

Centering children in the development debate in India: public action for early start, fair start, and fitting start

KARNATAKA REPORT

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22. Does the child go for tuition? If yes, how much do the parents pay monthly for tuition?

23. Whether any ECCE related material (such as toys, books, or even locally available material that can be used as toys) is available at home?

24. What kind of activities do household members engage the child in? (could be ECCE related, such as playing, storytelling etc.)

25. Which centre is the child attending?
A. ICDS
B. NGO
C. Private
D. Not attending

SKIP QUESTIONS 26-41 FOR CHILDREN *NOT* ENROLLED IN ANY ECCE CENTRES

26. Who decided that the child would go to this Centre?
A. Mother
B. Father
C. Both
D. Others (specify): _____

27. Why do the parents send the child to this centre?

28. Is the child benefitted by attending the centre?

- A. Yes
- B. No
- C. Not Applicable

29. If yes, in what way? If No, in what way (write the first 3 answers given)

30. Did the parents send the older child to this centre?

- A. Yes
- B. No
- C. No older child

31. If yes, why? If not, why?

32. Does the teacher make home visits to the house?

- A. Yes
- B. No

33. If yes, what does the teacher do during home visits? : (write first 3 answers given)

34. Whether and how often do the parents visit the centre to observe its activities?

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GROUP ADMINISTERED TOOL FOR ACADEMIC READINESS IN CHILDREN BETWEEN 4-5 YEARS

GENERAL INSTRUCTIONS:

- Divide the class into age based groups of five children each. Only groups with 4+ year olds are to be assessed, but picture cards can be distributed to all children so as to keep them engaged.
- Before interacting with the children, instruct the AWW/teacher to not help or assist the students in any way. Request them instead to engage groups who are not participating so they do not disrupt the other groups being assessed.
- One administrator will be responsible for conducting, observing and scoring activities with only one group at a time, however it is necessary that all groups remain engaged at all times.
- For each activity the investigator has to distribute the cards within the group, in order to reduce fights / competition over the cards. For certain activities the investigator may also have to instruct children to look at their cards first, and then put their cards down in front of them so that others in the group can also take a look at their card.
- The instructor should carefully observe the behavior of the children throughout, constantly encouraging children who remain silent or do not take part to also engage in the activities. This may require some individual attention and prompting, but should not involve assistance.
- An icebreaking activity should be conducted before beginning the activities. This could involve asking everyone their names, followed by ringa-ring roses.
- Ice-breaking activities should be conducted in between every section (i.e., after pre-numeracy, after numeracy).

GENERAL SCORING INSTRUCTIONS:

- Children will first undertake a trial with the dummy cards themselves, which will not be scored. The rationale here is that allowing them a chance at the activity will help them understand what is being expected of them more clearly. The administrator can assist by demonstrating the activity if required during the dummy trial, demonstrating how the activity has to be conducted (e.g., by showing how to classify with the dummy cards for classification activities; how to look across the cards held by different members of the group for activities which involve selecting one answer). The dummy trial is not be counted while scoring.
- Score for each activity across the trials attempted by children – that is, when children are required to identify different colours, arrive at the proportion of children who could/not complete the task only after they have identified all the colours. This will reduce the effects of chance / fluke answers.
- After the dummy trial has been completed, for each activity, carefully observe the proportion of children in the group that are able to do the following and score accordingly:
(a) **Finish the activity without any assistance:** It is important to note here that the child has been able to demonstrate the concept that we are intending to assess for a particular activity, and that they are not penalized for not knowing an unrelated concept – for example, in classification

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Preface

This study started as a sub-study that was being undertaken by the Centre for Studies in Social Sciences (CSSS), Kolkata under the leadership of Dr. Manabi Majumdar, with the funding support of the Indian Council of Social Science Research (ICSSR). This study was to be conducted in two states, West Bengal and Karnataka. We were approached by Dr. Rahul Mukhopadhyay at Azim Premji University, who was also part of the study team, to undertake the Karnataka part of the research. We accepted the offer because of our ongoing research interest in the area of early childhood care and education.

While the research design was almost final when we came on board, we made an important contribution by arguing that children should not be tested individually below the age of six, and their learning can be better assessed through examining their performance in a group. After several iterations we managed to convince the CSSS team and therefore the report is important from the perspective of trying out a new approach for learning assessment for early or pre-school years.

This report presents the findings and their analysis for Karnataka part of the research. I think this is especially relevant for two reasons. One, in the context of the ongoing policy debate about inclusion of 3-5 years in the ambit of the Right to Education the challenges of choosing appropriate approaches for early education without extending the rigid reading and writing based learning of the primary years to pre-primary phase as well becomes critical. Two, the recent learning assessment survey released by Pratham raises these questions of how appropriate it is to apply individual testing at this stage. I sincerely hope that scholars working in this area will find it useful.

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The Research Team

1.0 Introduction

Globally, about 250 million children in low- and middle-income countries are unable to realise their full developmental potential (Engle *et. al*, 2007). Neuro-scientific evidence that has pointed to critical periods in the brain's development has signalled the need to invest early in children's nutrition, health and education, in order to prevent this loss of potential. Simultaneously, cost-benefit analyses within economics have showed higher returns to early childhood care and education (ECCE) programmes (compared to later interventions) (Heckman, 2006). ECCE has thus become a central priority within international and national frameworks of development, such as the Sustainable Development Goals (SDGs). It has also finally been recognised as a right to be legislated within the draft report of the new National Education Policy (MHRD – Ministry of Human Resource Development, 2019) in India.

Despite being unenforced as a right so far, India already has one of the largest state-run ECCE programmes known as the Integrated Child Development Scheme (ICDS), which was started as early as 1975. The programme, which adopts a holistic and life-cycle approach, caters to pregnant and lactating women and children between 0-6 years, through a set of integrated services related to nutrition, health and pre-school education. However, currently the ICDS covers less than 50 per cent of the children between the ages of 0-6 years, and several studies on the ICDS have pointed out to the poor quality of these services, issues of accountability and poor functioning of the preschool education component of the ICDS (CBPS-UNICEF, 2017; CBPS 2018; NIPCCD, 2006; Sriprakash *et al.*, 2020).

In addition, India has a large unregulated market of private ECCE providers, whose services widely vary in terms of type, quality and costs. The presence of this large market in ECCE, second in size to the state's provisions (MWCD, 2013), has created wide inequalities in the early years. As has been observed for elementary schooling, access to high quality private ECCE provisions remain restricted to upper caste and classes, with the purchasing power to access these provisions, while it is the poorest and most marginalised sections that remain dependent on the poor quality anganwadis (ICDS centres), that continue to be perceived mainly as 'feeding centres'. Many private ECCE providers also follow curricular and pedagogic practices that are contrary to principles of developmental psychology, and particularly what have been identified as 'developmentally appropriate practices' (DAP), through the downward extension of the primary

school curriculum into ECCE years. Yet, studies point to the high costs at which marginalised families still purchase these provisions, in an urgency to secure early forms of formal literacy and numeracy, and English for their children, in order to prepare them to be competitive with children from elite classes (Sriprakash et al., 2020).

Against this backdrop, Centre for Budget and Policy Studies, Bangalore, in collaboration with Centre for Studies in Social Sciences, Calcutta (CSSS) undertook a study, titled '*Centering children in the development debate in India: Public action for early start, fair start, and fitting start*', to understand children's development in relation to their social of development. The study, funded by the Indian Council for Social Science Research (ICSSR), and conducted across two states – Karnataka and West Bengal, examined how institutions of early childcare, parental choices and the social economic background of the child play a major role and shape the overall development of the child.

This report presents the findings from the Karnataka component of the study. The report is organised in the following manner: section 2 describes the socio-economic profile of Karnataka, and lays the background and context for the research findings that follow. Section 3 presents the methodology; sections 4 and 5 present an analysis of the data on socio-economic profiles, classrooms, teachers and school readiness gathered from anganwadis and private schools respectively.

Section 6 discusses the status of ECCE in Karnataka, drawing from the analysis of anganwadis and private schools undertaken in the previous chapters, and section 7 presents the conclusion and some recommendations stemming from the study, for the way forward.

2.0 Karnataka – A socio-demographic profile

Karnataka, one of the southern states of India, is also one of India's socio-economically richer states. Home to India's Silicon Valley, Bengaluru, it however presents mixed results on development indicators. Karnataka's literacy rate (75.36 per cent) is higher than the national average (74.04 per cent) (Government of India, 2011). In terms of Educational Development Index (EDI), the state ranked 16th in 2010 as compared to 12th the previous year, among all states (NUEPA, 2011). According to the World Bank (2017), Karnataka has seen a steady decline in poverty since 1994, but records modest growth and high consumption inequality. Further, while Karnataka is one of the few states with an increase in share of salaried jobs, job creation has been the slowest in Karnataka among all states.

Wide differences are seen in terms of developmental indicators for socially marginalised groups, such as Scheduled Castes (SC) who constitute 17.15 per cent of the population, and Scheduled Tribes (STs) who constitute 6.95 (Government of India, 2011). SCs and STs in Karnataka have been among the slowest to overcome poverty and still face limited access to education, sanitation, water and salaried jobs (World Bank, 2017).

Table 1: Disparity Index for SCs and STs with respect to literacy

CASTE	YEAR	TOTAL LITERACY RATE
SC	2001	52.87
	2011	65.33
ST	2001	48.27
	2011	62.08
DISPARITY INDEX OF SC	2001	0.79
	2011	0.86
DISPARITY INDEX OF ST	2001	0.72
	2011	0.82

Source: Ahmad (2014)

Indicators for women have similarly been mixed with improvements in maternal health and schooling. However rural women lag behind urban women in terms of schooling and labour force participation (World Bank, 2017).

With respect to the child population, children between 0-6 years constitute 11.7 per cent of the population (7,161,033 million) (Government of India, 2011). Previous studies conducted by CBPS (2017; 2018) have shown that even though children between the ages of 0-6 years comprise 32% of the child population of Karnataka, public expenditure between 0-6 years was the least, in comparison to other age groups.

The child sex ratio for Karnataka (948) is considerably higher compared to the national average (919) (Government of India, 2011). On indicators of children's development, such as infant mortality (IMR) and under-5 mortality (U5MR) Karnataka fares better than states like West Bengal, Bihar, Madhya Pradesh, but compares poorly to other southern states like Kerala, Tamil Nadu, Andhra Pradesh and Telangana (see IIPS, 2015-16). The percentage of stunted children under five is 36.2 per cent while the national average is 38.4 per cent (see IIPS, 2015-16). With respect to preschool enrolment rates, while accurate estimates are hard to come by, ASER (2018) shows that only about 8 per cent children are not enrolled in any form of preschool by age 3 in rural areas, and this is significantly lower by ages 4 and 5 (1.8 and 0.6 per cent respectively) (see table 2).

Table 2: Preschool enrolment rates (Karnataka rural)

Age	Pre-school (%)			Primary School (%)			Not Enrolled (%)
	AWC	Govt LKG/UKG	Pvt. LKG/UKG	Govt	Pvt	Other	
3	82.6	1.2	7.2	1.3	0	0	7.8
4	65.7	1.4	29.9	0.8	0.5	0	1.8
5	44.6	2.2	43.7	3.4	0.1	0.6	0.6

3.0 Methodology

The study sought to examine the status of children’s development and early childhood educational outcomes, with a specific interest in comparing ECCE outcomes for children in state-run and private institutions of ECCE. The study was conducted across three districts – Bangalore Urban, Ramnagara and Tumkuru, selected both for convenience (i.e., distance from Bangalore, which was a concern due to the tight timeline for fieldwork), as well as based on the Human Development Index (HDI) and Child Development Index (CDI). Table 3 below shows the relative positions of the districts across these three factors.

Table 3: Factors considered for selection of districts

Districts	HDI	CDI	Geographical Proximity from Bangalore Urban
Bangalore Urban	1	9	-
Ramanagar	13	8	73 km
Tumkuru	17	26	84 km

Within each district a total of 12 sites (9 villages and 3 urban wards) were selected. Further, a total of 12 anganwadis and private schools (i.e., 1 anganwadi and 1 private school in each site) was sampled from each district, with the exception of Bangalore Urban where we covered one panchayat-run school in place of one anganwadi).¹Overall, 35 anganwadis, one panchayat pre-school and 36 private schools with preschool sections have been covered in this study.

Within each site data was collected using a mixed-methods approach. The methods included village mapping, limited observations of ECCE institutions, which were recorded using a checklist,

¹ Note: The panchayat-run school was a unique model of ECCE that we encountered incidentally on field. As the model is both significantly different from the ECCE model, we analyse it separately as a case-study, and have not clubbed the data on classrooms, parents and children’s performances on school readiness and adaptive behaviour tools with the remaining data collected, for analysis.

student group assessments on ‘school readiness’ and interviews with preschool teachers and anganwadi workers, as well as five parents of children attending the preschool sections of the private schools or anganwadis, using a semi-structured interview schedule.²

Table 4: Sample for the study

SL No.	Tool / Questionnaire	No. of sites / Respondents	
		AWC	Private School
1.	Parent Interviews	182	185
2.	Classroom Infrastructure and teaching-learning questionnaire	35	35
3.	Teacher Interviews	35	35
4.	School Readiness Assessment	35	35

While the parents covered in the study largely depended on the availability and willingness of parents to participate in the study based on schools’ and anganwadis’ requests, one criterion applied for the inclusion of parents in the study was based on children’s ages. Since the study sought to understand children’s readiness for primary school based on the types of institutions and home contexts they were exposed to, parents of older children (i.e., between 5 and 6 years, who were at the transitional stage from preschool to primary school) were selected. (A similar criterion was also applied for selection of students for assessment within anganwadis and private schools, and more details about the student assessments are given below). However, a contingency we encountered during fieldwork was the availability of very few students between the ages of 5-6 years in anganwadis, due to the preference among parents for formal learning from the age of 4 onwards. Due to this, in several anganwadis visited, we found that children had already been removed from the anganwadis and enrolled in a private preschool or government primary school by the age of 5. Hence the largest majority of children assessed and parents of children interviewed from anganwadis are of a younger age group (mostly between 4-5 years). Further, it must be noted that parents of students interviewed did not always correspond to students who were assessed on

² See Appendix I for the checklists, questionnaires and assessments used to collect data for the study

school readiness, and this was particularly true for parents of children in the private schools, as the classroom strengths were large. Therefore, it was not possible to assess all children in the classroom. At the same time, since selection of children for the assessment was at random, it was difficult for us to ensure that parents of the same children assessed were available for interviews later.

3.1 Sample Distribution

The sample distribution for the study, across the three selected districts has been given in table 5 below:

Table 5: Sample distribution

Districts	Parent Interviews		Classroom Observations		Teacher Interviews		School Readiness		Remarks
	AWC	Pre-school	AWC	Pre-school	AWC	Pre-school	AWC	Pre-school	
Bengaluru Urban	60	63	11	12	11	12	11	12	The Panchayat School has not been included in the total sample
Ramnagara	60	61	12	12	12	12	12	12	
Tumkuru	62	61	12	11	12	11	12	11	

3.2 Framework for analysis

Data gathered through observation checklists on ECCE institutional infrastructure and classroom practices, teacher and parent interviews was first cleaned to identify missing data and/or errors in data collection. The proportion of missing data/ errors in data collection or entry for each question has not exceeded 2-3 per cent of the total sample of data collected.

Responses for each question have been calculated by dropping the number of missing/ erroneous data from the total (hence totals for each question vary, and to maintain consistency, all responses are reported as percentages instead of frequencies). The analysed data has been presented as graphs or tables as suitable. Qualitative data from parent and teacher interviews was thematically analysed to identify larger issues emerging with respect to ECCE.

3.3 School Readiness

While the analytic framework for children's assessments on school readiness is explained separately in section 4, here we just note that the analytic plan for school readiness differs significantly from the rest of the analyses. Since a group assessment tool was used to measure school readiness, the findings on school readiness are reported at the level of proportions of children's performance within each group. For each item of the tool, the proportion of children in a group that were able to complete an item independently or with help (explained later) was first calculated, and then the average proportion of children in groups that were able to complete the activity independently or with support has been calculated.

4.0 ECCE and Anganwadis in Karnataka

The chapter presents information gathered about the status of anganwadi- going children in three districts in Karnataka. Data on children's socio-economic characteristics and household characteristics (based on semi-structured interviews with parents), a survey of classroom infrastructure and teaching practices within anganwadis, as well as anganwadi teacher qualifications and experiences is given below. Children's performances on school readiness is also analysed. Based on this information, some insights on the developmental status of children going to anganwadis are drawn out.

4.1. Children's socio-economic profiles and household characteristics

In the first sub-section we discuss the socio-economic profiles of anganwadi-going children in our sample, based on interviews conducted with some parents. As mentioned before, a total of 182 parents were sampled across the three districts.

a. Religion and Caste

The largest majority of parents sampled from the anganwadis were Hindus (90 per cent), followed by Muslims (8 percent), while the proportion of Christians and Sikhs were very small, as shown in Figure 1.

Figure 1: Religious distribution of parents of children going to anganwadis

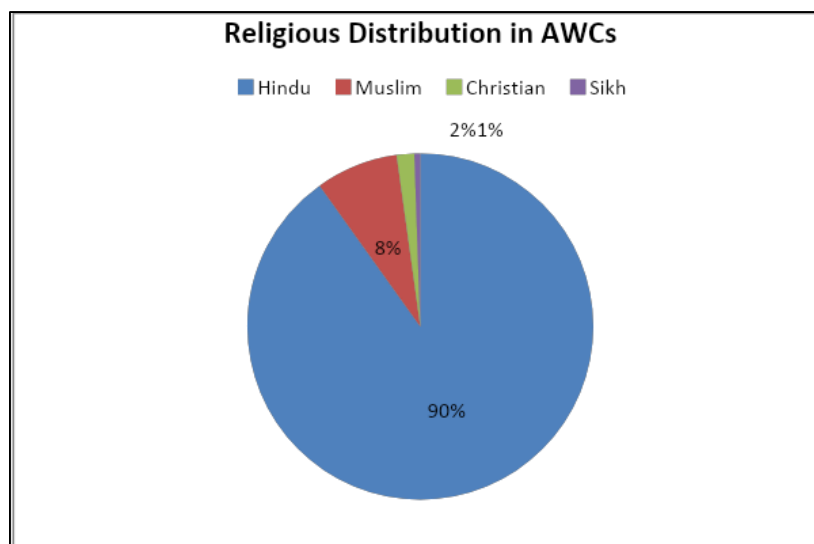
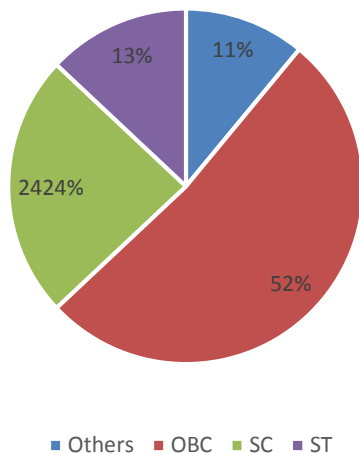


Figure 2: Caste distribution of parents of children going to anganwadis

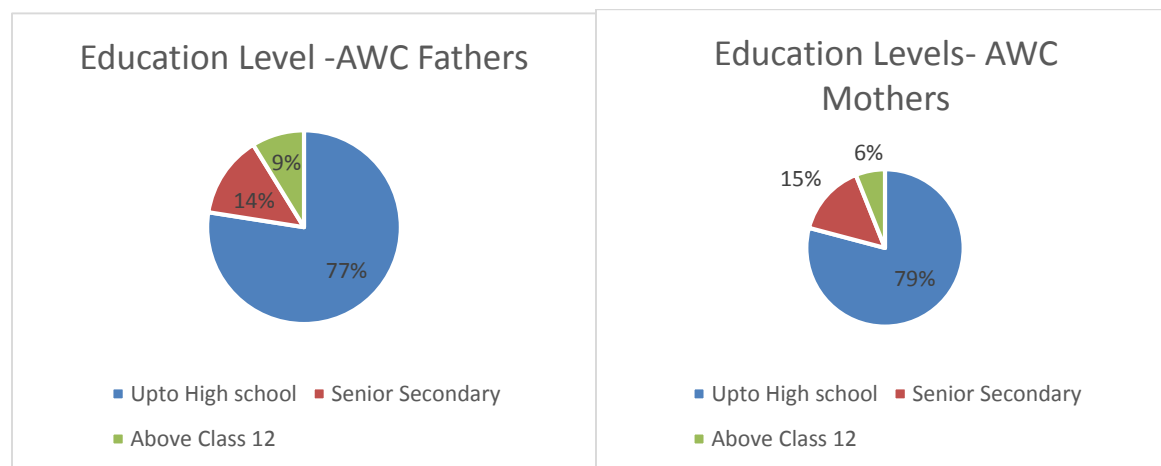


With respect to caste composition, the largest proportion of parents sampled belonged to the Other Backward Classes category (52 per cent), followed by Scheduled Castes (SC, 24 per cent), Scheduled Tribes (STs, 13 per cent) and Others (11 per cent) (figure 2). The caste-wise distribution of parents sampled across the districts was more or less similar.

b. Education Level of Parents

Majority of the parents sampled in the anganwadi had completed only up to high school. A slightly larger proportion of fathers compared to mothers had completed above senior secondary education among the parents of anganwadi-going children sampled (figure 3).

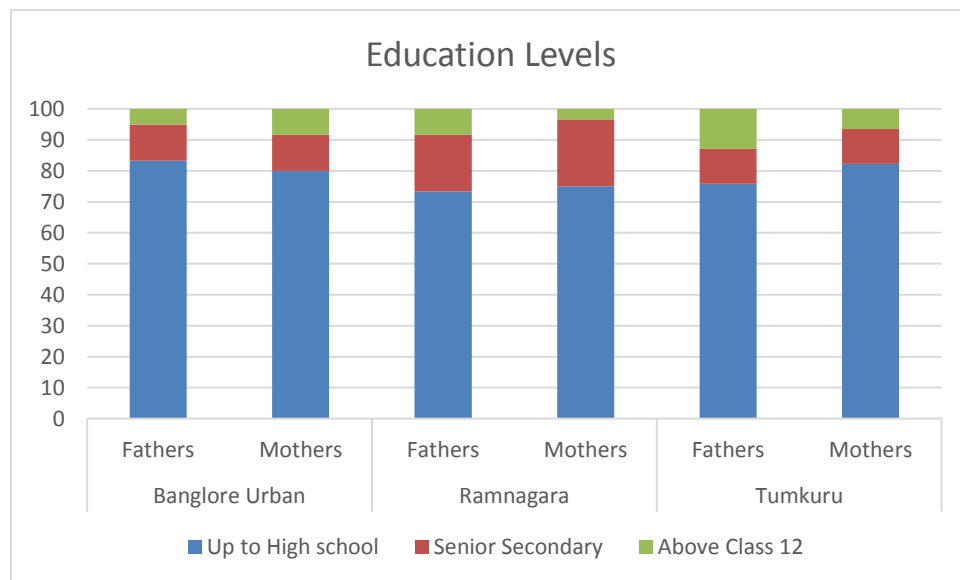
Figure 3: Education levels of parents of children going to anganwadis



Across districts while the trend for parents' education levels remains somewhat similar, with the majority of parents having attained up to high school education, more parents in Ramanagara, followed by fathers in Tumkur seem to have post-secondary education. Among fathers and mothers across the three districts, mother from Ramnagara form the largest proportion to have

attained senior secondary education (22 per cent), while fathers from Tumkur form the largest groups having attained above class 12 education (13 Percent).

Figure 4: Education levels of parents of children going to anganwadis by district



c. Occupation

Parents' occupations of children going to the anganwadis were highly varied. While a large majority of mothers (63.8 per cent) were unemployed, father's occupations varied from agriculture and animal husbandry (16 per cent) to other forms of informal and casualised work such as coolie / construction work (22 per cent) and driving (12 per cent). The remaining fathers were further employed in various other petty trades, such as carpentry, electrician, welding, painting, small businesses and so on. Among mothers' who were employed, most were employed as tailors, labourers, factory workers, in beedi rolling, agriculture or housekeeping. Slightly higher proportion of mothers in Bangalore Urban (36 per cent) were engaged in paid work compared to Ramnagara (30 percent) while a slightly lesser proportion of mothers in Tumkuru were engaged in paid work (33 per cent) compared to Ramnagara.

d. Economic Status (Standard of Living)

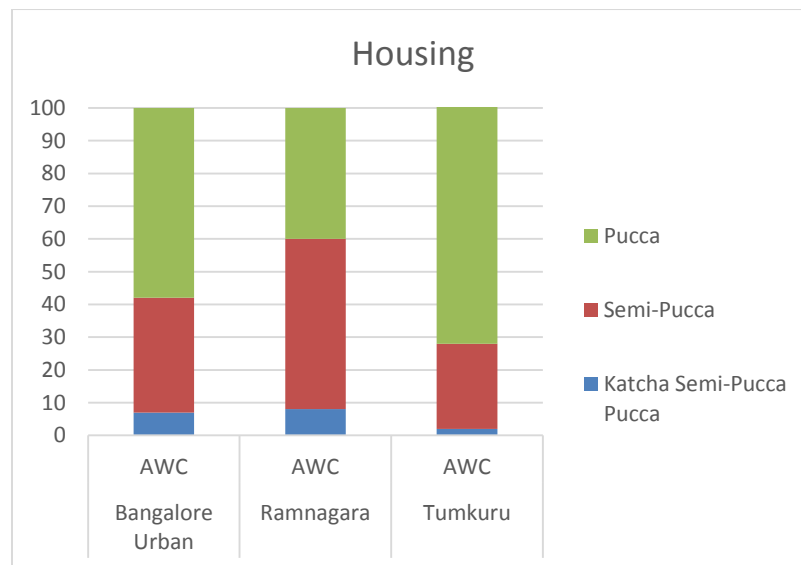
Due to the difficulties involved in collecting reliable income data at household levels, we used the following indicators to estimate the economic status and standards of living of families:

- Type of house: kacha/semi-pacca/pacca
- Cooking: Firewood/ kerosene stove/LPG gas stove

- c. Electricity: 24 hours of electricity/ No electricity
- d. Water Supply: Common source/piped water/tanker
- e. Consumer durables: Cycle/TV/Two wheeler/Other

More than half the parents of children going to anganwadis reported living in pucca house (57 per cent), while 37 per cent reported living in semi-pucca houses. The remaining reported living in kaccha houses. However, large district wide variations were seen, with relatively higher number of parents from Tumkuru reporting pucca houses (73 per cent) compared to the other two districts, more parents from Ramnagara reporting semi-pucca houses (52 per cent) compared to the other two districts (figure 5).

