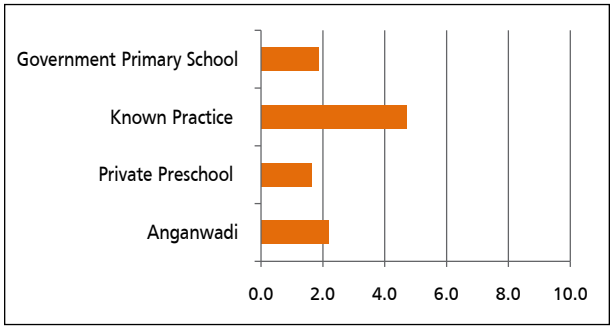


Figure 5.2.1: Mean scores of different types of ECE centres on curriculum's focus on cognitive development

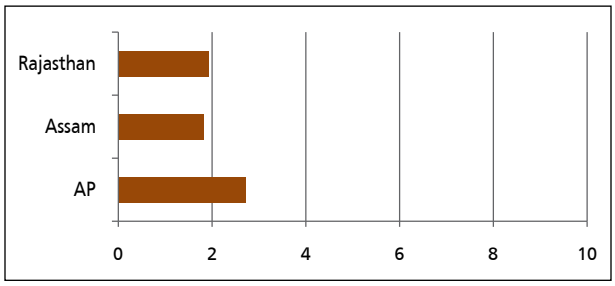


Figure 5.2.2: Mean scores state-wise on curriculum's focus on cognitive development

scored a mean score of 4.7 on a scale of 10 as compared to 2.2, 1.6 and 1.9 for *Anganwadi*s, private preschools and government primary schools respectively (Figure 5.2.1). While the known practices are comparatively better in terms of their scores than other centres, their own performance on the scale is also less than 50 percent, except for Rajasthan, indicating overall an inadequate focus on this domain within their respective programmes. The regular practice centres, *Anganwadi*s and private preschool were observed to be focusing primarily on formal teaching of the 3 R's through the rote method, with very few activities conducted for concept formation and skill development.

While the above trends are reflective of the differences across types of ECE centres, Figure 5.2.2 reflects the differences across states. It may be noted that these differences are not a reflection of the status of the programme across a state, since the sample is not representative of the entire state. However these are indicative of the state variations that may be there in the implementation of a centralized programme such as ICDS or even private preschools, to an extent. As evident, the overall scores are very low on the scale for all three states, with the highest being 2.7 for Andhra Pradesh on a scale of 10. This presents a very unsatisfactory picture of the curriculum across

states in terms of inclusion of activities for cognitive development of children.

A further analysis of centres by states indicate that across states, it is the known-practice centres that have a higher score as compared to the other categories, with the *Bodhshala* demonstrating the highest score at around 6.9, which is creditable and reflective of good practice (Figure 5.2.3). The *Anganwadis* in Andhra Pradesh were observed to provide marginally better opportunities for cognitive development to children, as compared to the AWs in other states. This is perhaps an impact of greater emphasis in the ICDS in the state on the preschool education component. In Rajasthan and Assam, the *Anganwadis* were observed to be more or less at par. The private preschools across the states had a low score, but particularly so in Rajasthan. This is further substantiated by the results discussed later on Readiness activities (Figure 5.2.8).

5.2.2 Opportunities for Concept Formation

A differentiated analysis of activities specifically for concept formation reveals a disturbing finding that in 71 percent of the centres across the three states, no activity was observed being conducted for supporting children in concept formation, that is formation of concepts related to colour, shape, pre-number and environmental concepts; in about 30 percent of the centres, some activity for concept formation was observed, but it did not involve all the children (Figure 5.2.4).

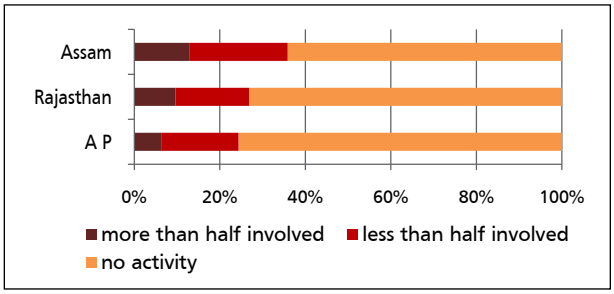


Figure 5.2.4: State-wise status of centres with activities on concept formation and level of involvement of children

There was a very small sample of centres where most or all children were involved and getting opportunity for concept formation activities, and these were largely in the known centres, particularly in Rajasthan (Figure 5.2.5) and to a much lesser degree in *Anganwadis* in AP and Assam. In Rajasthan, these cognitive activities were observed but sporadically, with no centre observed in which all children were found participating. Interestingly, in AP, the government primary schools also demonstrated concept formation activities to some extent, but only for a few children. This may well

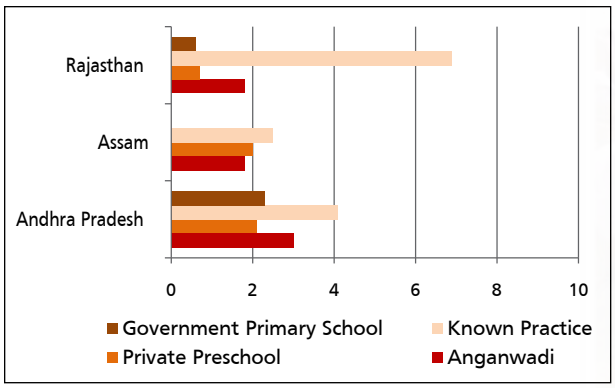


Figure 5.2.3: Mean scores of centres across states on cognitive development domain

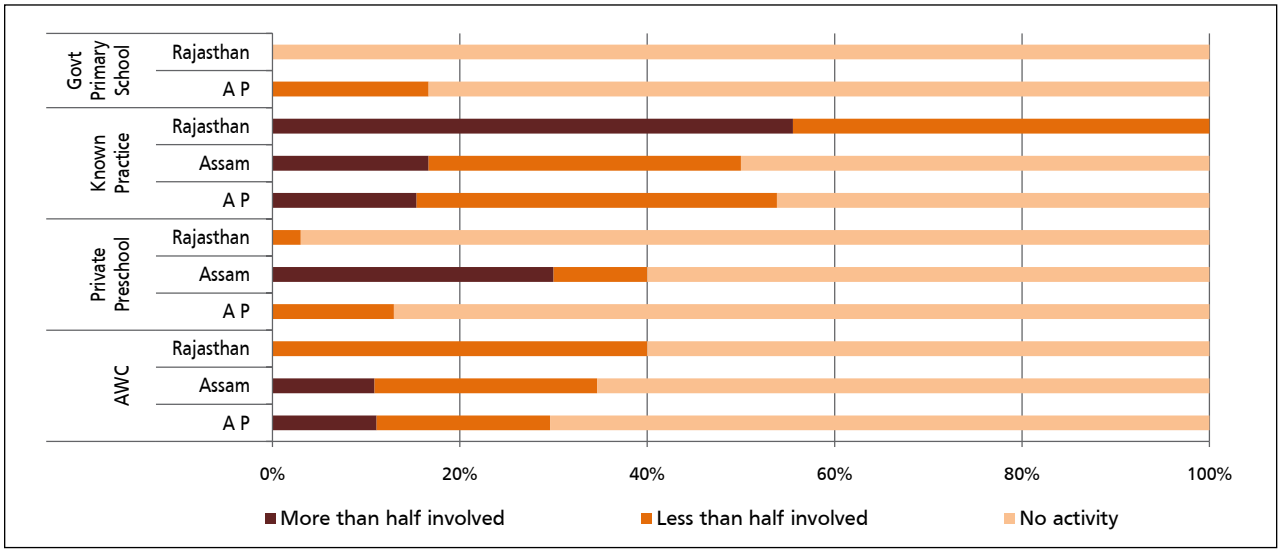


Figure 5.2.5: Percentage of centres with activities on concept formation and level of involvement of children

be since only some preschool children were sitting in the primary grades with their older siblings. Interestingly, activities for concept formation were observed in 40 percent of the private pre-schools in Assam and 30 percent of the centres had all children involved.

5.2.3 Opportunities for Development of Cognitive Skills

The assessment also probed the extent to which children were being given opportunity to develop their cognitive skills, which are critical for laying the foundation for higher-order thinking and reasoning. These include skills of classification, seriation, reasoning, pattern making, sequencing, etc. through planned activities.

It was again disconcerting to find that almost 80 percent of the sampled ECE centres did not organize any activity for development of cognitive skills across the three states (Figure 5.2.6); the emphasis appears to be very much on rote memorization only. As depicted in Figure 5.2.7, again it is the known practice in Rajasthan that stands out as the good practice with all centres demonstrating some activities in support of this domain and 65 percent ensuring participation of most children.

The *Anganwadi*s in Andhra Pradesh and to a lesser extent in Assam also demonstrated these in at least some centres with most children participating; in Rajasthan, this was seen very sporadically with no centre observed with good participation of children. Interestingly, in Assam about 10 percent of the private preschools also provided some

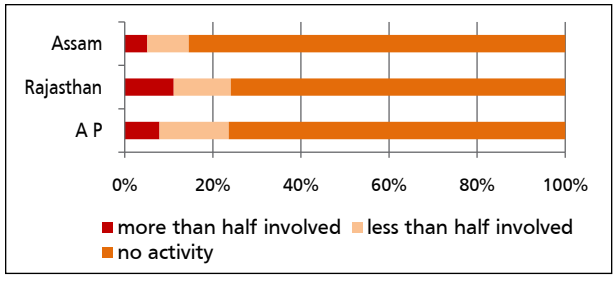


Figure 5.2.6: State-wise comparison of centres with activities on development of cognitive skills and level of involvement of children

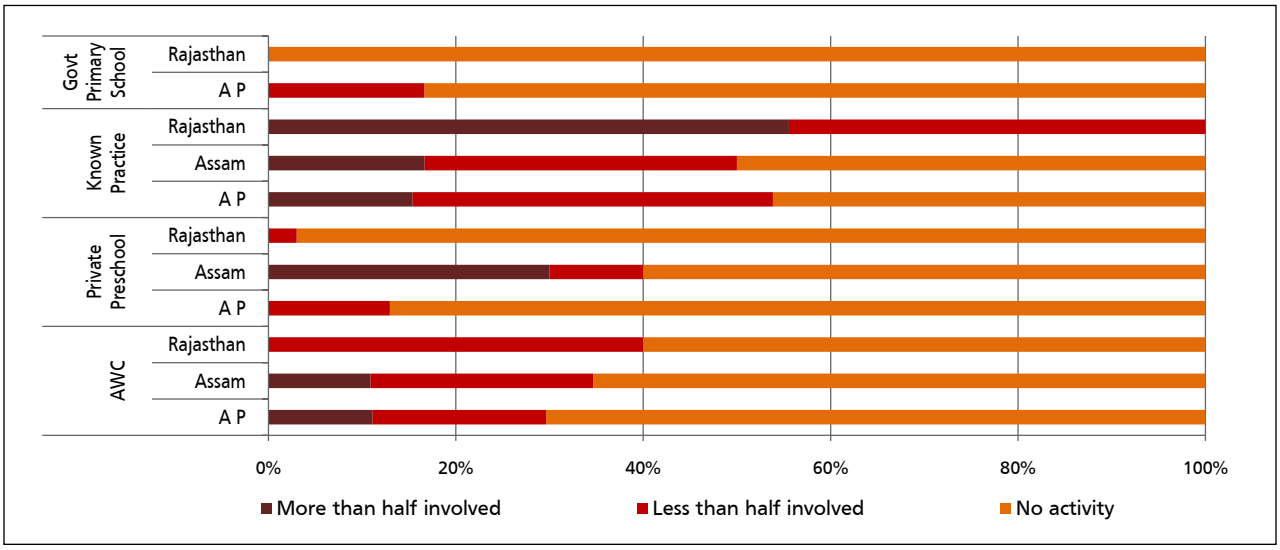


Figure 5.2.7: Percentage of centres with activities on development of cognitive skills and level of involvement of children

evidence of this good practice, despite the emphasis on rote memorization. A more comprehensive examination of each state provides further insight into the kind of cognitive curriculum being offered to most children participating in ECE in the respective states.

Assam: The overall score on cognitive development activities in the ECE curriculum for Assam is about 1.7 on the scale of 10, which is very low. This indicates that the inclusion of cognitive activities in the curriculum has been observed to be minimal across different types of centres. (Figure 5.2.3), The comparative picture that emerges is while overall the situation appears fairly homogeneous and inadequate, the known-practice centres seem to show a slight edge over the private preschools and *Anganwadis* with a score of about 2.5. This may be due to the fact that special activity books have been prepared for the *Ka-shrenis,* which children may have been observed to be working on during the classroom observation, despite the absence of a regular teacher. These workbooks have activities for cognitive development, particularly for concept formation. The private preschools have a score of 2 and the *Anganwadis* are marginally lower at 1.8, which certainly points to the need for more attention in all these programmes from the perspective of cognitive development. As indicated in the figures above, only about 37 percent and 15 percent centres across the state demonstrate any activities for concept formation and development of cognitive skills, respectively. Of these too, the disturbing finding is that only in less than 10 percent centres were all children found to be getting an opportunity to participate in the activities.

Andhra Pradesh: The overall score for Andhra Pradesh is about 2.8 on a scale of 10, which is also very low and reflects very little attention being given in the ECE programmes to cognitive development of children (Figure 5.2.1). A disaggregated analysis by types of centres indicates that among the four types of centres identified and included in the sample, the known-practice centres

demonstrate a higher score of 4 on a scale of 10, followed by the *Anganwadi*s with a score of 3 and private preschools with a score of just 2. A further probe into the activities, specifically for concept formation and for development of cognitive skills, reveals that in the known-practice centres at least 55 percent of the centres did display some cognitive development activities in the classrooms, with a relatively greater focus on concept formation, in terms of low-cost activities for learning of colours, shapes, numbers, etc. However, of these, only in less than 20 percent centres were most children observed to be participating. In private preschools, there was little evidence of these activities with only 8 to 12 percent centres demonstrating any activity at all, and in these too, only a few children were seen participating. In the *Anganwadi*s, the situation was a little better with about 37 percent centres demonstrating some cognitive activities, but among these too, it was only in less than 20 percent of the centres that most children were found participating. The government primary schools, to which some children were going, also showed some minimal activity in this context, but involving very few children.

Rajasthan: The known practice in Rajasthan, that is, *Bodh Shiksha Samiti* again stands out significantly over and above other programmes as the only category of centres that have a high score of 6.8 on cognitive development, on the scale of 10. This high score is supported by further analysis which shows that activities for cognitive development were observed in all the centres of this category, with more than 60 percent of the centres also demonstrating involvement of most children in these activities. This further supports the identification of *Bodh Shiksha Samiti* as low cost, good practice in ECE. However, the state's overall score, on average, gets reduced to 1.8

Children busy with manipulative play material during free play

on the scale of 10 due to the very low scores of the other categories of programmes in the state. This is indeed a concern. As indicated in Figures 5.2.6 and 5.2.7, around 75 percent centres in this state demonstrated no cognitive activities being conducted with children at all.

A more detailed analysis of the content of the cognitive development activities shows that both development of cognitive skills and concept formation are being given minimal attention in the curriculum, across all categories except the "known practice". In the known-practice centres, both aspects are well covered. In the private ECE centres, there were just about 5 percent classrooms that demonstrated any activity for concept formation or development of cognitive skills; in the *Anganwadi*s too, although about 30 to 40 percent centres showed some activities, these were found to involve very few children. In none of the *Anganwadi*s or private preschools was there any activity that ensured opportunity to all children to learn.

5.2.4 Opportunities for Development of Reading, Writing and Number Readiness

As mentioned earlier, developmentally appropriate practice advocates the importance of helping children develop readiness in terms of skills, concepts and disposition for learning of reading, writing and numbers. This is required since children are maturationally and experientially not yet ready to learn the 3 R's. However, there is little awareness of or emphasis on this and there seems to be a tendency to make the preschool curriculum a downward extension of the primary curriculum.

Readiness activities for reading include activities for visual discrimination, sound discrimination or phonetics, visual sound association, vocabulary development, left to right directionality, bonding with story books and print awareness. Number-readiness activities range from pre-number concepts related to measurement and space to concept of one to one correspondence, and number concepts through the use of cognitive skills such as classification, seriation, sequential thinking, etc.

Writing readiness is linked to reading-readiness activities but also focuses on activities for eye-hand coordination and control of pencil and more importantly seeing meaning in writing. Activities for reading and writing readiness are required to be planned and conducted in the play-way method through a variety of materials, including picture cards, puzzles, dominoes, picture story books, blocks, number towers and rods, objects in the environment and also using children themselves as resource. In most cases, these activities can be individual centred or presented as small-group activities.

Observation of centres across the three states revealed that in about 50 percent of the centres visited, no readiness activities were observed on the day of observation for reading, writing or number (Figure 5.2.8). However, this trend was most evident in Rajasthan, followed by Assam and least in AP. In AP, about 65 percent centres did demonstrate some readiness activities; however, in only about 38 percent of these centres most children were observed to be participating.

Child tracing the numbers on a slate in a Private Preschool

Display of material pertaining to numbers in an *Anganwadi* Centre in Andhra Pradesh

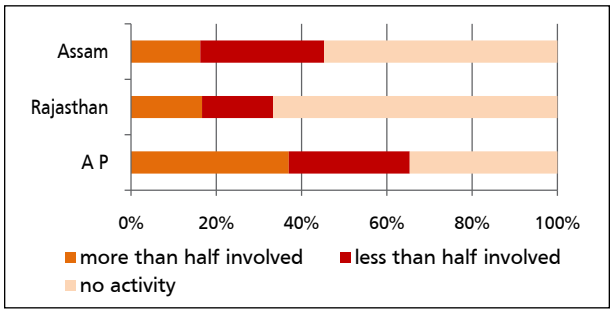


Figure 5.2.8: State-wise comparison of centres with readiness activities and level of involvement of children

Although children in the early childhood age group are not expected to be exposed to formal reading, writing and number, it was observed that in almost three fourths of the sample centres, all children irrespective of age were exposed to formal education through rote memorization. Activities like copying from the blackboard, charts or text-book were observed. Only in 9 percent of the centres teachers were not found teaching reading, writing and number work formally, or these activities were being done with older children who were ready for it. Most of these centres that focused on formal teaching were from the category of *Anganwadi*s and private sector, which are the regular ECE programmes which most children attend.

A disaggregated analysis indicates that again the known-practice centres in all three states demonstrated a better focus on readiness activities as compared to *Anganwadi*s and private preschools. About 66 percent of the centres across states demonstrated some evidence of conducting readiness activities, and about 46 percent also demonstrated involvement of most children (Figure 5.2.9). Among the regular category of centres, interestingly, the private pre-schools demonstrated a relatively higher incidence of conducting readiness activities, especially in AP, as compared to the *Anganwadi*s. However, of the 47 percent private centres found conducting these activities, only 28 percent had a majority of children involved in them. In contrast, only 33 percent of *Anganwadi*s across states demonstrated readiness activities, of which only 15 percent had majority of children involved.

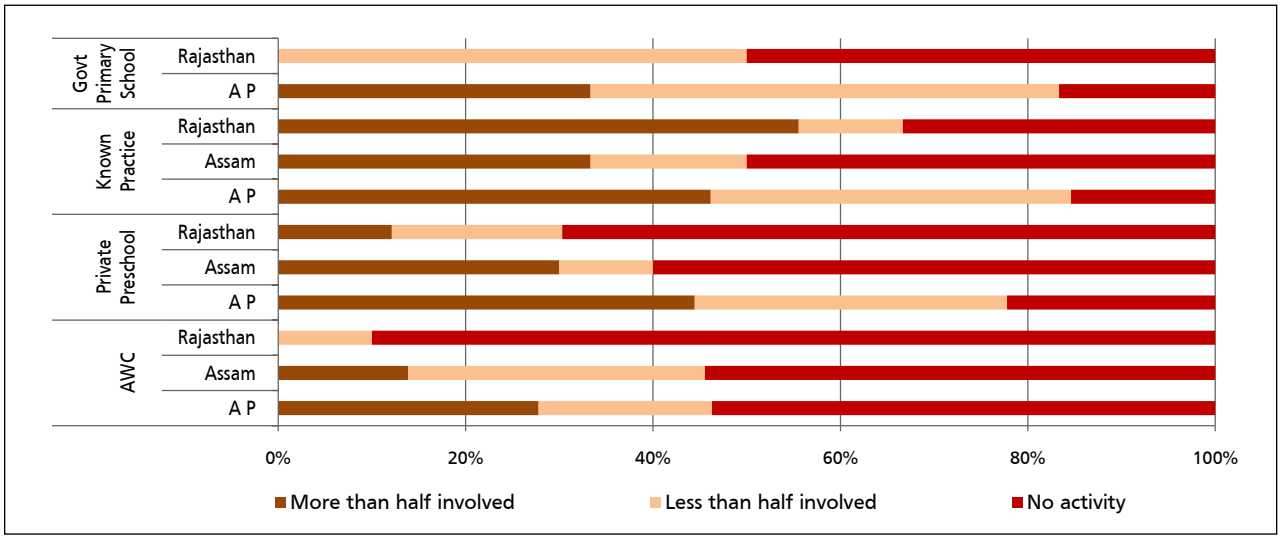


Figure 5.2.9: Percentage of centres with readiness activities and level of involvement of children

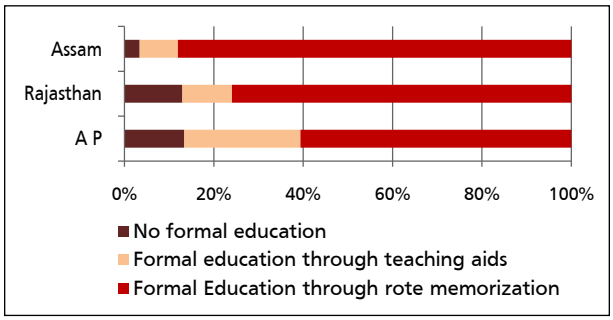


Figure 5.2.10: State-wise comparison of centres with no formal education for under 5 year olds

To complement this analysis and complete the emerging picture, a state-wise analysis was done to assess the extent to which formal education was being imparted at this early childhood stage (Figure 5.2.10). Overall, about 76 percent centres overall were found involved in formal teaching of the 3 R's, purely through rote memorization. About 15 percent did teach the 3 R's but with the help of teaching-learning aids and materials. A very small number of centres were observed to be focusing on developing readiness in children. This trend of formal education seemed to be most pronounced in Assam followed by Rajasthan and to a lesser extent in Andhra Pradesh.

A concern across states is that formal education practices were evident in all the different types of ECE centres. These were seen even in a few known-practice centres, which otherwise had a better developmentally appropriate curriculum for children, possibly in response to parental demand.

However, a very high proportion of known-practice centres in Rajasthan and Andhra Pradesh were observed to be focusing less on formal education. Although reading and writing was taught to the children, the method used was child friendly and through activities and learning aids. In contrast, in most of the private preschools in Assam and Rajasthan that were visited, formal teaching through rote memorization was the norm. It was particularly disturbing to observe that in most private preschools, children often spent the whole day, often up to 5 to 6 hours, just doing formal reading and writing and learning of tables and alphabet through rote memorization. While formal teaching was common in *Anganwadi*s and known practices too, to an extent, these rote practices were interspersed with some activities as well. An important finding was that the readiness activities observed in some centres did not last for more than 10 minutes or so in most cases, and were limited to one activity of a few minutes every day. Therefore, even in ECE centres where the teachers did organize readiness activities, the children did not necessarily get adequate exposure and opportunity to strengthen and scaffold their readiness for schooling.

A state-wise analysis again highlights distinct differences across states.

Assam: In Assam almost 90 percent of the ECE centres focused on formal teaching of the 3 R's. A very small percentage of centers

One of the major concerns across states is that formal education practices were evident in all the different types of ECE centres. These were seen even in a few known-practice centres, which other- wise had a better developmentally appropriate curriculum for children, possibly in response to parental demand.