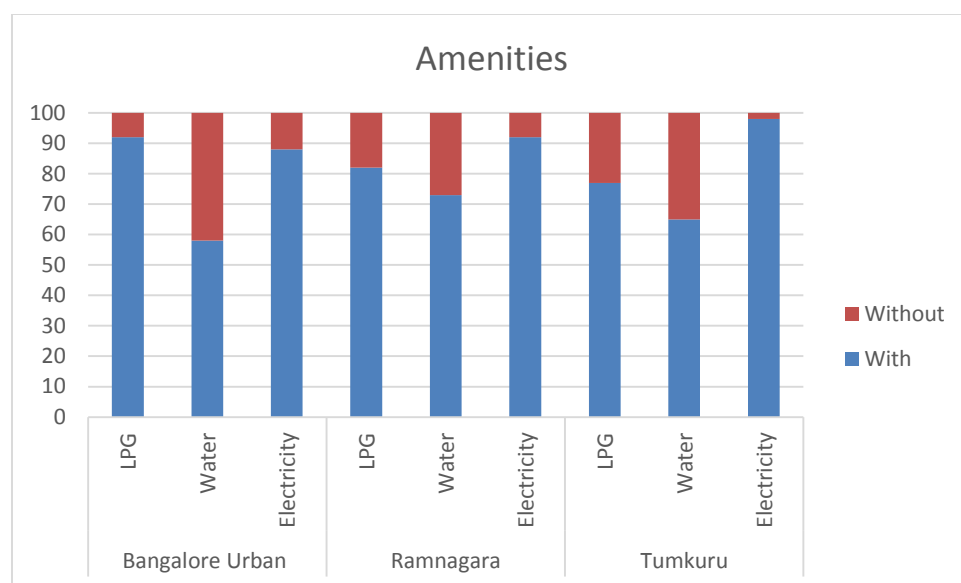
Figure 5: Type of houses of children going to anganwadis by district



Eighty-four per cent of the sampled parents reported having LPG for cooking; 65 per cent reported having piped water inside the home; and 93 per cent reported having electricity. Among those who are *without piped water* facilities, some have also reported sourcing water from common wells or handpumps, while a few have reported receiving tanker supplied water (in some cases provided by the panchayat).

Figure 6 shows a comparison of houses with amenities across districts. Provision of piped water seems to be the amenity that seems to be the least available across households, and the lack of this provision is more severe in Bangalore Urban and Tumkuru.

Figure 6: Amenities in households of children going to anganwadis by district



Additional information was also collected about assets and consumer durables that families possessed, as an indicator of economic status of families. The data showed that about half the families interviewed (50 per cent) were able to afford at least a two-wheeler, and at 83 percent of families reported at least one high value consumer durable (e.g., TV, washing machine, fridge), with TV being the item reported by most families. About 42 per cent of the families interviewed had no two vehicles, but very few families (6.5 per cent) reported having no consumer durables at all, and even lesser (5 per cent) had no vehicles or consumer durables.

Across the districts highest number of families in Bangalore reported having no vehicles (48 per cent), followed by 40 per cent in Tumkuru and 38 per cent in Ramnagara. With respect to consumer durables, almost all families in Tumkuru reported one or more assets (98 per cent), followed by 93 per cent families in Ramnagara, and 88 per cent families in Bangalore Urban. The high costs of living in Bangalore could be a significant factor because of which possession of non-essential items such as personal vehicles and consumer durables may be lower.

Of the parents sampled across the three districts, households from Tumkuru appear to be relatively better off compared to the other two districts, when we take into account multiple factors such as housing type, ownership of personal vehicles and consumer durables. While more families from Ramnagara have reported ownership of non-essential items such as vehicles and consumer durables, more families in Bangalore live in pucca houses.

e. Home Learning Contexts

In order to understand the provisions for early stimulation and learning at home parents were asked questions on the availability of ECCE material and nature of engagements between parents and children at home, to understand differences in home environments and how this contributes to children's development.

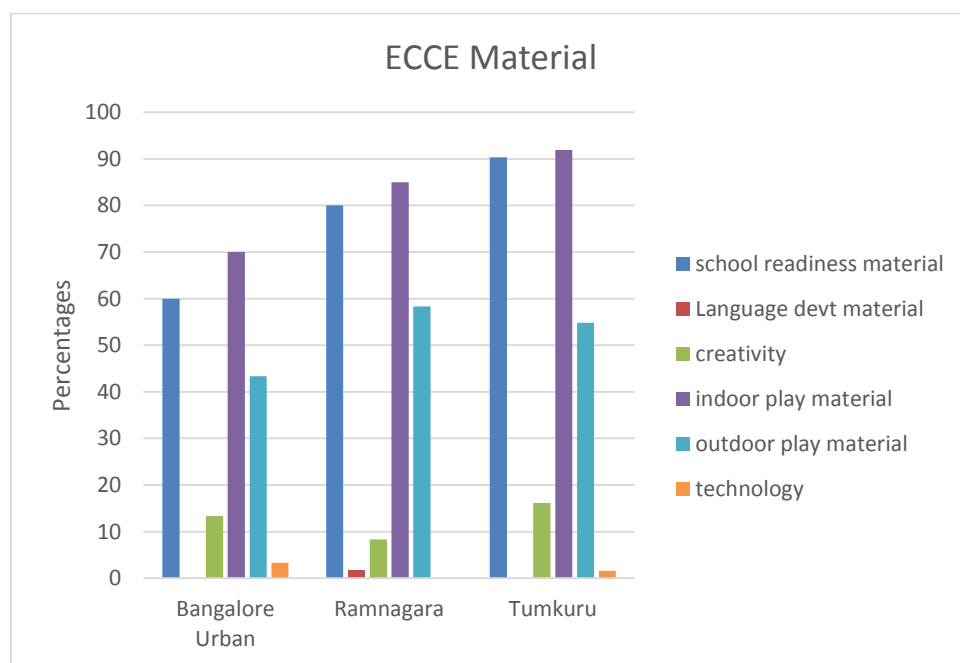
Across districts, the largest number of parents (82 per cent) reported having provisions such as indoor toys (i.e., stuff toys, plastic toys such as cars, JCBs, puzzles, building blocks, kitchen sets, etc) for their children to play with; followed by school readiness material (e.g., alphabet and number books, charts on fruits, vegetables, animals, notebooks and slates) (77 per cent). A large number of parents also reported having procured books on tables for their children, clearly indicating the downward extension of the primary curriculum into the ECCE years. While at least half the number of parents (52 per cent) reported having procured some form of outdoor play material (e.g., bats, balls, cycles, scooters) for their children to play with, the area that seemed to be most neglected was language development with almost no family reporting the availability of resources such as story books, rhymes, or other language supporting material other than school readiness material such as alphabet, fruit and vegetable books and charts. Very few families reported having no resources at all, of which the largest numbers were in Bangalore Urban (13 per cent), followed by Ramnagara (7 per cent), while a very small number reported the same in Tumkuru (2 per cent).

Figure 7 shows a district-wise comparison of ECCE material available at home for children going to anganwadis. While across districts indoor play material was reported by the most of families, availability of indoor play material is the highest in Tumkuru, followed by Ramnagara. Tumkuru and Ramnagara also have the higher number of families reporting the availability of school readiness material at home compared to Bangalore Urban, while Ramnagara has the highest number of families who have reported the availability of outdoor material as well.

Families in Bangalore Urban report availability of fewer materials than families in the other two districts, for all categories except technology (eg: mobile phones, computers and tablets). As seen with regards to non-essential economic assets, the fewer number of families in Bangalore Urban reporting the availability of ECCE material at home may be related to the high costs of living in Bangalore and the lesser resources within households for non-essential goods. Tumkuru, on the

other hand has the highest number of families that have invested in various kinds of ECCE material at home, and also has the highest number of families with pucca homes and non-essential economic assets. This may be indicative of a higher purchasing power and more economic resources within these households.

Figure 7: ECCE material available at home for children going to anganwadis, by district



f. Tuitions

In addition to examining the availability of ECCE material at home to understand the kinds of support children receive with early learning, we also examined whether children received other forms of academic inputs in the early years. About 10 per cent of families across the three districts have reported sending their children to tuitions in addition to anganwadis, of which the highest numbers were in Bangalore Urban (17 per cent), which also on an average has lesser number of families investing in ECCE material at home. The high investment in tuitions on the other hand can be indicative of the pressures that families face in order to prepare their children from early on, in formal learning, in order to be competitive with children from elite classes, as shown by several studies (see CBPS 2018; Kaul et al., 2017; Sriprakash et al, 2020). The average cost of tuitions reported by parents in anganwadis in Bangalore Urban is Rs. 270 per month. Only 7 per cent of families in Tumkuru reported sending their children for tuitions, which on an average was

said to cost Rs. 133 per month. Even fewer families in Ramnagara sent their children for tuitions (4 percent) at an average monthly cost of Rs. 240.

g. Family-Child Interactions

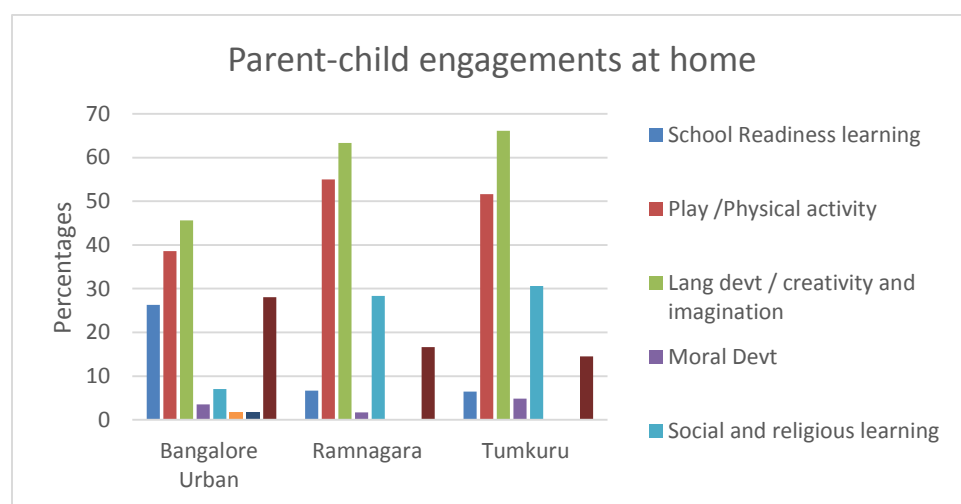
In addition to the investments made in ECCE resources to foster children's early developments and learning, we also examined the kinds of engagement that families of anganwadi-going children have at home, which also contributes to children's learning and development in the early years. More than half of the families interviewed (59 per cent) across the three districts reported engaging children at home with stories, rhymes, songs and dance, indicative of efforts at fostering developments in the areas of language, creativity, imagination and expression. Parents reported stories and rhymes taught in local language (e.g., *Machali Jal Ki Rani Hai*; in Arabic), mythological stories, stories from the Panchatantra and stories about animals, birds, gods, etc. Among songs, they named songs from popular culture as well as devotional songs and lullabies in local languages.

Close to half the parents interviewed (49 per cent) also reported engaging children in play and other forms of physical activity such as yoga and exercise. Among the games names, a large number of parents in Ramnagara and Tumkuru also named local games such as *Kunte Bille* (Hopscotch), *Kere Dhada*, *Topi Beka Topi*, along with hide and seek, playing on swings, and with tops and balls. A smaller proportion of parents reported engaging children in social and religious through stories and songs about the family, relationships or gods (22 per cent), and school readiness related learning (e.g., teaching alphabets, numbers, fruits, vegetables and so on) (13 per cent). Overall the large number of families engaging children in more developmentally appropriate activities such as play and story-telling presents a positive picture.

Only about 20 per cent families across the three districts reported not engaging with children in any form of play or learning at home. The largest proportion of parents who reported no form of engagement with their children at home were from Bangalore Urban (28 per cent), and a much lower proportion reported the same in Ramnagara (17 per cent) and Tumkuru (15 per cent). More data is necessary to understand whether these patterns may be related to higher education levels seen for parents in Ramnagara and Tumkuru (see figure 3 above), or if they may be related to a higher proportion of double income families seen in Bangalore Urban and lesser time available among parents to engage children at home (see section c.).

A district-wise analysis shows that while interactions revolving around language and creativity have been reported by the greatest number of families, more parents in Tumkuru (66 per cent) followed by Ramnagara (63 per cent) have reported this compared to Bangalore Urban (46 per cent). While more than half the number of parents interviewed in Ramnagara (55 per cent) and Tumkuru (52 per cent) also reported engaging their children in play, the proportion who reported the same was much lower in Bangalore Urban (39 per cent). More parents in Bangalore Urban (26 per cent) have reported engaging their children in school readiness activities compared to significantly lower parents in Ramnagara (7 per cent) and Tumkuru (6 per cent). Seen alongside the larger number of families that are investing in tuitions also in Bangalore Urban, a quarter of the families interviewed in Bangalore reporting practices around school readiness might signal the greater pressure to competitively prepare children from the earliest stages for primary school, compared to Ramnagara and Tumkuru (figure 8).

Figure 8: Parent-child interactions at home for children going to anganwadis, by district

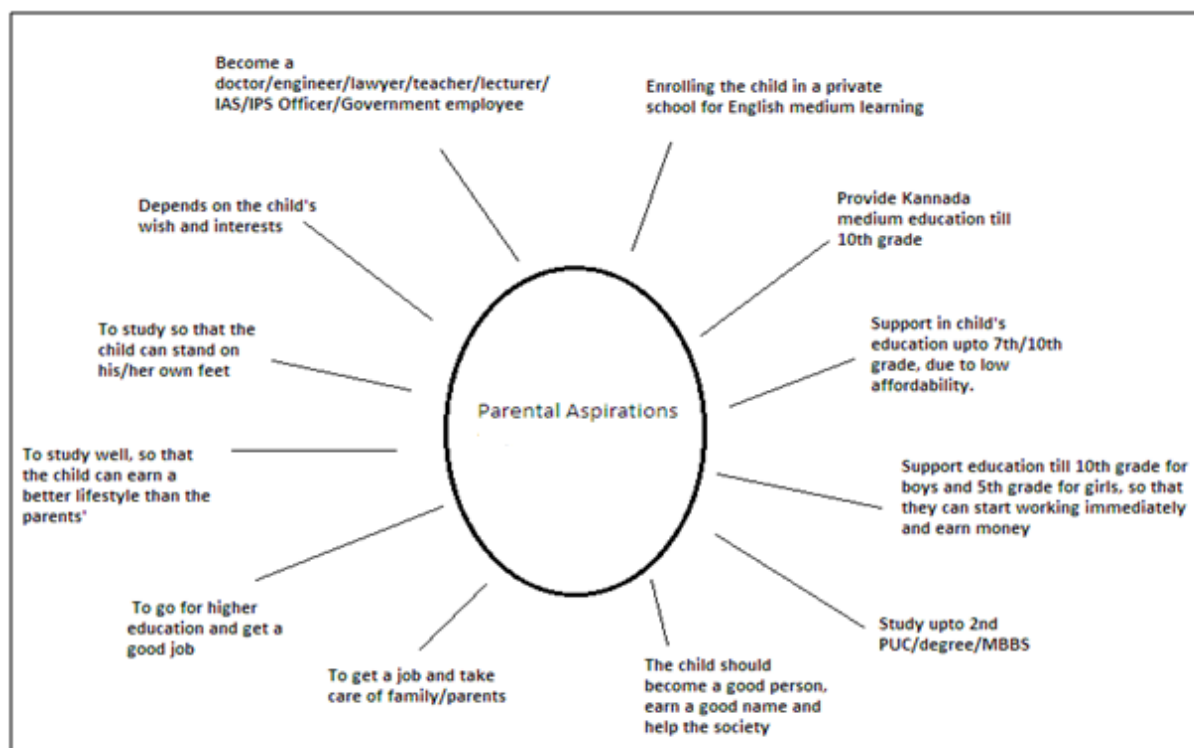


h. Parental Aspirations and Decision Making around Education

Along with information on household economic status and provisions for children's development and learning, information was also collected on parents' aspirations and planning for children's futures (figure 9). Most parents reiterated the importance of education to attain a good job, to become independent and for social mobility. While most parents (60 per cent) reported that they would allow their children to study up to whatever level they desire, about 11 per cent specifically indicated that they would educate their children up to degree level. Parents responses to questions about educational aspirations revolved around ensuring that their children received both 'good

education’ and ‘good jobs’. While a few parents articulated ‘good education’ to mean English medium education or in better quality ICSE or private schools, for most parents the idea of good education was an idea of better provisioning for education for their children than what they themselves had received, and something that would enable social mobility. Education was spoken in relation to attaining professional jobs such as that of a doctor, teacher, engineer, jobs in IAS, IPS or government service, while a very small proportion of parents reported the desire for education to help their children become ‘good persons’ in society. Interestingly one parent in Bangalore Urban also pointed out to the ‘risks’ of investing in education, and particularly stated a desire to educate his daughter in Kannada medium as he would be able to bear the ‘risks’ of this.

Figure 9: Parental aspirations for children’s futures



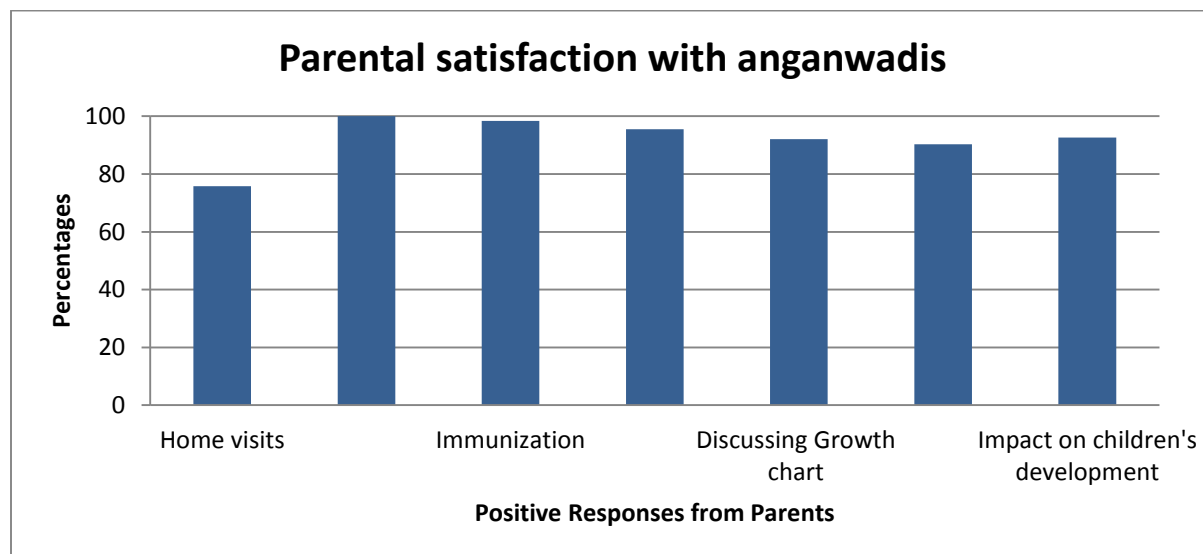
Along with aspirations for the future, we also attempted to understand parents’ investments in different kinds of ECCE provisions. Parental responses around sending children to anganwadis revolved around the centres preparing children to go to school by disciplining them for school routines, increasing sitting tolerance and the ability to mingle with strangers. Many parents also spoke about the introduction of formal literacy and numeracy which would aid with later schooling. A high number of parents from Bangalore Urban and Tumkuru specifically reported

putting children in the anganwadi as it was close to home, which could be an important consideration particularly in Bangalore, since a higher proportion of mothers from our sample in Bangalore Urban are also working. In fact as one mother from Bangalore Urban reported, putting her child in the anganwadi enabled her to go to work, while also keeping an eye on her son since the anganwadi was close to her place of work, and also enabled her to come on time to pick her son up from the anganwadi.

i. Satisfaction with provisions at anganwadis

A discussion with parents on the functioning of the anganwadi also showed anganwadis to be well-functioning (figure 10). Almost all parents reported the anganwadi to be regularly open and organise immunization services. About 90 per cent of parents also reported that other services provided under the ICDS programme, such as weight monitoring, discussion of children's growth chart with parents, organisation of learning and play activities were also regularly conducted, and that these had positive impact on their children, such as on language development, learning to interact with others, learning alphabets and numbers in Kannada and English, learning about days of the week and months of the year, becoming more active, and so on. Overall parents' reports suggested the presence of well-functioning anganwadis.

Figure 10: Satisfaction with anganwadi



4.2 Infrastructure and Classrooms

The infrastructure, services and processes of an ECCE institution are critical components of an ECCE programme, and their quality in turns affects the quality of ECCE provisioning that a child

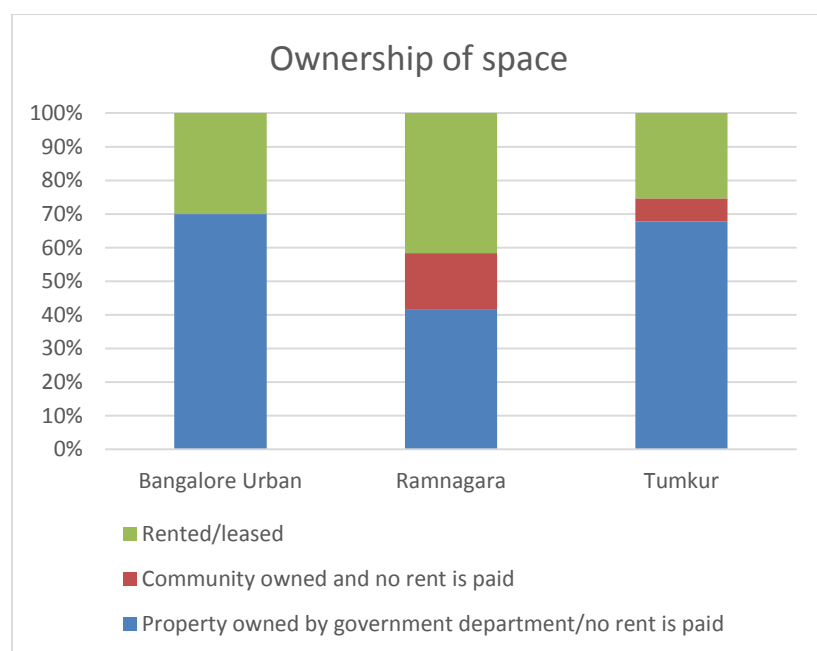
receives. This section presents an analysis of the profiles of anganwadi centres across the three sites, based on observations of physical infrastructure, space, facilities, curriculum and pedagogic practices.

a. Infrastructural facilities and space

Building ownership

A discussion of ownership of property on which anganwadi centres are located is important as this helps ensure the uninterrupted functioning of the anganwadis. Previous studies have reported on disruption of anganwadi services or the inadequacy of facilities when buildings have been rented or community donated because of delayed receipt of payments (Joshi, 2018). Among the anganwadis surveyed across the three districts, 62.5 per cent were owned by the Women and Child Department (WCD) for which no rent was being paid, which is close to the state-wide figure of 64 per cent anganwadis operating out of owned buildings. Thirty-four per cent of the centres were located on rented property, and a small proportion of 3.5 per cent were located in community-donated spaces, for which no rent was being paid. Figure 10 below shows the district-wise variation for ownership of anganwadi space, where it can be seen that Ramnagara has lower ownership of building space as compared to the other two districts.

Figure 11: Building ownership for anganwadis



Further, among the anganwadi centres that were rented or leased, while 36% reported not having any problems in using the space, an equal proportion reported facing regular problems for the same while another 27% centres reported facing occasional problems in usage of the centre space. Overall, a higher proportion of workers reported facing some form of problems emerging from the lack of owned spaces on which anganwadis are located. Some of these problems can be related to the delay in funds received, and anganwadi workers having to pay out of their pockets to keep centres running (as reported in the next section, 4.3., by workers), despite availability of a separate head for rent under ICDS budgets. Even though the costs of rent are budgeted under the ICDS, several studies have also shown rent norms to be inadequate, particularly for urban centres like Bangalore, with high rents and deposits. In this scenario it is heartening to see that the highest number of owned anganwadis are in Bangalore Urban. Another recent study conducted by CBPS-UNICEF (2017) indicated a similar figure for Bangalore Urban, with 72% of centres having ownership of the building.

Space and provisions

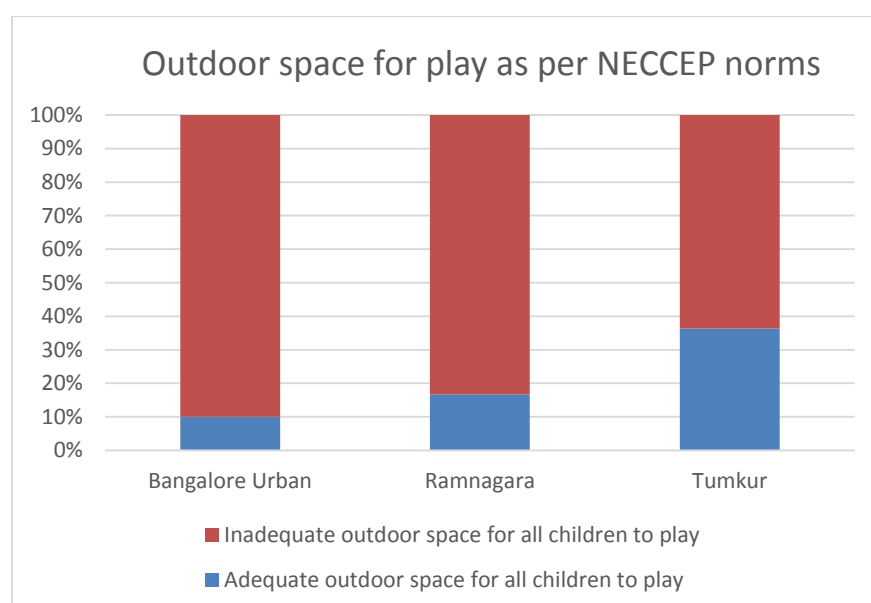
Though the ICDS scheme in itself does not lay down specific norms for infrastructure, it states an indicative standard for the construction of anganwadi centres to include 600 square feet (55.75 square metres) of covered space for children to sit, a separate kitchen, storage space for food items, child friendly toilets, drinking water facilities and playing space for children (MWCD, 2016-17). The ICDS budget heads for infrastructural components however only include rent for building, construction of AWC building, maintenance of AWC building, upgradation of AWC building and construction of toilets in government owned centres. As per latest revisions, which took place after the period of the study, ICDS budget heads have included drinking water facilities, and furniture/equipment under which drinking water filter costs are to be subsumed³.

Observations for space were thus conducted according to National Early Childhood Care and Education Policy (MWCD, 2013) norms – of 30 square metres of outdoor space for 30 children to play, and 35 square metres of indoor classroom space for all children to sit and undertake activities comfortably.

³ <https://icds-wcd.nic.in/icdsimg/APIP2019-20forAnganwadiServicesunderUmbrellaICDSScheme.pdf>

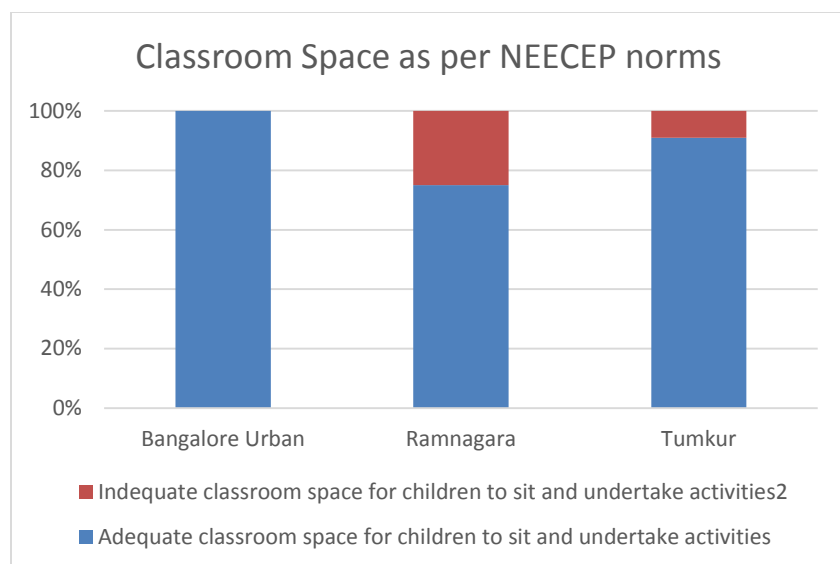
Close to 80 per cent anganwadi centres did not have adequate space for all children to play, when measured against the NECCE policy norm. The figure 12 below shows that anganwadis in Tumkuru fare slightly better in this regard, followed by Ramnagara. Bangalore Urban had the highest number of anganwadis with inadequate outdoor space, which may also be a result of the high land and rent costs in Bangalore, suggesting a need to reconsider the uniform allocation of amounts for infrastructure across ICDS projects. The lack of budget-level provisioning for outdoor space, as separate from costs of building construction or rent, may explain low levels of outdoor space availability.

Figure 12: Availability of outdoor space for play in anganwadis



Anganwadis fared much better with regards to indoor classroom space, with 87 per cent of them having adequate space as per NECCEP norm. Figure 13 below shows that while all centres in Bangalore Urban had adequate classroom spaces, while the few anganwadis with inadequate space were located in Ramnagara or Tumkuru.

Figure 13: Availability of adequate indoor space in anganwadis



In terms of toilet facilities, 37 per cent of the anganwadi centres were found to have no toilets, still indicating a large number of centres where infrastructural provisions need to be urgently strengthened. Among the remaining centres that did have toilets, about 18 per cent centres had children using open spaces despite the availability of toilets. With drinking water facilities, only 30 per cent of the anganwadi centres had clean, covered and filtered drinking water available at the centre. Field observations showed a large number of children carrying their own water to anganwadis. The allocation of budgets for clean water in the recent APIP is thus a welcome move.

Storage space for teachers for teaching-learning material was found to be adequate in over 80 per cent of the centres in Bangalore Urban and Ramnagara. Tumkuru however had close to 70 per cent centres with either no storage space, or inadequate storage space.

In terms of seating infrastructure, the National ECCE curricular framework recommends either age and height appropriate furniture, or comfortable mats. Under the ICDS budget, 10,000 rupees once every five years is allocated for each anganwadi centre to cover costs of furniture and other equipment. Among anganwadi centres observed, 90 per cent had children seated on mats, almost uniformly across all three districts, and out of these, about 40 per cent centres had mats that were either torn or unclean. This figure was especially high in the case of Ramnagara, where over half the centres had torn or unclean mats for seating, while in Bangalore Urban and Tumkuru, the figure was around 30%.

Just about half the anganwadis (52 per cent) were observed to have either no hazardous conditions around the centre, or had a protective barrier such as a good wall or a lockable gate that separated children from hazardous conditions. The figure was roughly equal in all three districts. The nature of hazardous conditions around the centres in all districts were usually motor vehicles and traffic, and in fewer cases open drains, sewers or uneven surfaces.

With respect to indoor hazards or insufficient infrastructural provisions inside the centre, 43% were found to face two or more of these challenges. These conditions included inadequate lighting, kitchen activities taking place in close proximity to the classroom, leaking roofs, broken windows, doors, handles etc and broken or uneven floors. Though Bangalore and Tumkuru had about 35% centres with between two and four of these conditions, this figure was higher for Ramnagara at over 40%, with an additional 16% centres having five or more than five such conditions. Issues of cleanliness were also observed in about 29 per cent of the centres, with almost all cases involving open defecation around the centre premises.

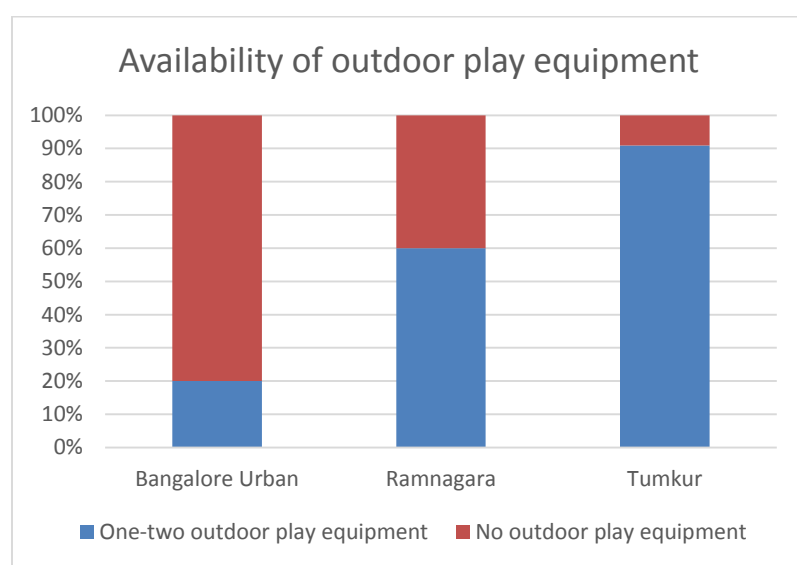
Almost none of the anganwadi centres observed had any facilities for children with special needs. This trend could potentially be altered in the future with the utilization of the recently introduced budget head of untied funds of 3000 rupees per child for children with special needs (APIP 2019-20).

b. Curricular Material

The ICDS budget assigns Rs 5000 annually per anganwadi centre for the procurement of a preschool education kit, which is to include costs for all educational material as well as ECCE training for the anganwadi workers. A model preschool kit has been developed by the MWCD, in consultation with ECCE experts, which includes a comprehensive list of items which can be procured from a market, or can be sourced locally from the environment at no cost, and material that can be prepared by the anganwadi worker herself. The document also mentions that material for PSE should also be age-appropriate, foster holistic learning in all developmental domains, and be culturally and environmentally appropriate (MWCD, 2017). Expenditure data for ICDS in Karnataka reports utilization of just about 60% of the funds released in 2017-18 under the preschool kit component (Press Information Bureau - PIB, 2019).

Observations for the study classified curricular material into two categories – as outdoor play equipment, and indoor curricular/play equipment. Around 46 per cent of anganwadis did not have any outdoor equipment, while the rest had either one or two items for outdoor play. Viewed in conjunction with the lack of adequacy of outdoor space for play, these numbers are perhaps expected. Further, in terms of types of material available, almost all of them exclusively had balls and rings, and no other kind of material. Under five per cent centres had swings, slides or bats. As can be seen from figure 14 below, the non-availability of outdoor play material was highly varied across districts. Bangalore Urban did not have outdoor equipment in 80% centres, whereas most centres in Tumkuru had one or two materials for outdoor play.

Figure 14: Availability of adequate outdoor play material



None of the anganwadi centres which did have such equipment reported regular opportunities for children to use the equipment, with 80 per cent providing opportunities ‘sometimes’ and about 20 per cent providing opportunities ‘rarely or never’.

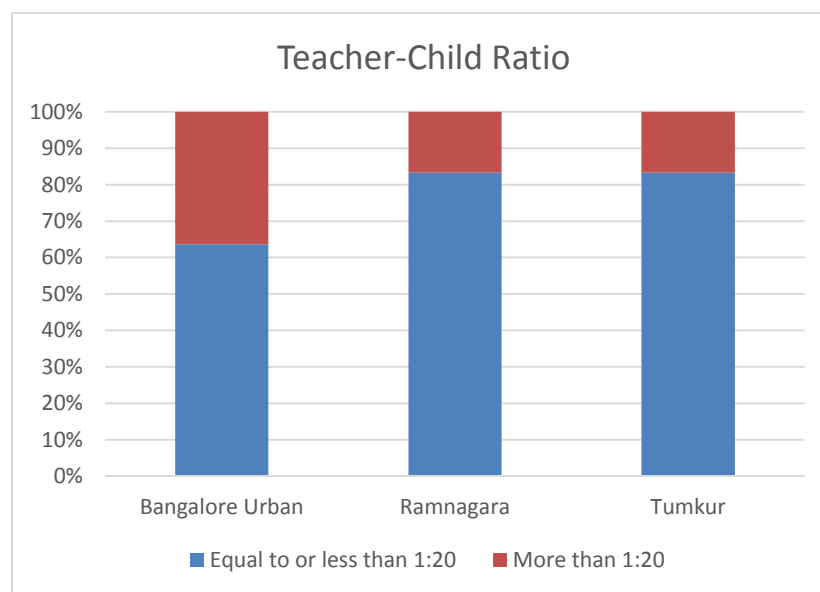
Centres were better equipped with indoor material in comparison, with about 48 per cent centres having one or two materials, and an equal proportion having three or more materials. These centres were approximately equally distributed across districts. The most commonly found indoor materials were blocks, flashcards, charts and puzzles. Fewer centres had blocks, beads or plastic toys. In terms of opportunities for using the material, about 30 per cent had regular opportunities, while 70 per cent provided opportunities ‘sometimes’.

c. Curricular and pedagogic practices

According to the National Early Childhood Care and Education Curricular Framework (NECCECF), seating and curricular arrangements within the classroom should be organized in a manner so as to facilitate flexibility to conduct different kinds of large and small group activities, and include activity corners with different kinds of material (MWCD, 2014). The model preschool kit developed by the MWCD (2017) further describes four activity corners as imaginative play/pretend play corner, art and craft corner, picture book corner and construction/manipulative play corner. Centres observed fared poorly on this count, with 83 per cent of centres having disorganized seating arrangement and 91 per cent centres having disorganized arrangement of curricular material, both with no specific pedagogic patterns visible. Around 40 per cent centres did have age-appropriate display material on the walls, which were placed at eye level for the children to view, however almost none of them had any display of material produced by children.

The NECCEP prescribes a teacher-child ratio of 1:20 for pre-school centres, even though the ICDS scheme does not lay out norms for the same. As can be seen from figure 15 below, this was observed to be followed in over 80 per cent anganwadi centres in Ramnagara and Tumkuru, but only about 60 per cent anganwadi centres in Bangalore Urban appeared to be following this norm, suggesting a greater crowding of centres in Bangalore Urban resulting from higher population densities perhaps.

Figure 15: Teacher-student ratio at anganwadis



Time spent on pre-school education was measured against the NECCEP norm of 3-4 hours per day. Figure 16 below shows that the norm was not being practiced in a majority of the anganwadi centres. About 80 per cent centres in Ramnagara and Tumkuru, and 50 per cent centres in Bangalore Urban were spending two or lesser hours on preschool education. Literature on the study of anganwadi centres has consistently reported the lack of emphasis on preschool education in anganwadi centres, as compared to other aspects such as nutrition and health. The overburdening of anganwadi workers with multiple responsibilities and the inadequacy of ECCE training have also been noted. In this study too, many anganwadi workers interviewed reported the challenges of being overburdened by the multiple numbers of registers they had to regularly fill, as well as non-ICDS activities such as polls and surveys that they had to conduct, which would presumably use up time available for pre-school educational activities (see section 4.3 below).

Figure 16: Time spent on PSE across anganwadis

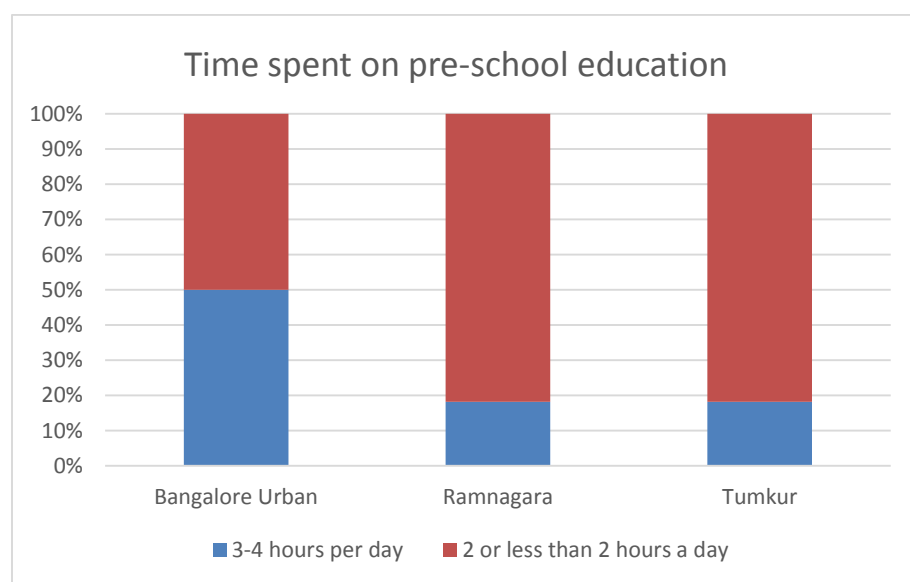
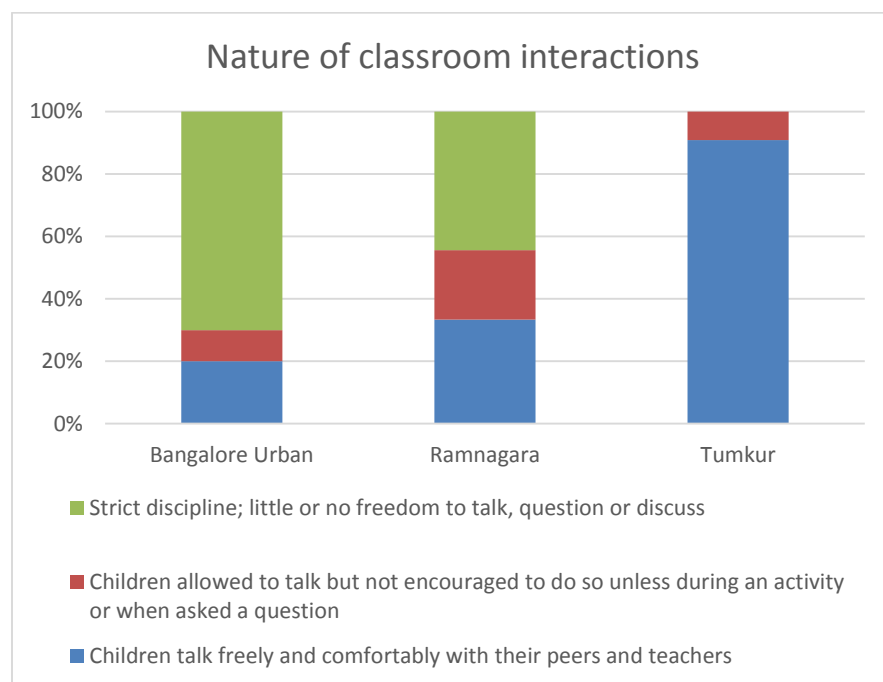


Figure 17 shows the differing nature of teacher supervision in anganwadi centres across districts – with Bangalore Urban centres being much stricter, and Tumkuru centres largely allowing for children to talk freely and comfortably. These observations may be reflective of the amount of time spent on preschool education in these districts, with more educational activities entailing stricter discipline in the classroom as a teaching strategy. Observations of teaching methods revealed mixed results, where half of the anganwadi centres were found to be using either the play-way method, a mixture of different kinds of activities or informal teaching. Importantly though,

teaching activities could not be observed in the other half of the centres. Against the little amount of time spent on preschool education in the first place, and responses of anganwadi workers on their training experiences (see section 4.3) showing that there was little focus on pre-school education and related pedagogic practices, the quality of teaching imparted in these centres remains varied.

Figure 17: Nature of classroom interactions in anganwadis

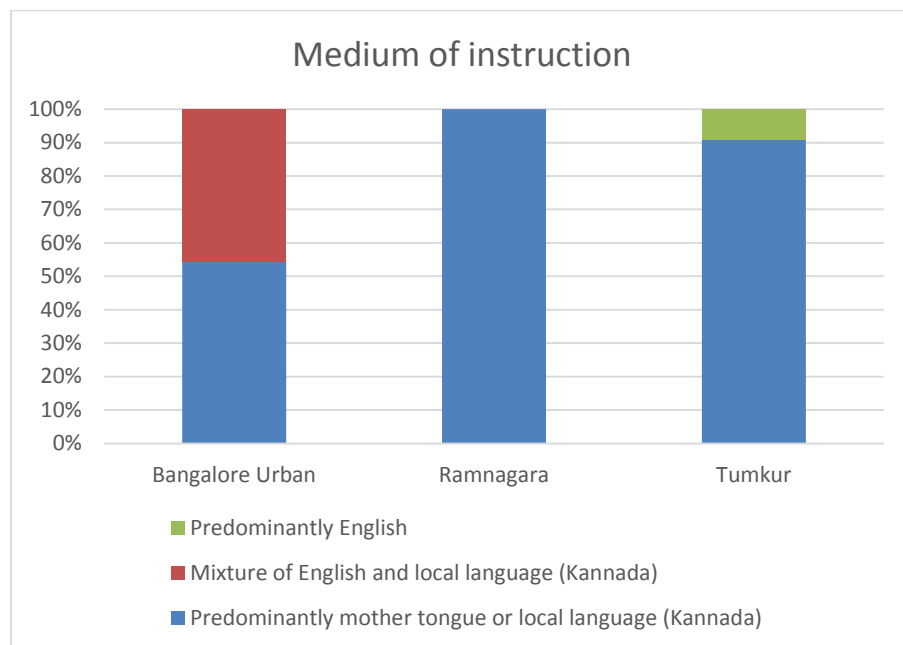


Guidelines for the usage of pre-school education (PSE) kit in anganwadis mention the need to use the curricular material in an age-appropriate manner, catering to the varying developmental needs and abilities of children of different ages (MWCD, 2017). Among centres where teaching practice could be observed, only about 36 per cent were practising multi-grade teaching, with more than half of these centres located in Bangalore Urban. Seventy five percent centres both Tumkuru and Ramnagara were observed to not be conducting multi-grade teaching.

Developmentally appropriate norms state the need to use the child's mother tongue as a medium of instruction in the early years of teaching. Most anganwadi centres in Ramnagara and Tumkur, and about half the anganwadi centres in Bangalore Urban were observed to be using Kannada, the local language, while half the anganwadi centres in Bangalore Urban were using a combination of English and the local language (figure 18). The trends in anganwadi centres for languages used

maps on to the languages that the anganwadi workers reported knowing (refer to section 4.3). The mother tongue of children in some cases was different from the local language (such as Telugu, Tamil or Hindi) which the anganwadi worker may not be familiar with, since less than half the anganwadi workers in each district reported knowing ‘other’ languages.

Figure 18: Medium of instruction

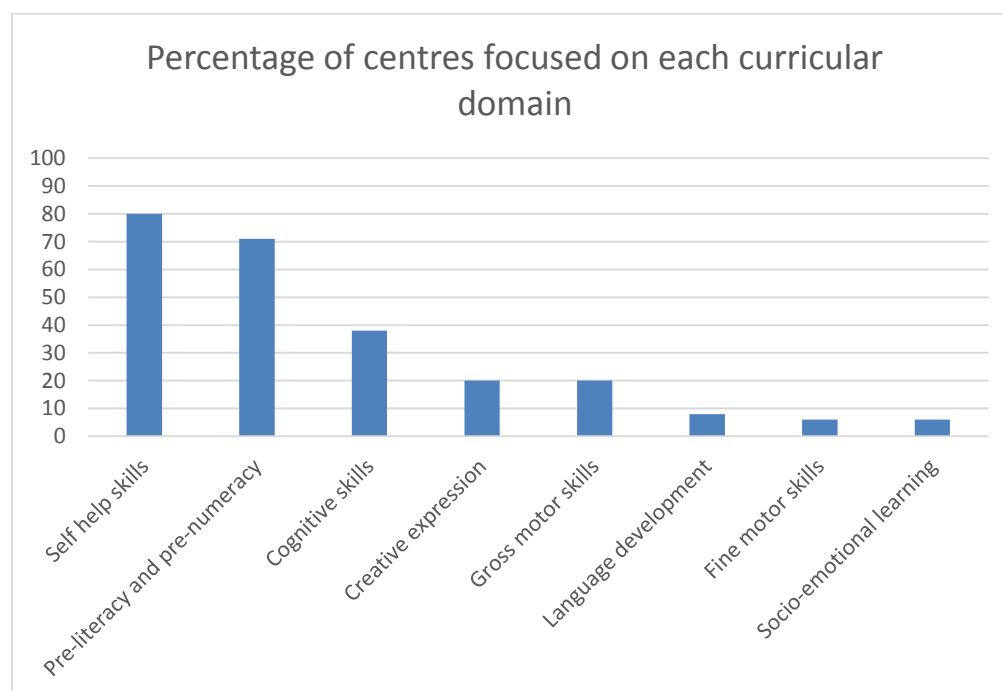


It is known from research in development psychology that child development is a synergistic process, involving inter-related development domains. In order to holistically cater to the development needs of growing children, the NECCEP, the accompanying NECCECF as well the model PSE kit prescribe an integrated approach to early childhood development addressing physical and motor development, language development, cognitive development, socio-personal and emotional development, sensorial development and development of creative and aesthetic appreciation. In line with this, observations were conducted to record curricular focus among eight domains, namely, creative expression, fine motor development, gross motor development, pre-literacy and pre-numeracy, self-help skills, socio-emotional development, language development and cognitive skills.

On average however, the number of developmental domains covered were 2.18 in Bangalore Urban, 2.25 in Ramnagara and 3 in Tumkur. Figure 19 below shows the percentage of anganwadi centres focussing on each of the domains, and one can note the disproportionate focus on self-help skills and pre-literacy and numeracy when compared to other domains. In Tumkuru, more centres have also been observed to engage children in gross motor development and free play (which can perhaps be related back to the availability of rings and balls in more centres). Self-help skills largely involved teaching children how to go to the toilet, wash their hands and eat food, while pre-literacy and numeracy included alphabets, numbers, shapes and colours.

While the proportion of centres focusing on self-help skills and pre-literacy and pre-numeracy were comparable across districts, there was variation observed for cognitive development which was present in a much higher proportion of centres in Bangalore Urban (72 per cent) as compared to Ramnagara (33 per cent) and Tumkur (9 per cent).

Figure 19: Curricular domains of development focused upon in anganwadis



Interactions between boys and girls were also seen to be allowed or encouraged, uniformly across all centres, and wherever observations of the teacher's attitude were possible, no gender bias or discrimination was observed on the part of the teacher.

Teacher's sensitivity and awareness regarding children with special needs was not recorded in most instances, because either there were no children with special needs in the classroom, or such opportunities for observation were not available. However, in some instances, upon speaking to the teacher, teachers seemed to demonstrate indifference, or were unaware about the needs of children with special needs.

Similarly, for understanding teacher's behaviour towards children from socially disadvantaged group such as SCs, STs or OBCs, there were not sufficient opportunities available for observation and discernment of such interactions. It is important to however pay attention to teacher-student interactions in future work, with an eye to caste relations and practices, as our sample showed that a large majority of teachers belong to the Others or OBC category.

4.3 Anganwadi workers

While the sections above discussed the socio-economic status of children going to anganwadis and the infrastructure and classroom provisions available at these state-run ECCE centres, in this section we present data on anganwadi workers, or the teachers responsible for pre-school education within anganwadis. As noted within several studies anganwadi workers are often one of the most overworked, under-paid and poorly qualified frontline staff of the state (Patil and Doibale, 2013; Kular, 2014). Besides preschool education, which remains one of the most neglected components of the ICDS programme anganwadi workers are often expected to perform a number of time consuming ICDS-related and unrelated duties such as organising health and nutrition camps, undertaking home visits to counsel parents, managing a number of registers on beneficiaries, managing a number of state-level schemes introduced for women or children (e.g., Bhagyalakshmi and Stree Shakti in Karnataka), as well other schemes of the state such as Aadhar enrolments, undertaking census surveys or election duties. Thus, quality of preschool education provided by anganwadis is severely impacted by these additional duties undertaken by the anganwadi worker.

This section presents data gathered across the three districts from 35 anganwadi workers. One of the 35 anganwadis selected in Bangalore Urban was supported by an NGO, and the anganwadi workers here have received additional support and training from the NGO staff. We analyse the data collected from the workers in order to understand the implications this has for children's development and learning.

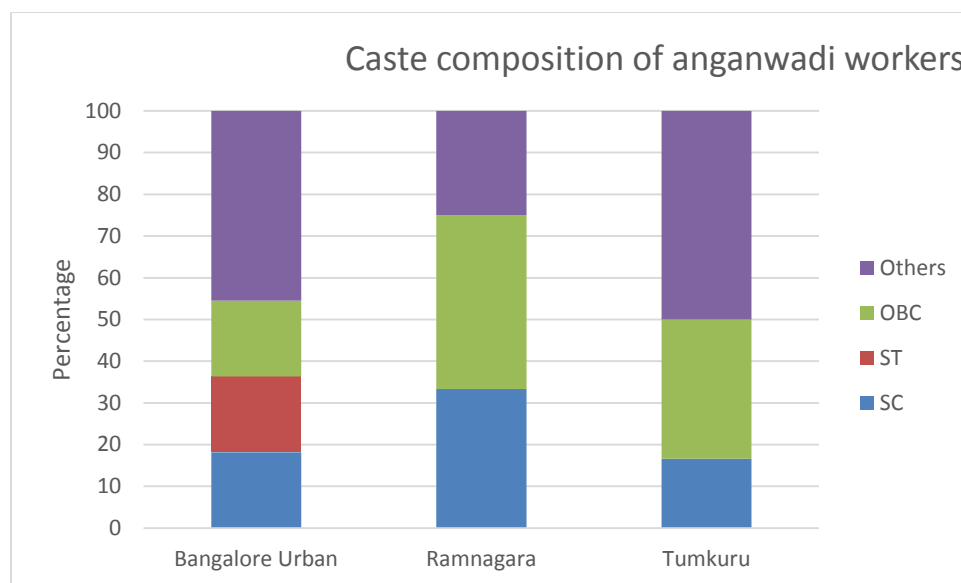
a. Religion and Caste

With respect to religion and caste, all except one sampled anganwadi workers across the three districts were Hindus, while one worker in Tumkuru was Muslim. A caste-wise distribution of the sample showed that the highest number of workers interviewed belonged to the ‘others’ category (or general caste; 40 per cent). This is important to note as the largest majority of parents interviewed belonged to OBC and SC families.⁴ Eleven workers (31 per cent) belonged to the OBC category and eight workers (23 per cent) belonged to the SC category. Only two workers belonged to the ST community, and they belonged to Bangalore Urban district.