Child copying from the blackboard in a Private Preschool

demonstrated readiness activities or teaching the 3R's through activities (Figure 5.2.9). A comparison of the different categories of programmes indicates that the known-practice centres, that is, the *Ka-shreni* centres provided more evidence of these practices with about 50 percent centres demonstrating some readiness activities. Of these, at least in 35 percent centres, most children were also found to be participating. This may again perhaps be attributed to the *Activity Book* which has been made available to the children and which has related activities included in it, which children are expected to do on their own. With regard to the *Anganwadi*s, while about 47 percent centres were observed to be conducting some readiness activities with children, it was only in about 15 percent of these that most children were found participating. In others, only a few children of the appropriate age group were involved. The private preschools in Assam demonstrated relatively more child-friendly practices as compared to other states. While about 40 percent centres were observed to be conducting some readiness activities, involvement of most children was not always ensured. Only about 30 percent centres had most children participating in these activities.

Andhra Pradesh: In Andhra Pradesh, in at least 38 percent centres across categories, there was no formal reading and writing. This is a very positive finding, as compared to other states. Conversely, about 62 percent centers were carrying out formal teaching of the 3 R's, which is developmentally inappropriate and is, therefore, a disturbing observation. The fact that about 65 percent centres were also observed to be conducting readiness activities for children (Figure 5.2.8) indicates generally a blend of both practices, possibly due to parental demand. However, children's participation was satisfactory in only 38 percent of the centres.

A category-wise analysis indicates that in the known practice centers 85 percent did demonstrate some readiness experiences for children. However, about 30 percent also indicated rote memorization of alphabets and numbers as part of their practice, despite being an innovative programme. In the private preschool centres, formal teaching and rote memorization was found to be clearly the dominant mode in as many as 82 percent of the centres (Figures 5.2.10 and 5.2.11). In comparison, 45 percent *Anganwadi*s were observed to conduct readiness activities, but only 18 percent centres did not also do teaching of the 3 R's. However, only in 45 percent of these cases there was formal teaching and rote memorization. These were, therefore, depicting a clear mix of curricular priorities.

Rajasthan: In Rajasthan, almost 78 percent of the ECE centres demonstrated formal education practices with an emphasis on rote memorization at the preschool stage for children below 5 years. About 65 percent centres did not demonstrate any readiness activity at all with children (Figures 5.2.7 and 5.2.8). A category-wise analysis elicited

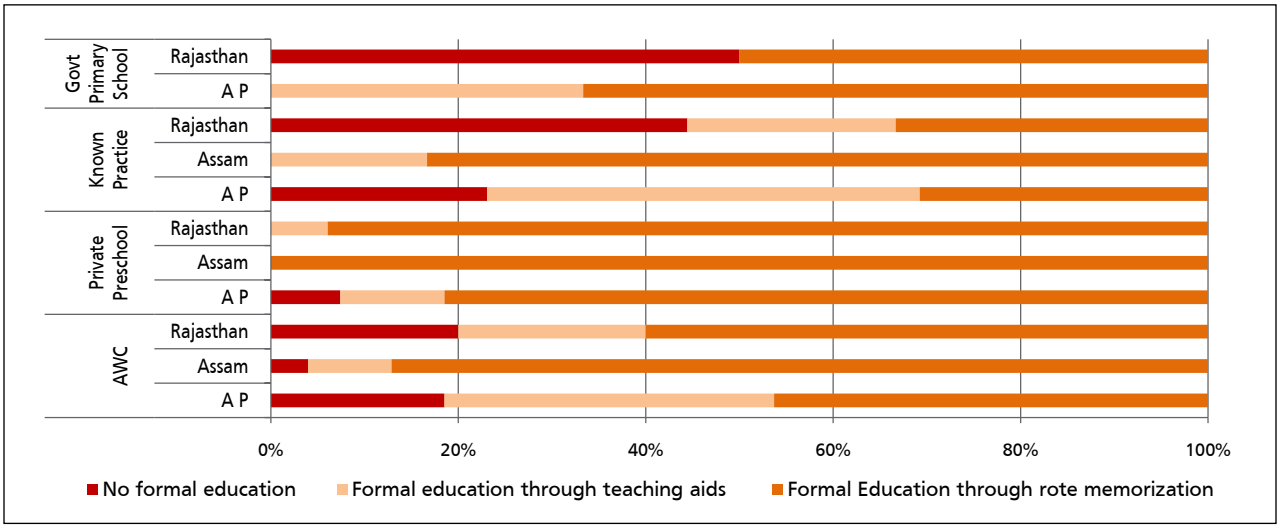


Figure 5.2.11: Percentage of centres with no formal education for under-5 year olds

interesting results. The known-practice centres, which in the case of all other domains had stood out as good practice, indicated a more mixed approach in this case. Although almost 78 percent of these did demonstrate readiness activities, at least 35 percent also gave evidence of formal teaching and rote memorization. Another 20 percent taught the 3 R's, but with activities. Only 45 percent did not give any evidence of formal teaching. Possibly parental pressures may be responsible for these mixed priorities, as reflected in their curriculum. In the case of *Anganwadi*s, 90 percent did not demonstrate any readiness activities and 60 percent of these were observed to be teaching formal reading and writing. The private preschools were clearly academic in their focus with 70 percent of them showing no evidence of any readiness activity; instead, 95 percent were observed to be clearly carrying out teaching of formal reading and writing with rote memorization. The few children in government schools seemed to be getting a better deal with at least 50 percent schools observed doing some readiness activities and not involving children in formal teaching-learning.

Display material in an *Anganwadi* Centre in Andhra Pradesh

Display material in a Private Preschool in Andhra Pradesh

5.3 Development of Fine and Gross Motor Skills

Enabling children to develop their fine and gross motor skills is an important objective of any well-balanced ECE programme. Children below the age of six years are at a stage when their bones and muscles are still developing and getting refined. They need opportunities for play and activity, which will help them develop better mobility and control of their bodies. While this development is also determined significantly by the natural maturation process along with the child's nutritional and health status, it is honed further through the kind of play activities the child has an opportunity to engage in. While for gross motor development, activities requiring use of larger muscles like running, catching, balancing, kicking, hopping, etc., are useful, for development of fine motor kills all activities involving use of fine muscles and eye-hand coordination—such as drawing, colouring, painting, clay work, threading beads, cutting, pasting, joining dots, playing with any manipulative materials like putting shapes into matching slots, building blocks, sand play, clay work, etc. have a great deal of value. Although development of gross and fine motor skills is a vital part of the foundation for lifelong development, it also directly contributes to a child's preparedness for school. While gross motor skills prepare the child for participation in sports, dancing, gymnastics and other co-curricular activities, the fine motor skills contribute to child's writing skills and enhance his/her potential for art and craft as well. An early childhood education programme needs to provide children a good balance of these kinds of activities, to help them develop good body control and coordination.

Child playing with mud

Further, these experiences need to be offered through a well-blended mix of free and guided activities and supported by appropriate materials. Guided activities are in most cases activities planned by the teacher in a structured mode, leading to a predefined outcome. These include activities such as matching different parts of a puzzle, colouring within a given space or a structured game of catching the ball with specified rules. Free-play activities can, on the other hand, be open ended such as free drawing and painting, or imaginative play with the child having the freedom to direct the play activity in whatever form or direction he/she chooses to do. The element of choice is important as it helps develop in children the capacity to take a decision. It also helps children understand that people can differ in terms of likes and dislikes and can make different choices. This blend also helps children make a smooth transition from a free and less-structured home environment towards a more-structured and planned school setting. Both free and guided activities need to be part of any good ECE programme, as they have a great deal of significance for children's development.

5.3.1. Are Children Getting Adequate Opportunities to Develop Motor Skills?

All sampled centres across the three states, Andhra Pradesh, Assam and Rajasthan, representing *Anganwadi*s, private preschools and known practices, were directly observed, each for a full day, to assess the extent to which they are providing play opportunities for children for developing their large and fine motor skills and eye-hand co-ordination. In addition, the observations also focused on whether children were getting opportunity for free play, along with guided or structured play activities. While Part 1 of the quality observation tool, ECEQAS, elicited the nature of activities conducted and levels of children's participation, Parts 2 and 3 provided the ratings on the respective indicators related to these domains. The data collected from the sample centres was subjected to analysis in both aggregate and disaggregate modes.

Overall, the picture that emerges of the ECE centres with regard to this domain of motor development is quite dismal across different type of centres in all the three states, as depicted in Figure 5.3.1. The aggregated scores for the different states indicate that the children rarely get opportunities for development of motor skills in ECE centres attended by them.

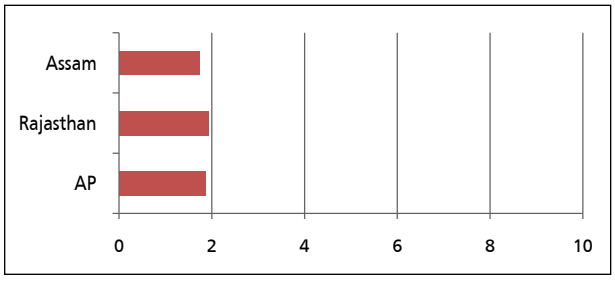


Figure 5.3.1: State-wise mean scores on scale of 10 for curriculum focus on motor development

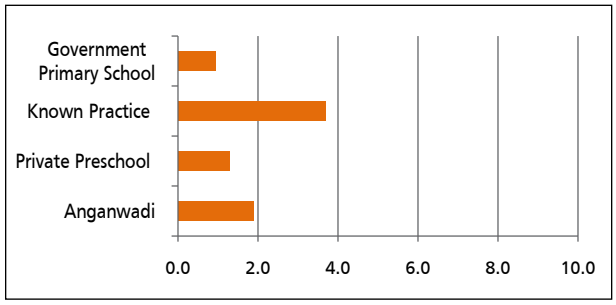


Figure 5.3.2: Mean scores of different types of ECE centres on activities for motor development

The mean scores for the ECE centres in all the three states were less than 2 on scale of 10 with minor differences. To study differences between the different types of ECE centres, the mean scores for different category of ECE centres were examined. Aggregate mean scores by types of ECE centres show that while the known-practice centres scored relatively better with a mean score of 3.7, out of a maximum of 10, the *Anganwadi*s, private pre-schools and government primary schools scored less at 1.9, 1.3 and 0.9, respectively (Figure 5.3.2).

Thus, across the board, the extent to which centres provide for children's motor development is found to be very negligible. Even in the category of known-practice centres or innovative centres, which are expected to implement a more developmentally appropriate programme, the overall low score of 3.7 reflects a significant neglect of this domain.

However, when the data is disaggregated by state (Figure 5.3.3) the known-practice centres in Rajasthan stand out as a "good practice" above the other types at a score of 6.5, while none of the other categories across the three states crossed a score of even 3 out of 10. The implications from this finding are that *(a)* a low-cost programme can also potentially provide activities for motor development for children and *(b)* "known practices" or innovative practices also demonstrate a range,

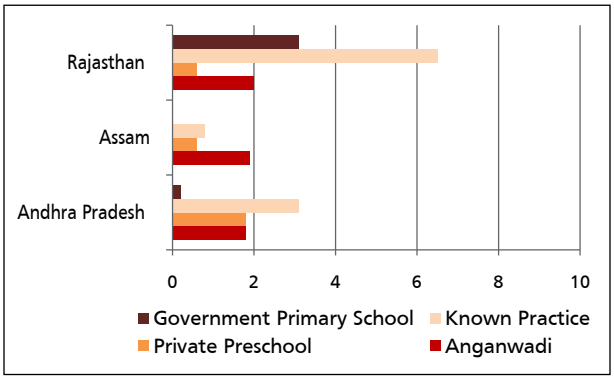


Figure 5.3.3: Comparison of means scores of different types of ECE centres across states on activities for motor development

with all not being uniformly of the same level of developmental appropriateness. In terms of the more regular practice in ECE, while the private preschools across the board demonstrate a very low score, the *Anganwadi*s demonstrate marginally better provision of activities for motor development, except in Andhra Pradesh, where these seem to be at par with the private preschools.

Overall, what emerges as a significant finding and a concern is that, while known practices do demonstrate some good practice, albeit at varying levels, these are available on a very limited scale.

Children with their teacher during an outdoor activity in an *Anganwadi* Centre in Assam

On the other hand, the centres that fall into the category of more common or regular practice that are available to most children, that is, the *Anganwadi*s and private preschools, do not tend to give adequate importance in their curriculum to activities related to motor development at all, either in the form of indoor and/or outdoor play.

Further analysis was undertaken in a dis-aggregated mode to explore if there was any differential pattern emerging across centres and types with regard to activities for gross, as compared to fine motor development.

5.3.2 Activities for Gross Motor Development

The data obtained on this domain was examined from a dual perspective of whether activities for gross motor development were at all conducted and if conducted, the extent to which children participated in these activities. It is a matter of concern that in 69 percent of the ECE centres studied, no activity for gross motor development was observed at all. In the remaining 31 percent, at least two activities like jumping, hopping, running, etc., were organized. However, in only about 13 percent of these centres, all children were involved in the activities. In the rest, only less than half the numbers of children present were observed to be engaged.

As depicted in Figure 5.3.4 in less than 10 percent of the ECE centres, all children were found participating in activities for gross motor skills across the three states. In more than 70 percent centres in Andhra Pradesh and Rajasthan and in more than 80 percent of the centres in Assam, no activity for gross motor development was organized by the teachers.

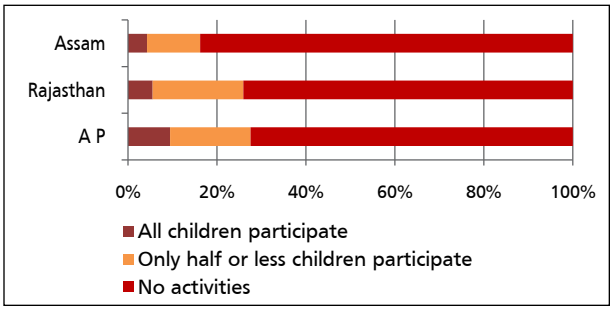


Figure 5.3.4: State-wise comparison between centres on participation of children in activities for gross motor development

A further analysis by types of centres indicates that activities for gross motor development were observed in only 36 percent of the sampled *Anganwadi*s and 46 percent of the known-practice centres on the day of the observation, across states. The private preschools seem to have even less focus on gross motor development of children, as in only around 10 percent of these centres some related activity was observed. In terms of levels of participation, only 15 percent of the *Anganwadi*s were conducting activities where all children were found participating; the corresponding figure for the known practice centres was 21 percent (Figure 5.3.5).

However, state-wise differences were very evident.

Rajasthan: The situation in the known-practice centres in Rajasthan was better with more than 65 percent of the centres demonstrating two or more activities for gross motor development, with about 45 percent centres in which all children were seen participating (Figure 5.3.5). However, even though these centres had the highest proportion of activities organised for gross motor development, but when it comes to the organization of outdoor activities and participation of children in the same, the scores for these centres also go down. In none of the known-practice centres in Rajasthan all children were found engaged in outdoor play. This difference can be attributed largely to the acute limitation of outdoor space and equipment in these centres. In the other categories of ECE centres, such as *Anganwadi*s and private preschools, mostly no activities were being conducted which is a disturbing finding. In about 30 percent centres, some children were seen involved in some activities, but none

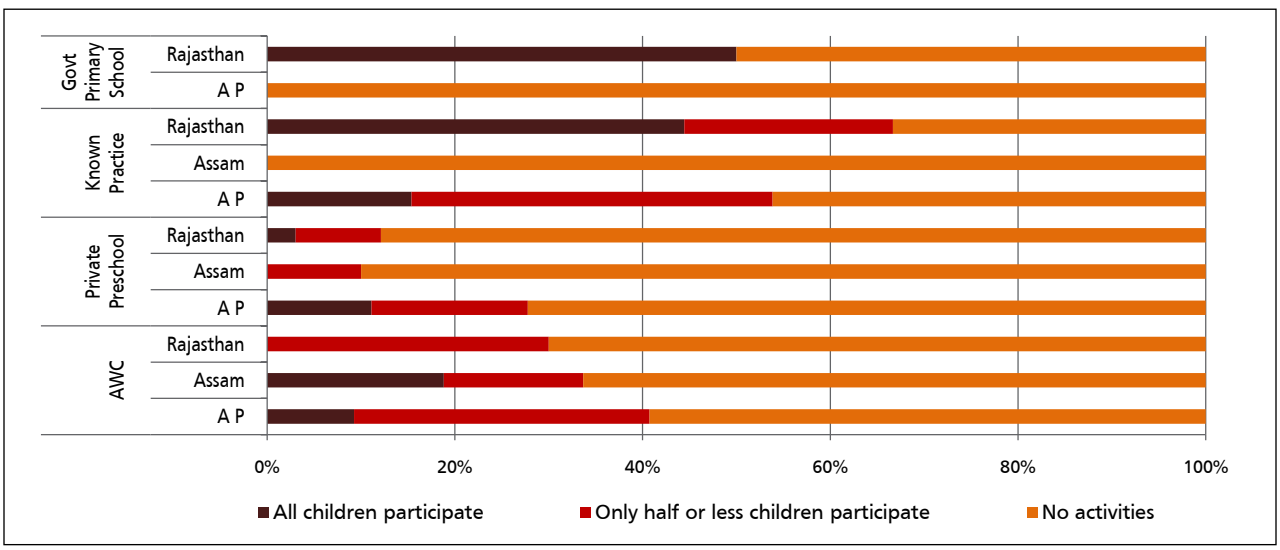


Figure 5.3.5: Percentage of centres category and state-wise with activities for gross motor development and participation of children

A child working with different coloured pegs during free time in a Known Practice Centre in Rajasthan

were found to have all children participating. Interestingly, in Rajasthan, children attending the government primary schools demonstrated maximum opportunity for participating in activities linked to gross motor development like jumping, hopping, running, and so on. These may, in all likelihood, be unplanned activities just to keep these children engaged, since they are officially not expected to be in preschools and are only accompanying their older brothers and sisters. The numbers involved are also comparatively very small.

Andhra Pradesh: In Andhra Pradesh, again the known-practice centres present a better profile with about 52 percent centres giving evidence of some activity for gross motor development, although with only few children participating. However, about 15 percent centres had all children involved. In comparison, in the *Anganwadis,* while 42 percent centres had some motor activities with a few children participating, about 10 percent centres did have all children taking part. This however, is a very small percentage. Among the private preschools, 30 percent of the schools did organize some gross motor development activities but with limited participation; in only 10 percent of the cases these were planned in ways to involve all children.

Assam: In Assam, the *Anganwadi*s present a relatively better picture with 30 percent of the centres demonstrating some motor development activities, although in only 18 percent of the cases, these were enabling full participation of children. In comparison, in the private preschools, only 10 percent classes were found to have any gross motor activities, and those too for some children only. In the known-practice centres, there was no evidence at all, possibly since there was no dedicated teacher for this class in the school.

Activities for gross motor development were observed in more than 1/3rd of the *Anganwadi* centres and almost half of the known-practice centres. Private preschools seem to have even less focus on gross motor development of children, as in only around 10 percent of the centres, some related activity was observed

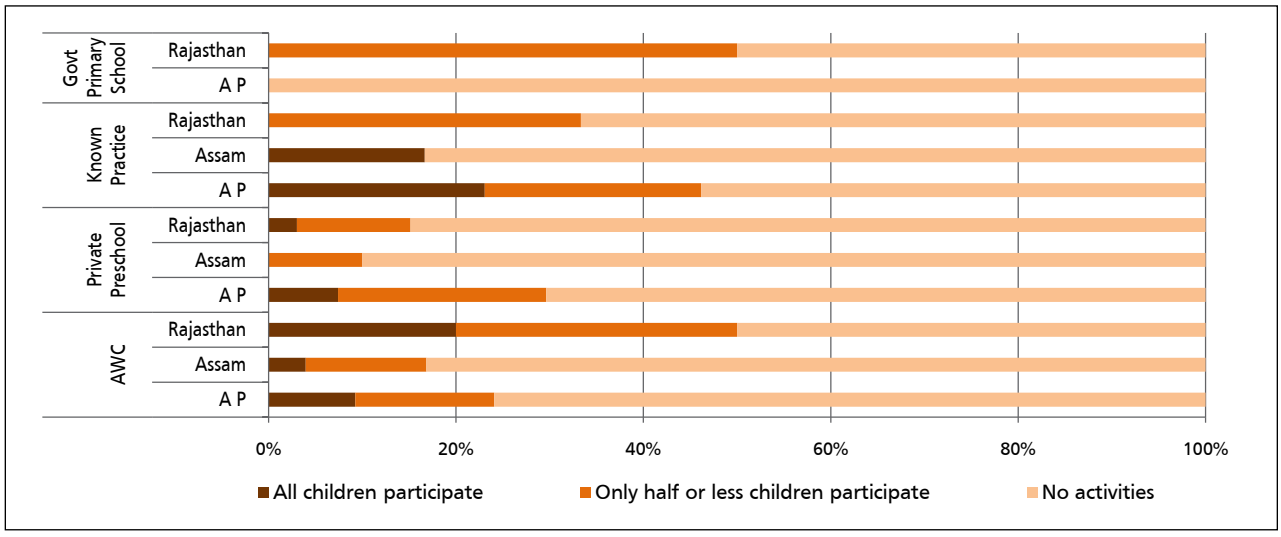


Figure 5.3.6: Percentage of centres category and state-wise with outdoor activities and participation of children

(left) Outdoor space for children to play in a Government Primary School in Andhra Pradesh and (right) Outdoor play equipment in a Private Preschool in Andhra Pradesh

Availability of outdoor space emerges as an important factor in organizing of gross motor development activities. It was observed that in 77 percent of the centres overall, the teachers did not organize any outdoor activities, as the centres lacked space as well as play equipment. While some outdoor activities were observed across categories, these were in very small proportions, with just 22 percent private pre- schools, 21 per-cent *Anganwadi*s and 17 percent known-practice centres giving some evidence of it. A correlation was computed between the availability of outdoor space and equipment with the opportunities for outdoor activities and this was found to be 0.36, which indicates a significant association.

5.3.3 Activities for Fine Motor Development

The ECE centres were also assessed during the day's observation on their focus on activities for development of fine motor skills and eye hand coordination among children. The known-practice centres in Rajasthan emerged again as a good practice with all children in all centres getting opportunity to engage in activities for fine motor development. In contrast, in more than 80 per- cent

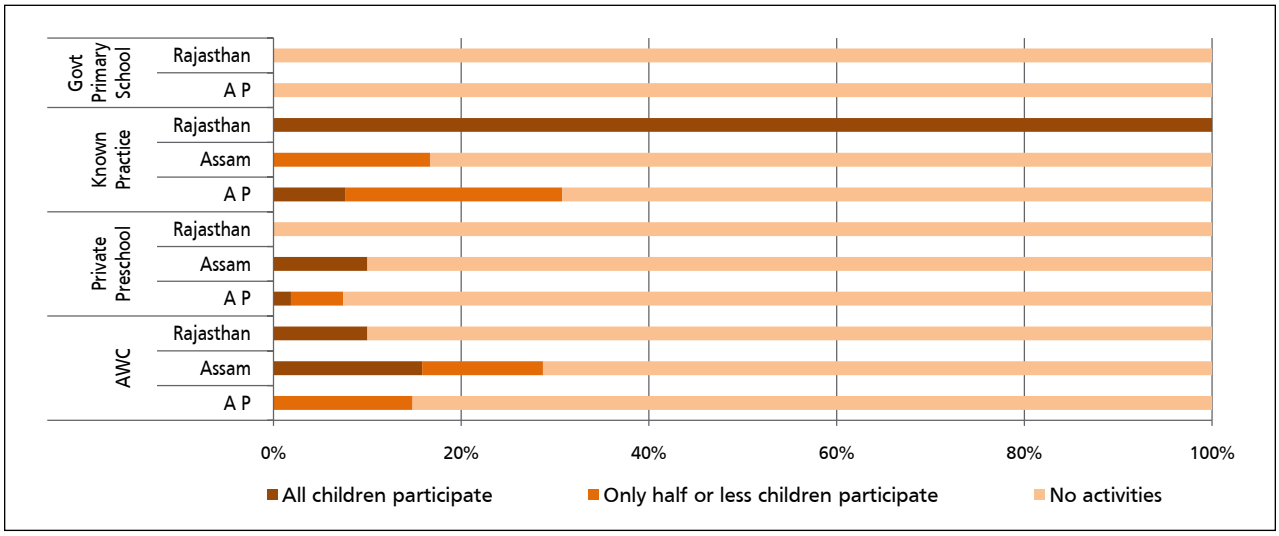


Figure 5.3.7: Percentage of centres category and state-wise with activities for fine motor development and participation of children

of the *Anganwadi*s and private preschools, as well as known practices in other states, no activity was organized for development of fine motor skills (Figure 5.3.7).