Figure 20 shows a distribution of caste profiles of anganwadi workers across anganwadi centres of Bangalore Urban, Ramangara and Tumkur. While workers from the ‘others’ category were the highest in Bangalore Urban and Tumkuru, a higher proportion of workers in Ramnagara belonged to the OBC category. The second highest proportion of teachers sampled belonged to ST, with a slightly lower proportion of teachers in anganwadis belonging to OBC (22 per cent). The proportion of teachers from anganwadis in our sample who belonged to the Forward Caste (or Others) category was the lowest, i.e., 21 per cent. The caste-wise distribution of workers across the three districts shows some difference, with Tumkuru having the highest number of workers from the ‘others’ category (50 per cent), followed by Bengaluru Urban (45 Per cent), while Ramnagara has more OBC (42 per cent) and SC (33 per cent) workers.

⁴ Note: we use parents’ caste as an indicator of the caste-wise distribution of children across the angnawadis, although this does not comprise all children attending the anganwadi

Figure 20: Caste composition of anganwadi workers



b. Education, Experience, Workload and Remuneration

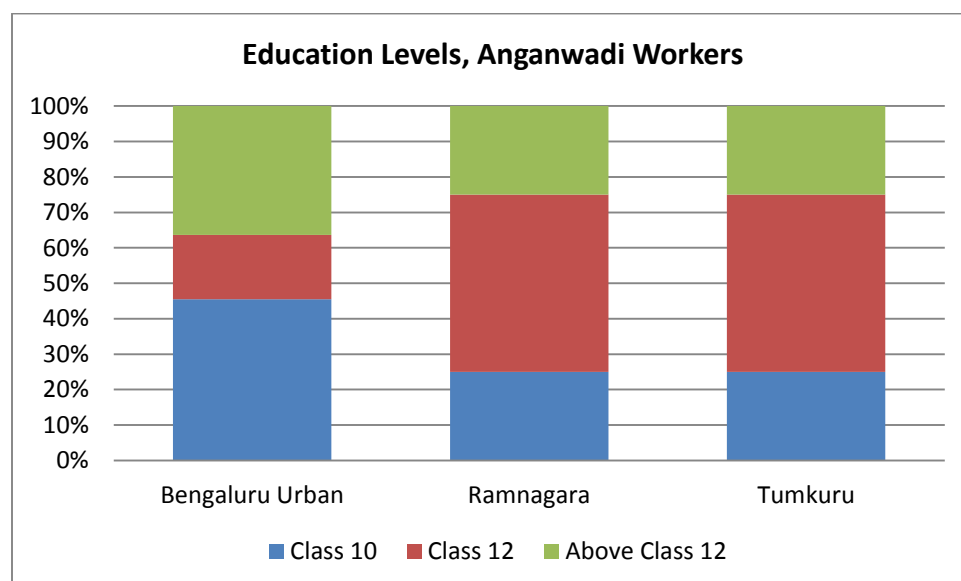
In this section we compare anganwadi workers education levels and experience, along with other factors such as working conditions and remuneration. At the outset it must be noted that unlike for private institutions anganwadi workers salaries do not vary with qualification, experience or in relation to workload. In fact, several commentators have made observations about the de-professionalised status of the workers, who are still considered as volunteers by the state (see Palriwala and Neetha, 2010). With only women recruited to these positions, what is also visible is the gendered expectation placed on women to contribute voluntarily through their affective labour, as women are seen to be naturally inclined to such forms of care work. Thus, signalling the informal and voluntary nature of this work, anganwadi staff responsible for the care and teaching are recognised as ‘workers’ rather than teachers, and are paid what is called an ‘honorarium’, rather than a salary. Despite several advocacy efforts that have been made to change the status of the anganwadi worker and provide her with a professional status, the system of naming the frontline staff of the ICDS programme as a worker and naming her remuneration as an honorarium still continues almost four decades after the introduction of the programme.

Further, educational qualifications for the position of the worker also remain very low. The ICDS criteria for the appointment of anganwadi workers is a minimum qualification of 10th std. With respect to our data, it was observed that all 35 anganwadi workers interviewed met with the ICDS qualifications for anganwadi workers, which is 10th std pass. The largest majority of our sample

had higher qualifications than expected – that is completion of class 12 (39 percent), and slightly more workers (31 per cent) had above class 12 qualifications compared to 30 per cent who were class 10 pass.

With respect to district-wise differences in qualification, it can be seen that the distribution of qualifications is fairly similar for Ramnagara and Tumkuru, which have more workers with a higher qualification (i.e., above Class 10; 75 per cent) as compared to Bengaluru Urban (54 per cent) (figure 21). At the same time, teachers with qualification above class 12 seem higher in Bengaluru Urban, than the other two districts. Under-employment as well as high attrition in Bangalore Urban, where many other opportunities for work in the lower ends of the service economy are available, might be factors that might be contributing to these differences in educational workers across the districts.

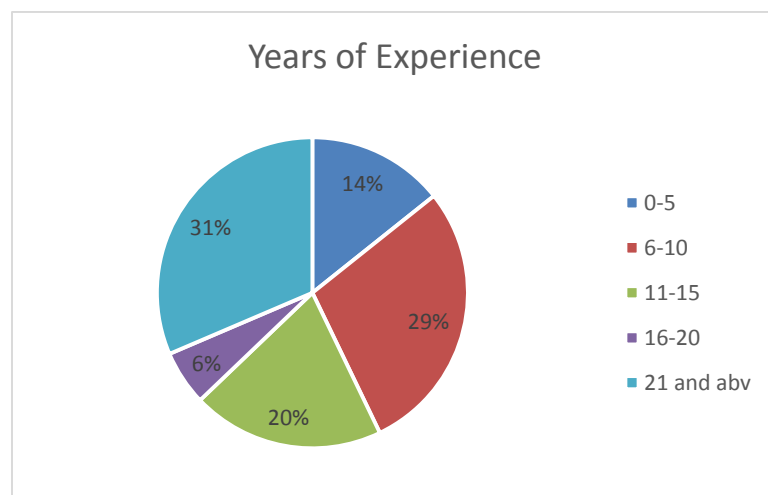
Figure 21: Education levels of anganwadi workers across districts



With respect to experience, the average work experience for all workers was about 14 years, and 11 years for ICDS service. From figure 22 below, it can be seen that the highest number of workers had more than 20 years of work experience (31 per cent), followed by a second-large majority which had 6-10 years of work experience (29 per cent). Across the districts Ramnagara had more workers who had above 20 years of experience, Tumkuru had more workers with 6-10 years of experience. Bangalore Urban had the highest number of workers having about 0-5 years of

experience, and this is reflective of the high attrition rates in Bangalore where other opportunities for similar kinds of work and pay is available.

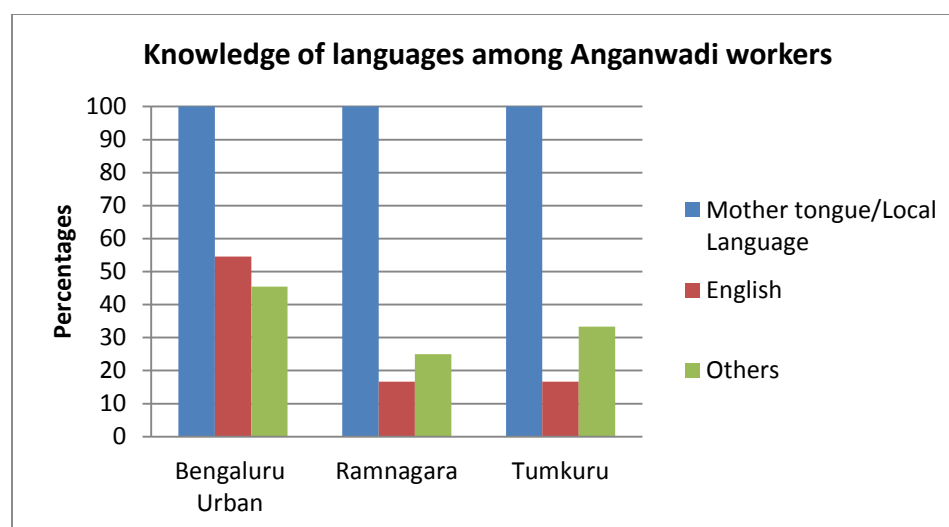
Figure 22: Years of work experience among anganwadi workers



Languages known

The National ECCE Policy identifies teaching in mother tongue / home language / vernacular language as an important indicator of quality of ECCE programmes (MWCD, 2013). Knowledge of languages known by the anganwadi worker was ascertained to understand the extent to which they were able to support children's learning in the mother tongue, while also having the capacity to prepare them for school language. All workers sampled reported having knowledge of Kannada, the state language (figure 23). However, it is important to remember that Kannada may not be the home language in many cases. For example, according to Census 2011, only 66 per cent of families in Karnataka speak Kannada. The remaining 34 per cent population are classified as Urdu-speaking, followed by Telugu, Tamil, Marathi and Hindi, among others. During fieldwork we noted a high proportion of children in Bangalore Urban belonged to migrant families, mostly from Bihar, and hence knowledge of additional languages such as Hindi, at the very least, is also significantly important. The data shows less than half the workers surveyed reported knowledge of other languages, though the highest proportion of workers reporting knowledge of other languages belong to Bangalore Urban district (about 45 per cent). With respect to English, which is important for transition to school, the data shows that only about 30 per cent of the workers reported knowledge of English. More than half the workers interviewed in Bangalore Urban reported knowledge of English though.

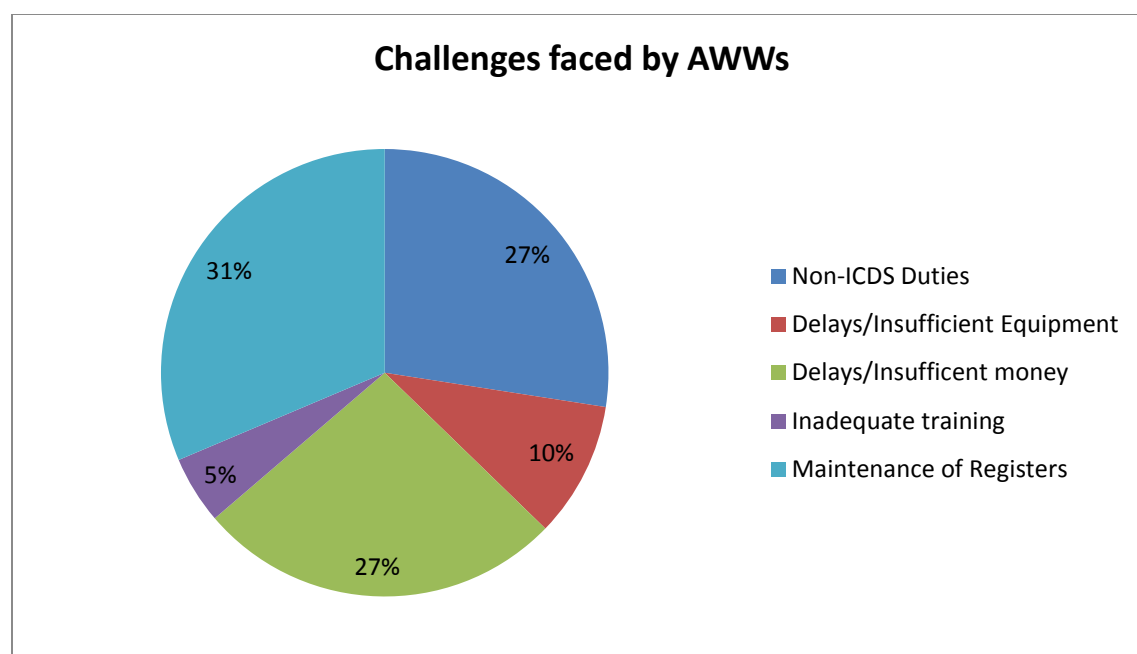
Figure 23: Languages known by AWW by districts



Workload

As mentioned earlier, several studies have made note of the overburdening and responsabilisation of AWWs, and the impact this has on teaching-learning. Among the many duties that have placed a heavy burden on workers, previous reports have noted non-ICDS related duties, such as administering pulse polio, organising leprosy camps, election work, managing Self-help groups like Stree Shakti in Karnataka, census related work, and maintenance of registers to take up large amounts of anganwadi workers' time. Interviews with anganwadi workers as part of our study also similarly showed, as can be seen in figure 24, that the largest proportion of workers (31 per cent) identified maintenance of registers as contributing to challenges in undertaking their duties, while also identifying time spent on non-ICDS duties and inadequate provisions or delays in receiving funds and salary as the other large challenges in performing their duties (27 per cent respectively).

Figure 24: Challenges faced in undertaking duties reported by anganwadi workers



Remuneration

While a fixed or flat rate of honorarium is given to workers under the ICDS scheme, irrespective of the qualifications, experience, and workload, honorariums for AWWs vary from state to state. Though the central component of workers' honorariums remains uniform across the states, individual states contribute varyingly to this component, which varies depending on states' resources as well as political will. In Karnataka, AWWs receive a total honorarium of Rs. 8000, of which the central government component is Rs. 4500. Table 6 presents the average salary for anganwadi workers across districts, which is Rs. 7965.33. District 2 shows a lower average as it includes one mini-anganwadi centre – that is a smaller centre that is set-up in places where the population is not more than 500, and thus a smaller number of children attend the anganwadi. In the case of a mini-anganwadi, worker honorariums have been fixed at Rs. 4750, which was reported to us by the mini-anganwadi worker in our study as well.

While the reported average for each of the districts is close to the actual honorarium fixed, the variations may be indicative of delays or additional amounts deposited in the anganwadi workers' account for running the centres. A previous expenditure tracking study conducted by CBPS-UNICEF (2017) had shown that anganwadi workers were unable to report exact honorariums received as there were delays and differences in the time-line of receiving the centre and state

components, additional contingency amount or amounts for conducting nutrition and health related community programmes, along with the honorarium

Table 6: Average remuneration of AWWs across districts

Avg Salary (INR/month)	District 1	District 2	District 3	Avg salaries across districts
AWW	8000	7729	8167	7965.33

c. Training and Supervision

Training forms an important factor in managing the quality of schools and anganwadi centers. Interviews with anganwadi workers showed that a large majority of 31 of 35 centres (89 per cent) had received some form of formal training. Table 7 shows the duration of training reported by those having undergone training. The largest majority of AWWs have reported up to one month of training (53 per cent) followed by up to 3 months of training (28 per cent). While all workers in Ramnagara and Tumkuru reported having received training, only 7 of 11 workers in Bangalore Urban reported the same. On an average, workers in Bangalore Urban and Tumkuru reported having received close to one month of training, while workers in Ramnagara reported close to two months of training.

The nature of the training mostly comprised of ICDS training that included how to check weights and measure growth of children, health check-ups for pregnant women and adolescent girls, how to build relationship with children, what should be taught to children and how, awareness about the plans/schemes, information on nutrition food, how to maintain registers, etc. Despite the emphasis on training, what is evident from the qualitative responses of AWWs on training is the little focus that pre-school education receives, lack of training on pedagogy and pedagogic-content knowledge that are important to improve the quality of preschool education in anganwadis.

Table 7: Duration of training received by AWWs

Training received (in %)	AWWs
---------------------------------	-------------

upto 1 week	19
upto 1 month	53
upto 3 months	28
more than 3 months	0

Out of the anganwadi workers who received training, only seven per cent of the workers were of the opinion that the trainings received were not beneficial as they were either insufficient or wanted refresher trainings. However, majority of the workers expressed a desire for improved and more frequent trainings (57 per cent; Table 8 below). Table 9 shows the benefits received from training, as mentioned by the anganwadi workers. The aspects of training that workers found most useful (when available) were on pedagogy and classroom environment; include training on child appropriate behaviour, refresher trainings on usage of songs/rhymes/games/activities/weekly teaching plans. The lack of this component as evidenced by workers' descriptions of the nature of training, and their perceptions of this component as most useful, when available indicates the need to support workers with adequate training and resources for undertaking preschool education. Health and nutrition related trainings, on immunization, awareness of schemes, age appropriate nutrition for children as well as pregnant and lactating mothers as well as adolescent girls were also reported as beneficial. Out of the responses, the NGO led anganwadi worker additionally spoke about training sessions conducted on activities like paper cutting, and other craft-based activities for children. Table 8 shows the expectations that AWWs have from trainings.

Table 8: Expectations from training by AWWs

Expectations from Trainings (in %)	Responses from AWWs
Better facilities/resources	10
Improved and Frequent trainings	57
Nutrition and schemes related training	10

Knowledge of English language to teach in class	10
Training on maintenance of registers	14

Table 9: Benefits of training received by AWWs

Benefits received from Training (in %)	Responses of AWWs	
Running of centre (Maintaining registers, cleaning, etc.)	16	
Pedagogy and Classroom environment	54	
Health and Nutrition	24	
Building relationships with community and govt depts	5	<i>Supervision</i>

Under the ICDS scheme, supervisors are appointed by the WCD department to monitor anganwadi centres regularly. Each supervisor is entrusted with the supervision and functioning of 25 anganwadis. From our study, 93 per cent of the anganwadi centres have regular supervision visits, i.e., in every 6 months and 7 per cent of the centres are supervised in 6 months to 1 year. Fewer workers in Ramnagara have reported regular supervision compared to almost all workers in Bangalore Urban and Tumkuru. Our data also showed 89 per cent of the workers across districts to be satisfied with the supervision visits.

Some of the expectations from supervision visits included reducing the overall burden of work at the centre, improving honorariums, more frequent supervision visits, guidance on pedagogy and providing information on new schemes & other financial opportunities.

c. Anganwadi workers' perceptions regarding ECCE and their role

In addition to personal information related to workers' qualification, experience, training and workload, the study also tried to understand their perceptions of ECCE and their roles and this can

also have bearing on anganwadi workers ‘performance as a preschool teacher and care-giver’. From the qualitative responses received, it was observed that a majority of teachers viewed behaviour-based learning (30 per cent), academic learning (25 per cent) and peer interactions (16 per cent) to be the key areas of development to be fostered through ECCE (table 10). These opinions resonate with parental understanding of anganwadis as a space for socialisation, to help children overcome their fear and discomfort with strangers as well as stubbornness or inability to accommodate or adjust to others, along with the expectation for early development of formal literacy and numeracy, within literature (Sriprakash et.al., 2020). Other reasons identified for the importance of ECCE were nutrition (14 per cent) and easier transition to primary schools (13 per cent).

With respect to their own roles, anganwadi workers perceived their duties to be to prepare children for the future (30 per cent), which is further explained through other duties reported such as teaching good behaviour and discipline, providing academic training, and performing the duties of a mother (reported by 15 per cent of workers each) (table 11).

Table 10: Importance of ECCE as perceived by anganwadi workers

Importance of ECCE (in %)	Responses from AWWs
Encourage creativity & imagination	1
Provision of Nutrition	14
Academic Learning	25
Easier Transition to Primary school	13
Behaviour based learning	30
Peer interaction	16

Table 11: Anganwadi workers’ perception of self as educator

Perception of their own role (in %)	Responses from AWWs

Teaching good behaviour and discipline	15	4.4. School Readiness Skills among Anganwadi-going Children School readiness has been defined as “...basic skills
Helping in the understanding of emotions and feelings	4	
Preparing for the future	30	
Improving health	9	
Providing Academic knowledge	15	
Operating the Centre	13	
Playing the role similar to Mothers	15	

or abilities that, in turn, permit a child to function successfully in a school setting, both academically and socially.” (Hair et al, 2006; p. 432). Conceptions of readiness are concerned with children’s preparedness for formal schooling, and are based on the developmental maturation (e.g., development of fine and gross motor skills that may be required for later school participation), cognitive abilities, as well as attitudes and emotional competence required for entry into schools (Bowman, Donovan and Burns 2001). As such, early literacy and numeracy skills figure prominently in assessments of school readiness.

In the present section we analyse children’s responses on a cognitive-academic tool of readiness, although we recognise that readiness entails more than just academic readiness. Assessments of children’s school readiness were conducted using a tool developed by CBPS, with inputs from CSSS, based on an extensive review of existing tools, secondary literature and the National Central Education Research and Training (NCERT) positions papers on teaching Language and Mathematics (NCERT, 2006a; 2006b; 2006c). The tool was specifically developed due to the discomfort with existing tools which have largely remained summative and diagnostic in their focus, measuring to what extent individual learners meet specified learning outcomes, or how competently they perform in relation to learning that is already assumed to have occurred. Instead, adopting a socio-cultural approach, and an expansive view of learning, the CBPS tool was designed keeping in mind that learning and performance are socio-cultural activities and knowledge can be co-produced in a situation (Lave and Wenger, 1991).⁵ Particularly, at the early ages, we contend that children may know more than they can individually perform, and hence we

⁵ For more details refer to the tool attached in Appendix II

adopted a group assessment approach. Further, keeping in mind also the idea of ‘developmental readiness’ for learning, items in our assessment were ordered according to the developmental pattern or order in which they emerge – placing those skills or tasks that have to be achieved first, in order to perform a higher order task later. Thus, in analysing performance, we also aim at understanding where in the transition from lower order skills to higher order skills, children may not yet be developmentally ready. The identification of the items for assessment and their order have been drawn from literature which have extensively researched cognitive development in children.

Based on these principles we present the observations on school readiness recorded across the thirty five anganwadis in our sample.⁶ Our aim was to assess five children, five years or older, as a group within each anganwadi. Children of five years and above were considered as it was expected that older children, at the transition phase from anganwadis to primary schools would have had sufficient exposure to preschool education, while younger children would have lesser exposure to preschool education concepts. However, as has been noted within literature (Kaul et al., 2017; CBPS, 2018; Sriprakash et al., 2020), during fieldwork we found that in a large majority of anganwadis children of five years and above had vacated the centres and had moved to primary school as a result of parental anxieties to ensure early acquisition of formal learning and English for their children. Thus, our assessment in anganwadis was undertaken largely with children between 4-5 years, and in few occasions included five-year olds when available in the anganwadi. In addition, another significant challenge in undertaking the assessment was language: with pre-literacy and literacy items in the assessment having been designed in English and Kannada, keeping in mind the languages commonly used in schools and anganwadis in Karnataka, it became a challenge to implement these section particularly in Bangalore Urban, with a large migrant population that spoke only Hindi. Age and language are thus significant factors that needs to be kept in mind while examining the results of the school readiness assessment. Further, while our assessment was designed to test children in a single language (particularly on the pre-literacy and literacy items), and more specifically in Kannada in anganwadis (keeping with the ICDS policy of teaching in the mother tongue or local language), in several cases we found that children had been

⁶ As indicated before the findings are reported at the group (anganwadi level) as our tool did not test for individual performance

taught to identify alphabets in English, but were better able to perform phonetic tasks in the local language, even when this had not been explicitly taught to them. Here, however, we only report children's performance on Kannada items from the pre-literacy and literacy sections to maintain uniformity. However, it is important to bear these contingencies in mind when interpreting the results gathered from the assessments, and it is important to recognise the expansive and tacit ways in which learning occurs, without explicit instructions. This also calls attention to plan assessments in ways to reflect what children know, rather than test to specific learning outcomes, as we have attempted to do.

a. Overall Performance

Children were assessed across four domains using the school readiness assessment tool developed by CBPS. The four domains included:

- a. Cognitive /pre-numeracy skills – identifying shape, identifying colour, classifying by a single attribute (shape), classifying using two attributes (shape and colour);
- b. numeracy skills – counting by rote, one-to-one principle, cardinality, more or less, stable order;
- c. language development skills – knowledge of social conventions (e.g., greeting, birthday wishes), describing picture, identifying fruits and vegetables, classifying fruits and vegetables; and
- d. literacy skills – recognising letters; identifying phonetic sounds.

Rather than marking children as 'pass' or 'fail' on each item, children's performances within a group was examined carefully to see if they were able to complete an item independently (achieved independently, marked as 'a'), complete it with support (e.g., by imitating others, or following cues given by peers, anganwadi workers, or the assessor, marked as 'b'), were unable to complete an item even with support (marked as 'c'), or whether children were distracted or not interested in performing the item (marked as 'd'). Further, results were recorded at the group level, identifying what proportion of the group was able to complete each item, recognising performance, particularly among such young children can be fluid, inconsistent and affected by a number of factors ranging from comprehension, interest, motivation, and so on.

From figure 25 it can be seen that only a small proportion of *children working in groups* have been unable to complete items under all four domains, though the proportion is much higher for formal

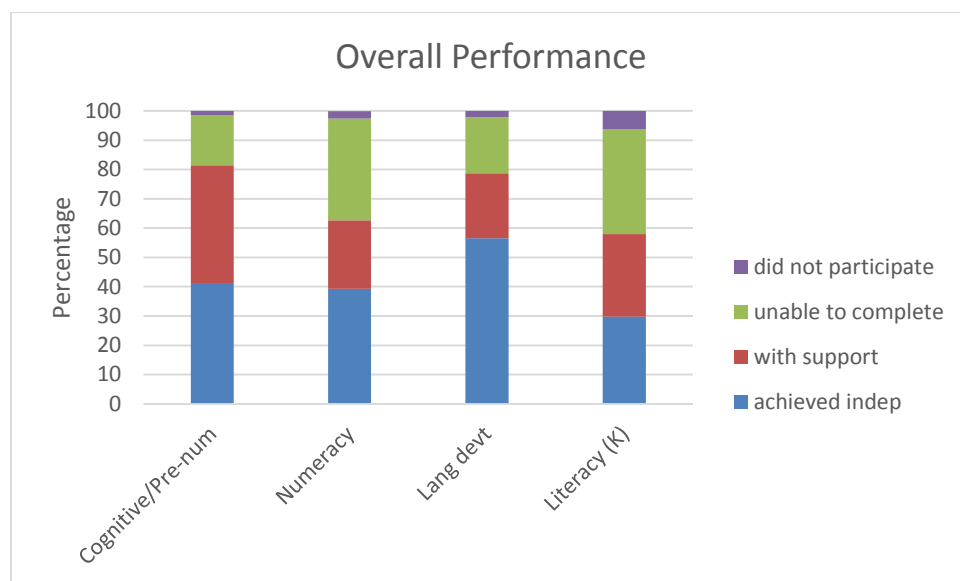
literacy (36 per cent) and formal numeracy (35 per cent) items.⁷ Conducting activities to assess for formal literacy itself was a challenge as in many cases the items under literacy (i.e., recognition of letters, and recognition of phonetic sounds) could not be tested in a single language. This perhaps shows the lack of concentrated effort in developing literacy in a specific language in anganwadis and a loose approach adopted to introducing children to letters and phonetic sounds in multiple languages. Further it could also suggest that in the absence of much formal teaching-learning (see 4.2.c for time spent on preschool activities), children pick up formal learning outside the anganwadi, which might explain the inconsistencies in patterns of learning. The proportion of children who have been able to independently complete activities has been the lowest for the literacy domain (30 per cent), and the proportion is the lowest even when we consider students who have been able to complete activities with support (58 per cent). A higher proportion of children have been able to complete activities independently under numeracy (39 per cent), and a total of 62 per cent of children working in groups have been able to complete activities with support as well.

Across the four domains, language development appears to be the domain that the highest proportion of children have been able to achieve independently (57 per cent). However, the domain in which the highest proportion of children working in groups were able to complete activities was cognitive/pre-numeracy (81 per cent), with almost equal proportion able to achieve these activities with help (40 per cent) and independently (41 per cent). In comparison, about 79 per cent of children in groups have been able to complete activities under language development.

The much higher proportion of children have been able to complete cognitive/pre-numeracy and pre-literacy tasks compared to numeracy (62 per cent with or without support) and literacy tasks (58 per cent with or without support) is also perhaps indicative of the greater focus on non-formal learning in anganwadis. In the following section we also look at an item-wise analysis under each domain to further understand children's performance.

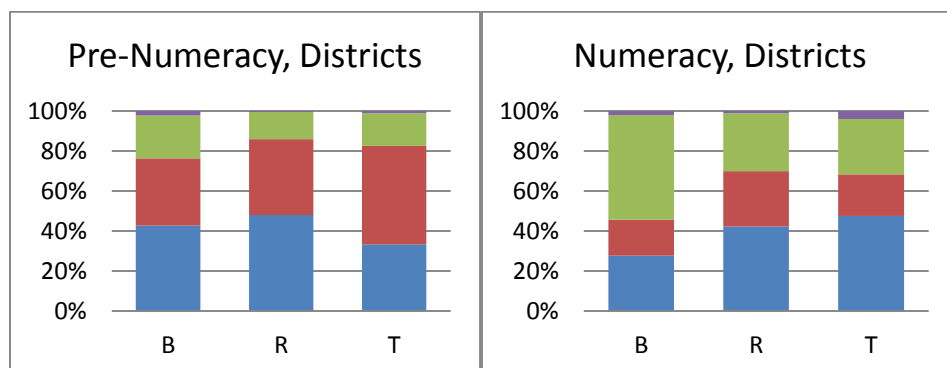
⁷ Note: While we refer to proportion of children who are able to complete an activity or not in the remainder of the report, it needs to be borne in mind that assessment has been made for children working in groups, and not individual children. Hence, we note the proportion of children in groups who have been able to complete activities, but do not present information for any individual children.

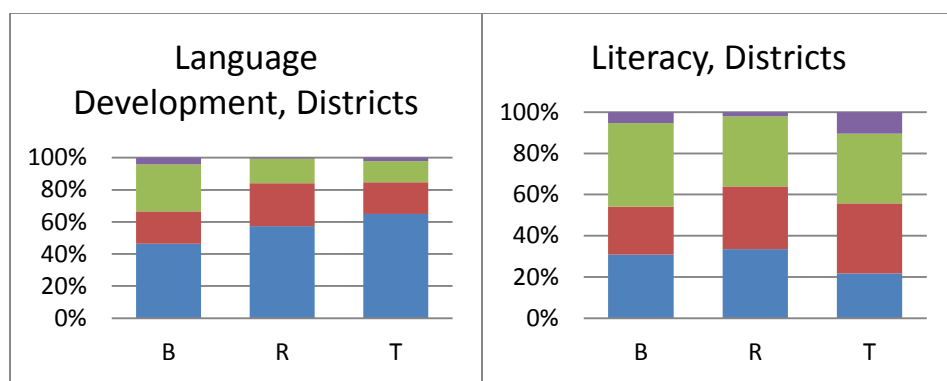
Figure 25: Overall performance on school readiness assessment for anganwadi-going children



Comparing performance across districts, it can be seen that while all three districts have performed relatively similarly on many areas (figure 26), Bengaluru Urban has performed poorly compared to the other districts on numeracy, with over half the children working in groups having been unable to complete numeracy (52 per cent). Bengaluru Urban also has a much higher proportion of children who have been unable to complete items on all domains, in comparison to the other districts.

Figure 26: Performance across districts on the four areas of school readiness

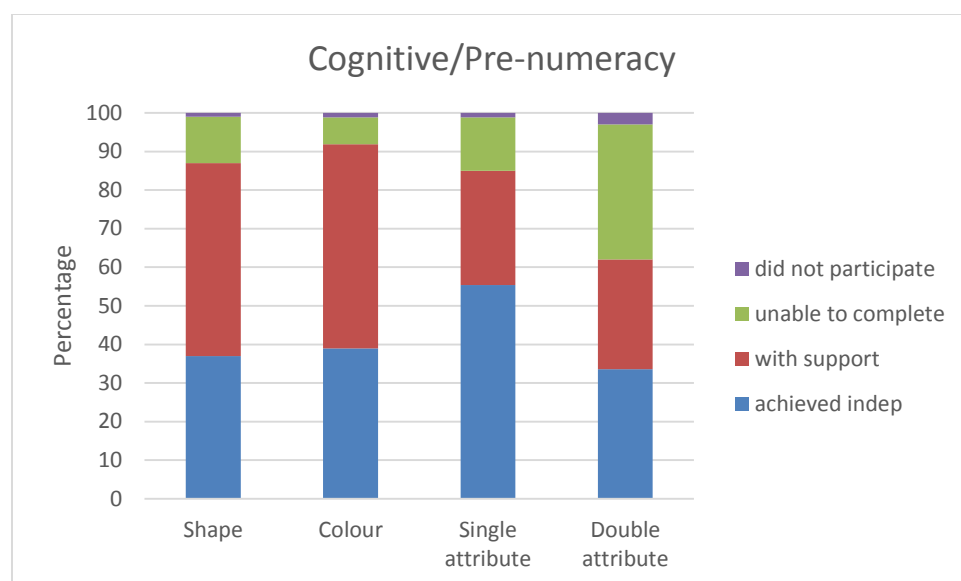




b. Cognitive/Pre-numeracy

Four skills were analysed under cognitive/pre-numeracy domain— identification of shape, identification of colour, classification by single attributes (by shape), and classification by two attributes (shape and colour). The results show interesting patterns. While the largest proportion of children working in groups have been able to achieve identification of colour (92 per cent), and shape (87 per cent), a higher proportion of children in groups have been able to achieve classification by single attributes independently (55 per cent). This is perhaps reflective of the role that language plays in the former activities (naming shapes and colours), while classification could be undertaken without reference to language. During fieldwork we observed that children often used interchangeable words for shapes (e.g. ball or round for circle), and also described in English or local languages. For both identification of colour and shape, a higher proportion of children in groups have been able to achieve the task with support (53 per cent and 50 per cent respectively). Children performed the poorest in classifying by double attribute (a total of 62 per cent, when taking into account proportion of children who could complete it with and without support). It must be borne in mind that most groups consisted of children below five years, and this could explain why fewer children within these groups were able to achieve this task, which requires ability to attend to two properties simultaneously and reason about their relation.

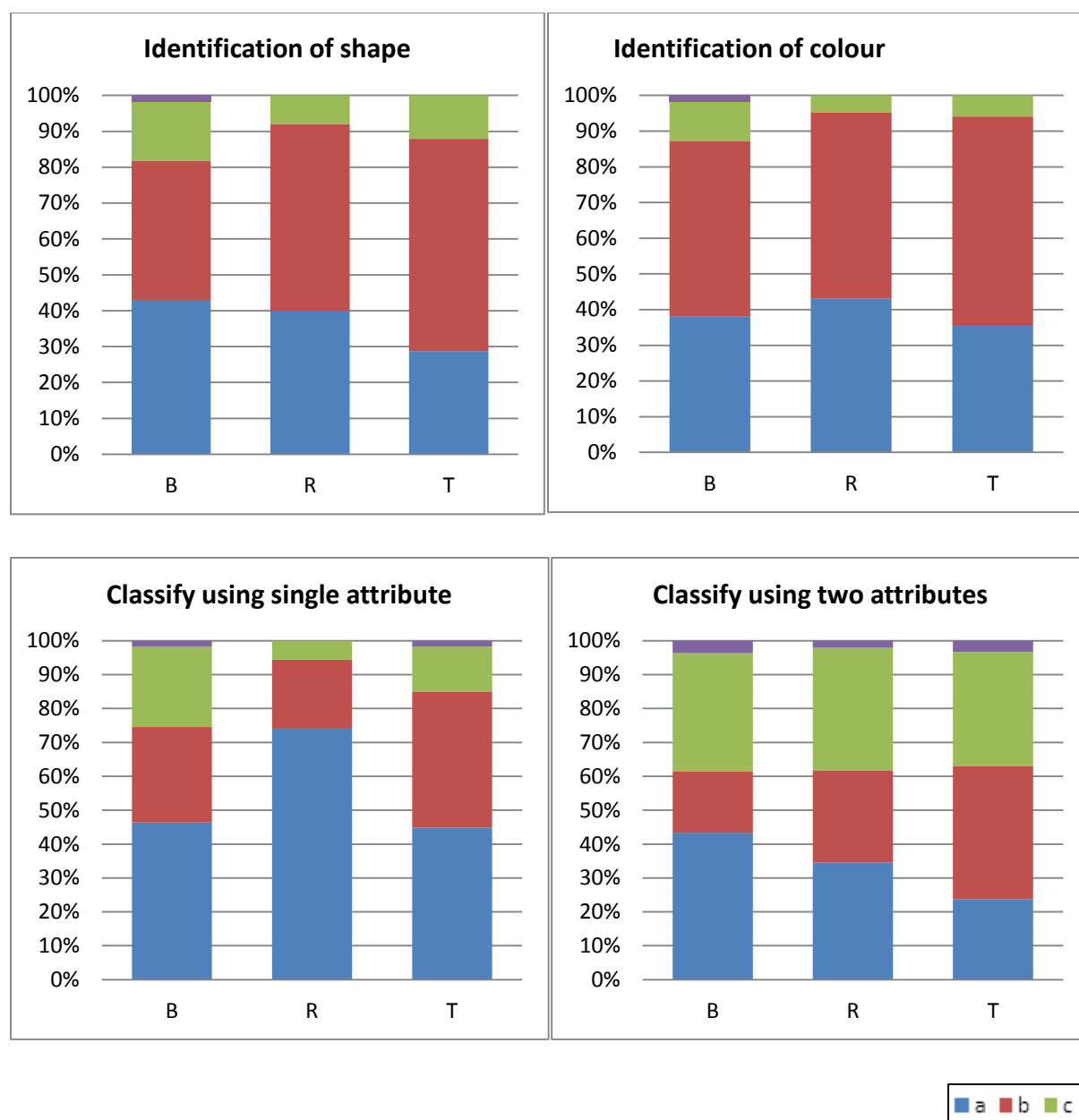
Figure 27: Performance on cognitive/pre-numeracy items by anganwadi-going children



A district level comparison of performance of individual items under cognitive/ pre-numeracy, as see in Figure 28 below, shows a much higher proportion of children having achieved single attribute classification independently in Ramnagara (74 per cent) compared to Bengaluru Urban (46 per cent) and Tumkuru (46 per cent). Many more children working in groups in Bengaluru Urban (24 per cent), and Tumkuru (13 per cent) have also been unable to achieve this activity compared to Ramnagara (6 per cent). Slightly higher proportion of children working in groups however have been able to independently complete two attribute classification in Bengaluru Urban (43 per cent) compared to Ramnagara (35 per cent) and Tumkuru (24 per cent), though the proportion of children working in groups who have been able to complete the activity with and without support is similar across all three districts. It is also interesting to note that Tumkuru has the lowest proportion of children who have been able to independently complete the identification of shape task; however including those who have also completed the activity with some support, Tumkuru performs better than Bengaluru Urban which has the lowest proportion of children who have been able to complete the task with and without support.

Overall the figure below shows a high variation in performance by children in the anganwadis in Bengaluru across the activities.

Figure 28: Average performance of children in groups in pre-numeracy activities, across districts



c. Numeracy

Under numeracy five skills were assessed – counting by rote, one-to-one principle, cardinality, more or less, and stable order (figure 29). The items were also selected in order to be able to see the relations between items based on the expectation that certain skills had to be mastered earlier in the sequence before certain other skills could emerge (e.g., counting by rote, before children could understand one-to-one principle or cardinality). Overall, it appears that close to half the number of children working in groups have been able to achieve more items on numeracy

independently. For example, 50 per cent of children working in groups have been able to achieve the task of counting by rote (i.e., the learned ability to repeat numbers sequentially in a given order) independently, while 77 per cent were able to achieve it with or without support.

Close to half the proportion of children working in groups (48 per cent) were able to independently achieve the task of determining more or less (i.e., a process called ‘subitizing’, which is a perceptual process that involves the instant recognition of quantity of small sets). Literature suggests that children have the ability to make judgement about quantities even within the first few months of life, but more definitive early abilities at subitizing may depend on the development of more approximate sense of numbers, and exposure to different and continuous amounts (Clements & Sarama, 2009). About 74 per cent of children in groups have been able to complete this task with or without support.

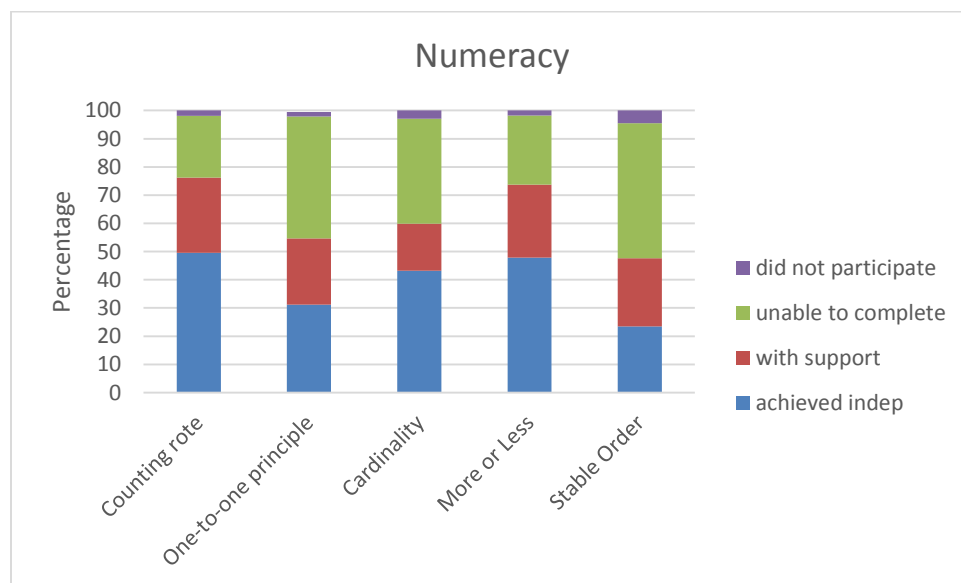
Forty-three per cent of children working in groups have also been able to achieve cardinality (i.e., the knowledge that the last number word stated tells the number of objects counted). About 60 percent of children in groups were able to achieve this with or without support. The fewer proportion of children who were able to achieve this compared to the first two items mentioned above perhaps reflects both the natural development of children’s abilities to identify quantities (subitizing), as well as the pedagogic focus in teaching numbers that largely remains on naming (or rote learning). The difficulties encountered with cardinality emerges from the dual task of having to sequentially recall numbers (requiring language) as well as the ability to self-regulate (stop at the last number called out), and remember that this represents the total set.

What is interesting to note however is that a lesser proportion of children working in groups have been able to achieve the one-to-one principle, also important to understanding cardinality. One-to-one principle implies the ability to count every object in a set only once using only one number word. Close to half the proportion of children (43 per cent) have been unable to achieve this task, while 31 per cent achieved it independently and 54 per cent achieved it with or without support. Though one-to-one principle must logically come before the development of cardinality, Clements and Sarama (2009) have noted that for very small quantities cardinality may be ascertained through subitizing. Since our activity involved small numbers (up to six) it is possible that children were able to achieve cardinality through subitizing.

The highest proportion of children working in groups appeared to have difficulty with the stable order principle (which is the principle that there is a strict order to the count list), with 48 per cent unable to achieve this task. This could also be because the item required children to recall what comes before a given number, which becomes a challenge as children usually learn numbers in the ascending order (and are most familiar with this sequence).

Overall, from the numeracy items it appears that the two skills that more children were able to attempt were based on skills that naturally develop to estimate small quantities (i.e., more or less principle) and those based on rote learning (counting by rote, and which extends to a knowledge of the cardinal principle but a smaller proportion of children have been able to attain this, perhaps implying the limited pedagogic support available and/or received for learning numbers in the anganwadi). However, this could also be since curricular focus within anganwadis is less on formal academic concepts, and more on developing pre-literacy and pre-numeracy skills.

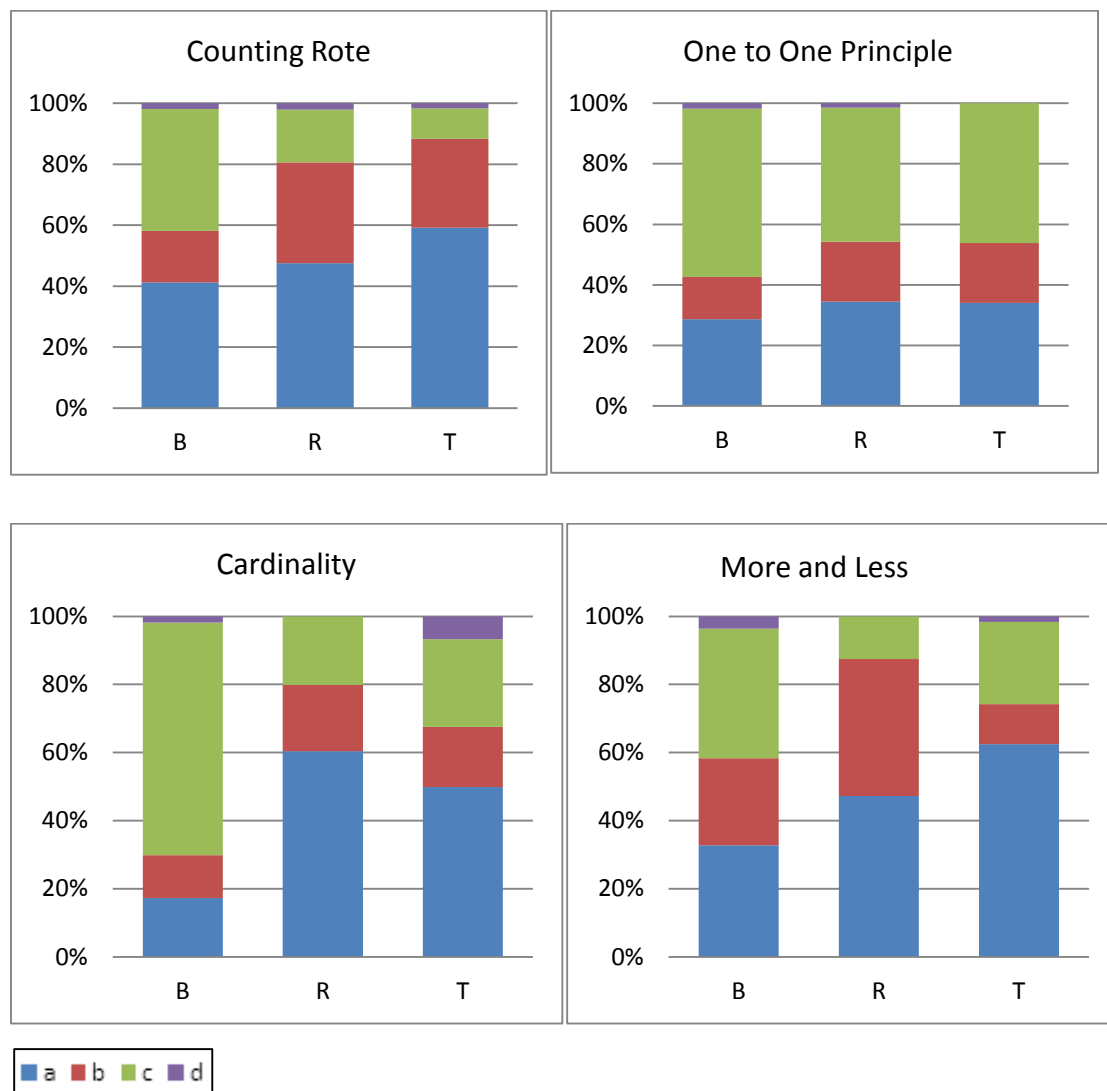
Figure 29: Performance on numeracy items by anganwadi-going children

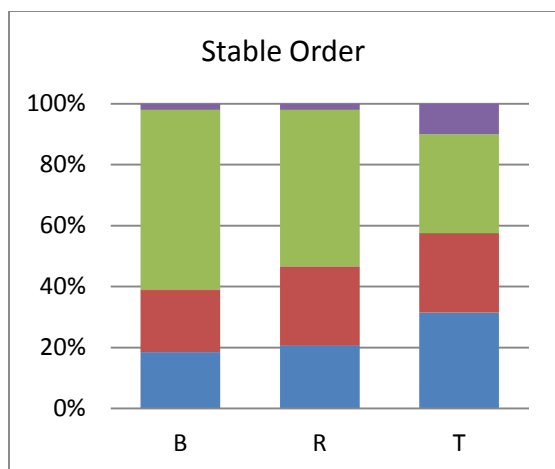


The figures 30 below show the district wise average performance of children in groups with respect to each activity for numeracy. There is a high variation in performance across items across the districts, although Tumkuru has a higher proportion of children that have been able to independently achieve three of six activities (rote counting, more or less and stable order). Bengaluru Urban appears to have the highest proportion of children that have been unable to achieve the task across all items. This vast difference among proportion of groups unable to do an

activity in Bengaluru Urban, compared to Ramnagara and Tumkuru, particularly on activities such as rote counting and cardinality, which are the predominant numeracy related skills taught in the early years, perhaps suggests lesser focus on numeracy in anganwadis in Bengaluru Urban in particular. This could also be a result of the language difficulties that students and teachers in Bengaluru Urban encounter due to the high migrant population.

Figure 30: Average performance of children in groups for numeracy activities across districts





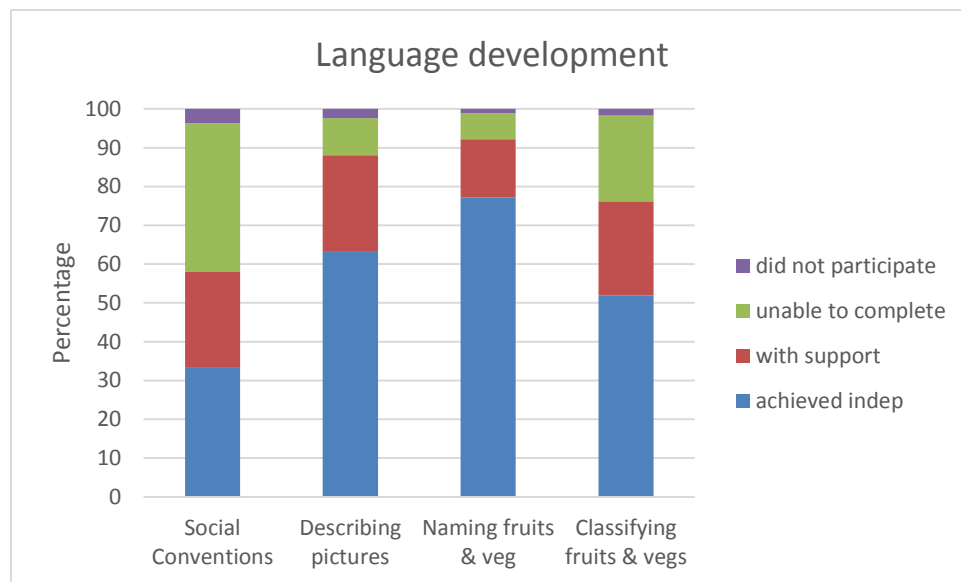
d. Language development

In order to assess for early language development, we used four items – knowledge of social conventions (e.g., greetings, wishing someone on their birthday), describing pictures, naming fruits and vegetables and classifying fruits and vegetables. Three items in the language development section were achieved independently by the majority of children working in groups. The two items were naming of fruits and vegetables (77 per cent) and describing pictures (63 per cent), which involved using single words to describe two pictures consisting of a child eating and sleeping respectively; and classifying fruits and vegetables (52 per cent). About 92 per cent of children in groups were able to name fruits and vegetables with or without help, and 88 per cent were able to describe picture with or without help; and 76 per cent were able to classify fruits and vegetables. The high proportion of children able to complete these activities is perhaps also reflective of the what is commonly taught within anganwadis and the resources available for this. In most anganwadis observed material that was commonly available were picture charts and peg boards with fruits, vegetables, alphabets and numbers. Naming fruits and vegetables is also the item that the largest proportion of children have been able to complete independently, as well as with help, when compared with all items in the assessment.

The item that children have had most difficulty with is related to knowledge of appropriate social conventions (e.g., how to greet people when they come home; how to greet the teacher in the morning when they come to the anganwadi; and what to say to someone whose birthday it is). A large proportion of 38 per cent of children in groups were unable to identify the appropriate social convention to be used in these contexts, while only 33 per cent were able to achieve this independently. This could be reflective of wide differences in culture, cultural expectations of

children in such situations as well as the role of language, due to which large proportions were unable to complete this task.

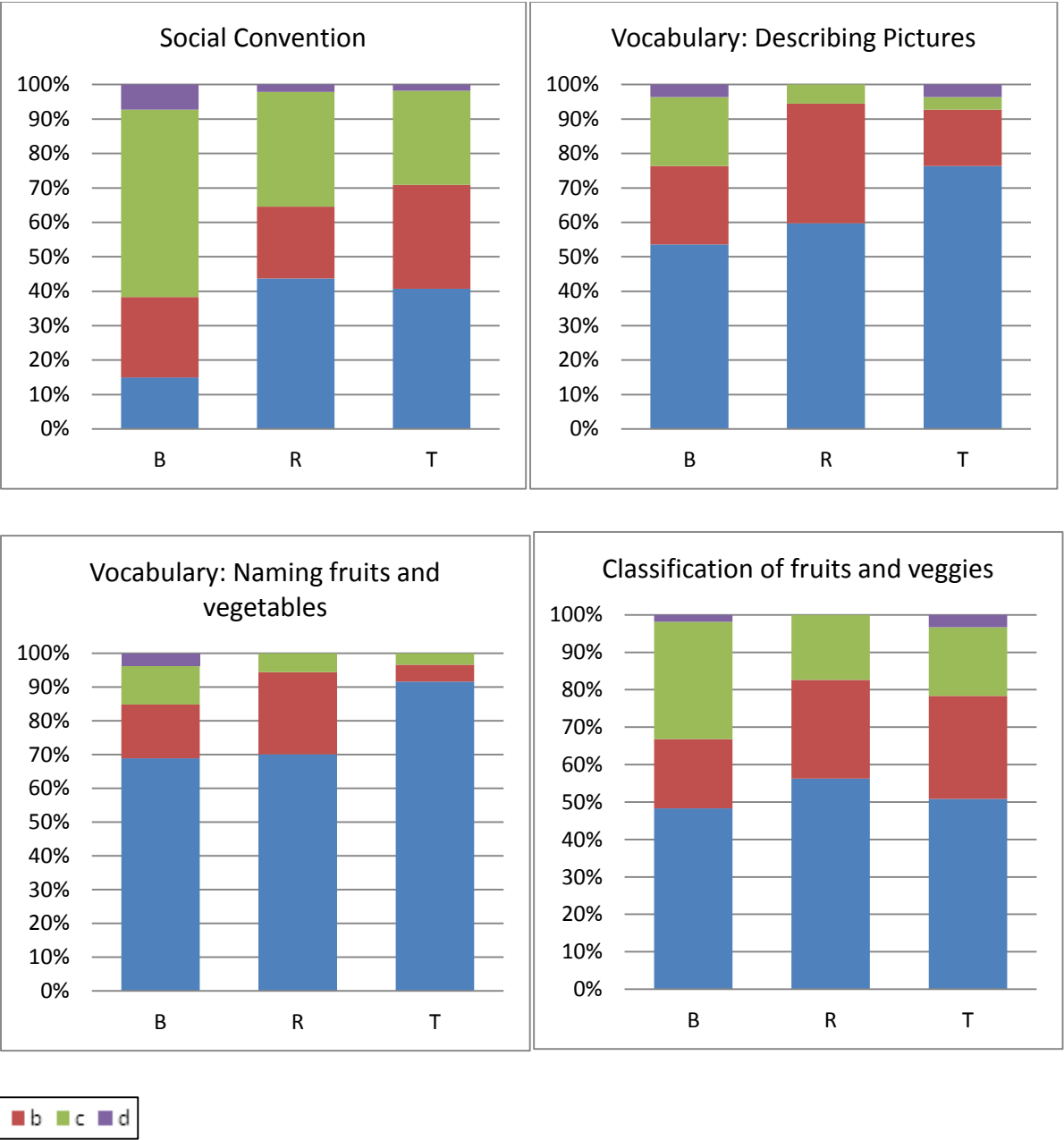
Figure 31: Performance on language development items by anganwadi-going children



The figures 32 below show the district wise average performance of children in groups, with respect to each activity under language development. What is evidently visible is that the social convention activity has been most affected in Bengaluru Urban, where we encountered a high number of migrant families. Only 38 per cent of children working in groups have been able to complete the activity, and this may be because of wide variations in language and culture that perhaps affected understanding of the question and responses to it.