It is important to point out that for organizing activities for fine motor skills, availability of manipulative materials, whether low cost, locally available such as pebbles, seeds, sand and clay or commercially produced toys like beads, threading frames, sorting materials are a prerequisite. These were found to be lacking in the regular ECE programmes like the private preschools and *Anganwadi* centres, as discussed in the materials section of Infrastructure and Facilities chapter. But when a first-level correlation between availability of indoor learning material and organization of activities for fine motor skill development was computed, it elicited a weak association with a correlation co-efficient of 0.32; however, when organization of activities was looked at in relation to use of the learning material, a strong association at 0.45 (correlation co-efficient) was established. This shows that even when the centres were equipped with learning aids and manipulative material, they were not in use, indicating that availability is an essential but not sufficient condition, since ensuring its appropriate use is more important.

Children involved in individual work

Nature of activities: The detailed analysis of the classroom observations shows that in very few classrooms, children were involved in colouring and drawing activities for development of their fine motor skills. In only 25 centres out of the total sample of 298 centres across the three states were these activities observed. These centres were mostly known-practice centres and in a few cases, *Anganwadis*. Clay work, which is another activity that is used for development of fine motor skills, was observed in only two *Anganwadis,* one each in Assam and Andhra Pradesh. Children did activities using manipulative material during guided and free play time provided by the teacher; at this time, they were observed threading beads, playing with blocks, placing pebbles on the floor along a particular pattern or on alphabets and so on. But this was also limited to very few ECE centres. A major constraint in the regular centres could be the absence of a recurrent budget in these programmes for replenishment of raw material such as crayons, paper, paint, etc., for these fine motor activities.

5.3.4 Opportunity for Free & Guided Activities

As already discussed, a good blend of free and guided activities are an important ingredient of any good ECE programme. The free-play opportunities provide children more scope for honing their creativity along with helping them develop fine muscle coordination. While these are free-play activities from the child's point of view, the teacher is required to prepare an appropriate environment for them. In the guided activity, the teacher directs the activity by guiding the child towards learning specific skills and concepts. While the younger children need more of free-play activities, the balance tips the other way for the older child who is getting ready for school.

Figure 5.3.8 demonstrates the extent to which this mix of activities was being provided to children from the day's observation in the sampled ECE centres. The known-practice centres focus a great deal more on providing children with a good mix of free and guided activities. Almost 57 percent

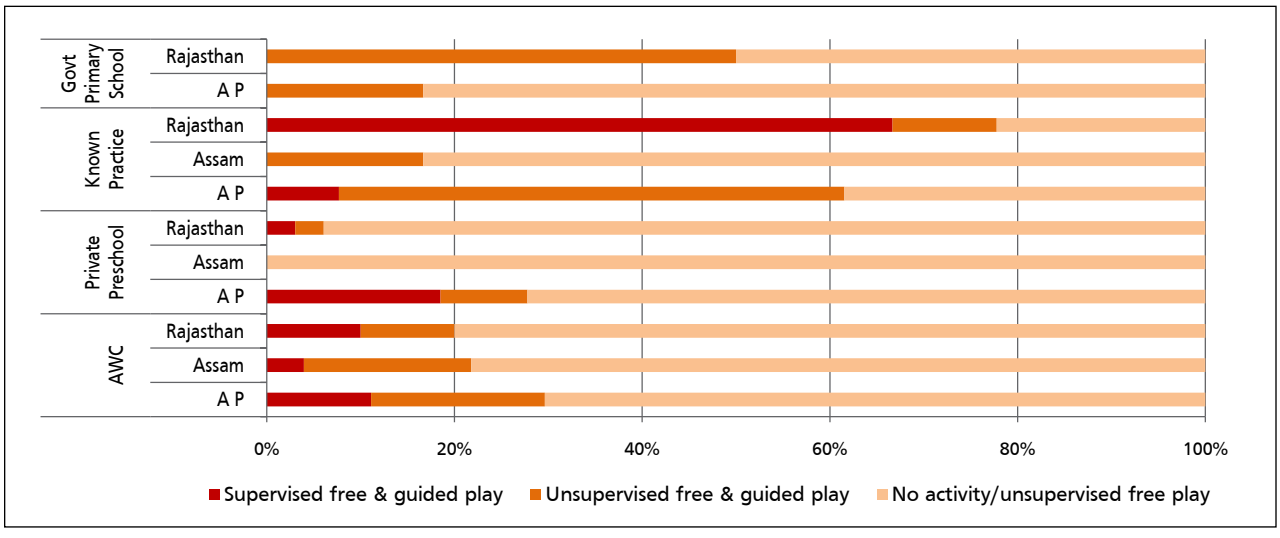


Figure 5.3.8: Percentage of centres category and state-wise with supervised free and guided play

of the known-practice centres gave adequate opportunity for free and guided activity to the children. In all the other categories across states, less than 20 percent of the centres gave any evidence of supervised free and guided play, which is a dismal commentary on the state of ECE in these programmes. The known-practice centres in Rajasthan again emerged as good practice since they provided a proper mix of guided and free-play opportunity to the children. In these known practice centres, it was observed that even during the unplanned free-play time, the teacher was supervising the children.

However, as mentioned earlier, these centres have very limited participation since their numbers are small. The picture that emerges for the larger programmes, that is, the *Anganwadi*s and private preschools is very disheartening with almost 95 percent of the centres assessed demonstrating that the teacher either did not provide any opportunity for free or guided activities or when free play was organized, it was not supervised and planned.

5.3.5 Development of Motor Skills: Emerging Trends

The broad picture that emerges from a review of the content of the ECE programmes with reference to the domain of motor development indicates some optimism, but more dissatisfaction. The optimism comes from the possibilities demonstrated by the known-practice centres in Rajasthan, and to some extent in AP, of being able to offer a developmentally appropriate programme for children within the constraints of a low-cost provision, catering to the poorest of families. The lack of satisfaction comes from the finding that the larger numbers of children attend *Anganwadi*s and private preschool programmes and these programmes do not cater to this important developmental objective of motor development for children in these critical preschool years.

5.4 Creative Activities

Nursery rhymes, songs, rhythmic movements, puppetry and creative drama, art and craft and imaginative free play are some creative activities that are almost synonymous with early childhood education for children below 8 years. Children respond to these activities in a multi-sensorial mode with a natural desire for self-expression and for representation of their imaginative ideas and images, as inspired by the stimulation they experience in their environment. These activities are, thus, expected to be an integral part of any developmentally appropriate curriculum at the ECE stage.

The study explored the extent to which these activities were being organized for children in the different ECE programmes included in the sample. The scores which are on a 3 point scale of 2, 1 and 0 relate to the extent to which opportunity was provided by the programme to children to engage

A young child in *Anganwadi* Centre

with any of these creative activities. A score of 0 indicates no opportunity and 2 indicate opportunity for all.

5.4.1 Participation of Children in Creative Activities

As indicated in Figure 5.4.1, when the scores on this domain were aggregated from these various items into a total creativity score on a scale of 10, it was observed that across the three states, not much attention is being given in the ECE centres on providing opportunities for creative activity. All ECE centres across the three states, Andhra Pradesh, Rajasthan and Assam, got scores ranging from 3.5 to 4.5 on the scale of 10. In relative terms, AP had an edge over the other two states, with Rajasthan being the lowest. However, sampled centres in all three states demonstrated low scores, indicating a trend of very little opportunity being made available to children to participate in these creative activities.

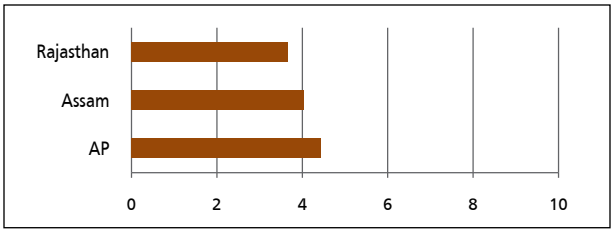


Figure 5.4.1: State-wise mean scores on a scale of 10 for curriculum focus on creative activities

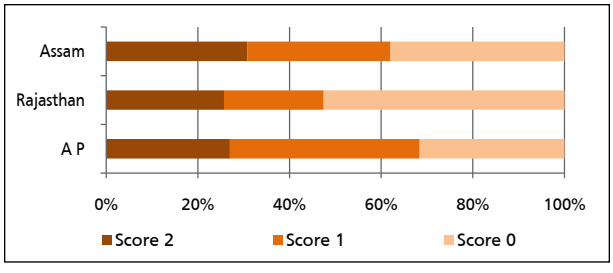


Figure 5.4.2: State-wise break up of scores on domain of creativity across different types of ECE centres

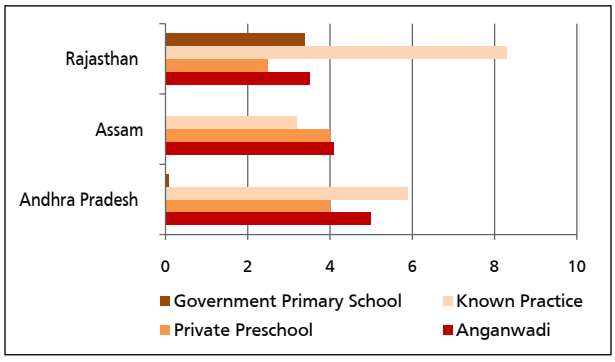


Figure 5.4.3: Mean scores of the different types of ECE centres across three states on creative activities

The distribution of scores over the three-point scale by states provides a more nuanced picture (Figure 5.4.2). While the percentage of centres in all the three states that scored 2—which indicate opportunity for all—are more or less similar, the difference is at the other end where in Rajasthan more than 52 percent centres show no opportunity at all for any creative activities.

An analysis of scores by categories and states presents an interesting picture (Figure 5.4.3).

Rajasthan: While, overall, Rajasthan had a high percentage of centres with no opportunity for creative activities, the highest scores on this domain have been attained by the "known practice" centres in the same state, that is, in Rajasthan. The known practice in Rajasthan, that is, *Bodh Shiksha Samiti,* once again gets established as a good practice for not only scoring highest on the scale in relative terms, but also because of its high score of 8.2 on the scale of 10. All the other categories were found to be more or less at par, with the private preschools scoring the lowest. Among the total sample of private preschools, the private schools in Rajasthan scored the lowest. While government primary schools do not have the mandate to cater to preschool children, one school out of two primary

schools in Rajasthan had underage children and these were, therefore, included in the sample. These were observed to be providing young children with some opportunities for creative activities, possibly to keep them engaged while their older siblings attend class.

Andhra Pradesh: The known-practice centres in Andhra Pradesh also demonstrated better performance than the regular programmes, that is, *Anganwadi*s and private preschools, with a score of 5.8 on the scale of 10 for creative activities. In comparison, the *Anganwadi*s in AP reached a score of 5 and private preschools scored only 4. These scores reflect a lack of priority to creative activities, perhaps since emphasis is on rote memorization and also because there is a dearth of stationery and raw materials on a recurrent basis for these kinds of activities.

Assam: In Assam, the picture was different with the known-practice centres, that is, the *Ka-shrenis* scoring the lowest on this parameter, while the private preschools and *Anganwadi*s were almost at par. Overall, the scores on the scale of 10 were just about touching 4, which indicate an overall low priority to creative activities in the ECE programmes in the state.

Again in terms of levels of participation, the Rajasthan known practice, that is, *Bodh Shiksha Samiti,* was the only set of centres in which all children across all centres were found participating in these activities (Figure 5.4.4). While the known-practice centres in Andhra Pradesh also had at least 45 percent centres—which had about half of the children participating—the situation in all other categories was fairly dismal. Some of the creative activities included in the review are discussed below in more detail.

5.4.2 Opportunity to Recite Rhymes & Songs

Song and rhymes are the most popular activities at the early childhood stage. While these activities promote children's language development, they also expose children to rhyme and rhythm and provide them opportunity for creative drama

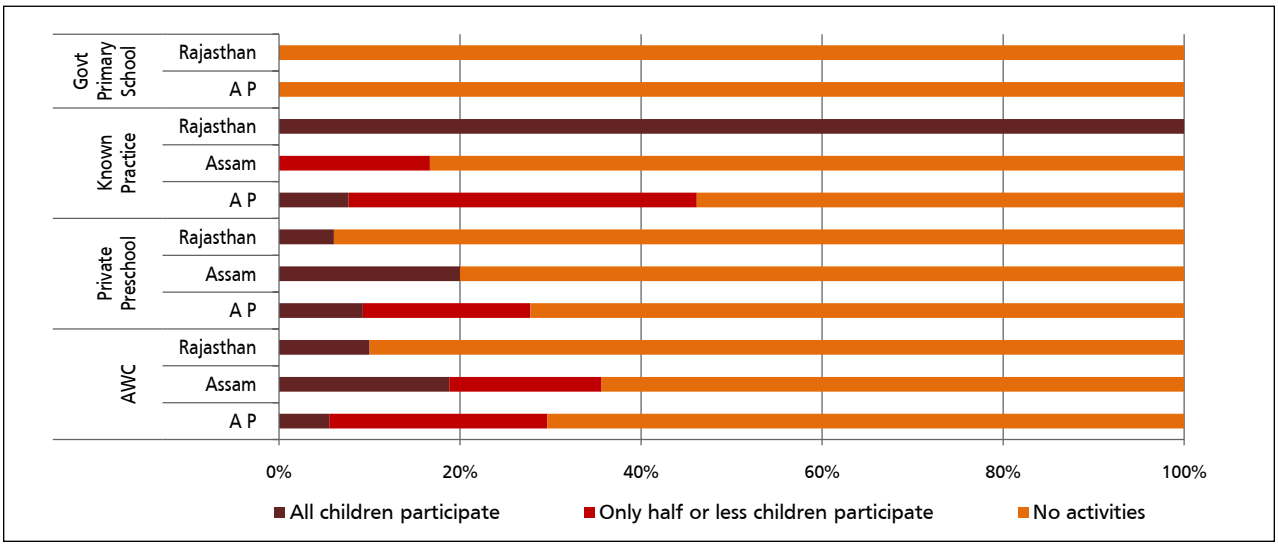


Figure 5.4.4: Percentage of centres across categories with all children participating in activities for creativity development

Children with their teacher in a Known Practice Centre in Rajasthan

through enacting of the rhymes with actions and expression. The actions in turn also facilitate children's vocabulary development and comprehension. And most important of all, children find them to be joyful and a lot of fun. The data on classroom observations was analyzed to assess to what extent the children were being taught rhymes and songs and if they were, whether they were being encouraged to recite with expression or in a monotonous manner.

The disaggregate data analyzed by states indicates relatively more opportunity being provided for children with regard to this activity in Andhra Pradesh, as compared to other states. While in about 78 percent centres in Andhra Pradesh, children were provided opportunity for singing rhymes and action songs, in at least 50 percent of the centres, they were also encouraged to recite these with actions and expression, which is a positive finding (Figure 5.4.5). The fact that the other 50 percent teachers either did not do rhymes or made them go through the rhymes in a monotonous manner is possibly an expression of the teacher's lack of motivation and involvement and possibly lack of training. In Rajasthan, about

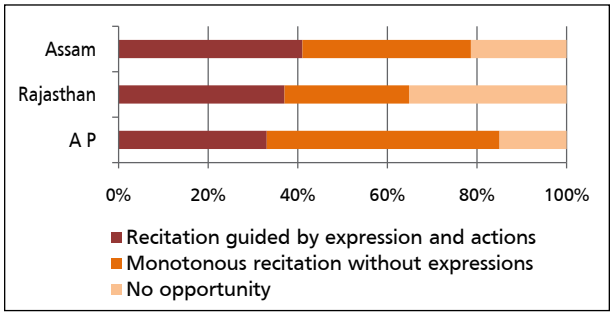


Figure 5.4.5: State-wise comparison between centres on opportunities for recitation guided by expression and actions

65 percent of centres provided this opportunity and in about 38 percent of the centres, they were encouraged to recite with actions and expression. This is relatively speaking also a favourable finding, given that Rajasthan also has the largest proportion of centres not providing the opportunity at all. In Assam, too, almost 78 percent centres did provide opportunity for rhymes and songs and in 40 percent centres and with actions and expression. Overall, this activity of rhymes and songs seems relatively more popular and is being given some attention in the centres across states, though in varied proportions.

An analysis by categories of centres again depicts an interesting picture (Figure 5.4.6), wherein centres in Andhra Pradesh, particularly the known-practice centres and *Anganwadi*s, have very little proportion of "no opportunity". But in terms of quality of transaction, there are concerns since almost 65 percent of the *Anganwadi* children were involved in monotonous recitation without actions or voice modulation, whereas the situation was much better in the known-practice centres where in more than 60 percent centres' children did recitation guided by expression and actions.

The highest proportion of centres providing opportunities for recitation of poems with expression and actions was again in the known-practice centres in Rajasthan. In the more regular programmes, the *Anganwadi*s scored better than the private preschools, wherein the private preschools were observed to be focusing almost completely on rote learning of alphabets and numbers. In Assam, about 80 percent *Anganwadi*s were found to be providing these opportunities, which are more than other categories of centres,

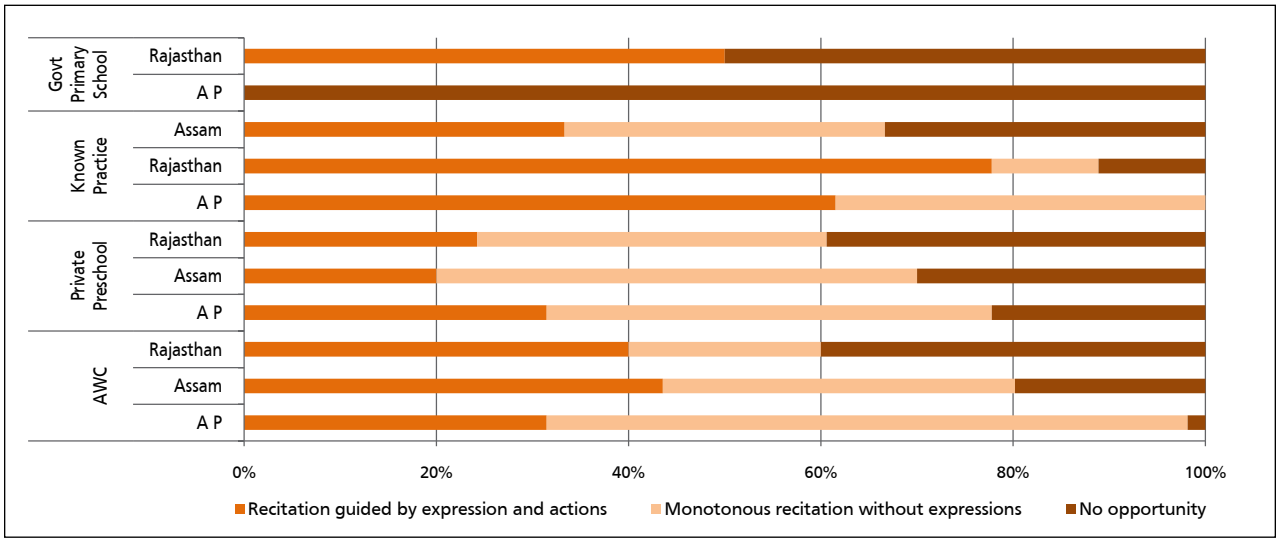


Figure 5.4.6: Percentage of centres across categories with opportunities for recitation guided by expression and actions

and about 45 percent were getting children to do it with action and expression. This reflects well on the *Anganwadi* programme in the state. In contrast, in the private preschools, only 20 percent pre-schools had recitation of rhymes and songs with expression. The fact that a very large number of pre-schools across states either do not expose children to rhymes and songs or do it without encouraging expression and voice modulation indicates a clear pointer towards need for this activity to be strengthened in the training of teachers.

5.4.3 Opportunity to Participate in Individual & Group Recitation

While recitation of rhymes is itself an important activity, another dimension on which it was assessed was whether children were getting opportunity to recite only in groups or also individually. Opportunities for individual recitation in preschools gives children not only clarity of speech and pronunciation, but also self-confidence in speaking or even performing before others, thus getting over their natural shyness.

Interestingly, while, as already mentioned, Rajasthan relatively had the maximum centres with no recitation activity, in terms of individual and group recitation opportunities, all three states reflected a good balance (Figure 5.4.7). All three states had almost a similar proportion of centres that gave opportunity for both group and individual recitation. However, in relative terms, Assam had an edge over Rajasthan and Andhra Pradesh.

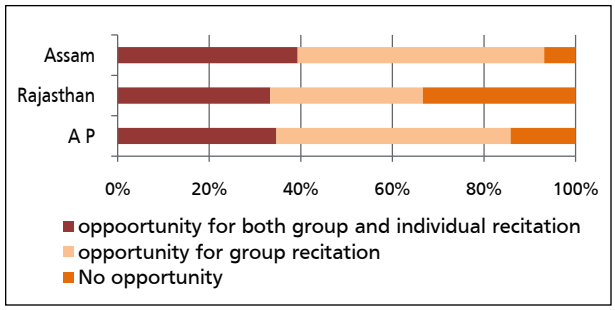


FIGURE 5.4.7: State-wise comparison between centres on opportunities for both group and individual recitation

The disaggregated analysis according to the different categories of centres threw up a surprise finding—that the maximum number of centres providing opportunity for both group and individual recitation was in the category of private preschools in Assam. Almost 70 percent of the private preschools gave children opportunity to recite individually as well with the group, which is the highest proportion, higher than even the known-practice centres in other states. This may be due to the focus on English rhymes and songs, which are easier for children to learn and "demonstrate English learning", although often with "mispronunciations"!

On the other hand, the regular ECE programmes and known-practice centres in Assam did give opportunities to the children in less than 40 per-cent of the centres. In Andhra Pradesh, about 52 percent of the known-practice centres gave opportunity for both individual and group recitation, while the more regular practice centres like *Anganwadis* and private preschools were

> Most of the Private Preschools in Assam provide opportunity for group and individual recitation which comes as a surprise as Private Preschools in Andhra Pradesh and Rajasthan do not provide such opportunities to children.

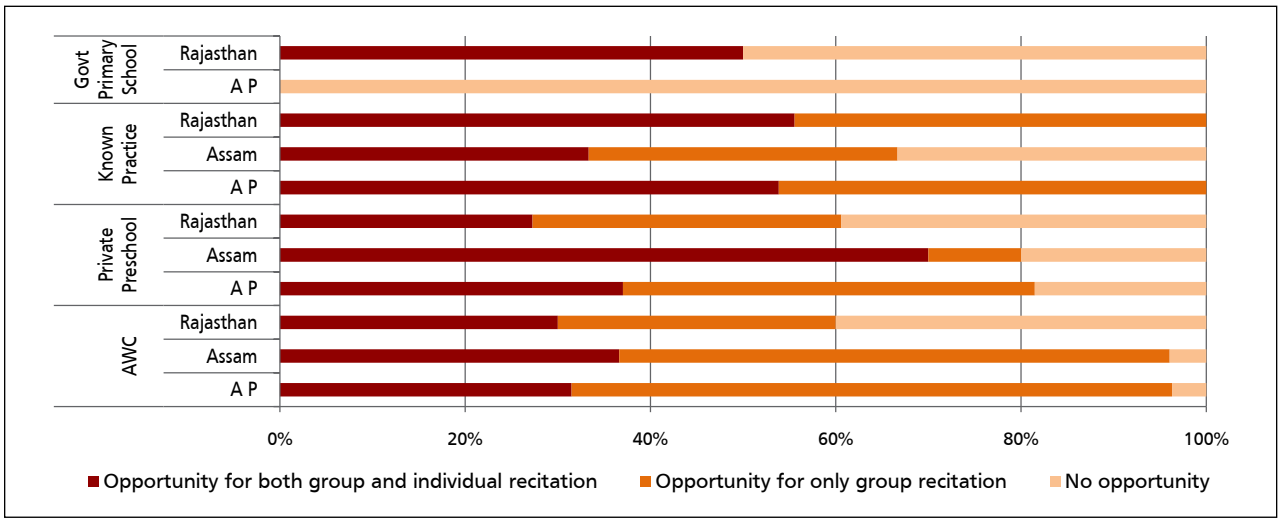


Figure 5.4.8: Percentage of centres across categories with opportunities for both group and individual recitation

observed to be maintaining this balance in less than 40 percent of the centres. Interestingly, the private preschools had an edge over the *Anganwadis* on this parameter. Similarly, in Rajasthan, it was the known-practice centres that demonstrated this balance in almost 55 percent of the centres, whereas the *Anganwadis* and private preschools were more or less at par with scores much below 40 percent.

5.4.4 Opportunity for Free Play

Free play or play of choice is a very important component of a preschool programme where the children get an opportunity to exercise their freedom of choice, make their own decisions and give vent to their imagination and creativity. It also enables children to understand how different people can have different interests and can make different choices. The organized free play involves setting up of activity corners with different kinds of play material, mostly open ended, and can include among others, picture books' corner, art and craft corner, doll's corner, blocks corner with manipulative material, etc. An effective ECE programme needs to have a good balance of free and guided play activities, so as to direct and guide children's learning, on the one hand, and allow space for the child's imagination and creativity, on the other. Free play is, thus, a crucial component of any developmentally appropriate early childhood education programme and adequate time needs to be provided for it in the day's schedule. However, mere allocation of time for free play is not sufficient since the teachers need to prepare the environment for the children in terms of laying out the materials. The teacher needs to allow children to choose and play with the materials but also be available to interact with them periodically to help them verbalize their experiences, and learn from them and also maintain some level of supervision.

The data obtained through class observations was analyzed from the perspective of whether free play was provided by the centres, and if provided, how much time was allotted for it in the daily schedule. The data was analyzed at the level of the states and then at the level of different categories of centres.

Children involved in free play in a Known Practice Centre in Rajasthan

Time Allotted for Free Play: While there is no standard benchmark for time allocation for free play in a daily schedule, in a good-practice ECE programme, as seen in some cases, about a third of the time is found to be desirable. A state-wise analysis of the data (Figure 5.4.9) shows that, overall, across states, a very small proportion of ECE centres give children adequate opportunity for free play, particularly as a supervised activity.

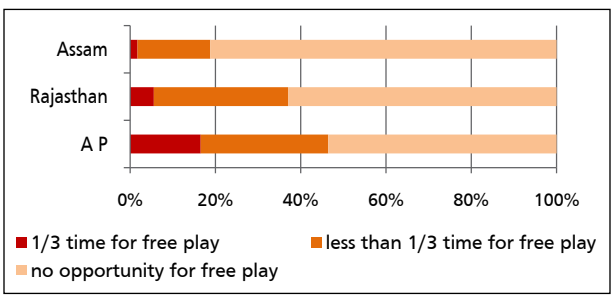


Figure 5.4.9: State-wise comparison between centres on time allocated for free play

Assam: In Assam, over 80 percent of the centres did not allot any time to the children for free play and only 3 percent of the centres devoted about a third of the total daily schedule to this activity. Centres in Rajasthan and Andhra Pradesh were comparably better than those in Assam, as in around 35 percent centres in Rajasthan and in 45 percent centres in Andhra Pradesh, children did

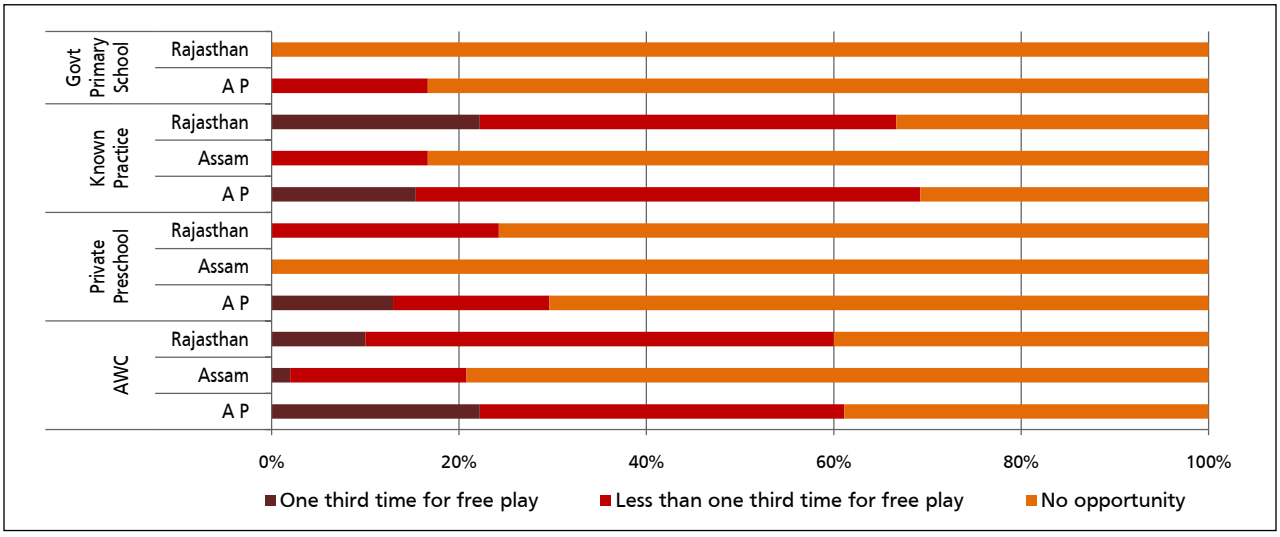


Figure 5.4.10: Percentage of centres across categories with adequate time for free play in a day's schedule

get time for free play. The proportion of time given for this activity however differed among the centres.

The disaggregated analysis of the data obtained from different types of ECE programmes across states shows that free play was given relatively more importance in known-practice centres and to some extent in *Anganwadis* (Figure 5.4.10). Private preschools either did not provide for any free play time, or allotted less time for the same, which was not sufficient. State-wise analysis presents a distinct picture.

Rajasthan: In relative terms, the known-practice centres demonstrated this practice in more centres as compared to other programmes; but these were also confined to just about 22 percent of their centres. In about 33 percent of the centres, there was no opportunity at all for planned free play with materials. As compared to the known practices, the *Anganwadis* demonstrated opportunity for adequate free play in just 10 percent of the centres with 40 percent not giving any opportunity at all to the children. In the private preschools, in 75 percent of the cases, there was no free play at all and in the others there were some but not adequate.

Andhra Pradesh: In Andhra Pradesh, the trend was observed to be more in favour of the *Anganwadis*, with 22 percent of the centres demonstrating adequate time for free play for children. At the other end, about 38 percent centres did not provide any free play time at all. Among the known-practice centres also, only about 15 percent centres provided free play time while over 30 percent did not display any such activity. Interestingly, 70 percent of the private preschools did not give any indication of organizing free play for children. Only about 13 percent of the preschools provided some evidence of it. In the government schools, of course, this was not to be expected.

Assam: Across the different categories of programmes, very little evidence of organized free play was seen. Only a few *Anganwdis* reflected some amount of this practice as an organized activity; while some amount of it was seen in the

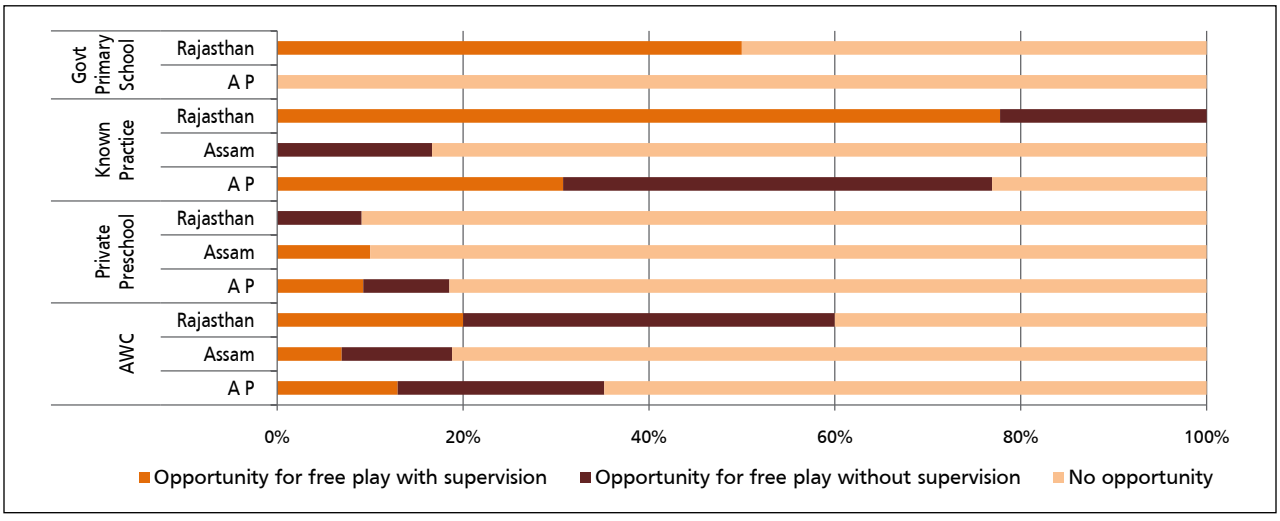


Figure 5.4.11: Percentage of centres across categories with opportunities for free play with supervision

known-practice centres, it was more sporadic and less planned.

Supervised Free Play: The activity of free play was also examined from the perspective of whether it was supervised by the teacher or some adult. The analysis of data for the three states and the different types of ECE centres shows that free play with supervision was observed significantly only in the Rajasthan known-practice sites (Figure 5.4.11). In almost 78 percent of the centres, the teacher was observed to be supervising the children and interacting with them, as they played. In known-practice centres in Andhra Pradesh the corresponding figure was only 32 percent.

In the more regular ECE programmes, the situation in *Anganwadi*s was observed to be slightly better than in the private preschools; but across states, the instance of unsupervised free play was higher than that of being supervised. Again, among the private preschools, although the overall number of centres organizing free play was very small across states, wherever it was organized, as in the case of Assam and Rajasthan, at least 50 percent of the time it was supervised.

5.4.5 Development of Creativity: Emerging Trends

Although creative activities serve an important domain of child development—that is promoting children's initiative, imagination and expression and freedom of choice—the analysis of the data obtained from one day's observation of the ECE centres show that not much attention is given to this domain in the regular ECE programmes in the sample. Altogether, in the more regular ECE programmes like the *Anganwadi*s and private preschools, free play time was not found to be adequate and, even if provided, teachers were not observed supervising the children. Craft and art activities were rarely observed in these centres, and whenever observed, only a few children were seen to be involved.

Mean scores for different categories of ECE centres was calculated keeping in mind all the indicators

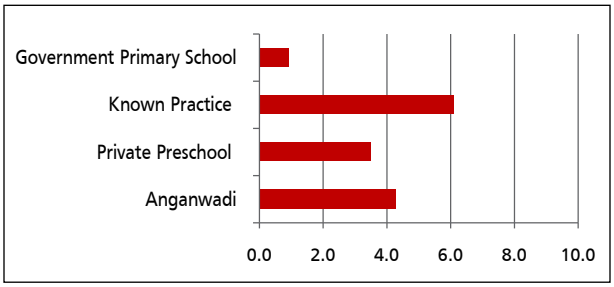


Figure 5.4.12 Mean scores of different types of ECE centres on creative activities

used to study the focus on creativity (Figure 5.4.12). The known-practice centres across states emerge as good practice again, with a mean score of 6.2 on a scale of 10, while the scores for *Anganwadis*, private preschools and government primary schools was 4.3, 3.5 and 0.9, respectively.

The known-practice centres, particularly in Rajasthan and AP, can therefore be considered to be providing a developmentally appropriate curriculum from this perspective, where children get some experiences that help them to develop creative thinking and freedom of choice and expression. The teachers in these centres allocate specific time for free play and in many of the cases, where learning material was readily available in the centre, children used the material of their choice and teachers guided them indirectly towards development of specific skills and concepts. The teachers also provide opportunities for development of creative expression by designing and conducting activities for art, craft, music, etc., and in most of the centres, teachers ensured the participation of all children.

5.5 Social Development

A very important objective of ECE is to provide children opportunities and experiences for their socialization and for formation of their personal health habits. Recent neuroscience research has confirmed that critical periods for development of certain specific competencies related to children's growth and learning are located in the first six years of life, during which the child's maturational receptivity for these specific competencies is at its peak. In addition to some cognitive and language competencies, these also include development of social skills for which the critical period is identified as 3 ½ to 6 ½ years (Figure 5.5.1).

Children with manipulative play material in a Known Practice Centre in Rajasthan

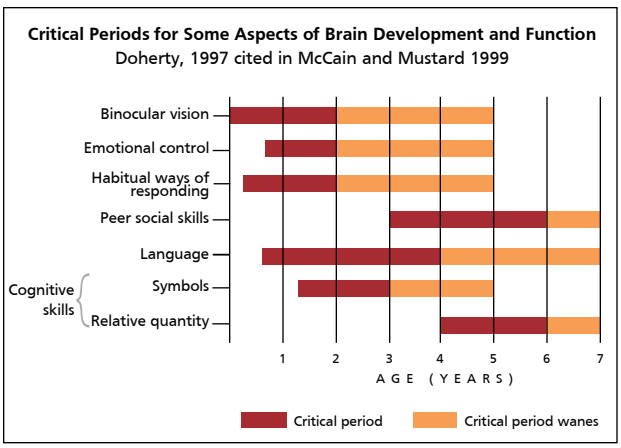


Figure 5.5.1: Critical periods for brain development

According to Child Development theory, the child around the age of three years begins to develop the ability to handle separation anxiety from the family or caregivers and progresses from a stage of solitary play and egocentrism towards more cooperative play and learning and a more socio-centric perspective. This is reflected in his/her ability to be able to attend a preschool away from the home for a short while and the desire to be with and play with other children. As indicated in Figure 5.5.1, within the critical stage of 3½ to 6½, a child is ready to learn the social skills of sharing, cooperating, waiting for one's turn, respecting others' rights and the social and cultural norms and values specific to the context in which the child is growing and developing. While to a significant extent this is taken care of at the level of the family, but with changing family structures and smaller nuclear families, the ECE programme is also expected to include this as a major objective of the curriculum. The study, therefore, included this domain in its classroom observations. The data was analyzed in terms of the following:

a) Comfort level of children with strangers
b) Greeting the teacher and others
c) Opportunities for interaction with others
d) Opportunities for cooperation and sharing
e) Opportunities to learn to wait for one's turn

5.5.1. Are Children Getting Adequate Opportunities to Develop their Social Skills?

An overall assessment on the indicators mentioned above in the socio-emotional domain does indicate Andhra Pradesh to be in the most favourable space, with a score of 6.5 on a scale of 10 (Figure 5.5.2). Assam has an edge over Rajasthan but

Children interacting during outdoor play in an *Anganwadi* Centre in Andhra Pradesh

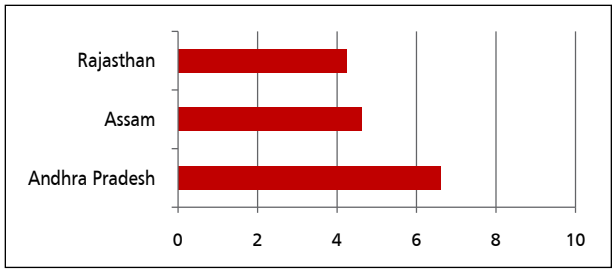


Figure 5.5.2: State-wise mean scores on a scale of 10 for curriculum focus on social domain

both are below the score of 5. Of course, it may again be reiterated that these findings cannot be generalized to the entire state since the sample is not representative of all variations in the states. This finding is however indicative and may be seen as a demonstration of different possible scenarios in ECE practice from which lessons can be drawn.

The centres observed in Andhra Pradesh provide children with better classroom environment for development of social skills among the children. It was observed that the teachers individually greet every child on arrival and departure, which is emulated by the children too as they also follow the same practice of wishing any adult entering their classroom. This was observed among all the different types of ECE centres studied. The teachers of ECE centres in Andhra Pradesh were also found to be sensitive to ensuring a democratic classroom environment, wherein the children are encouraged to speak in the class with their peers as well as with the teacher.

In Assam and Rajasthan, the classrooms were found to be more restrictive, where the interaction among the children and with the teacher was limited. The children were not allowed to talk in classroom and sometimes not even during the meal time. The teacher restricted her own interaction with children too to just giving instructions. The social skills of greeting were not demonstrated by teachers and, thus, not picked up by the children either. Rajasthan scored lower than Assam in this domain, possibly because the private preschools in Rajasthan dominated the sample and these were observed to have a very restrictive approach, where the children are made to sit in one place without doing anything other than rote learning.

For a more disaggregated understanding of this domain, the data on different categories was analyzed by states on each of the above indicators.

5.5.2 Comfort Level with Strangers

A play- and activity-based curriculum and a caring environment for ECE are expected to attract and engage children and develop in them a sense of trust in the world away from home, along with developing the required social, language and cognitive skills. The extent to which the current ECE programmes helped the children to develop a comfort level was examined in terms of assessment of children's response to presence of strangers in their class, which was recorded as part of the class observation.

The observations of the IECEI Study lends weight to the concept of establishing ECE centres in the premises of the primary schools, as opposed to standalone centres, provided the schools offer a child-friendly and play-based programme for ECE

Figure 5.5.3 depicts the trend emerging from each of the three states with regard to this component. Again, these trends are only indicative, since the sample is not representative of the state. Overall, a favourable finding is that less than 20 percent of the children were observed to be actually crying in response to presence of strangers, indicating that about 80 percent children across the three states gave an indication of being secure. At an even more positive end of the spectrum, in Andhra Pradesh, over 50 percent children were found to be confident and responding comfortably in front of the researchers, which is a favourable finding. The proportion of children who displayed shyness in front of the strangers was highest in Assam, whereas proportion of centres where children cried in presence of the researcher was highest in Rajasthan.

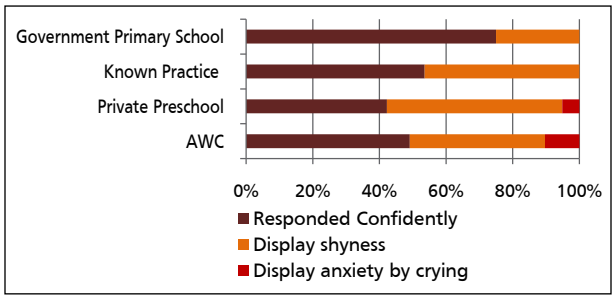


Figure 5.5.3: State-wise comparison between centres on child's response to stranger

When the data is disaggregated according to the types of centres across states (Figure 5.5.3), an interesting observation that surfaces is that there was no incidence of children crying in front of strangers in the "known practice" category, across the three states. Possibly, this reflects the impact of an activity-based programme, which helps children come out of their shells and participate and this makes them feel more secure and confident. Another interesting highlight is that the maximum number of centres with confident children was found in Andhra Pradesh in the category of primary schools, which they attend as underage children. It is possible that since these children accompany older brothers and sisters, they may be feeling more secure and confident in that setting. Another observation in support of this hypothesis is that among the known practices, the *Ka-shrenis* in Assam demonstrated more confident children as compared to other categories of centres, and *Ka-shrenis* are located as adjuncts to primary

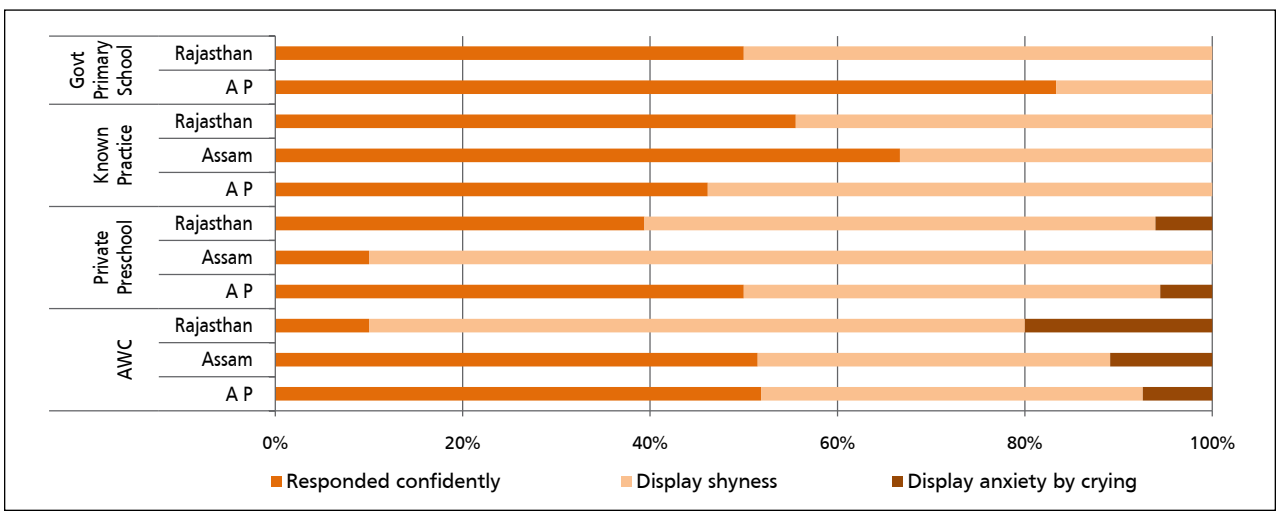


Figure 5.5.4: Percentage of centres where children responded confidently to strangers

schools. This may also be reflective of the same factors operating. These observations also lend weight to the concept of establishing ECE centres in the premises of the primary schools, as opposed to standalone centres, provided the schools offer a child-friendly and play-based programme for ECE. In such situations, the argument may not hold good that ECE centres located in primary schools tend to be very intimidating for younger children because of the presence of older children. On the contrary, the presence of their older siblings may be reassuring for them. However, this hypothesis may need further validation.

In terms of state-wise differences, the *Anganwadi*s in Rajasthan were found to be low on the socio-emotional quotient, in that, they had the maximum number of centres reporting children crying on seeing a stranger, and also the least number of centres with confident children. This behaviour can be attributed to the fact that a number of younger children—that is, 2–3 years olds—were seen participating in *Anganwadi*s in Rajasthan, as the older preschool age group of 3 to 6 years were found, in most cases, attending private preschools. In Assam, the private preschools had highest incidence of shy children, while *Anganwadi*s demonstrated a mix of both. In AP, both private preschools and *Anganwadi*s seemed to reflect similar trends (Figure 5.5.4).

5.5.3 Greeting the Teacher and Others

The habit of greeting others is one aspect of socialization that was observed as a part of the schedule of observation for the study. This habit is expected to be learnt by children by observing and imbibing the teacher's behaviour and is therefore emphasized as a good practice in any effective ECE training for the teachers. The observations, therefore, focused on both the teacher's greeting as well as that by children.