What is also interesting to note is also the much higher proportion of children who have been able to independently name fruits and vegetables (92 per cent) and describe pictures (76 per cent) in Tumkuru. Overall Bengaluru Urban appears to have a higher proportion of children who have been unable to complete all four items, again pointing to the large variations in performance among children in Bengaluru anganwadis.

Figure 32: Average performance of children in groups in Language development activities, across districts



e. Literacy

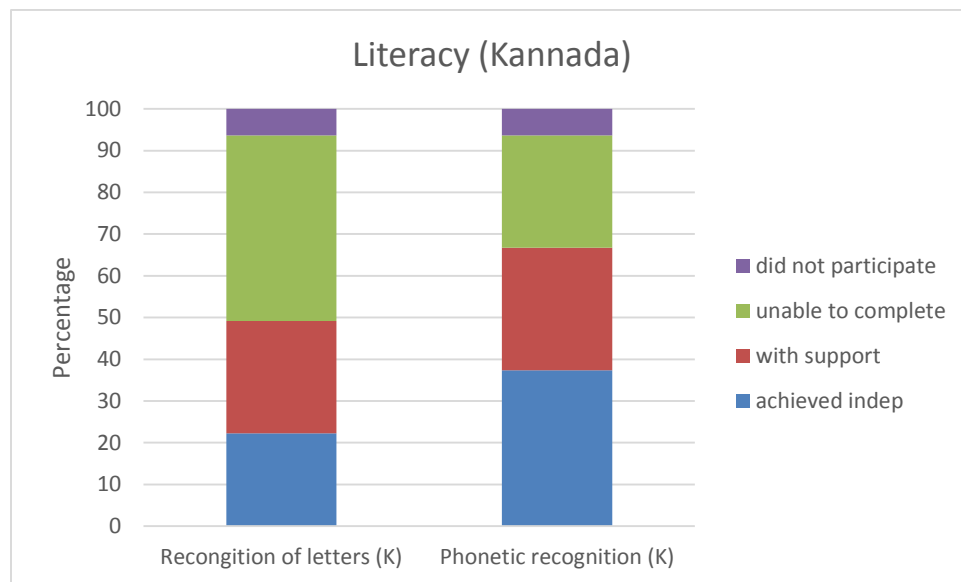
Two items were used to ascertain literacy skills – recognition of letters and identification of phonetic sounds. Literacy was the most challenging component of the assessment to undertake, as during fieldwork we noticed a range of factors that affected assessment, from mixed teaching-learning practices in anganwadis wherein children were incompletely exposed to letter and alphabets in Kannada and English; differences in patterns of teaching-learning across anganwadis (i.e., some taught only Kannada letter, while others taught letters in English, and yet others in both languages); the absence of attention to phonetics in teaching alphabets in both languages; to children belonging to several linguistic communities within the anganwadis, which made it difficult for both anganwadi workers to teach in either the local language or English, and for us to assess in these languages.

While we adopted a range of assessment procedures to ascertain children's literacy skills (i.e., in many cases we had to undertake an assessment of letter recognition in English, if the anganwadi worker reported that the letters had been taught in English, but had to test phonetic knowledge in Kannada, as children were more familiar with vocabulary in Kannada; and vice versa if children belonged to non-Kannada speaking households, and were thus more familiar with simple words such as bat and bus in English), here we report data for only those anganwadis in which we were able to undertake both activities in Kannada based on anganwadi workers report on whether children had been introduced to literacy activities in Kannada (i.e., 26 anganwadis). We use data for anganwadis wholly tested in Kannada for two reasons – first, the number of anganwadis where all literacy items could be tested in English are just 2. The other reason for selecting anganwadis in which the assessment was wholly conducted in Kannada is because according to ICDS norms teaching in anganwadis should be in the local languages.

As can be seen from the figure 33 below, almost half the proportion of children in groups have been unable to complete the recognition of letters task in Kannada (44 per cent). Only 22 per cent of children in groups were able to perform this activity independently, while another 27 per cent were able to do with help. In comparison a higher proportion of children in groups (37 per cent) were able to recognise phonetic sounds, and more than half the proportion of children in groups was able to complete the activity when support was provided. While formal literacy skills are not the primary focus within anganwadis, which perhaps explains the results on the letter recognition

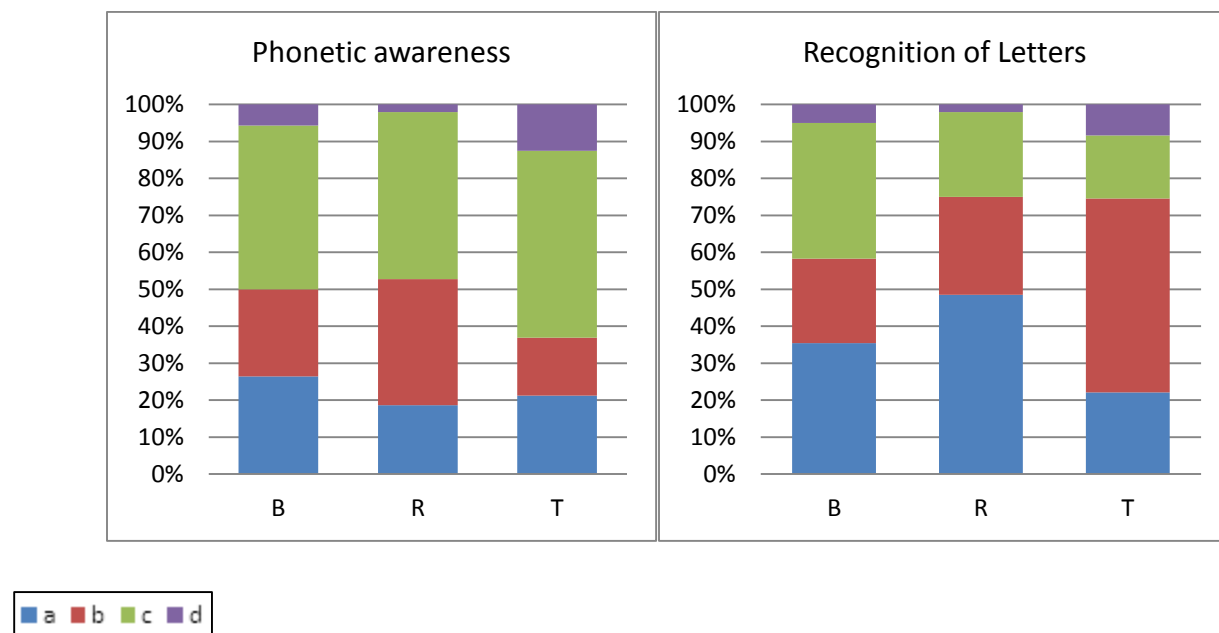
task, it is interesting to note that more children were able to complete the phonetic task, which generally does not receive any attention in most ECCE settings.

Figure 33: Performance on numeracy items by anganwadi-going children



Across districts, what is visible is the much higher proportion of children who have been unable to complete the letter recognition task in Bengaluru Urban, but a higher proportion of children who have been unable to undertake phonetic recognition in Tumkuru (figures 34). With respect to letter recognition, it can be seen that a much lower proportion of children (22 per cent) have been able to complete the task in Tumkuru, in comparison to the other two districts (48 and 35 per cent in Ramnagara and Bengaluru Urban respectively). However, taking into account those who have achieved the task with support also, the proportion of children who have been able to achieve letter recognition is similar to Ramnagara (75 per cent), while it is higher than for Bengaluru Urban (58 percent). These results again seem to suggest the high variations that exist in learning among children from anganwadis in Bengaluru Urban. Half the children in Tumkuru have also been unable to complete the phonetic awareness activity.

Figure 34: Average performance of children by groups in Literacy activities, across districts



Largely, Ramnagara appears to be doing better across districts, followed by Tumkuru and Bengaluru Urban. This could be reflective of the fact that earlier we found that Tumkuru and Ramnagara has a higher proportion of ECCE play materials as well as child-parent engagement at home, as compared to Bengaluru Urban, where both availability of ECCE material and engagement at home are low.

f. Summary

Overall the results of the assessment show that with support over half the proportion of children in groups has been able to complete items across all domains, with the two exceptions being recognition of letters and the stable order principle. Provision of support has been particularly significant for the pre-numeracy section, as higher proportions of children in groups have been able to complete relatively simpler tasks such as identification of shapes and colours with support. This could be because these activities were the first items to be assessed, and children took some time to get used to the nature of assessment. However, it could also be on account of language (required by children to name shapes and colours), which has also affected other items such as social conventions and recognition of letters, which were also further affected by the confusion over which language to adopt for assessing. The activities that children have performed relatively

better on are those that have required little use of language, while also requiring lesser cognitive manipulation (e.g., classifying by single attribute, identifying more or less and phonetics), as well as tasks which they appear to be more frequently exposed to (e.g, naming fruits and vegetables, counting by rote).

5.0 ECCE and Private pre-schools in Karnataka

This chapter presents information gathered about the status of pre-primary years in private schools or pre-schools in Karnataka, across three districts. Data on children's socio-economic characteristics and household characteristics (based on semi-structured interviews with parents), a survey of classroom infrastructure and teaching practices in pre-schools, as well as, pre-school teacher qualifications and experiences are given below. Children's performances on school readiness is also analysed. Based on this information, some insights on the developmental status of children going to private pre-schools are drawn out.

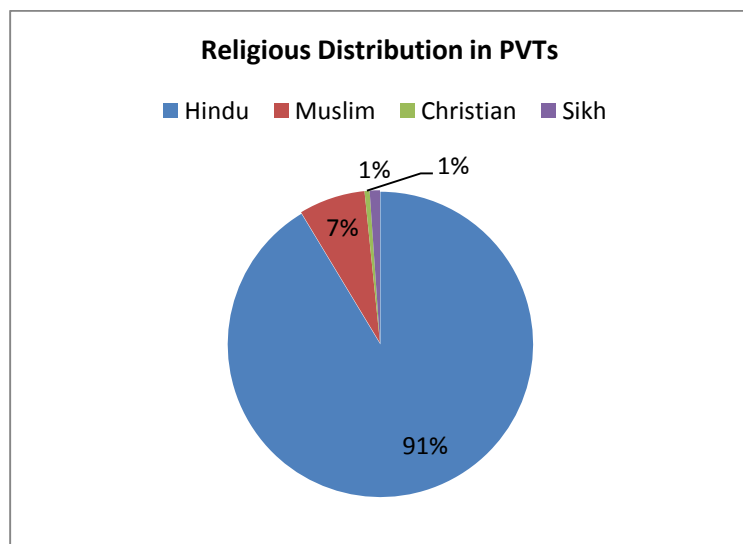
5.1 Children's socio-economic profiles and household characteristics

In the first sub-section we discuss the socio-economic profiles of pre-school going children in our sample, based on interviews conducted with some parents. As mentioned before, a total of 185 parents were sampled across the three districts.

a. Religion and Caste

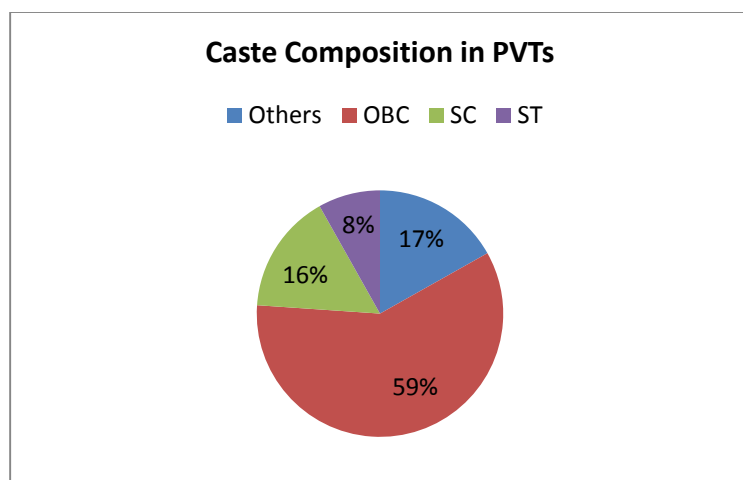
The largest majority of parents sampled from the private pre-schools were Hindus (91 per cent), followed by Muslims (7 percent), while the proportion of Christians and Sikhs were very small, as shown in Figure 35.

Figure 35: Religious distribution of parents of children going to private pre-schools



To understand caste composition among parents, Figure 36 gives a distribution of the caste.

Figure 36: Caste distribution of parents of children going to private schools

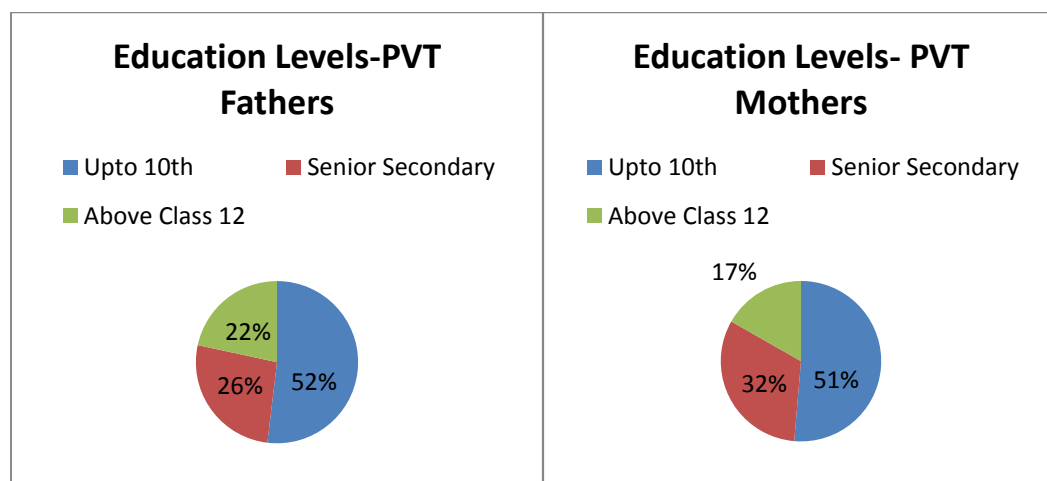


The largest proportion of parents sampled belong to the Other Backward Classes category (OBCs, 59 per cent), followed by Others (Others, 17 per cent), Scheduled Castes (SC, 16 per cent) and Scheduled Tribes (STs, 8 per cent). A district-wise comparison showed that the distribution by caste was relatively similar across the districts, with the exception of slightly more SC parents interviewed in Bengaluru Urban compared to ‘Others’.

b. Education Level of Parents

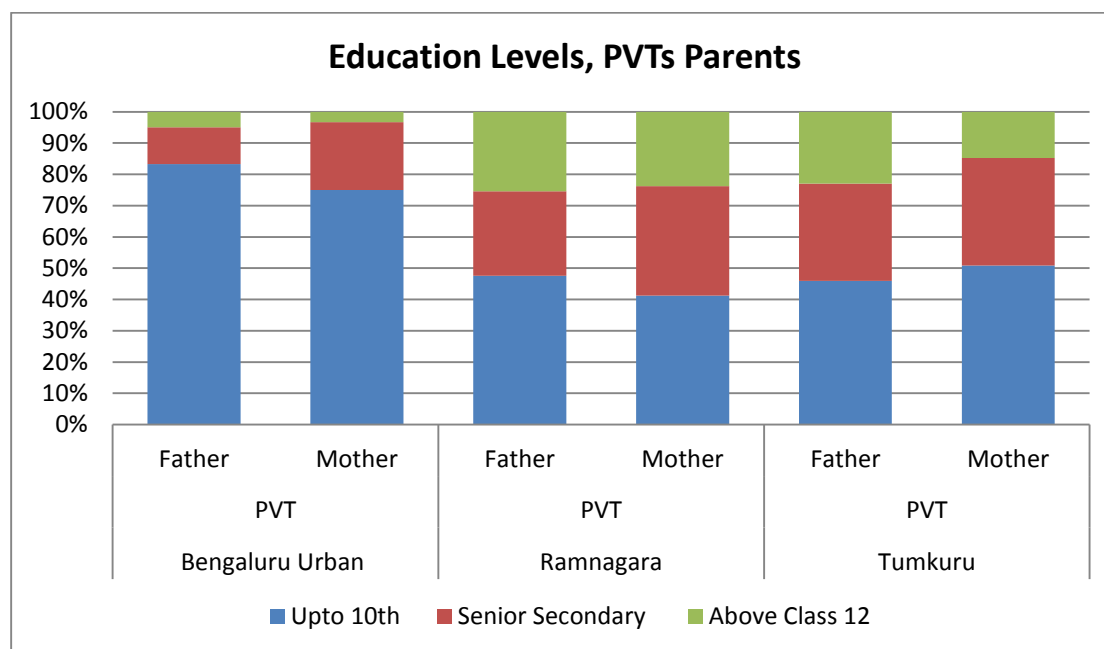
Majority of the parents sampled in the pre-schools had completed only up to high school, as can be seen in Figures 37 below. A larger proportion of mothers compared to fathers had completed senior secondary education among the parents sampled. A higher number of fathers have studies till above senior secondary as compared to mothers.

Figure 37: Education levels of parents of children going to private pre-schools



Across districts the trend for parents' education levels (Figure 38 below) show over half the parents in Bengaluru Urban had attained up to 10th grade education, with a very small proportion having attained beyond class 10. Ramnagara and Tumkuru have similar trends, with the majority of parents having attained up to 10th grade education, but a larger proportion of parents (compared to Bengaluru Urban) having attained above class 10.

Figure 38: District wise education levels of parents of children going to private pre-schools



c. Occupation

Parental occupations of children going to private schools show a diverse distribution. Overall, equal proportions of fathers are engaged in agriculture (which includes sericulture and animal husbandry) and company work, i.e., 21 per cent each. A smaller proportion of 15 per cent is engaged as drivers. The remaining 44 % are engaged in other occupations such as running own business, factory work, labour work, carpentry, computer operations, mechanical and electrical works. Within district wise variations, the proportion of fathers in agriculture increase to 33 per cent in Tumkuru from 8 per cent in Bangalore Urban, and 23 per cent in Ramnagara. A similar decreasing trend is seen with respect to company work, which declined from 32 per cent in Bangalore Urban to 20 percent in Ramnagara and 10 per cent in Tumkuru. Except for Ramnagara, which have a higher proportion of fathers engaged as drivers (21 per cent), as compared to Bangalore Urban and Tumkuru (11 per cent each). Among mothers, of children going to private

school, majority mothers are engaged as housewives, with the highest proportion being in Ramnagara (81 per cent), followed by slightly lesser proportions in Bangalore Urban and Tumkuru. More mothers in Tumkuru (36 per cent) reported being engaged in tailoring, cooking, beedi rolling, agriculture, running small businesses/shops, and professions like, teachers and nurses, compared to the other two districts.

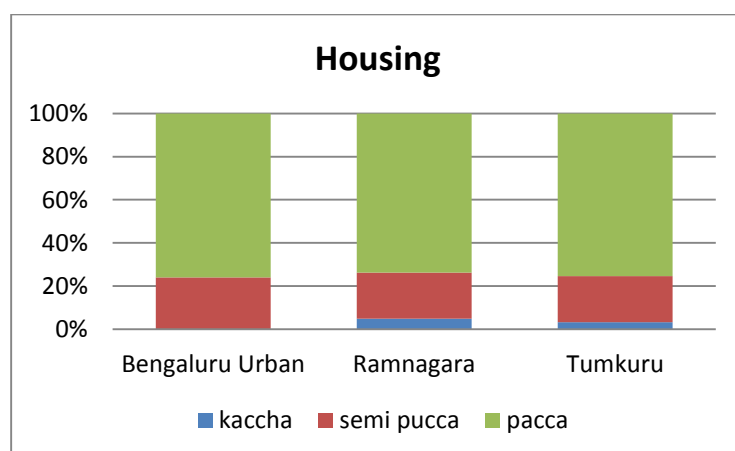
d. Economic Status (Standard of Living)

Due to the difficulties involved in collecting reliable income data at household levels, we used the following indicators to estimate the economic status and standards of living of families:

- Type of house: kacha/semi-pacca/pacca
- Cooking: Firewood/ kerosene stove/LPG gas stove
- Electricity: 24 hours of electricity/ No electricity
- Water Supply: Common source/piped water/tanker
- Consumer durables: Cycle/TV/Two wheeler/Other

A large proportion of parents of children going to private schools reported living in pucca houses (75 per cent), while 23 per cent reported living in semi-pucca houses and only 3 per cent lived in kaccha houses. This reflected similarly within the district wise variations. Parents living in Bangalore urban only lived in semi-pucca and pucca houses. Ramnagara and Tumkuru reported having 5 per cent and 3 per cent of parents living in kaccha houses.

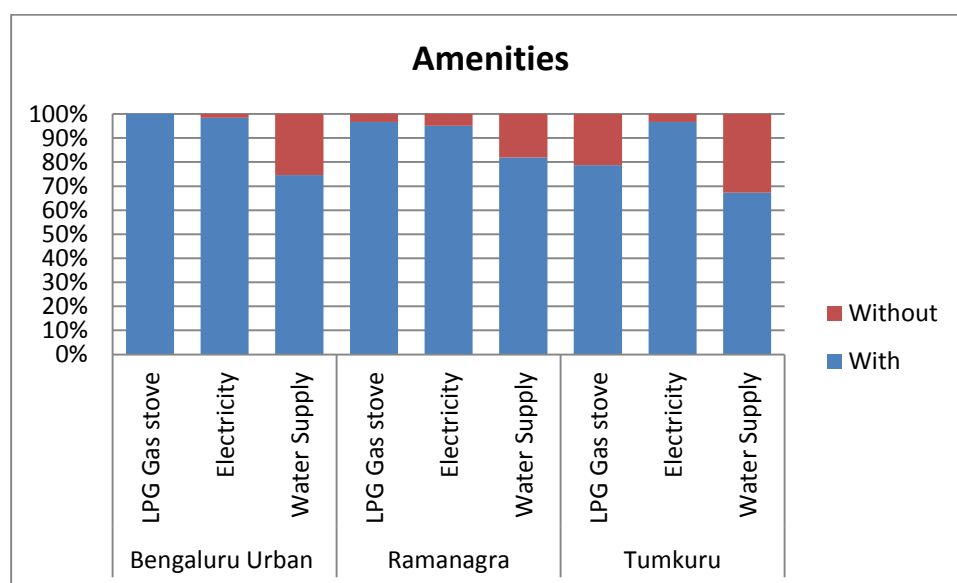
Figure 39: Type of houses of children going to private schools by district



With respect to household amenities, overall 92 per cent of the sample reported cooking with LPG gas stove, while the remaining households used chulha (firewood, cowdung, coal, etc.) and

kerosene. Additionally, 97 per cent of the sample reported having electricity and 75 per cent reported having piped water. The remaining households within the latter reported using tankers, common wells/hand pumps as sources of water. A district wise variation (figure 40) is given below. Piped water supply appears to be the provision that is most short across the districts, with more families in Tumkuru and Bengaluru Urban lacking this facility. More families in Tumkuru and Bengaluru Urban also lack LPG for cooking compared to Ramnagara.

Figure 40: Amenities in households of children going to private schools by district



Information was also collected about assets and consumer durables that families possessed, as an indicator of economic status of families. About 75 per cent of families across the three districts had at least a bike and 98 per cent had at least one high value consumer durables such as TV, fridge or washing machine. Only 25 per cent of families reported no vehicle at all, while 2 per cent reported having no consumer durables. Across districts, a slightly higher proportion of parents from Tumkur reported two wheelers (80 per cent), while 71 per cent of parents in Bengaluru Urban and 72 per cent in Ramnagara had two-wheelers.

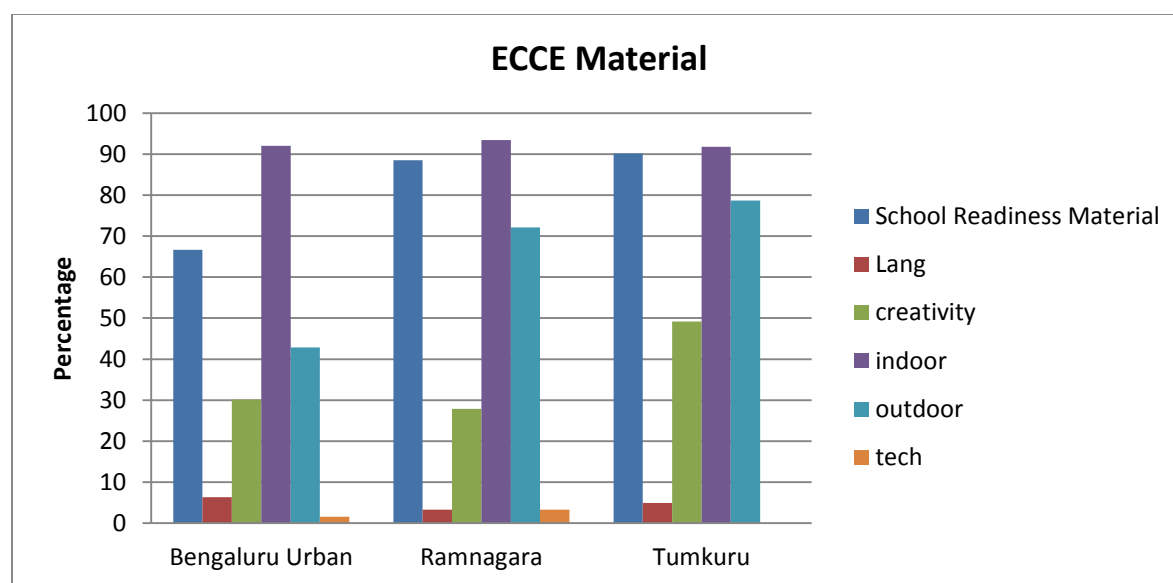
e. Home Learning contexts

To understand the provisions for early stimulation and learning at home, parents were asked questions on the availability of ECCE material, nature of engagements between the parent and child at home. The aim of these questions was to understand differences in home environments and how this contributes to children's development.