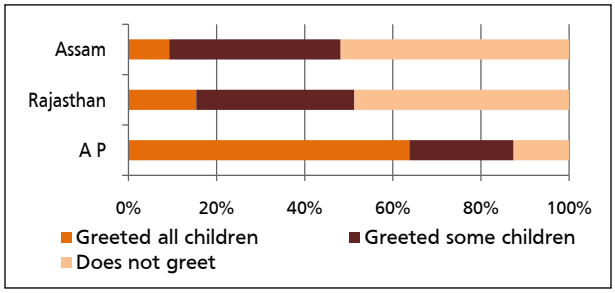


Figure 5.5.5: State-wise comparison of ECE centres on teacher greeting the children

The state-wise disaggregated data shows significant differences across the states (Figure 5.5.5). In AP, almost 90 percent teachers of ECE centres were observed to be greeting children at the time of both arrival and departure, with over 60 percent of them greeting every child individually. On the other hand, in Rajasthan and Assam, only in around 50 percent of the centres were teachers observed greeting the children; of these too, only 10 to 15 percent teachers were found greeting all children at the time of arrival and departure.

As expected, the response of children was also observed to be on similar lines as for teachers (Figure 5.5.6). The Andhra Pradesh practice in this regard was very different from the other two states. It was observed that in Andhra Pradesh,

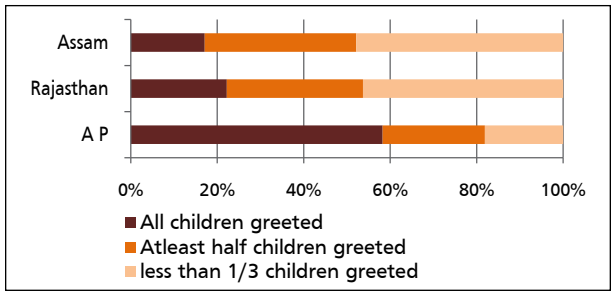


Figure 5.5.6: State-wise comparison of ECE centres on greeting by the children

Anganwadi Worker during action songs with children in Andhra Pradesh

in about 58 percent centres, all children greeted the teacher—both at the time of arrival and departure—and, in another 24 percent centres, at least half the number present demonstrated this response. In Assam and Rajasthan, the trend was more or less similar with only 10 to 15 percent centres observed where all children were greeting the teacher. In almost 50 percent of the centres, this practice was not observed at all. But an interesting observation was that when both the data sets of teachers and children were examined together, in Andhra Pradesh, the practice of children greeting was observed in fewer centres as compared to number of centres in which the teachers were greeting children, whereas an opposite trend could be observed in the case of centres in Assam and Rajasthan. In other words, in these states, the children were often observed greeting the teachers, even though the teachers were not observed to be greeting them! This may be due to the influence of the home culture or practices.

When data was disaggregated and analyzed according to types of centres, it indicated a consistency in Andhra Pradesh where across the four types of centres covered, *Anganwadi*, private preschool, known-practice centres and primary schools, majority of centres had children greeting the teacher and vice versa. This perhaps reflects the high priority given to this social practice of greeting others in the cultural tradition of the state. In Rajasthan, an intriguing observation is that even the "known practice", which otherwise stands out on other parameters as a "good practice" does not

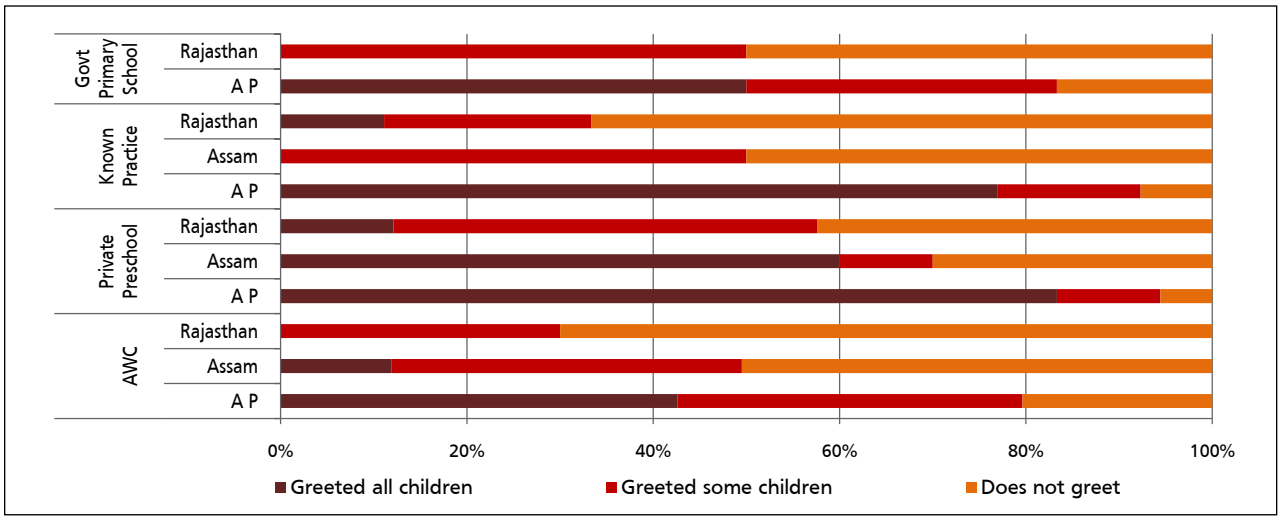


Figure 5.5.7: Percentage of centres where teacher greeted the children on arrival and departure

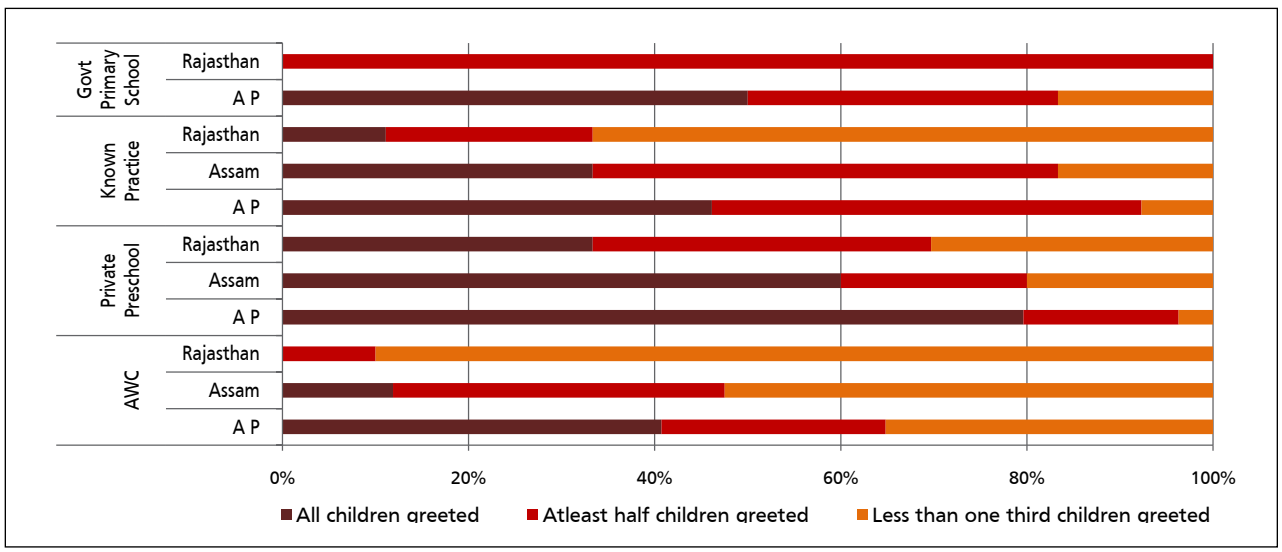


Figure 5.5.8: Percentage of centres where children greeted the teacher on arrival and departure

place any importance on this practice of greeting others, particularly greeting the teacher and vice versa. This is reflected also in the *Anganwadis*; however, in the private preschools, the trend changes with almost 58 to 70 percent centres demonstrating greeting by teacher and by children. In Assam, the trend is somewhat better with 50 percent *Anganwadis*, and known-practice centres demonstrating this practice. Interestingly, the private sector stands out on this parameter in this state too with about 70 percent centres demonstrating this practice, of which 60 percent cases all children were found greeting the teacher and vice versa (Figures 5.5.7 and 5.5.8). This higher priority to greetings in private preschools is evident across the three states and is perhaps related to the so called English medium that they profess to follow wherein "good morning

teacher" and "good morning children" is also seen as an indicator of "speaking" in English! In many cases, it was observed that children stood up and greeted the researchers as well, sometimes even when the classes were going on! In primary schools, too, which is again a formal set up like the private preschools, children were found greeting the teacher across both Assam and Rajasthan.

5.5.4 Opportunities for Learning to Cooperate and Share

As the child progresses from infancy stage into the preschool stage, around the age of 3 to 4 years, the child starts looking for the company of other children and begins to get his/her first lessons, as it were, in learning to live and play with others. This is a critical period of socialization (Figure 5.5.1) when the child is moving into a socio-centric sphere. For the child to successfully adjust to this wider universe, the child needs to learn to co-operate and share with others, and respect others' rights and possessions. This kind of socialization earlier occurred within the family situation with larger families and plenty of interaction opportunities. However, with the changing family structures, these opportunities are getting fewer in the home contexts and it has become necessary

Children with manipulative play material in an *Anganwadi* Centre in Andhra Pradesh

for the preschools or ECE centres to take on this responsibility of providing a scaffolding environment in lieu of or, in many cases, to complement, the home. The teacher in preschools is expected to design activities and interactions for children in ways that ensure they get the opportunity to learn to cooperate and share with others and are encouraged to do so.

This domain was examined in terms of opportunities observed as reflected in the data from the three states. The results indicate that a higher percentage of teachers in Andhra Pradesh appeared to be more aware of the importance of inculcating in children habits of sharing and cooperation as compared to other states, since they were observed to be organizing activities with the specific aim of making the children learn these social skills. As indicated in Figure 5.5.9, in Andhra Pradesh, about one fourth of the teachers planned and organized specific activities with materials and in small groups to ensure that children get opportunity to share, whereas this proportion was much lower in Rajasthan and

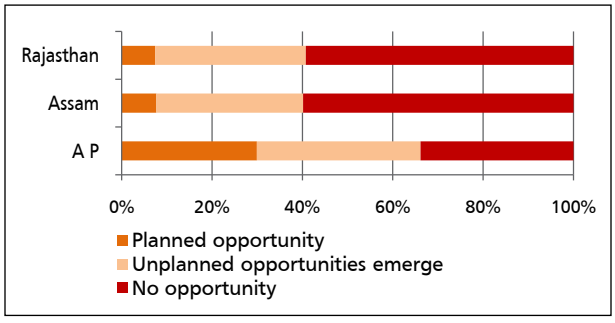


Figure 5.5.9: State-wise comparison of ECE centres on activities on learning sharing and cooperation

Assam where the corresponding figures were less than 10 percent. However, unplanned opportunities for learning to share also emerged during the course of the day's programmes in around 30–35 percent of the centres across the states. The concern is that in 60 percent of the centres in Assam and Rajasthan, and 25 percent of centres in Andhra Pradesh, children did not get any opportunity for learning this pro-social behaviour.

The analysis of disaggregated data across categories of ECE centres highlights an interesting picture. The known-practice centres in Rajasthan

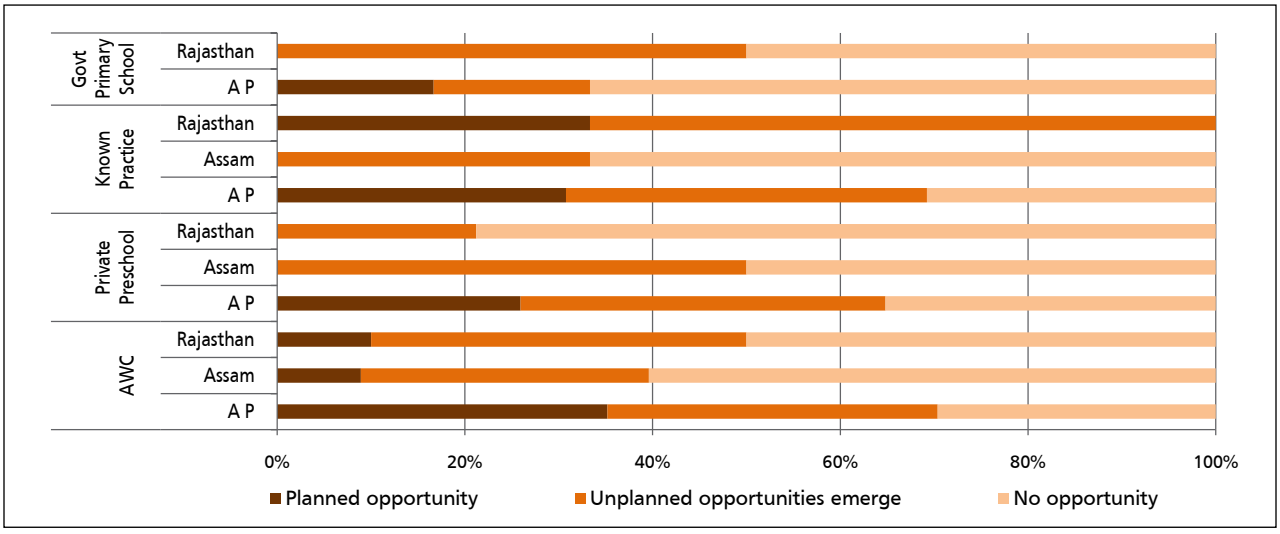


Figure 5.5.10: Percentage of centres where activities for learning sharing and cooperation are organized

stand above others as the only category where all centres demonstrated either planned or unplanned opportunities for children to learn sharing and cooperation, either through sharing of materials and/or through cooperative learning activities in small groups (Figure 5.5.10). However, in the regular programmes in the state, there was not much evidence of this planning or provision. On the other hand, in Andhra Pradesh, irrespective of the category of programme, much higher incidence was observed of this good practice across centres. In fact, it is only in Andhra Pradesh that there is evidence even in private schools of this practice, unlike in the other two states. In Assam, planned opportunities were observed only in about 8 percent of the *Anganwadi*s and none in the other programmes. However, unplanned opportunities were found to be emerging across states and categories where the children were expected to share and cooperate with each other.

5.5.5 Interactive Classroom Environment

A key factor influencing the development of social skills in children is the extent of opportunity the child gets to interact with other children and with adults in the environment. A child-friendly environment not only allows but also encourages peer interaction and free expression of children's thoughts and ideas through group activities for cooperative learning and for play. Free-play activities, like doll's corner or imaginative play, provide a very important mode of socialization as through their play, children begin to internalize social roles in the environment around them and also use this play to channelize their emotions. The day-long classroom observation assessed ECE centres on this parameter as well. It focused on the extent to which the teacher creates an environment in the class for self-expression and peer

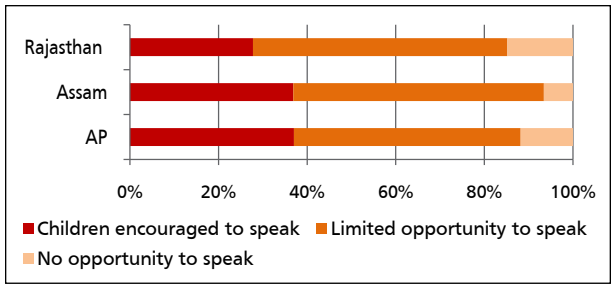


Figure 5.5.11: State-wise comparison of ECE centres on interactive classrooms

dialogue, the opportunity that is provided to interact with other children during meal time, and the teacher's own willingness to engage children in conversation.

Peer interaction: The analysis of aggregated scores of different types of centres across different states shows that status of ECE centres tends to be more child friendly in Assam and Andhra Pradesh, wherein almost in half of the ECE centres studied the children were observed to be encouraged to talk freely among each other; whereas in Rajasthan, children were given the freedom to talk in only 30 percent of the centres. It may be noted that the Rajasthan centres have a large component of private preschools, which may tend to skew the distribution (Figure 5.5.11). Overall, it is heartening to observe that in almost 80 percent of the centres across states, children were at least allowed to talk, even if they are not encouraged in a planned manner, indicating some degree of child friendliness in the environment. The concern is that even though it is relatively a small number,

Though in a relatively small number, it is a matter of concern that children were not allowed to talk at all especially in the Private Preschools

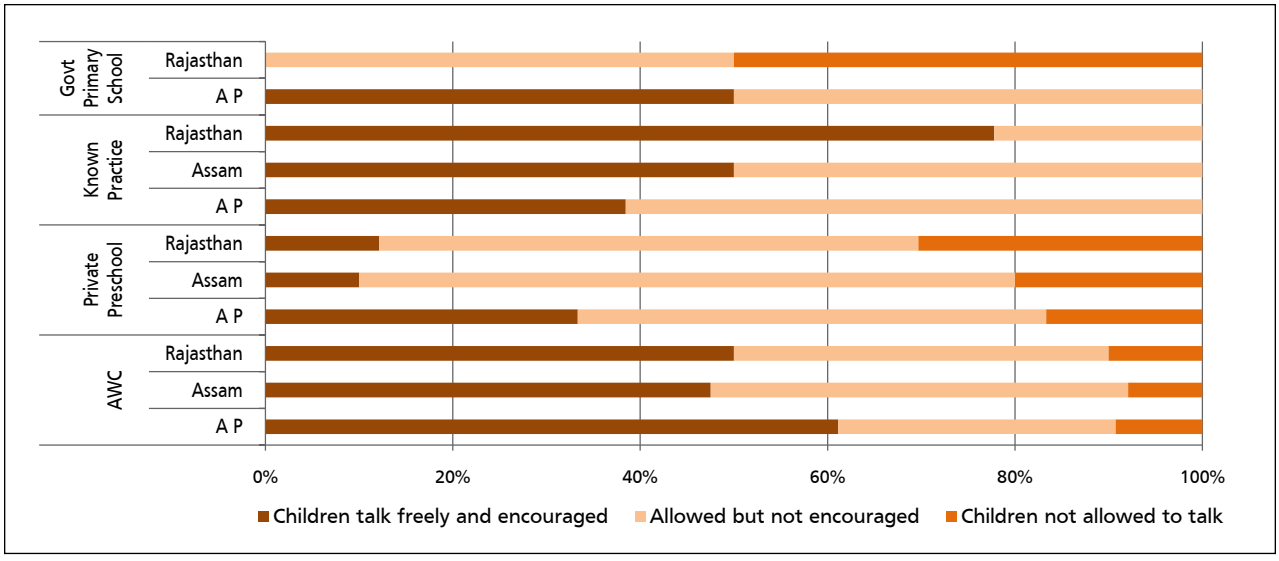


Figure 5.5.12: Percentage of centres across categories with interactive classrooms

in over 20 percent of the centres in Rajasthan and in 10 and 12 percent centres in Assam and AP, respectively, children were not allowed to talk at all.

The disaggregated analysis of category of ECE centres by states presents a more detailed picture (Figure 5.5.12). The most outstanding observation pertains again to the known-practice centres in Rajasthan, that is, the *Bodh Shalas.* These, stand out above the others with about 78 percent of their centres providing a very interactive and enabling environment to children to talk and express themselves. The next in line were the Andhra Pradesh *Anganwadis*, in which again almost 68 percent centres allowed interaction. As a whole, the category of known-practice centres across the three states was higher on this parameter and so were the *Anganwadis* across states. The problem of a restrictive and authoritarian environment was observed more with the private preschools and the primary schools, which tend to be more formal in terms of their teaching methodology. At least in Andhra Pradesh, the private preschools were providing an interactive environment in about 32 percent centres, but in Assam and Rajasthan, the corresponding numbers for private preschools are only about 10 to 12 percent, which is an indicator of developmentally inappropriate practice. The Government primary schools which some underage children attend, presented a mixed picture in Andhra Pradesh and Rajasthan. While in Rajasthan they tended to be more restrictive and authoritarian, in Andhra Pradesh, there was no incidence reported of children not being allowed to talk. Instead, all schools were observed to be allowing children to converse and interact, with 50 percent also encouraging and promoting interaction.

5.5.6 Ensuring Teacher-Child Interaction

The nature of teacher-student interaction allowed and encouraged in the class also plays a significant role in the child's social development, and influences not only the child's skills of communicating with adults but also influences the quality of a child's learning in school. This was observed in terms of

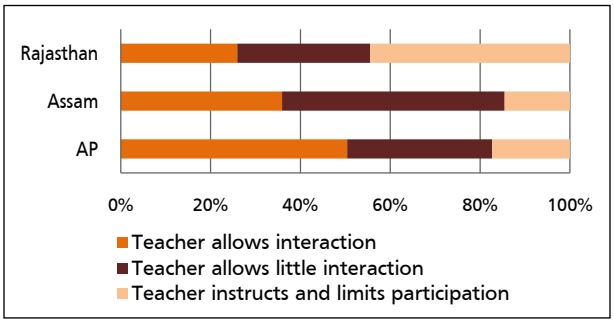


Figure 5.5.13: State-wise comparison of ECE centres on teacher-child interaction

the extent to which the teacher engages children in conversation or discussion in the classroom.

Again, in a consistent mode, Andhra Pradesh reflects the highest percent of centres in which teachers were observed to be engaging with children in conversation beyond mere instruction, as compared to other states (Figure 5.5.13). However, within the state, while 50 percent centres demonstrated this practice, of the remaining 50 percent, almost 20 percent limited interaction to mere instruction of a direct nature such as questions-answers or repetition of alphabets and numbers and did not allow any opportunity beyond that. In Assam, the situation was somewhat similar, but in Rajasthan, the ratio was found to be more disturbing with almost 45 percent centres restricting communication and only 25 percent actually demonstrating an interactive environment. Again, this is perhaps due to the large number of private preschools in the Rajasthan sample.

Anganwadi worker with children during free play in Andhra Pradesh

Interestingly, this gets confirmed from the dis-aggregated analysis (Figure 5.5.14), which shows in relative terms the best and the worst profiles from Rajasthan itself. While the known-practice centres in Rajasthan again demonstrate that in almost 78 percent of their centres, teachers were observed to be allowing children to interact and were engaging them in conversation, the private preschools in the same state were at the other end of the spectrum with less than 5 percent demonstrating this good practice. Instead, among the private preschools, over 60 percent centres were limiting interaction only to instruction. In the primary schools, interestingly, there was a mixed picture with 50 percent allowing interaction while 50 percent were permitting limited inter-action, but there was no incidence of restricting children from talking. The *Anganwadi*s also reflected a mixed picture with 50 percent allowing teacher-child interaction and at the other end, 20 percent limiting it to only instruction. Overall, AP depicts a better profile across categories on this parameter, as compared to other states, with a larger percent of centres in which teacher engages children in conversation. Assam is very consistent across the three categories of programmes, with a majority of centres allowing limited interaction.

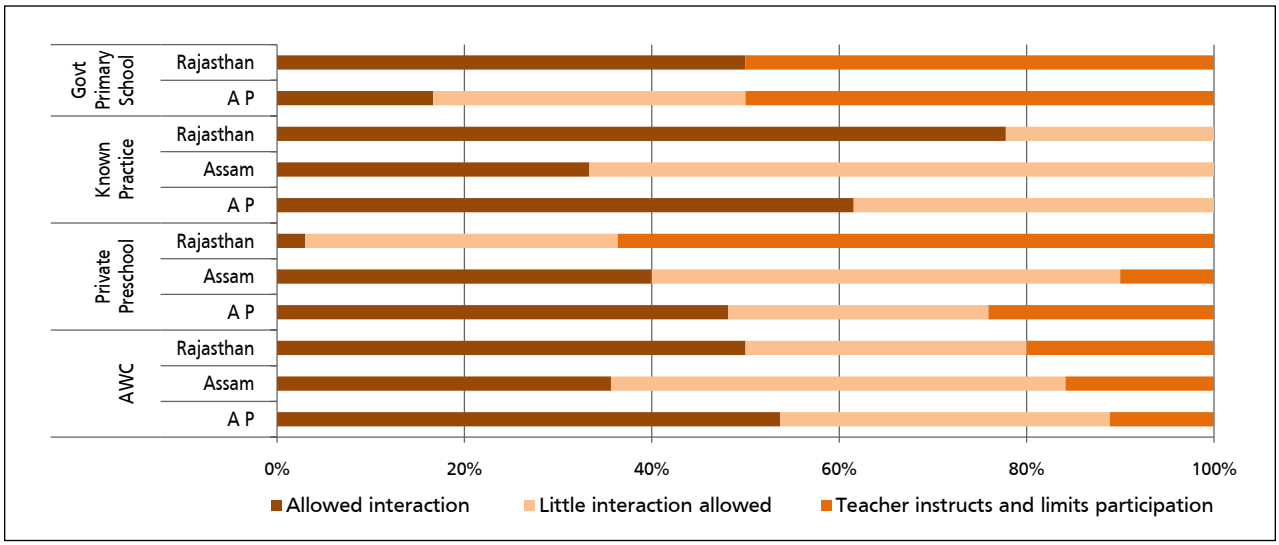


Figure 5.5.14: Percentage of centres with good teacher-child interaction

The emerging profiles, perhaps, reflect the difference between types of centres in terms of their curriculum, which is either syllabus driven and formal in nature or more activity-based and child centred. In the former category, teachers may tend to be more interested in completing the syllabus using a more teacher-centred methodology and perceive the participatory methods and interaction with children to be a waste of time; on the other hand, the latter category may see this as a developmental objective in itself.