Across districts, the largest proportions of parents (92 per cent) reported having provisions such as indoor toys (i.e., stuff toys, plastic toys such as cars, JCBs, puzzles, building blocks, kitchen sets, etc) for their children to play with; followed by school readiness material (e.g., alphabet and number books, charts on fruits, vegetables, animals, notebooks and slates) (82 per cent). While almost more than half the proportion of parents (64 per cent) reported having procured some form of outdoor play material (e.g., bats, balls, cycles, scooters) for their children to play with, the area that seemed to be most neglected was language development with only 5 per cent of the families reporting the availability of resources such as story books, rhymes, or other language supporting material other than school readiness material such as alphabet, fruit and vegetable books and charts. Very few families reported having no resources at all, of which 1 per cent was in Bangalore Urban and 1 per cent in Tumkuru.

Figure 41 shows a district-wise comparison of ECCE material available at home for children going to private pre-schools. While across districts indoor play material was reported by majority of families, availability of indoor play material is the highest in Ramnagara followed by Bangalore Urban and Tumkuru. Tumkuru (90 per cent) and Ramnagara (89 per cent) also have the highest proportion of families reporting the availability of school readiness material at home compared to Bangalore Urban (67 per cent), while Tumkuru has the highest number of families who have reported the availability of outdoor material as well. Bangalore Urban has the least proportion of families with outdoor play material. This could be due to the lack of open spaces in cities. Ramnagara has the highest proportion of families with indoor play material and technology (e.g., mobile phones, computers and tablets). Tumkuru, has the highest number of families that have invested in various kinds of ECCE material at home.

Figure 41: ECCE material available at home for children going to private schools by district



f. Tuitions

In order to understand the kinds of support children receive with early learning, we also examined whether children received other forms of academic inputs in the early years. About 27 per cent of families across the three districts have reported sending their children to tuitions in addition to private schools, of which the highest numbers were in Bangalore Urban (31 per cent), which also on an average has lesser number of families investing in ECCE material at home. The high investment in tuitions on the other hand can be indicative of the pressures that families face in order to prepare their children from early on, in formal learning, in order to be competitive with children from elite classes, as shown by several studies (see CBPS 2018; Kaul et al., 2017; Sriprakash et al, 2020). The average cost of tuitions reported by parents in private schools in Bangalore Urban is Rs. 288 per month per child. Around 27 per cent of families in Ramranaga reported sending their children for tuitions, which on an average was said to cost Rs. 238 per month per child. Relatively lesser families in Tumkuru send their children for tuitions (24 per cent) at an average monthly cost of Rs. 173 per month per child.

g. Family-Child Interactions

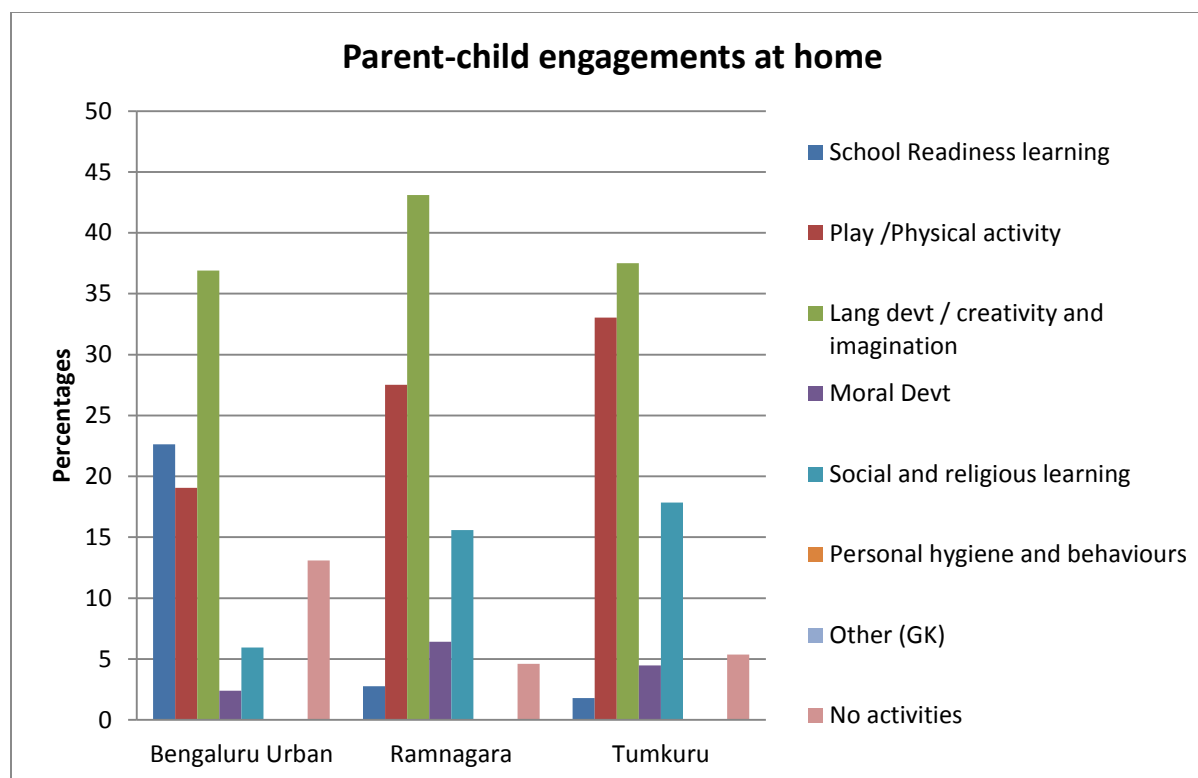
The study also examined the kinds of engagement that families of private pre-school going children have at home, which also contributes to children's learning and development in the early years. More than half of the families interviewed (39 per cent) across the three districts reported engaging children at home with stories, rhymes, songs and dance indicative of efforts at fostering

developments in the areas of language, creativity, imagination and expression. Parents reported engaging in story-telling, dancing, rhymes, mythological stories, stories from the Panchatantra and stories about animals, birds, gods, etc. Among songs, they engage with the children over popular songs that is shown on the television, as well as devotional songs and lullabies in local languages.

Almost 27 per cent of the parents interviewed also reported engaging children in play and other forms of physical activities such as skipping, running, cycling as well as games like cricket, hide and seek, khokho, kabbadi, etc. Among the local games, a larger number of parents in Ramnagara and Tumkuru named local games such as *Kunte Bille* (Hopscotch), *Jutata*, *Uyyale*, along with, playing on swings, and with tops and balls. A smaller proportion of parents reported engaging children in social and religious through stories and songs about the family, relationships or gods (14 per cent), and school readiness related learning (e.g., teaching alphabets, numbers, fruits, vegetables and so on) (8 per cent).

Only about 22 per cent families across the three districts reported not engaging with children in any form of play or learning at home. The largest proportion of parents who reported no form of engagement with their children at home were from Bangalore Urban (13 per cent), and a much lower proportion reported the same in Ramnagara (5 per cent) and Tumkuru (5 per cent). More data is necessary to understand whether these patterns may be related to higher education levels seen for parents in Ramnagara and Tumkuru (see figure 38 above), or if they may be related to other factors such as pressures of living in urban cities like Bengaluru. What is also interesting to observe is the higher proportion of parents reporting that they engaged their children in play in Tumkuru (33 per cent) and Ramnagara (28 per cent), compared to Bengaluru Urban (19 per cent), while significantly more parents in Bengaluru Urban (23 per cent) have reported engaging children in school readiness activities compared to Ramnagara (3 per cent) and Tumkuru (2 per cent). Seen alongside the larger number of families that are investing in tuitions also in Bangalore Urban, a quarter of the families interviewed in Bangalore reporting practices around school readiness might signal the greater pressure to competitively prepare children from the earliest stages for primary school entry in Bengaluru, compared to Ramnagara and Tumkuru.

Figure 42: Parent-child interactions at home for children going to private pre-schools by district

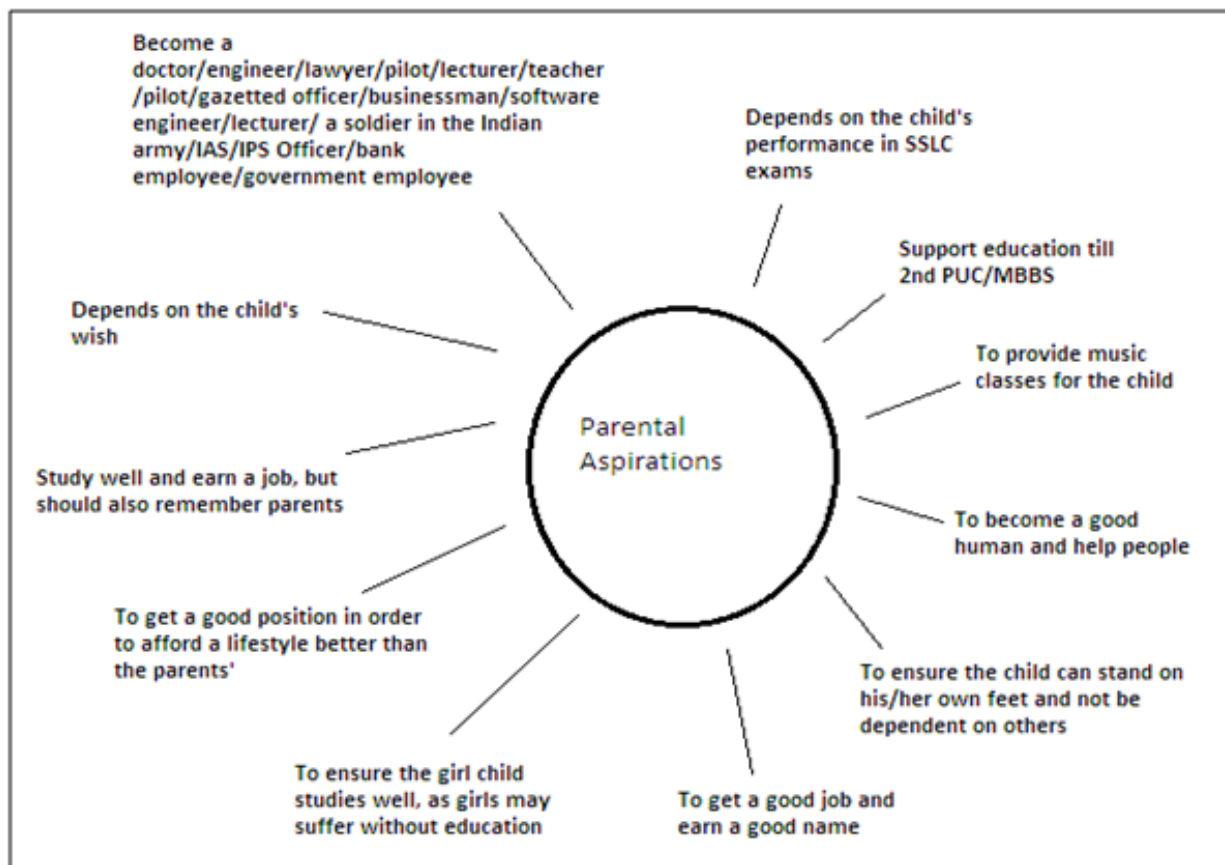


h. Parental Aspirations and Decision Making around Education

Along with information on household economic status and provisions for children's development and learning, information was also collected on parents' aspirations and planning for children's futures (figure 43). While most parents desired for their children to have good education and jobs, a large majority of them also indicated that they would allow children to pursue their own interests with respect to education and jobs. Aspirations for education were tied to a recognition of their own poor education and status, and a desire for children to do better than themselves. One parent also spoke of education as an "asset", more than land or any other form of property, as parents' responses closely connected it to achieving good jobs. A large majority of parents wished for their children to attain professional jobs, such as that of a teacher, doctor, engineer or police officer. More parents in Ramanagara also indicated preferring their children to attain government jobs, while in Tumkuru, more specific positions, such as that of a 'gazetted officer' and assistant commissioner following IAS, was reported by some parents. It also appeared that there was greater parental knowledge around the specific kinds of education and degrees to be pursued in relation to the specific professions that they desired for their children in Tumkuru, with many parents also

specifically reported beyond post-higher secondary educational degrees and levels as desirable for their children.

Figure 43: Parental aspirations for children's futures

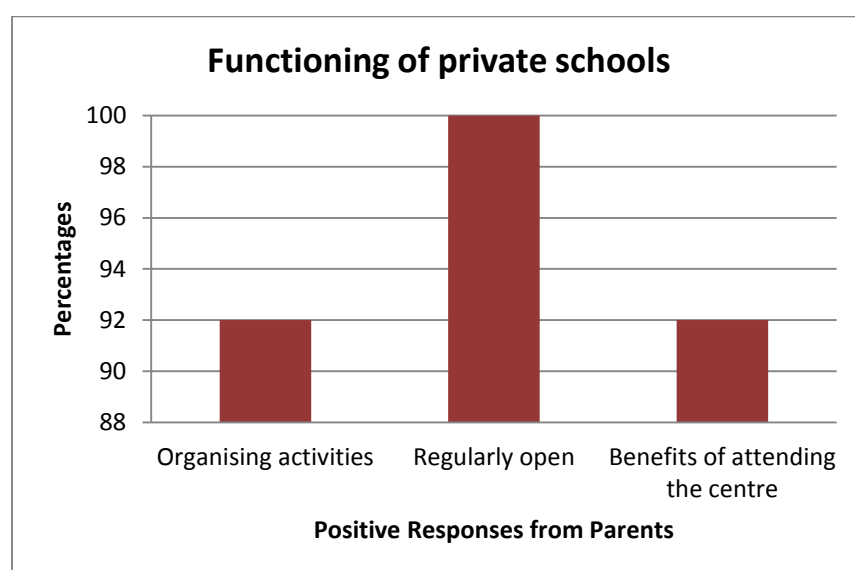


Along with aspirations for the future, we also attempted to understand parents' investments in different kinds of ECCE provisions. Parents' responses around sending children to private pre-schools revolved around the centres preparing children to go to school by disciplining them for school routines, increasing sitting tolerance and the ability to mingle with strangers. Many parents also spoke about the introduction of formal literacy and numeracy which would aid with later schooling. Some of the common responses included factors like the location of the school being close to home, recommended by a family member and lower fees. Other factors for choosing a specific pre-school included the availability of female teachers, teaching of English and provision of RTE quota.

i. Satisfaction with provisions at private pre-schools

A discussion with parents on the functioning of the pre-school showed these centres to be well-functioning. Almost all parents reported the pre-school to be regularly open. A total of 92 per cent of parents spoke about children benefitting from organising playing and learning activities, as well as, benefits received from attending the centre. Overall parents' reports suggested the presence of well-functioning pre-schools. However, comparing parental responses to the infrastructure and teaching learning practices in schools shows a discrepancy. Many schools lack the required infrastructure and provisions for good quality ECCE, as discussed below.

Figure 44: Satisfaction with private pre-schools



5.2 Infrastructure and Classrooms

This section presents an analysis of the physical infrastructure, space, facilities, curriculum and pedagogic practices of private schools. Although the National Early Childhood Care and Education Policy (NECCEP) (MWCD, 2013) has given quality norms and standards for ECCE practice, these are not enforceable by law. With no regulatory mechanisms in place, the private sector in preschool education is highly varied in terms of quality.

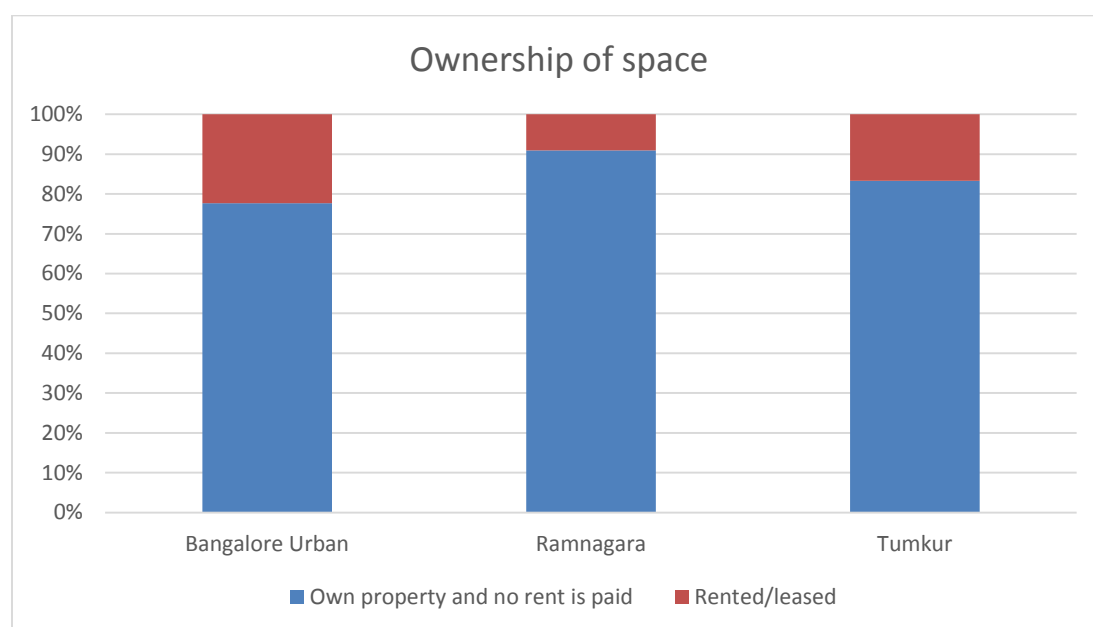
a. Infrastructural space and facilities

Building ownership

Most of the private preschools were observed to be functioning out of owned buildings, specifically 78 per cent in Bangalore Urban, 83 per cent in Tumkuru and over 90 per cent in

Ramnagara (figure 45). Higher land prices in Bangalore Urban could explain the slightly higher percentage of rented and leased buildings in the district, as compared to the other two districts. Notably, however, none of the centres across all three districts reported facing any kind of issues in usage of space on which their schools were situated.

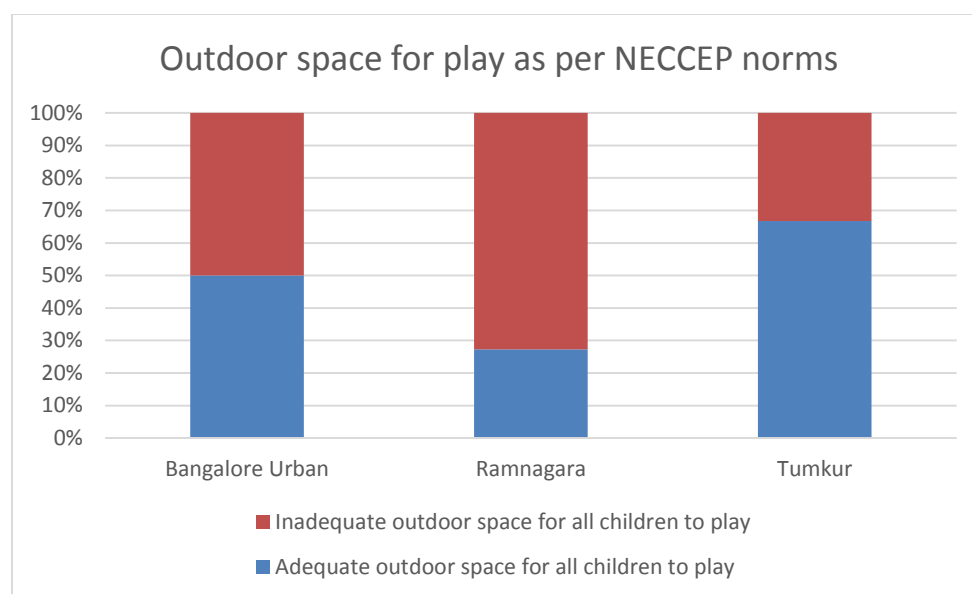
Figure 45: Ownership of building of private schools and preschools across the districts



Space and provisions

Space for outdoor play and indoor classroom size were measured against the NECCEP norms of 30 square metres of indoor space and 35 square metres of outdoor space respectively, for 30 children. A little over half the private centres (51 per cent) did not have adequate outdoor space for play. This figure further varied across districts, with over 70 per cent schools in Ramnagara not having adequate space, followed by half the schools in Bangalore Urban, and a third in Tumkuru, as can be seen from figure 46.

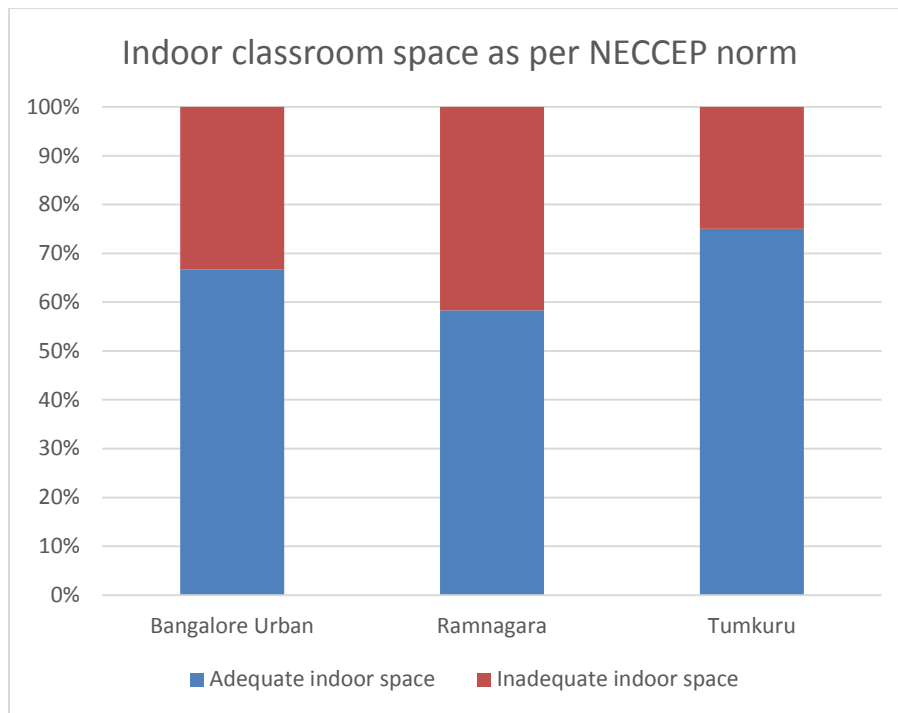
Figure 46: Outdoor space for play across districts



With regards to indoor space, on average a third of the classrooms were observed to not have adequate classroom size for all children to sit and undertake activities comfortably, as per the NECCEP norm. While there were fewer centres with inadequate indoor space, as compared to centres with inadequate outdoor space, the variation of this figure among districts mapped on to the trends observed for outdoor space, with the highest proportion in Ramnagara (41 per cent), followed by Bangalore Urban (33 per cent), and then Tumkuru (25 per cent) not having adequate indoor space (figure 47).

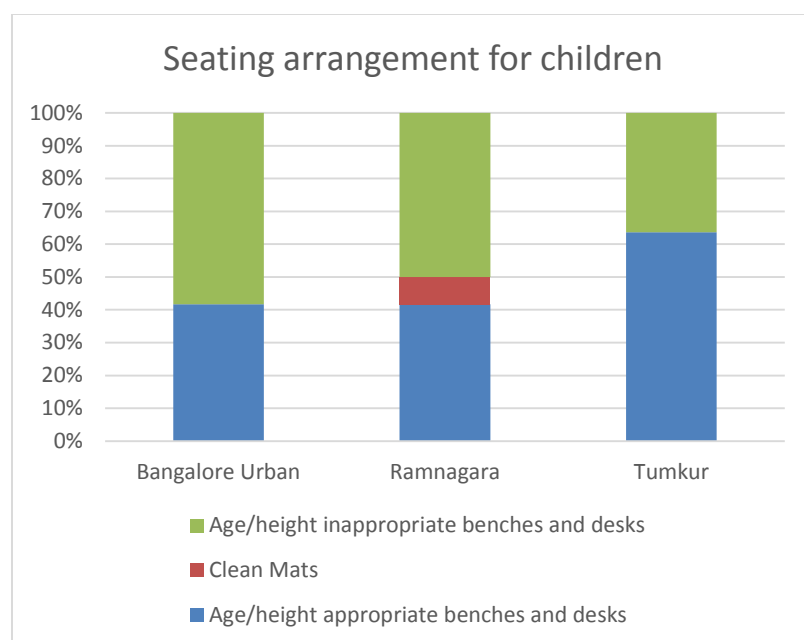
Despite a better performance in terms of indoor and outdoor space, 75 per cent of centres in Tumkuru had inadequate or no storage space for teachers to store material within the classrooms. This figure was lower at 41 per cent for Ramnagara and 33 per cent for Bangalore Urban. These numbers are also supported by observations from the field where classrooms were seen to be small in size, and often overcrowded. In terms of indoor hazards or insufficient infrastructure again, though almost all centres in Bangalore Urban and Ramnagara had one or no such conditions, about 25 per cent of the centres in Tumkuru were observed to have centres with between 2 to 4 conditions in the form of inadequate lighting, inadequate ventilation and broken windows/doors etc. Literature on low fee private schools has also previously noted that in order to be able to run on low costs, such schools tend to minimize expenditure on infrastructure and resources, to meet the demand of poorer families for private school education (Nambissan, 2012; 2014).

Figure 47: Indoor classroom space in private schools



For seating infrastructure, the National ECCE curricular framework recommends either age and height appropriate furniture, or comfortable mats. Though almost all private preschools had benches and desks for children to sit on, rather than mats, close to half of these (48 per cent) were observed to be of inappropriate size. This figure was lower in Tumkur (36 per cent) however compared to Bangalore Urban (58 per cent) and Ramnagara (50 per cent), as can be seen in figure 48 below.

Figure 48: Seating arrangement for children in private schools



Hazardous conditions around the centre were either absent, or were physically separated from the premises with a protective barrier such as a lockable gate or a good wall in over 80 per cent of the centres in each district. The nature of hazardous conditions, which were present in about one third of all centres, were almost exclusively in the form of motor vehicles or uneven surfaces. In over 90 per cent of the centres in each district, there were either no unclean conditions surrounding the centre, or there was a protective barrier such as a gate in place.