5.5.7 Interaction During Meal/Snack Time

Meal time can be utilized by the teacher for developing social skills such as sharing and interaction among children and with the teacher, even in the context of different food habits, health

and hygiene, etc. While the nature of interaction as observed was recorded by the researchers as part of the study, this data was not available in the case of private preschools and "known practice" centres in Rajasthan, since children were not provided meals in the centres and went home during lunch break. Given this scenario, the Rajasthan data is not being considered in this analysis for private preschools.

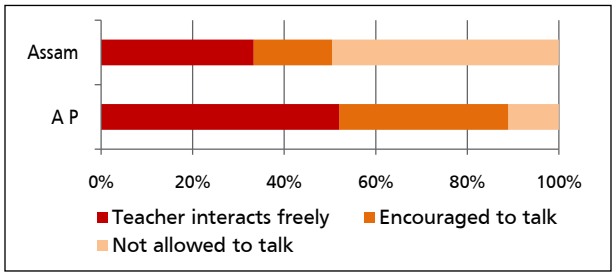


Figure 5.5.15: State-wise comparison of ECE centres on interaction during meal time

As depicted in Figures 5.5.15 and 5.5.16, Andhra Pradesh again presents a more child-friendly profile with over 80 percent centres demonstrating an interactive environment during meal time, with only about 12 percent centres not allowing any conversation. These were observed to be in most cases the private preschools. In Assam, the environment is not as enabling, with only about 50 percent centres coming across as interactive and the remaining being fairly restrictive.

The category-wise analysis shows that the *Anganwadi* workers across states were observed to be using the meal time to interact with the children while they were served and were eating, although there were some state differences. The private preschools were also observed to provide a similar environment in cases where the children did not go back home during the meal break.

5.5.8 Development of Social Skills: Emerging Trends

A comparison of different categories of centres across states indicates that with regard to the social development domain, as per the above indicators, the known-practice centres demonstrate the most conducive environment for

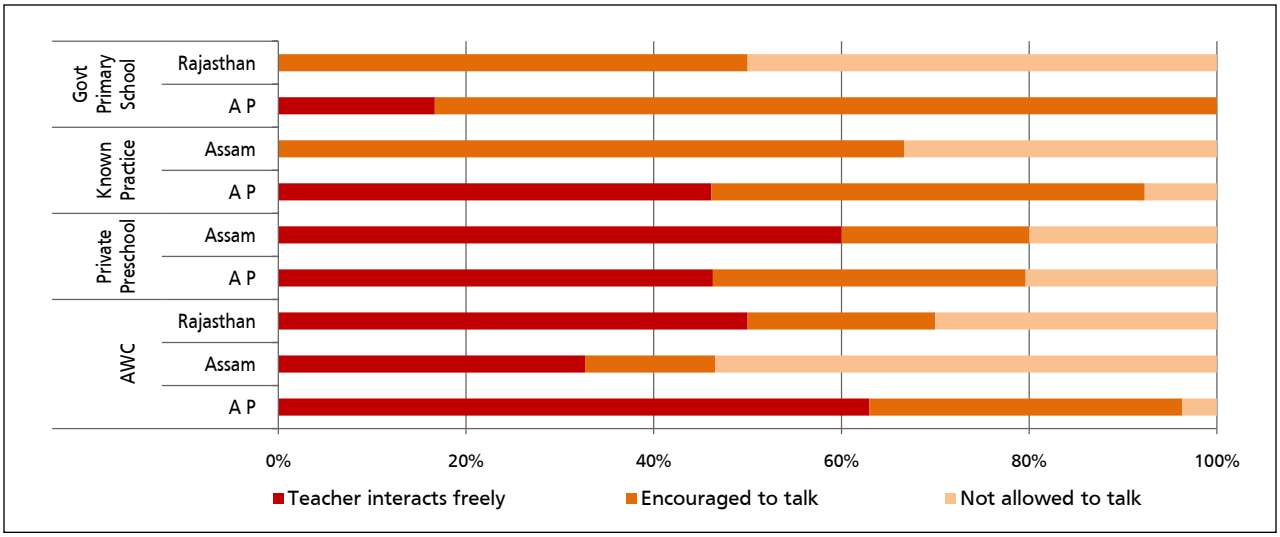


Figure 5.5.16: Percentage of centres where teacher and children interact during meal time

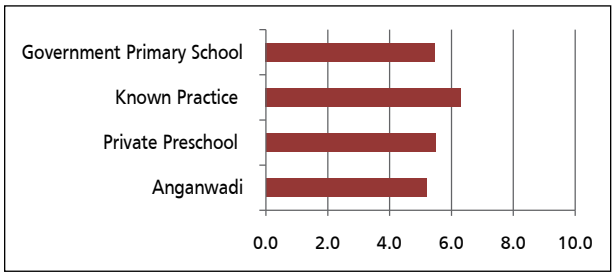


Figure 5.5.17: Mean scores of different types of ECE centres on activities for social development

children in terms of activities and experiences that promote learning of social skills. The score of known-practice centres on the scale of social development opportunities was 6.3 on a scale of 10, whereas the private preschools and government primary schools each attained a score of 5.5 and the *Anganwadi*s scored a total of 5.2 out of 10 (Figure 5.5.17).

The known-practice centres across states were observed to be focusing attention on providing an interactive and comfortable environment to the children, which was reflected in the children's confident responses even to strangers (researchers). The children were observed to be placed in a democratic classroom environment where they were encouraged to interact both with their peers as well as with the teacher; the teacher was seen interacting with the children and not restricting the communication merely to instructions. The teachers in these known-practice centres also organized specific activities designed to ensure learning of sharing and cooperation among the children. Yet, these centres also lacked in some aspects, particularly in Rajasthan—for example, the teacher was not seen greeting the children on arrival and departure and vice versa,

Teacher involved in role play activity in a Known Practice Centre in Andhra Pradesh

which was very much the pattern in AP and to an extent in Assam. The known-practice centres in Rajasthan had the meal time section at the end of the programme, so that the children went back home for lunch, and were therefore missing out on this mealtime opportunity to interact with the teacher and peers.

The private preschools and government primary schools had a more formal classroom set up, where the children were well acquainted with greeting the teacher or any adult who entered the classroom, to the extent of it being done almost mechanically. These ECE classrooms provided children few opportunities for interaction, being more limited to the teachers' instructions. In these centres, no organized or planned activities were observed for developing sharing and cooperation skills in children.

The *Anganwadis* presented a mixed package. They were not observed to be focusing on formal greeting of children by the teacher and vice versa. There was also no planned effort at encouraging interaction or promoting skills of cooperation and sharing; however, there was no restriction either. As a result, children, left to themselves, found their own opportunities to interact and learn.

The known-practice centres across states were observed to be focusing attention on providing an interactive and comfortable environment to the children. This was reflected in the children's confident responses even to strangers (researchers)

Scenario of private schools in Rajasthan

The private schools in Rajasthan did not follow any particular curriculum below class 1. This is particularly because the schools are recognized from class 1 to 8th or 10th and there is no provision for classes below class 1 to be recognized by the State Education Board. The schools had no idea about what is to be taught in the pre-schools and vaguely assumed that children need to spend 2–3 years in school before they enter class 1. So for them, the pre-primary classes were a downward extension of the primary classes. Most of the schools did not have proper facilities that need to be provided to pre-school children. Many of the children in the pre-classes (in most schools in rural settings) are those who come with their elder siblings and are introduced to the pre-classes free of cost. For outdoor play, children are brought out together and made to play, though at times the activities are not appropriate for the pre-school group. Also for class 1 there were no particular curriculum and the children were taught in continuation, rather similar, to what they were taught in their pre-

school classes. Children were taught number concepts, wherein instead of concept formation, more emphasis was placed on rote memorization of the number and solving problems/ exercises relating to number. Children could many a times identify the numbers but could not count them and vice versa, depending on what they were being taught in the school. Similar was the case with Hindi and English. In both the languages, the schools strictly followed the system in which a child should always identify the beginning sound of a word with what is being taught at school and not use their own imagination, for example, if a school teaches a child to say "B" for "Ball", the child cannot say "Boy". The culture of rote memorization is engraved in them since their early childhood years by the schools, rather than focusing on creative use of the language.

The principals, most of the time, had no idea as to what is to be taught in a pre-class. All the pre-schools had the general notion that school is focused on making the children of Nursery (first year of pre-school) sit at school, away from home so that they get used to being away from home. At times, they are taught some alphabets and numbers (only on very rare occasions were play cards used to teach children and, generally, the black board was used). For LKG and UKG, they mostly emphasized on the formal learning of the children, especially in the subjects of Hindi, English and Mathematics. The focus was on teaching the alphabets of Hindi and English, and on how to make words in both these languages and numbers of mathematics including simple addition, subtraction and multiplication, which is taken up more extensively when the children are in class 1. Extra effort was given by the teachers to make the children memorize the multiplication tables. Both teachers and principals of various

schools emphasized on rote learning, which they believed was the easiest way to teach children and lacked any knowledge pertaining to what is developmentally appropriate for the child. If a child can get hold of the activities that are expected of them in these two years of LKG and UKG, in LKG itself, the child is promoted to class 1, until and unless the school has a strict policy of promoting the children on the basis of enrolment.

To summarize, it can be said that the curriculum for the pre-classes and class 1 is almost similar; it is just that the concepts are taught more extensively and rigorously in Class 1.

6 The ECE Teacher

THE SUCCESS OF ANY EDUCATIONAL PROGRAMME rests on the presence of an effective teacher who is trained for that particular stage of education, for transacting the curriculum appropriate for that stage and is interested and motivated to reach out to her students. This principle becomes even more significant at the early childhood and primary stages of education when the child is still very young and tends to idolize the teacher, is very influenced by the teacher's disposition and considers her/him as a role model. The teacher is, thus, the key to the quality of any ECE programme and an important indicator.

To get a more comprehensive picture of the quality of the ECE programmes across the three states, information was also sought from the teachers through a dual mode. While the teachers were observed as a part of the classroom observation based on the ECEQAS, they were also interviewed on an individual basis to explore their own beliefs and understanding of why ECE is important, what should be taught in the ECE programme and what is expected from the children at entry to class 1. The descriptive data pertaining to teachers such as educational qualifications, teaching experience, teacher training and age were also collected and analyzed, to assess to what extent these influence the quality of the teacher's performance. This chapter concentrates on the characteristics of the ECE teacher across different types of ECE programmes and their association with the quality parameters. The discussion is organized in terms of the different emerging models of ECE—namely, the *Anganwadi*s, private preschools and known-practice centres—across the three states, rather than state-wise, as in the previous sections, since the profile of each model is to a considerable extent centred on the quality and disposition of the teacher.

6.1 Educational Qualification of the ECE Teachers

Profiling of the teachers from different categories of ECE programmes was done based on their educational qualifications. As represented in Figure 6.1, almost all the teachers across categories had completed secondary education with a very small number of teachers with schooling below secondary level. These were mainly *Anganwadi* teachers and some from the "known practice" category. As an exception, one teacher with primary

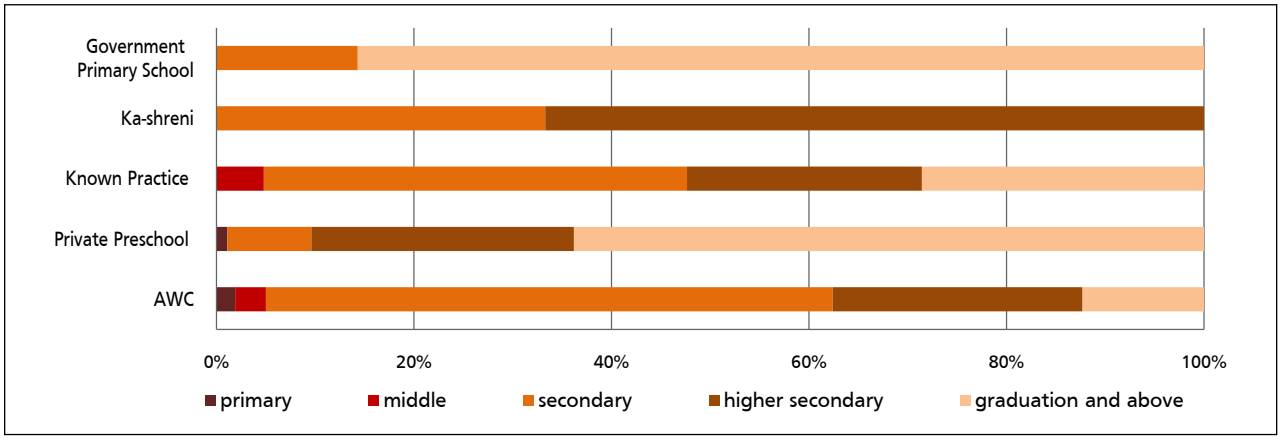


Figure 6.1.1: Category-wise profiling of educational qualification of ECE teachers

schooling was also observed teaching in a private preschool.

Anganwadis: Considering that the AWWs have traditionally been referred to as semi literate or less educated workers, and not addressed as teachers, it is heartening to see the rise in their academic qualifications. This is to the extent that now both extremes are represented in the AWW category, despite the fact that some AWWs from tribal belt were included in the sample. While, as mentioned above, about 5 percent AWWs were found to have studied only up to Grade 8 and below, at the other end of the spectrum, around 12 percent AWWs were graduates. The majority had done secondary schooling with about 26 percent having completed senior secondary. This really raises the overall profile and image of the *Anganwadi* workers and enhances the possibilities of the role they can play as teachers of young children.

Almost all the teachers across categories had completed secondary education with a few exceptions who had middle or primary education.

Known Practice centres: While these centres were planned with a view to align the model to the low cost *Anganwadi* model, in the interest of sustainability and replicability, the profile of their teachers was found to be better with 95 percent teachers having academic qualifications above secondary level. Of these about 22 percent were senior secondary and 28 percent were graduates and above. There were only 5 percent teachers who had passed Grade 8 and that was the lowest level indicated. The need for at least a certain acceptable minimum in terms of academic qualifications, for innovative practices to be understood and implemented, is emphasized. Among the known practices, *Ka-shreni* in Assam is not considered separately in this analysis, as there were no dedicated teachers for this category and only government primary school teachers were taking care of them.

Private preschools: In contrast to *Anganwadi*s, about 65 percent of the teachers in private preschools were found to be graduates, with some post graduates as well. About 28 percent had completed senior secondary education and only about 10 percent had qualifications lower than these. This could be because these teachers are

expected to teach all the grades from pre-primary to secondary and at times even higher secondary classes. It was observed in some cases, especially in Rajasthan, that all teachers in a school teach all the grades and some of them even take guest lectures in the government secondary schools in the village.

Government Primary schools: The proportion of teachers with graduation and post graduation qualifications was highest in case of the government primary schools, with almost 85 percent teachers having these qualifications. Again, as in the private schools, these teachers teach not only the younger children/ECE classes, but other higher classes as well, as and when need arises.

The educational level of teachers was analysed with reference to the quality score of the programmes they taught in, but no specific association could be established between the two. The mean programme transaction quality score (excluding the organization and managerial aspects infrastructure, material and class management) for teachers with primary schooling were 5.28 out of a maximum score of 10 whereas for teachers with graduate qualifications and above the mean score of the programme quality was 4.5. This shows that the educational level does not have any linear association with the way the teacher transacts the curriculum in the classroom.

6.2 Teacher Training

Access, frequency and quality of Teacher training are important indicators which are expected to influence teachers' preparation and performance. The teachers were categorized according to the kind of training experiences they had received. The different categories included Pre-service training (training courses like B.Ed, JBT, diplomas etc.), Induction training given on joining a programme, and regular in-service or job training by the programme management. Table 6.1 presents the percent of teachers who had received training under each of the training categories.

Known Practices: As evident in Table 6.1, the training component was found to be strongest in Known Practice programmes where all the teachers were reported to be trained. While 1/3 of the teachers were trained before joining the programme, almost 38 percent of them were trained during the time of their induction in the programme and 23 percent of them continue to have in-service training by the programme coordinators. A small proportion also had received both pre-service and in-service training.

Private preschools: In contrast to the known practices, it was observed that almost 70 percent

	Pre-service Training	During Induction	In-service training	Pre & In-service training	No training
Anganwadi	20.3	4.7	61.5	2.0	11.5
Private Preschool	18.3	2.2	8.6	2.2	68.8
Known-practice centres	33.3	38.1	23.8	4.8	0.0
Ka-shreni	0.0	0.0	33.3	0.0	66.7
Government Primary School	14.3	28.6	14.3	0.0	42.9

Table 6.2.1: Category-wise profiling of teachers according to kind of training

of the teachers in private sector did not receive any training for teaching children. It is important to note that, the private preschool teachers had the highest academic qualifications but they had a weak training component. Of those who did have training experience most had only pre-service training and only a few got training during induction or in-service training. The managements in the private sector evidently do not invest in training of their teachers as there is significant turnover among them. Teaching is perceived as a transitory occupation by most, till they get better opportunities.

Anganwadis: Most of the *Anganwadi* workers were observed to be trained since they had participated in their job training at the AWTCs. A few also reported having done some pre-service courses as well. They also received some short term in-service training which is normally given by either the supervisors or the AWTCs as refresher.

Government primary school: About 57 percent of the government school teachers reported being trained for teaching. They had either received training during induction, in-service or pre-service. In the *Ka-shreni* classes in the primary school, only one third of the teachers were trained. All of them reported receiving 'on the job' in-service training for *Ka-shreni* class, although there were no full time *Ka-shreni* teachers.

Anganwadi worker with children during outdoor play in Rajasthan

The data collected has its limitation as there is no information available about the duration and quality of training received by the teacher. When this limited information available on training of teachers was analysed and related to how she works with young children in the pre-primary grades, no association could be established, although some difference was visible qualitatively between the classrooms of a trained as compared to an untrained teacher. The mean score of the programme on the quality scale was 4.9 where the teacher had some kind of training as compared to 4.2 where teacher was not trained, on a scale of 10. While there was a positive trend in favour of training, due to the limited data available no clear cut associations could be established.

6.3 Teacher Disposition

Another indicator on quality of teachers which the study focused on was teacher disposition. Teacher disposition relates to the personality and attitude of the teacher towards children, her sensitivity towards children's needs and her motivation and interest levels with regard to her work. The assessment scale ECEQAS, has a full section on 'Teachers' disposition' which has a number of related items such as teacher's encouragement of self expression among children through activities connected to art and craft, encouragement of social interaction among children and sensitivity towards gender and children from socially disadvantaged communities.

The Teacher's Disposition domain in the ECEQAS was given a score of 10 (maximum) and when the scores across the different categories of ECE programmes were analysed, they indicated major differences between the categories. The average mean score for Known-practice centres was found to be the highest at 7.4 whereas for *Anganwadi*s and private preschools the mean scores were 6.4 and 5.2 respectively. Government primary school category scored the lowest with 4.8 in this domain, out of a maximum score of 10.

However, there were also state variations, as indicated in Figure 6.2. As evident, the scores of known practice centers in Rajasthan and Andhra Pradesh varied with the mean score for Rajasthan significantly higher at 8.5 whereas for Andhra Pradesh it was about 6.2. This was marginally higher than the mean scores of the *Anganwadi*s in Andhra Pradesh. Interestingly, in Assam no difference was observed between the scores of private preschools and *Anganwadi*s on Teacher Disposition, whereas in Andhra Pradesh and Rajasthan *Anganwadi*s had a slight edge over the private preschools. Variation between the scores of government primary schools of Andhra Pradesh and Rajasthan was also significant, in favour of Rajasthan.

A detailed study of these trends indicates that the *Anganwadi* workers across states, and more particularly in Rajasthan and Andhra Pradesh,

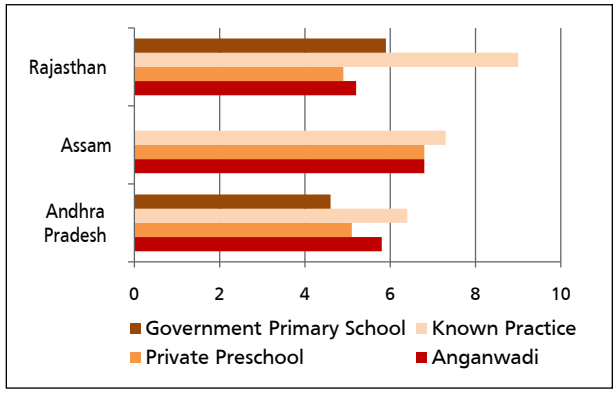


Figure 6.3.1: Mean scores of different types of ECE centres across three states on teacher disposition domain

scored lower because they rarely provide opportunity and encouragement to children for free expression in art and craft (Table 6.2). This can be attributed to lack of availability of infrastructure and material required for art and craft activities in these centres. On a positive note, almost 50 percent of the *Anganwadi* workers in Andhra Pradesh and Rajasthan were observed to be encouraging peer interaction during free play, which helps in promoting cooperative learning. Almost all *Anganwadi* workers in Assam were observed to be gender sensitive and showed no gender biases, whereas this could be said for only half of the *Anganwadi* workers in Andhra Pradesh and Rajasthan.

In private preschools children are rarely given any opportunity for craft and art activities and when provided for, the children are told exactly what should be drawn or made. Even the art and craft activities are thus converted into copying exercises where the children copy the figure from the board. There is no opportunity or encouragement for children to express themselves in any mode. In Rajasthan, significantly, no opportunity was observed being provided for free play to the children in the private preschools. The children were observed to be sitting in crowded classrooms for the whole day, without any interesting activity conducted for them. Teachers of private preschools of Assam were observed to be more gender sensitive as compared to the ones in Andhra Pradesh and Rajasthan, as was the case with *Anganwadi* workers.

Type of Centres / State	Indicators	Encouragement of social interaction during free play	Self expression in arts & craft activities encouraged	No bias displayed by teacher regarding children towards gender	Sensitivity and awareness from socially disadvantaged groups
AWC	Andhra Pradesh	53.7	9.3	46.3	100.0
	Assam	36.6	20.8	90.1	97.0
	Rajasthan	50.0	10.0	50.0	80.0
Private Preschool	Andhra Pradesh	42.6	7.4	37.0	98.1
	Assam	30.0	20.0	90.0	100.0
	Rajasthan	6.1	6.1	66.7	81.8
Known Practice	Andhra Pradesh	53.8	15.4	61.5	100.0
	Assam	77.8	66.7	100.0	100.0
	Rajasthan	33.3	16.7	100.0	100.0
Govt Primary School	Andhra Pradesh	33.3	0.0	33.3	100.0
	Rajasthan	0.0	0.0	100.0	50.0

Table 6.3.1: Percentage of centres with desired teacher's disposition scores on different indicators

With regards to teacher disposition it was observed that in most cases the *Anganwadi* Centres had a slight edge over the private preschools especially in terms of encouraging social interaction among children.

Known practices centres, particularly in Rajasthan, may be considered a good practice in this context too. However, even the Andhra Pradesh known-practice centres demonstrated relatively better scores than other categories in the state. The teachers in these innovative programmes were seen to be more encouraging of social interaction among the peers, particularly during the free play session, which is a part of the curriculum in these centres. However, this does not figure as an important activity in the Private preschools and *Anganwadi*s. The teachers in known-practice centres also provide opportunities and activities for art and craft activities with encouragement of children's self expression.

Government primary schools across Andhra Pradesh and Rajasthan did not provide any opportunity for art and craft activity or free play. These primary schools do not cater to the sampled age group and the sample children attend the primary grades along with their older siblings without being eligible for it. The scores of *Ka-shreni* teachers from the primary school and the *Anganwadi* workers in Assam were found comparable in this domain.

Teacher and children interacting in a Known Practice Centre in Rajasthan

It is important to note that in the ECE centres sampled under the project, children with special needs/impairments were very rarely found in the classrooms; therefore the teachers could not be rated on how they dealt with children with special needs. This parameter was therefore not included while deriving the score on teacher disposition.

An interesting finding emerged from the analysis that was undertaken to study the association between teacher disposition scores and educational level and training experiences of the teachers. When the disposition scores of teachers were associated with either their educational qualification or their training status separately no association was established. However, the interaction effects of training and educational level on teacher disposition emerged as significant. Table 6.3 shows the mean scores of teachers' disposition scores on a scale of 10 in association with their educational qualification and training experience.

A positive correlation between the educational level and teacher disposition scores can be observed in case of trained teachers. The analysis indicates that a certain basic educational qualification is imperative, even to take advantage of the training that may be provided. On the other hand, academic qualifications emerge as a

Education Level	Trained	Untrained
Primary	4.6	-
Middle	5.6	-
Secondary	6.26	6.04
Senior Secondary	6.67	5.07
Graduation and Above	6.27	5.4

Table 6.3.2: Mean teacher disposition scores according to education and training received by teachers

necessary but not sufficient condition for effective teachers and underscores the importance of training. The known-practice centres' scores indicate further value addition by making the training and resource support periodic and closer to the centres.

6.4 Teachers' Beliefs Regarding ECE

Another aspect that was explored in the study was the teachers' own beliefs regarding early childhood education and whether or not children as young as 3 ½ to 4 ½ year olds should be going to an educational centre.

Most of the teachers interviewed believed that children should attend early childhood education centres/classes before they go for formal school. Out of the 275 teachers who were interviewed only 3 teachers said that the children should not attend ECE centres, but did not give any particular reason for their response. All the other teachers across states and categories believed that attending ECE centres before going to primary school is very important for the children. The main reason for this response was that through this experience children will get prepared for formal schooling. This perception was consistent with the view of parents also. Teachers believed that children learn poems, rhymes, stories and songs in the early childhood education centres; they also learn socially desirable behaviours and learn to interact with other children as well as with adults. While these were the views expressed by most, there were some categories–wise differences too.

Teacher promoting rote learning in a Private Preschool in Rajasthan

Many *Anganwadi* workers believed that children should go to ECE centres primarily so that they can be cared for when their mother is otherwise busy. Some mentioned that attending ECE centres regularly would help the child handle separation from the mother and begin adjusting away from home. Interestingly, these views were unique to the *Anganwadi* teachers across states. The *Anganwadi* teachers appear to see the centre as a secure place for children's custodial care.

On the other hand, the private preschool teachers believed that ECE exposure would help children get used to formal education and some discipline. Their understanding was that children would learn reading, writing and numbers at this stage before going to formal school and this would help them cope with the syllabus of grade 1. Many of them also reported that ECE centre experience should help to discipline the child; the child would learn to follow rules and instructions from the teacher, as the private preschools' curriculum is largely focused on getting children to follow instructions! In the private schools visited the observation of

the research team was that almost no child goes to primary school without ECE experience as the schools do not admit the child to a grade on the basis of the age of the child. Instead, each child irrespective of age starts from the lowest class often called nursery or lower KG. Thus even if a 6 year old seeks admission without having had any ECE experience or is at a level where she/he does not know alphabets (regional language and English) numbers, tables, numeric operations like addition and subtraction, reading and writing he/she will be admitted to nursery or LKG and only after a year or two promoted to Grade 1.

The teachers from the "known practice ECE centres" had a very different view on why a child should get ECE exposure. According to them attending a good quality ECE programme would help children become interested in school. The children would be exposed to different activities in ECE centres which would promote their holistic development. Children would get exposure to activities requiring learning by doing and hands on experiences. A number of teachers also mentioned that ECE centres are a place for joyful learning for children which help children become "interested in school and in learning for life".

These different points of view about the significance of ECE broadly reflect the philosophy of the different categories of centres, while the *Anganwadi*s are seen more as places for food and custodial care for the child where they also learn some social and language skills. Private preschools are purely educational centres where one can clearly observe a downward extension of formal schooling. The known-practice centres, at least in Rajasthan and to an extent in Andhra Pradesh, are more developmentally appropriate, child-centred programmes that focus on holistic development

Children with an *Anganwadi* Worker in Assam

of the child and on joyful learning. However, the common denominator across all programmes is the belief shared by all that a child with ECE experience performs better in primary grades as compared to the child without any ECE experience.

Child with manipulative material in a Known Practice Centre in Rajasthan

Emerging Models of ECE Programmes

Anganwadi Centre

- Limited infrastructure and learning aids in classrooms
- More children in the younger age group &lesser number of 4-6 year olds
- Low participation, leading to a good teacher-pupil ratio
- No schedule is followed
- Formal teaching with some free play, songs-rhymes and better social interaction
- Under qualified community worker provided with on the job training

Private Preschool

- Better infrastructure, but very few learning aids
- Homogenous age group
- High teacher pupil ratio
- Fixed weekly schedule with supervision
- Formal teaching with rote memorisation and no age appropriate activities
- Under-qualified and untrained teachers

Innovative ECE

- Limited infrastructure, but appropriate learning materials
- Heterogeneous age group
- Preferable teacher-pupil ratio
- Flexible weekly and monthly curriculum plans
- Age and developmentally appropriate activities
- Under qualified teacher provided continuous training and supportive supervision

Daily Routine of Various Types of ECE Centres

ACTIVITY	*ANGANWADI*	PRIVATE	INNOVATIVE
Planned activities for all round development	Low	Low	Medium
Rhymes and songs	High	Medium	High
Conversation	Medium	Low	Medium
Formal Teaching	High	High	High
Routine Activity	High	High	High
Unplanned Play	Low	Low	Low
No Activity	High	Medium	Medium

OPPORTUNITIES	*ANGANWADI*	PRIVATE	INNOVATIVE
Learn to share	Low	Low	Low
Think and answer	Medium	Medium	Medium
Express curiosity & ask questions	Low	Low	Low
Learn to wait for turn	Medium	High	Medium
Play/work with other children	Low	Low	Medium
Rote Memory	High	High	Medium

7

Emerging Models and Good Practices in Early Childhood Education

AS WE TURN BACK TO LOOK AT THE LARGER picture that is emerging from the data, the known-practice centres, particularly in Rajasthan and to an extent in Andhra Pradesh as well, stand out as good practices on most parameters. The known-practice centres in Assam, that is the *Ka-shrenis,* could also have served as an effective model, particularly from the perspective of facilitating children's transition from preschool to school. However, these tend to lose out on quality primarily due to the absence of a dedicated teacher for the class. On the other hand, the regular provisions for ECE under the public and private managements, that is the *Anganwadis* and private preschools, with some exceptions, tend to be less child friendly and either more academic or more minimalist in their approach. Do they present completely distinct models of ECE or do they overlap on some parameters? What constitutes these models? Are there any emerging patterns of interdependence/association of variables that indicate that these are prerequisites for good practice and are therefore non-negotiable in terms of inputs?

To answer the above questions, a two-way analysis was undertaken.

a) An item-wise analysis for different domains of ECEQAS, done across the different kinds of programmes studied to identify commonalities and differences, and

b) Correlations computed between domains and between different items in each domain in the ECEQAS to determine significant associations, if any, which could reflect interdependence

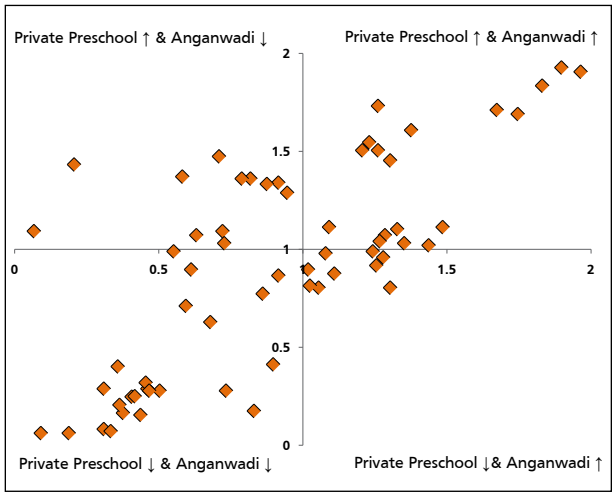
The analysis elicited some interesting patterns.

7.1 Comparing Different Models

7.1.1 *Anganwadi* Centres vs Private Preschools

*Anganwadi*s and private preschools are the "regular" ECE programmes running across the country. Majority of the children followed in the cohort were found attending these programmes. These centres are together categorized as "regular" as they are available in almost all villages/urban slums. The *Anganwadi* centres are running across

the country under the Integrated Child Development Services of the Ministry of Women and Child Development, which has preschool education for the 3 to 6 year olds as one of its six components. The study found that *Anganwadi* centres were universally available in all sites studied under the project. But the participation of children in *Anganwadi*s is showing a declining trend as more and more children are beginning to attend private preschools instead. Private preschools in this study are the low-budget primary/secondary schools running in the sampled villages and slums, which have a pre-primary section or class attached to them.



Graph 7.1.1: Mean scores for all indicators of ECEQAS for Private Preschools and *Anganwadis*

These private preschools are emerging as the preferred choice for ECE with most parents, who can afford. Parents are willing to pay a fee too, because they consider these to be better-quality institutions.

Our assessment of the quality of these community-preferred private ECE centres shows that they are not necessarily providing the recommended age and developmentally appropriate preschool curriculum to young children; instead, they come across typically as a downward extension of primary or formal education. On the other hand, the government-sponsored *Anganwadi* centres, which are available for every habitation with a 1,000 population and are providing free preschool education along with hot cooked meals, are not preferred by the parents since they are perceived to be of inferior quality, both by the community and the personnel themselves working in the area of education.

Interestingly, when the assessment scores on quality indicators for private preschools and the *Anganwadi*s were juxtaposed, the correlation co-efficient was found to be 0.72, which shows a significantly high association between the scores of the two types of ECE centres; one which is free and easily accessible and the other which demands money for its services and despite that remains the preferred service. In terms of aggregate scores, the two categories of centres seem to be providing more or less programmes of similar quality. However, in terms of specificities, they did appear to be different. We, therefore, decided to probe further into the similarities and differences between the two models in terms of more specific indicators, so as to have a fuller understanding of the kind of ECE available to majority of children from the lower socio-economic backgrounds.

Relative Strengths of the *Anganwadis*

While there may be state-wise differences even among the *Anganwadis,* as highlighted in the respective sections of the report, this analysis looks at the more typical *Anganwadi* model across states as reflected by the aggregate scores, in comparison to the private preschool model (Graph 7.1.1). The strengths identified are essentially in relative terms in comparison to the private preschools; these

should not be considered in absolute terms against any prescribed standard.

Better Classroom Space and Adult-Child Ratio:
The *Anganwadi* centres were, on an average, found to have a favourable adult-child ratio, with around 20–25 children to an *Anganwadi* worker. The worker also had the support of an *Anganwadi* helper. In comparison, in the private preschools, the classrooms had more children than space for them to sit comfortably. Sometimes, the number of students was more than 60 to 70 in a class, with no identifiable sitting arrangement possible. *Anganwadi* centres could, therefore, often follow a flexible seating arrangement in the classroom, which was difficult for the private preschools. In *Anganwadis,* children were often found sitting in circles or groups or doing some individual activity. In most private preschools, in comparison, children were restricted to a whole-class arrangement where opportunities for group work and peer learning were generally limited.

More Recitation of Rhymes and Poems and Some Free Play with Activity Kit:
Recitation of rhymes and songs by children was a commonly observed activity in the *Anganwadi* centres, often with actions and movement and occasionally with some music using a *dhapli* or a small drum. In comparison, in the private preschools, very little of recitation and singing was observed and children were seen involved in formal reading and writing and memorizing of tables through most of the day! Most *Anganwadi*s had a kit of play and learning materials supplied to them by the government; At least some children were often seen engaged with this kit in some free play, planned or unplanned. However, in most cases, these centres did not have any storage space for the materials. In the private preschools, on the other hand, storage space was often available but there were no play or learning aids and materials and very little evidence of any free play.

***More Opportunities for Social Interaction*:**
In the *Anganwadi*s, the teachers were found to be encouraging conversation and interaction among the children and with themselves; children seemed to be more comfortable with the teachers and looked freer to interact. Opportunities for interaction were available to children at free play time as also at meal time, which was provided by the *Anganwadi,* since all the children sat together along with the teacher or helper while eating. In the case of private preschools, such opportunities were hardly observed; children were not engaged in any free play and during meal time too, they were seen eating from their respective lunch boxes in the classrooms on their own or with friends. In some cases, they also went back home for lunch. Not only were there fewer opportunities to interact in private preschools, there was a conscious attitude on the part of the management and teachers to discourage conversation among children or even with the teacher, other than the essential. Thus, opportunities for children to develop their communication skills were extremely limited.

Children in *Anganwadi* Centres were often found sitting in circles or groups or doing some individual activity whereas in most private preschools children were restricted to a whole class arrangement where opportunities for group work and peer learning were generally limited

Relative Strengths of the Private Preschools

Better Infrastructure:

The private preschools were found to have better infrastructure with usable toilets, which were not often found in the *Anganwadis.* Toilets were not only available but also seen being used by children. The location of the private preschools was also more often in less hazardous areas with no heavy traffic, open well, pond, large animals, open sewers or dangerous electrical equipments, etc., which, in comparison, were more often found around the *Anganwadi*s. The preschools were also found to be located in cleaner surroundings with no stagnant water, garbage dump, and so on, as these were designed and built to run as schools. The classrooms or the office also had adequate space for the teacher to store his/her material, although the materials they had were more often limited only to attendance registers, stationery and books.

Teacher interacting with the students in a Government Primary school in Assam

Evidence of a Planned Timetable and Homogeneous Age-Wise Groupings:

The private preschools in most cases had homogenous age-wise groupings of children in the class, and the teachers were observed to be organizing the teaching or activities, keeping in mind the age of the children. In comparison, the *Anganwadi*s had children from 2 to 6 year olds, all together in most cases, and the activities being conducted were also not age specific. Although time-tables were seen in the case of both types of centres or preschools, in the case of *Anganwadi*s, they had been centrally prepared at state or district levels and supplied to them. These were in some cases displayed on the wall, but the routine was not necessarily followed. In the case of private preschools, generally a weekly schedule was observed being followed, with a subject-wise time-table. The time-tables were prepared by teachers themselves as per the school management's instructions; however, the downside was that the planned activities were in most cases related to teaching of formal reading and writing and numbers and the curriculum was not observed to be developmentally appropriate. Although age considerations were observed, with the older children being given more complex tasks, the activities for all groups irrespective of age were linked to learning of the 3R's. As a result, the schedules followed in most private preschools were not observed to be child friendly.

More Emphasis on Personal Grooming and Social Etiquette:

Personal grooming and social skills were observed to be given significant importance in the private preschools. The teachers regularly checked the children for personal grooming. The teachers also greeted the children on arrival and departure and this habit was imbibed by the children too, so they in turn greeted the teacher when she arrived and

left the classroom and, similarly, greeted others too when they met them. This emphasis was not observed in most cases in the *Anganwadi*s.

Areas of Concern in Both *Anganwadis* and Private Preschools

Lack of Developmentally Appropriate Curriculum:

The curriculum followed in most private preschools as well as in the *Anganwadi*s was, as mentioned above, focused either on teaching of the 3 R's or in most *Anganwadi*s, on some minimal songs and rhymes. In both cases, there was almost no emphasis on providing planned listening and speaking opportunities to children to develop their language skills, on development of eye-hand and fine motor coordination and activities for concept formation and development of cognitive skills. Instead of planning and conducting activities for development of reading, writing and number readiness, children in both programmes were exposed more often to formal teaching of reading, writing and number. The curriculum lacked focus on free play, both indoors and outdoors. Children also had limited planned opportunity for learning pro-social behaviour such as sharing and cooperation. With limited opportunities for art and craft activities, children's self-expression and creativity was also not observed to be getting addressed. Both models lacked outdoor space and equipment as well as adequate indoor play and learning materials as a result, children had almost no opportunity for outdoor or indoor free play.

Inadequate Attention to Activity-Specific Sitting Arrangement and Display for Children:

While children in *Anganwadi*s often had a flexible sitting arrangement and private preschool children sat in a whole-class arrangement, in both cases, children's seating arrangement was not adapted to the different activities organized by the teacher. Both models also generally lacked an updated and relevant display of interesting learning material for children in the classroom as well as display of material produced by the children themselves.

Unqualified and Untrained Teachers:

This was an issue in both *Anganwadi*s and private preschools. While the academic qualifications varied across a wide range in both cases, lack of appropriate training in ECE was a common limitation of both models. While *Anganwadi* workers have an induction course in which preschool education is included, but allotted only four days in all, for private preschools, there is no requirement of any training at all. This is the result of the absence of any system of registration or regulation in the ECE sector.

No Facilities for Children with Special Needs:

Almost all centres lacked infrastructural facilities required for children with special needs, particularly to access the centre, such as railings and ramps. As a result, very few children with special needs were seen in the ECE centres.

No Stress on Hygiene and Washing of Hands:

Although water availability was seen in both types of centres in both cases, there was very little emphasis on helping children inculcate the habit of washing hands after toilet or before meals.

7.1.2 *Anganwadis* in Andhra Pradesh vs *Anganwadis* in Rajasthan and Assam

While *Anganwadi*s, which run across the country under a centralized programme, that is the ICDS, have a standardized model, the study reveals significant state-wise differences, which may be reflective of differing political, administrative

and socio-cultural priorities and processes. The Department of Women and Child Development, Government of Andhra Pradesh has been giving specific emphasis on the preschool education component of the ICDS for the last 3 years (2009–2012). The department had enlisted the support of Andhra Mahila Sabha, State Resource Centre, Early Childhood Education to help with the designing of the ECE curriculum, the daily and weekly schedules, development and supply of teaching-learning material, manual for the educators, and so on. A cascade model has been followed in the training at all levels; the Child Development Project Officers (CDPOs) and the supervisors have been trained by the Andhra Mahila Sabha team on the designed curriculum, schedule and manual. The CDPOs and supervisors have, in turn, trained the *Anganwadi* workers on how to conduct the activities with children and transact the programme. As a result, the *Anganwadi* centres in the state have been receiving regular intervention and resource support, which is reflected in their conduct of the preschool education curriculum.

The *Anganwadi* model in Andhra Pradesh was, therefore, further analyzed in comparison to the centres in Assam and Rajasthan, the scores of which were combined for purposes of comparison. The intention underlying this analysis was to explore the possibilities within the *Anganwadi* model, with some focused intervention.

Relative Strengths of Andhra Pradesh *Anganwadis*

Better Physical Facilities and Infrastructure:

As reflected in the earlier analysis, the Andhra Pradesh *Anganwadi*s were observed to be located in safer and more easily accessible sites and buildings for children as compared to the other two states, particularly Rajasthan. The infrastructure was also found to be comparatively better, as they had adequate storage space for the teacher to keep her teaching-learning material. Not only were these spaces available but also being used appropriately to keep the play and learning material provided to them by the Department of Women and Child Development.

More Flexible and Activity-Focused Sitting Arrangement for Children:

The *Anganwadi*s in Andhra Pradesh were more likely to have a flexible classroom arrangement, which was conducive for different kinds of activities. In the other two states, the trend was more towards either a whole-class approach or no planned arrangement at all. In Andhra Pradesh, the *Anganwadi teachers* were observed to be changing the seating arrangement of the children in terms of individual, group or whole-class activity, as per the requirement of the activities organized for them.

Better Planned and Age-Appropriate Activities:

The teachers were seen following the weekly/daily plan given by the Department of Women and Child Development, along with the curriculum, manual and the material. It was also observed that although the composition of children in the centres was multi-age or level as in other states, the *Anganwadi* teachers did make the effort to give children more age appropriate activities.

Emphasis on Health Habits and Personal Grooming:

Habit formation and personal grooming were evidently given considerable emphasis in the *Anganwadi* curriculum in Andhra Pradesh. This was reflected in the regular practice followed by *Anganwadi* teachers of checking children's nails,

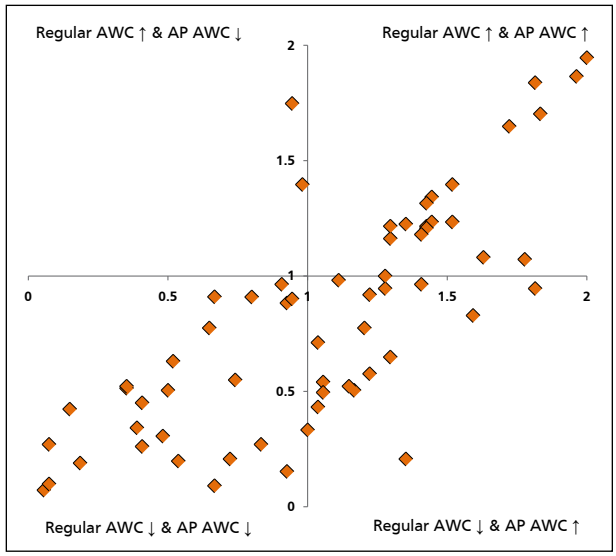
hair and teeth. The children were also observed washing hands before and after eating and after going to the toilet, a practice not observed in most of the regular programmes, and not even in the known-practice centres. Self-help skills were also getting emphasized through encouraging children to eat independently without the help of the teacher or helper, as well as in putting away their materials.

Better Social Environment:

Overall, the social environment in Andhra Pradesh *Anganwadi*s was found to be good for children. The *Anganwadi* teachers in Andhra Pradesh were more inclined to encourage interaction among children during meal time; often they would themselves engage with them while the children were having their meals by asking the little ones how the meal was and then extend the conversation to a topic related to food. Social habits such as greeting others were also noticed being inculcated by the teacher by acting as a role model. She was observed to be greeting children at the time of both arrival and departure and the children reciprocated by greeting the teacher in response to her greeting. This was not observed in the *Anganwadi*s in other states and even in the innovative programme in Rajasthan. The teachers also planned activities in ways to promote cooperation and sharing among children.

Emphasis on Language Development:

Language-development activities were observed more frequently in Andhra Pradesh *Anganwadi*s as compared to other states. These were in the form of songs and rhymes with actions and movement, regular storytelling and occasional use of picture story books, which were otherwise rarely seen in other programmes. Children enjoying singing along with actions and movement were a common sight in Andhra Pradesh *Anganwadis.*



Graph 7.1.2: Mean scores for all indicators of ECEQAS for Andhra Pradesh *Anganwadis* and Rajasthan *Anganwadis*

Areas of Concern

Two areas in which *Anganwadi*s in other states were found better were *(a)* children had better sitting arrangement either in terms of mats or other floor covering, whereas in Andhra Pradesh children were seen more often on bare floors; *(b)* some evidence was seen of gender bias in Andhra Pradesh while organizing play activities with children. The fact that this was observed more in Andhra Pradesh may also be because more activities were observed being conducted in the state *Anganwadi*s as compared to the other two states.

7.1.3 Bodhshala in Rajasthan Emerges as a "Good Practice"!

Bodhshalas, the *known practice* in Rajasthan, emerge as a better-performing low-cost ECE programme or model as compared to the Regular

ECE prog- rammes, that is the *Anganwadi*s, and the private preschools, which are both more commonly accessible to most children in the country. *Bodhshalas* are composite pre-primary and primary schools built in the educationally back-ward habitations of Alwar district in Rajasthan by an organization called *Bodh Shiksha Samiti. Bodhshalas* are essentially primary schools with pre-primary sections with two pre-primary levels known as "pre groups" attached to them as the entry level. These schools, which are also called "*Bodh Samuhik Pathshaala"/"Bodhshala"* are built with financial help from the community.

As evident in Graph 7.1.3, the mean scores for each quality indicator studied under ECEQAS were plotted for *Bodhshalas* and the regular ECE programmes. (*Anganwadi*s plus private preschools are aggregated and termed as "Regular Practice"). The scores of *Bodhshala* and Regular Practices were found to have a moderate association, as the correlation coefficient was found to be only 0.37. This indicates that the mean scores on the different indicators of the two categories, the *Bodhshalas* and "regular practices", have significant differences. We, therefore, probed further into what these differences are and what are the strengths and weaknesses of this low-cost model vis-à-vis the regular practice. It was considered important to get this comparative profile of this model, particularly with a view to understand and derive lessons for strengthening the existing regular practices in *Anganwadi*s and private preschools, which share similar contexts and socio-economic settings with this known practice, with a view to make recommendations for them to make their respective models more developmentally appropriate and effective for children.

Relative Strengths of the Bodhshalas

***Adequate and Appropriate Play and Learning Materials Available and in Use*:**

The **"***Bodhshalas*" here refer to the pre-primary sections of the *Bodh* schools. As compared to the regular practice, these centres were observed to be well equipped with play-based teaching-learning material for young children, which was mostly locally procured and was low or no cost. The *Bodhshala* pre-group sections were observed to have a variety of learning material, particularly manipulative learning aids that were used independently by the children as well as by the teachers for organizing activities with specific learning objectives and these were found in adequate quantity to engage all children. While the learning aids found in private preschools were specific to formal academic learning—such as blackboard, chalk for the teacher, notebooks and pencil/pen for children—the *Anganwadi*s were a little better off with some child-friendly materials such as blocks, beads, threading frames, alphabet charts and posters, etc., which come to them as a preschool kit. But these were rarely displayed or adequate for all children to be kept engaged. The *Bodhshala* classrooms, on the other hand, were designed in such a manner that the learning

The pre-planned weekly and daily schedule followed by *Bodhshala* teachers is developed collectively with other teachers and coordinators. It is planned taking into consideration the age of the children and their abilities. *Bodhshala* teachers do collective planning everyday after the school hours.

materials were all displayed and easily accessible to children to engage with. The storage space was also sufficient for teachers to keep and display their teaching-learning material, whereas even when the storage space was available in the "regular practice", it was hardly utilized. The classrooms in *Bodhshala* had interesting and relevant charts and pictures displayed on the walls for the children at their eye level, which were also used as teaching and learning material.

Planned Schedule with Age Appropriate and Flexible Class Arrangement:

The pre-group section in *Bodhshala* had two groups or levels divided by age of the children. Each group of children was observed being given age-appropriate activities, which varied in complexity to match the age. It was observed that the teachers in the *Bodhshalas* followed a pre-planned weekly and daily schedule, which was developed collectively with other teachers after school hours. The weekly and daily plan schedule was planned taking into consideration the age of the children and their abilities. At times, the teachers were also observed preparing a plan for an individual child (Individual Educational Plan) who needed special attention. Pre-group sections of *Bodhshala* were also observed to have a flexible classroom arrangement, which was adjusted according to the activities.

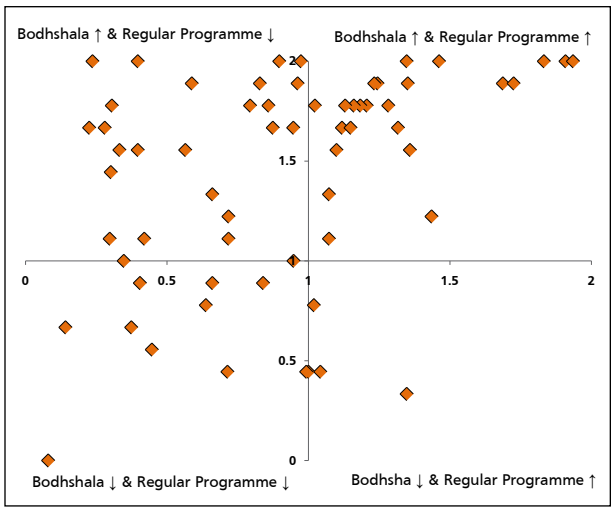
Developmentally Appropriate Curriculum:

The curriculum designed by the *Bodhshala* teachers was found to focus on language and cognitive development of the children. A number of activities and opportunities were observed being provided by the teachers where she involved the children in guided conversation and interacted with them in a dialogical manner, in ways that would extend their thinking and curiosity. Teachers also gave children a number of opportunities and activities for concept formation, development of conceptual skills and readiness activities (Reading, Writing and Pre-number) for the children. The children at *Bodhshala* pre-primary section were much less exposed to formal reading, writing and arithmetic, which was a common sight in the private pre-schools, and many a times in *Anganwadi*s as well.

Opportunities for Free play:

The daily schedule prepared by the teachers provided adequate time for free play, which was supervised by the teacher. In the course of the free play, the teacher also interacted with the children. The combination of supervised free and guided play gave children the freedom to choose their material and activity, while the teacher could use that time to work with a smaller group of children by rotation to develop their conceptual understanding, using the activity material.

The guided play time was also used for organizing activities and opportunities for development of fine motor skills. Despite limitation of space, teachers organized activities for gross motor development



Graph 7.1.3 Mean scores for all indicators of ECEQAS for Bodhshala and regular ECE programmes

too, within the classroom. The curriculum also gave importance to learning of cooperation and sharing among children through planned activities and encouraged peer interaction. Activities were also organized for all children to participate in music and movement. All the children were observed performing and participating in recitation and singing, both individual and group. In addition, self-expression was encouraged in art and craft activities and teachers appreciated children's efforts. An important observation was that *the teachers always ensured participation of all children in these activities.* Play was also organized in such a manner by the teacher that ensured and encouraged interaction between boys and girls.

Use of Mother Tongue:

Teachers at *Bodhshala* belong to the same community as the children; the children thus easily understood the language used by the teacher and the teachers also demonstrated sensitivity and awareness, especially regarding the requirements of children with special needs. They tried to create an inclusive environment by encouraging children with special needs to also participate.

Regular Mentoring and On-site Training and Support:

A key factor that stands out in the known practices, both in Andhra Pradesh and in *Bodh Shiksha Samiti*, is the regular and supportive supervision and proper mentoring mechanisms. This process of need based and on-site resource support to the educators or teachers becomes even more critical when the effort is to reform classroom practice towards more child-centred methods. In the absence of any prior experience of these new methods by the teachers, they need constant support and scaffolding as they further refine their knowledge, skills and attitudes in consonance with the principles of child-centred and constructivist pedagogy.

Community meeting at an *Anganwadi* Centre in Rajasthan

Areas of Concern

Unsafe Environment:

The regular practice centres, that is the private preschools and *Anganwadi* centres, were located in relatively better and safer areas with fewer hazardous conditions as compared to the *Bodhshalas*. This comparative advantage of private preschools was more applicable to private preschools in Assam and Andhra Pradesh. The *Bodhshalas*, on the other hand, were constructed on land donated by the local community, which often had low financial value and was therefore often outside the community habitat and not in very safe and clean sites for children to be in. This was a matter of concern.

No Meals:

The regular practice centres, particularly the *Anganwadi*s, had specific time allocated for serving a hot, cooked meal to the children, when the children ate together and spent time interacting with each other. But in the *Bodhshalas* visited, the pre-group children stayed for three hours and the meal time was scheduled after the day's programme. Most children were thus found returning home for their meal; this was an opportunity lost not only for ensuring that they get a nutritious meal but also for peer and teacher-child interactions and development of social skills.

Social Etiquette:

The children in the regular practices, particularly in the private preschools, were trained in social skills like greeting elders/teachers on arrival and departure and other polite mannerisms. But this practice was not observed in the *Bodhshalas* as the teachers, while sharing an informal and open relationship with the children, were not in the practice of greeting children and thereby inculcating the same habit in them. However, the liberal classroom environment certainly helped children be more comfortable, even in the presence of strangers in the class as compared to the other models.

No Toilets and Hand Washing:

Due to lack of running water and other infra-structural facilities, the habit of washing hands and learning good toilet habits—which are an integral part of a good ECE programme—were not inculcated in the children in these *Bodhshalas* as also in the regular-practice models. Personal grooming of children was also not given much attention by the teachers, which was emphasized in the private preschools. The *Bodhshalas*, as in the *Anganwadi* centres, lacked availability of toilets and sometimes even when the toilets were available, these were not usable; instead, the children used the open spaces around the centres.

Mid-day meal in a Government Primary school in Rajasthan

7.2 Emerging Associations Across ECE Models–Some Lessons

The data elicited on the quality domains across the different types of ECE programmes and across the three states was further analyzed to explore interdependence of variables, by computing correlation coefficients between the scores of the different domains. The analysis yielded some interesting and significant associations, which indicate some clear lessons or directions.

1. Physical facilities are a necessary but not sufficient condition for ensuring quality of an ECE programme.

The analysis shows that physical infrastructure does have a high association with classroom management (0.40), but has no association at all with availability and use of learning materials or with the developmental appropriateness of the curriculum that is being practised—that is the curriculum's focus on language, cognitive, motor and creativity development or on teachers' disposition. The association with classroom management can be understood if we analyze the indicators for this domain, which reveals a strong correlation with availability of classroom space (0.42), and also of storage space (0.41). These indicators relate to basic facilities necessary for organizing a flexible and activity-focused classroom arrangement and for planning and conducting age-appropriate activities. These would require children to sit in groups, planned layout of classrooms into activity corners, adequate space for children's movement and activity and so on. A moderate association is also found between physical facilities and social development activities (0.34), which again imply the need for space for movement and interaction, which is key to development of social skills in children.

A strong association (0.42) is also found between availability of water, an infrastructure indicator, and personal hygiene and health habits, which is self-explanatory since this is particularly linked to washing of hands.

All these aspects are logically related to availability and adequacy of space and these point to availability of physical infrastructure as a necessary requirement. This has special significance given the widespread belief that ECE with quality can be organized in any available space, be it the small home of the educator, or under a tree! However, the fact that no significant association is established between physical infrastructure and the critical quality parameters such as the curriculum and teacher's disposition implies clearly that it is *a necessary but not a sufficient condition* for ensuring quality in ECE.

2. Availability and use of learning and play materials is essential for a developmentally appropriate ECE curriculum.

While there was no significant association seen between nature of curriculum and physical facilities, the correlation of the curriculum scores with scores on availability and use of learning materials ranges from moderate to strong. This is a significant finding. A strong association is seen with fine motor development activities (0.42), a moderate association with cognitive development (0.34), creativity (0.37) and teacher disposition (0.31). The strong association with motor development activities can be explained by the fact that activities related to fine motor development have to necessarily be material based. This requires not only availability of materials but also in adequate

numbers. The fact that motor development was found to be a neglected area in the study across programmes may be attributed to lack of adequate play and learning materials, in addition to it being a low priority. Similarly, activities for development of creative and cognitive skills and concepts also require interaction with appropriate materials, and this is reflected in the moderate association. An interesting finding is the correlation seen of learning materials with teacher disposition. This can be interpreted in two ways. One, materials also facilitate the work of the teacher since she can engage children more meaningfully and easily if these are available in the centre; secondly, it also confirms the observation that, ultimately, it all rests on the teacher, for even if the materials are supplied, it is the teacher with a more favourable disposition who will make the actual effort to plan the learning environment for the children and ensure these are used meaningfully. There are innumerable instances cited where the teacher has kept the materials locked up in cupboards or trunks so as to ensure compliance at the time of stock taking!

3. Focus on classroom management and organization emerges as a key input for a developmentally appropriate curriculum.

Classroom organization and management emerges as a very strong requirement for a developmentally appropriate ECE programme. Overall, its correlation with the curriculum content scores is as high as 0.58. When analyzed in terms of each domain, it again shows a strong association, with activities for social development (0.57); with cognitive development (0.44) and with language development (0.42). It also has a moderate but significant association with motor development, creative activities and personal hygiene and habit formation. In terms of specific indicators of classroom organization, the correlation of each of the quality domains with planning and following of weekly and daily schedules emerges as significant and this ranges from strong on most domains to moderate in some (0.52 to 0.31). A further analysis indicates a strong association between age appropriateness of activities and planning and implementing a weekly and daily schedule (0.54), indicating again the importance of prior planning and classroom organization to cater to multi-age and multi-level situations. Similarly, a significant correlation was found between age appropriateness of activities and classroom display at children's level, indicating a planned approach to curriculum development and transaction informed by an appropriate understanding of children and their needs. This is a very important finding, given that most training programmes in ECE focus on conducting of activities primarily, with little or no attention to this aspect of classroom organization and management in terms of the planning process, the meaning and significance of a balanced schedule, the demonstration of a child-centred classroom lay out, etc. Again, as mentioned above, some of this is also possible or linked with availability of adequate physical space.

4. Democratic classroom environment with an interactive teacher is conducive for a developmentally appropriate curriculum.

As in the case of classroom organization, another strong association with the developmental appropriateness of the curriculum content is that of nature of teacher's disposition and resulting classroom environment. This association is consistently strong with all developmental domains, but in particular with language development activities and opportunities, as evident in terms of specific indicators. The correlation

between providing speaking opportunities for children and a liberal democratic classroom environment is as high as 0.45, and with encouragement of teacher child interaction it is 0.46. In a similar vein, scores on teacher using language to extend children's thinking correlates highly (0.45) with a democratic environment and also with encouraging teacher-child interaction (0.47). Extent of provision of activities for development of creativity in children is also significantly correlated with scores on teacher-child interaction (0.45). More moderate associations are found with other domains of development also such as motor development (0.38) and social development (0.27). These significant associations of the "*teacher factor*" with the developmental appropriateness of the ECE programme clearly indicate a strong interdependence of the nature of teacher's disposition, her democratic attitude towards classroom organization and the planning and transaction of her curriculum. The liberal, interactive teacher will not only allow but also encourage meaningful conversation and interaction in her class, will allow free expression of ideas and creativity, and will try to promote children's thinking and reasoning skills.

5. Close interdependence and association exists between and among activities for different developmental domains, indicating the value of an activity-based approach.

A strong linear association is evident in scores on activities for different domains, particularly between language development activities and creative activities (0.55) and with social development activities (0.55). This is possibly attributable to the fact that rhymes and songs—which are the most common activity in centres—get classified as both language and creative activities, and since these are done in groups in most cases, these also

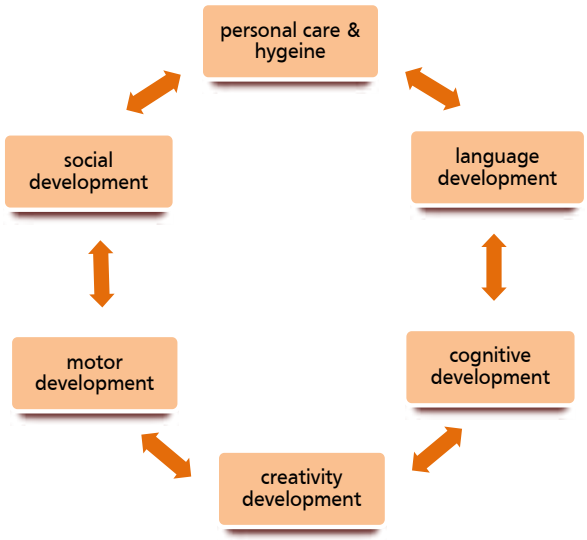


Figure 7.2.1: Interdependence of curricular domains

tend to promote social interaction. Interestingly there is also a strong association found between creative and fine motor activities (0.52), which is again understandable, since the other kinds of creative activities seen in the centres are in the form of drawing, colouring or clay work, etc., which also promote eye-hand coordination and fine motor development. A related finding is that opportunities for free play for children also reflect a strong association with creative activities (0.42), cognitive activities (0.44)and motor activities (0.53) since these involve open-ended play with manipulative materials as well as art activities.

Linkages were observed between age appropriateness of activities and classroom management, indicating a planned approach to curriculum development and transaction informed by an appropriate understanding of children and their needs.

A strong correlation was also found between meal-time activity in centres where meal is provided and scores on language and social development (0.56). The meal time evidently provides a very valuable opportunity for the teacher and children to interact among themselves and has obvious benefits for their social and language development. These benefits clearly establish the need for a "whole child" approach in designing the curriculum, with a focus on some key play and development-based activities and interactions that together nurture and promote all aspects of development in children.

6. ***Formal learning and teaching of the 3R's at this stage has an inverse relationship with developmentally appropriate activities.***

An analysis of various indicators within domains indicates an inverse relationship between formal teaching of reading, writing and arithmetic and the readiness activities described above, particularly in Rajasthan and AP (-.09 to -1.0) This implies that wherever formal teaching is being done there is no space for readiness activities. These, therefore, emerge as two different models of ECE, one focused on formal learning of the 3 R's and the other focused on nurturance of different aspects of a child's development. There is very little intersection between the two. Unfortunately, in the private preschool programmes, the former is the dominant mode, which is being practised at the cost of the latter. Across the programmes and states, there is also very little evidence of awareness or practice related to specific activities required for development of pre-reading, pre-writing and pre-number skills and concepts.

7.3 Conclusions and Recommendations

The preceding discussion of the different models and emerging associations highlights the wide range that is evident in ECE practices, not only across models but also within a model across states, pointing to the significant contextual determinants of any programme. Given India's phenomenal cultural, socio-linguistic and geographical diversity, one could celebrate these different models as a reflection of this diversity, had there been adherence to a common set of principles of developmentally appropriate curriculum and quality of the ECE programme. But as Figure 7.3.1 and Table 7.3.1 depict, the more common ECE practices in the public and private sectors conform to these only in a minimalist manner.

It is the first two models that are available to the largest segment of children in underprivileged communities in the country and these depict only a few elements of good practice, with a predominance of formal teaching and rote memorization and lack of essential facilities, with complete disregard of the age and developmental needs and capabilities of children in this stage of childhood. This is clearly evident in Figure 7.3.1 and Table 7.3.1 where the time on task analysis of each model indicates this misplaced emphasis. The innovative known practices, which are able to demonstrate relatively "good practice" in low-cost settings are few and scattered and available to a very small number of children of specific communities. However, an analysis of these practices does indicate some important lessons for the larger system.

Daily Routine of Various Types of ECE Centres

Private Preschools: The day starts with a prayer, generally recited/sung by a group of elder children while the other children repeat what was being sung. After prayers, in the assembly itself, there is a question-answer round wherein the teachers asks the children different questions pertaining to general knowledge, language, math, etc. In the class, the children are generally taught formal subjects such as Mathematics, English and Hindi with a different teacher for each subject. At times, different songs and rhymes were sung subject to teachers' consciousness in it. At meal times, the children mostly move back home to have their lunch and many a times, the children of the pre-classes do not return after the meal time.

Bodhshalas: Bodhshalas are low-cost innovative ECE programmes run by "*Bodh Shiksha Samiti*" and known as "*Bodh Sudayak Pathshala*" in economically and educationally backward areas of Alwar district in Rajasthan. The day begins with "*BalSabha*" (assembly), where the children sing prayers, after which the children are given updates on the day's news from the newspaper by the teacher. They are also given some knowledge about the current and historical affairs of the state. They too focus on both Language and Mathematics but by using activity-based methods as blocks, play card, number card, pebbles, etc. The duration for which the pre-school children are in *Bodhshalas* is approximately three hours and they move back to their homes when the lunch break is announced for the older classes.

Anganwadi Centres: The *Anganwadi* centres act as a place wherein the children come to collect their mid-day meal. There is generally no activity going on in the *Anganwadi* centres. When the children come in, they play among themselves on their own. Where ever and whenever some activity takes place, it is mostly formal in nature though there are materials appropriate for children. This might be because of the fact that the materials are not available in appropriate numbers.

7.3.1 Recommendations

1. Given the major tilt towards formal teaching and rote memorization in the system, particularly in the private preschools which are mushrooming by leaps and bounds even in the tribal and rural areas, there is a need for an effective system of regulation of quality and a common curricular framework across sectors.

2. This framework needs to be informed by nationally developed quality standards and a curriculum framework, which needs to be contextualized in context to address the diversity in the country. However, this frame-work should reflect some non-negotiable criteria related to physical facilities, play and learning materials, principles of curriculum development and profile and training of the teacher.

3. The curriculum requirements need to be identified for each sub-stage, from 2 to 4 years, 4 to 6 years and 6 to 8 years with clarity so as to make it meaningfully aligned to the developmental needs and characteristics of children at each sub-stage of development. Currently, in the absence of this understanding, there is a disturbing trend of making children of 3 to 6 years, do similar activities, learn alphabets and numbers, moving from simple to complex in a linear mode, with no awareness of the need for school readiness and/or link to their needs and capabilities. These standards should be applicable to all models of ECE,

irrespective of management, location or community which they are serving.

4. The study points to the need to ensure an exclusive teacher for ECE who is enabled to have a good understanding of ECE, the required skills and attitudes. The teacher can devote time to plan the curriculum and to organize and manage the class in accordance with the curricular priorities, keeping in mind the age and development appropriateness of the activities.

5. The training of ECE teachers should be comprehensive and intensive taking into account the six emerging principles discussed earlier in this chapter, so as to adhere to developmentally appropriate ECE practices, irrespective of context. The principles relate to not only availability but also effective use of physical facilities; nature and adequacy of learning materials and their use; classroom planning, organization and management; a democratic class environment and an interactive teacher as facilitator. She must develop an understanding of importance of activity based methodology and the adverse impact of emphasis on formal learning.

6. A major lesson learnt from the known practices is that one shot training is not expected to lead to much gain in terms of systemic reform. The key to good practices is a system of regular on-site support and mentoring, rather than mere monitoring. This becomes even more important since, unlike the traditional formal primary school method, the desired child-centred pedagogical practices in ECE are different. Therefore, this shift in practice from formal teaching needs to be supported with considerable hand holding and scaffolding for the teachers, through well-trained and experienced mentors.

7. The fast expansion of the private sector is essentially a reflection of parental choice, which appear at present to be guided by some misconceptions regarding 'good quality' ECE. There is a need to have a more focused and comprehensive approach towards parent and community awareness creation in this regard and a component built into each programme of involving parents and/or community women in the running of the ECE centres.

8. The health and nutrition component needs to be an integral part of any ECE programme, not only for its direct benefits to the child's development but also with the accompanying learning and socialization benefits seen in the study when the meal is part of the daily routine of the ECE centre.

9. Given state variations, even within the same ECE model, opportunities need to be provided to the state personnel manning the nodal ICDS Departments and Education Departments to visit other states to facilitate cross sharing and learning.

10. There is a need to have a more rigorous and systematic data-management system in the area of ECE, which can be attuned to the requirements of the system at different levels of implementation. This should address at the local and district levels' issues of enrolment vs. participation, dual enrolment and registration of all preschools across sectors and ensure, meaningful transition of children to primary schools.

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Annex -1

Design of IECEI Study

DESIGN OF THE THREE STRANDS

STRAND	OBJECTIVES	SAMPLE
A Survey method	To derive district level estimates of (a) current trends in participation of 4-5 year olds (b) school readiness levels at 5 years	362 villages 13868 children 1616 centers
B Quasi-experimental & longitudinal	(a) To study quality variations across ECE centers, public, private & voluntary (b) To identify significant quality variables in ECE that impact school readiness and primary school outcomes	Sub-set of Strand A sample 75 villages 298 ECE centers 2767 children
C Qualitative Case Study	In-depth case studies of innovative practices in ECE	9 case studies, across many states