Toilet availability and usage was not uniform across sites. While Bangalore Urban and Ramnagara had toilets available in almost all centres, which were being used by more than half the children, about a third of the centres in Tumkuru either did not have toilets, or had children using open spaces in spite of toilet availability. Around 75 per cent of centres across districts had children carrying drinking water from home, (over 90 per cent in Bangalore Urban, around 75 per cent in Ramnagara and around 50 per cent in Tumkuru) though it was noted during observations that many of these centres also had clean, filtered and covered drinking water available in the school premises.

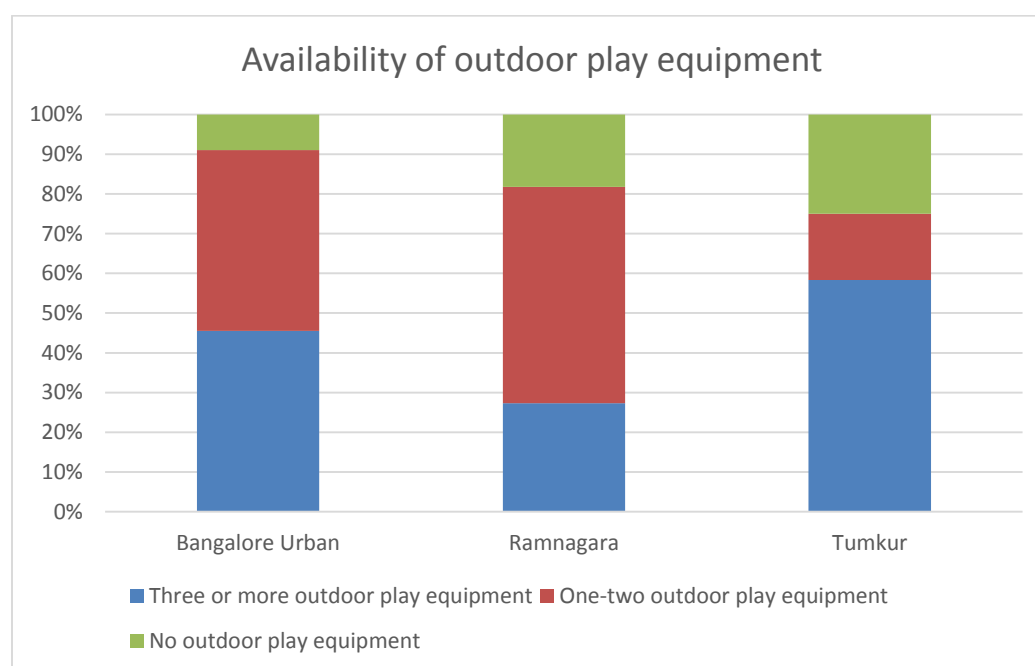
Almost none of the centres observed had any infrastructural facilities for children with special needs.

c. Curricular Material

The national ECCE curricular framework notes that a child's learning environment should consist of material which is stimulating so as to sustain and promote curiosity, interest and all-round development. In order to do so it lists essential material, categorized into outdoor and indoor material, which together would address various developmental needs of a child.

Observations conducted for the availability of outdoor play materials in terms of numbers of items revealed significant variations among, and within districts (figure 49). Although Tumkuru had the highest proportion of centres with no outdoor play material (25 per cent), it also had the highest proportion of centres with three or items (58 per cent). Bangalore Urban had items of outdoor play in most centres, with an equal proportion of centres with either one to two items, or three and more items (45.5 per cent). Ramnagara had most centres with one to two items of play (54.5 per cent).

Figure 49: Availability of outdoor equipment for play in private schools

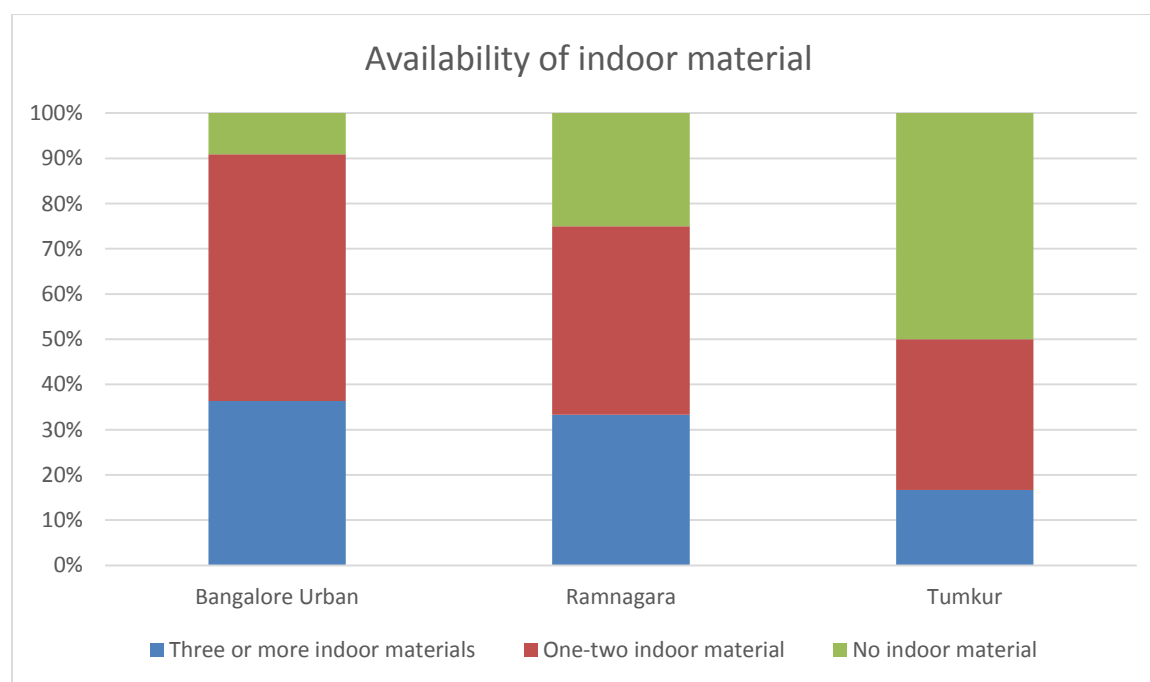


The type of items available by percentage of centres is shown in figure 50. Most centres had either balls or rings for outdoor play (86 per cent), followed by bats (58 per cent). These are perhaps most commonly found in centres since they require lesser monetary investments than facilities such as swings, slides and see saws, which were present in a less than half the centres.

Importantly, though, only about one third of the centres (34 per cent) had regular opportunities for children to use these outdoor play items, while the remaining centres used them ‘sometimes’ (59 per cent) or ‘rarely/never’ (7 per cent). This also goes against the NECCE curricular framework which stipulates that daily outdoor activity, both structured and unstructured, should be a mandatory part of the preschool routine.

There was a high variation among districts with regards to number of indoor curricular items available. Tumkuru stands out for its significantly poor performance with half the centres having no indoor curricular equipment, followed by Ramnagara where one fourth of the centres had no indoor equipment. Most centres in Bangalore Urban and Ramnagara had one to two indoor items, and approximately a third of the centres in the two districts had three or more indoor items.

Figure 50: Availability of indoor play material in private schools



In terms of the type of indoor equipment, almost half the total centres (47 per cent) observed had books, flashcards or charts. Blocks, puzzles or plastic toys/dolls were found in approximately one third of all the centres. However, each of these items were found in less than half of the total number of centres observed. Even more disheartening is that regular opportunities for using indoor curricular equipment were present in only 14 per cent of the centres, with most centres reporting frequency of usage as ‘sometimes’ (68 per cent) or ‘rarely/never’ (18 per cent).

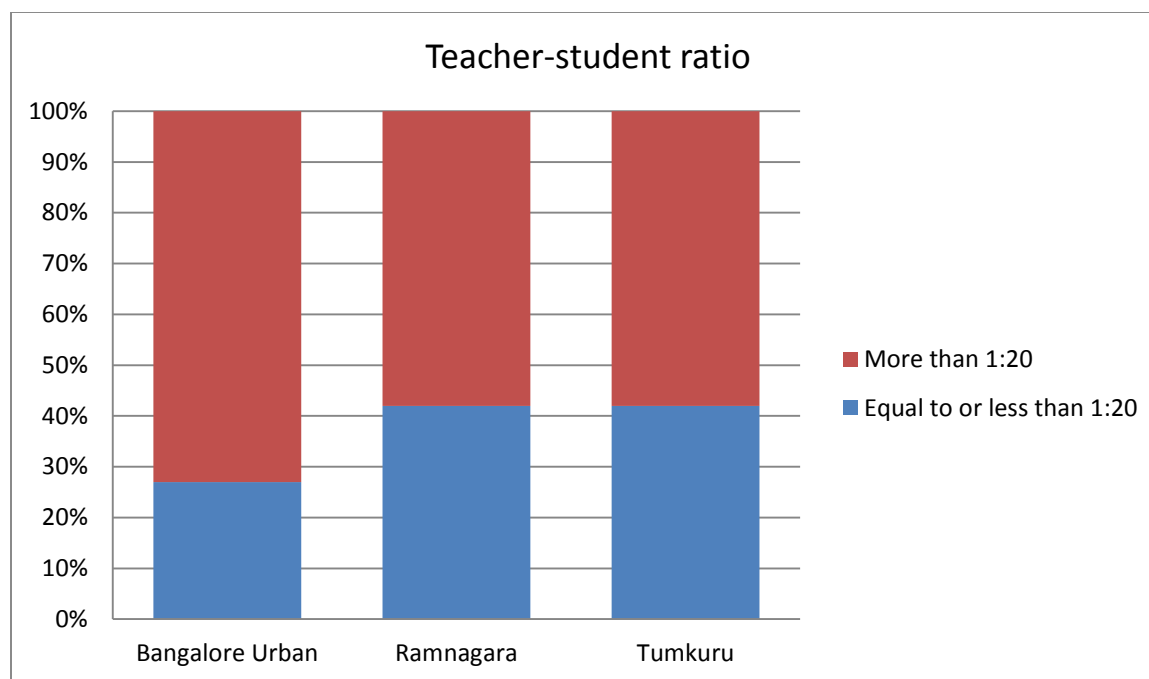
As further sections show, this is no doubt a result of excessive focus in these schools on formal instruction, leaving little opportunity for play or activity-based learning.

d. Curricular and pedagogic practices

According to the NECCE policy curricular framework, seating and curricular arrangements within the classroom should be organized in a manner so as to facilitate flexibility to conduct different kinds of large and small group activities, and include activity corners with different kinds of material (MWCD, 2014). Private schools fared poorly on this count. More than 80 per cent schools, had frontal organization wherein children sit facing the blackboard and teacher. The arrangement of curricular material was disorganized and not in a manner that aided in any specific pedagogic practice in over 80 per cent centres in Bangalore Urban and Ramnagara, and 30 per cent centres in Tumkuru. In the remaining 70 per cent centres in Tumkuru it was observed that the centres either did not have any material, or the material was kept in a store room and was not available within the classroom. Only 15 per cent of the schools across districts had display material on the walls which were age appropriate, and were placed at eye level for children to view. Among the remaining schools, while half had material that was placed too high on the wall, the rest did not have any display material at all. None of the schools in Ramnagara and over 80 per cent schools in the other two districts did not have any display of material by children, as recommended by the NECCE curricular framework.

The national ECCE policy prescribes a teacher to pupil ratio of 1:20 for the preschool years (MWCD, 2013) More than half the centres were not observed to be following this norm, with this figure as high as 73 per cent in Bangalore Urban, and 58 per cent in the other two districts (figure 51). This was also visible from observations of overcrowding in classrooms, where the average number of children per classroom was found to be 29. There was however a high variation among schools in this regard (standard deviation of 9.5).

Figure 51: Teacher-student ratio in private schools

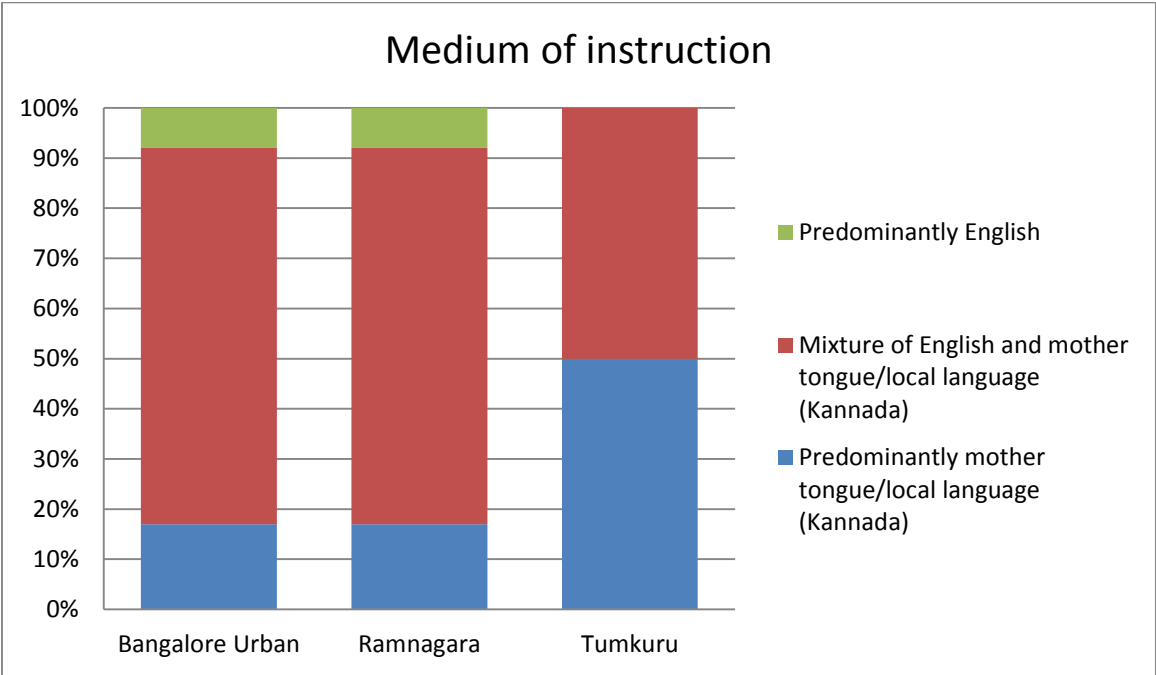


Developmentally appropriate norms state the need to use the child's mother tongue as a medium of instruction in the early years of teaching. Most private schools (75 per cent) in Bangalore Urban and Ramnagara were found to be using a mixture of English and Kannada as the medium of instruction as can be seen from figure 52. In fact, half the private centres in Tumkuru were using only the local language, with the rest using a combination of languages, even though 100 per cent of the teachers in this category reported knowing the English language (refer to section 5.3 for details on teacher profiles).

While the NECCE curricular framework speaks of the early years as a formative period for the introduction of new languages such as the official school language (regional language/English), it stresses on the importance of giving primacy to the mother tongue or home language through the primary years for effective concept building, and the need to introduce new languages in a phased manner. While teachers in private schools recognized the need to use Kannada to initiate children into English, which was new and unfamiliar, the private centres were all English medium schools and the primary focus was on the acquisition of English literacy skills, even if through the local language.

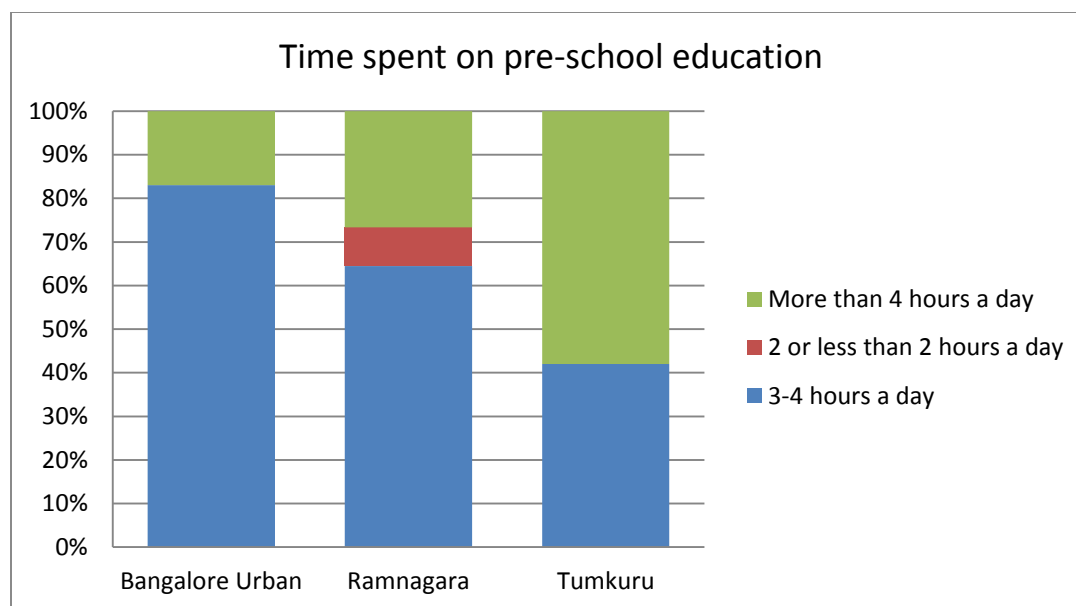
Interestingly, even though the private schools were all largely English medium, none of the schools in Tumkuru and under 10 per cent in the other two districts were using English as the medium of instruction.

Figure 52: Medium of instruction in private schools



As per NECCEP norms, 3-4 hours should be spent on preschool education in ECCE centres. As can be seen from figure 53, though most schools in Bangalore Urban (83 per cent) and Ramnagara (58 per cent) were spending the prescribed duration of time on preschool education, most schools in Tumkuru (58 per cent) were spending more than the stipulated duration of time on the same.

Figure 53: Time spent on pre-school education in private schools



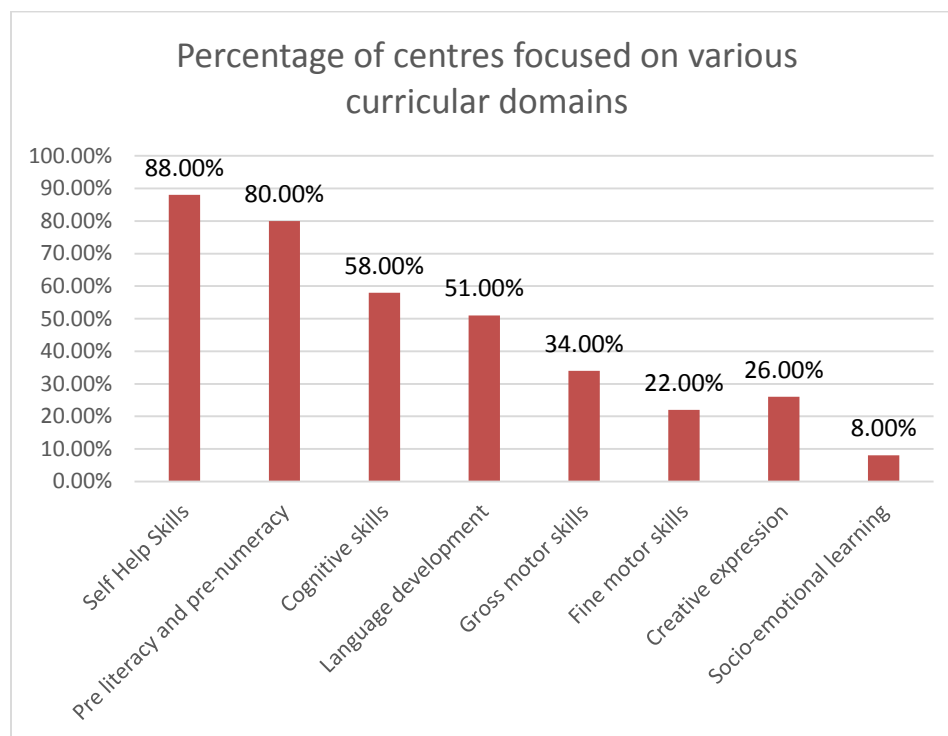
The nature of curricular transactions taking place as part of preschool education in classrooms however is crucial to the kind of learning taking place. In this regard, norms for developmentally appropriate practices, as well as the NECCEP, emphasize the need for play and activity-based teaching-learning as opposed to formal instruction in the ECCE years. Most private schools in all the three districts were observed to be engaged exclusively on formal and direct instruction to impart learning (83 per cent in Bangalore Urban and Ramnagara, 75 per cent in Tumkuru). While private school teachers reported their training as involving a much higher focus on classroom transactions and pedagogic practices (refer to section 5.3), the teaching practices observed in these centres raise serious questions about the nature and quality of training imparted to the teachers in these schools. The high proportion of private centres practicing formal instruction is a disturbing trend, since it can not only be counter-productive to learning in the early years, but also potentially damaging to children's learning capacities (Kaul et al., 2012)

For the inter-related development needs of growing children, both the NECCEP and the accompanying NECCE curricular framework prescribe an integrated approach to early childhood development addressing physical and motor development, language development, cognitive development, socio-personal and emotional development, sensorial development and development of creative and aesthetic appreciation. Observations were thus conducted to record curricular focus among 8 domains, namely, creative expression, fine motor development, gross motor

development, pre-literacy and pre-numeracy, self-help skills, socio-emotional development, language development and cognitive skills.

Observations reveal that even the better performing schools in the district of Tumkuru were covering just about half the required curricular domains, with an average of 4.25 domains. This was followed by 3.75 domains in Ramnagara, and 3 domains in Bangalore Urban. Figure 54, depicting the percentage of schools focused on each domain, shows that there was a much larger focus on self-help skills (88 per cent) and pre-literacy and pre numeracy skills (80 per cent). Further, over half the centres incorporated cognitive skills and language development into their curriculum. The higher number of domains in Tumkuru schools arises from centres which also focus on fine motor skills and gross motor skills, whereas Ramnagara had some schools focusing on creative expression.

Figure 54: Curricular focus in private schools



Within these domains, the nature of activities typically conducted can be seen in table 12 below:

Table 12: Nature of activities under major curricular domains of private schools

Self Help	Pre-literacy and pre-numeracy	Cognitive skills	Language development
Eating, going to the toilet, washing hands	Alphabets, numbers, shapes, colours	Sorting, classification	Rhymes, stories

The remaining four curricular domains were not only found to be practiced in a very small fraction of the centres surveyed, but were also limited in terms of the activities that they comprised of. Gross motor skills included exercising and outdoor play, fine motor skills were limited to drawing, creative expression was largely practiced through free play, while socio-emotional skills almost exclusively included learning greetings.

Prior studies have noted parental preference for private schools, especially among socio-economically disadvantaged families, to be driven by a desire for acquiring ‘cultures’ of higher classes, in the form of languages, behaviours and skills which private schools offer (Azim Premji Foundation, 2018; Sriprakash et al, 2020). The stress on activities such as self-help, comprising of prescriptive codes for ‘proper’ behaviours, and English language skills in the form of alphabets, numbers, rhymes and stories, are perhaps reflective of private schools catering to parental demand for an education which is seen as providing avenues for upward mobility.

Learning discipline is considered another one of the markers of good education by parents (Sriprakash et al, 2020). Observations of teacher-child interactions revealed that 77 per cent schools across districts either insisted on strict discipline, allowing little or no freedom to talk, discuss or question, or did not encourage children to talk unless it was during an activity or as a response to questions.

Interactions between boys and girls was largely observed to be allowed and encouraged across districts, and wherever observations were possible, no gender discrimination or bias was observed on the part of the teacher. Such opportunities for observation were not available to ascertain

teacher's behaviour towards children from socially disadvantaged groups such SC and ST children. Teacher's sensitivity towards children with special needs was also not recorded in most cases, either because there were no children with special needs present in the classroom, or because opportunities for observation were not available.

5.3. Teachers

While the sections above discussed the socio-economic status of children going to private pre-schools and the infrastructure and classroom provisions available at these ECCE centres, in this section we present data on private school teachers who play an integral role in pre-school education.

This section presents data gathered across the three districts from interviews with 36 pre-school teachers. We analysed the data collected from the teachers in order to understand the implications this has for children's development and learning.

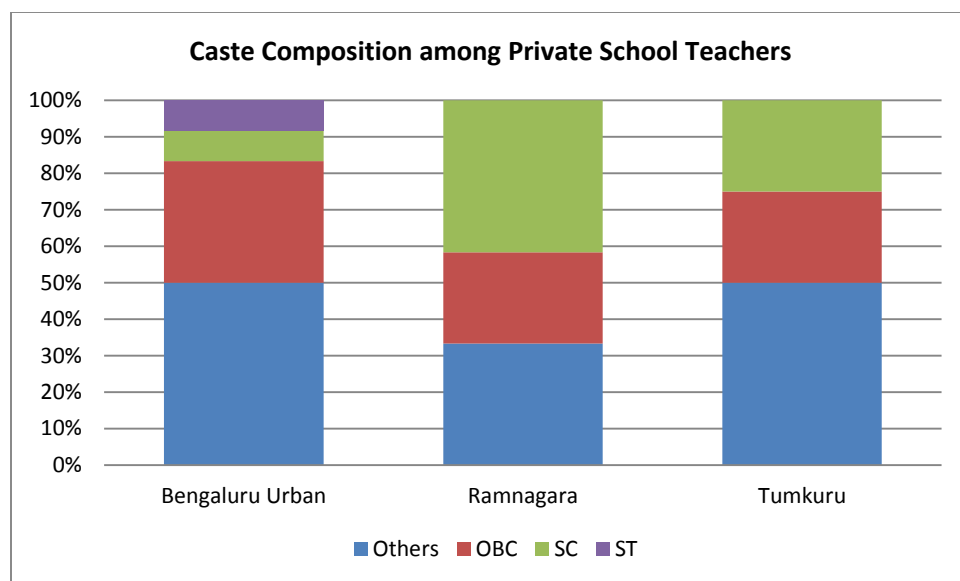
a. Religion and Caste

With respect to religion, all except four private school teachers were Hindus, while there were two Christian and two Muslim teachers each. A caste-wise distribution of the sample showed that the highest number of teachers interviewed belonged to the 'others' category (or general caste; 44 per cent). This is important to note as the largest majority of parents interviewed belonged to OBC and Others families⁸. Ten teachers (11 per cent) belonged to the OBC category and nine teachers (25 per cent) belonged to the SC category. Only one teacher belonged to the ST community, and they belonged to Bangalore Urban district.

Figure 55 shows a distribution of caste profiles of teachers across pre-school centres of Bangalore Urban, Ramangara and Tumkur. While highest proportion of teachers was from the 'others' category in Bangalore Urban and Tumkuru, a higher proportion of teachers in Ramnagara belonged to the SC category. The second highest proportion of teachers sampled belonged to OBC, with a slightly lower proportion of teachers belonging to SC (25 per cent). The proportion of teachers in our sample who belonged to the ST category was the lowest, i.e., 3 per cent

⁸ Note: we use parents' caste as an indicator of the caste-wise distribution of children across the centre, although this does not comprise all children attending the pre-school

Figure 55: Caste composition of private school teachers



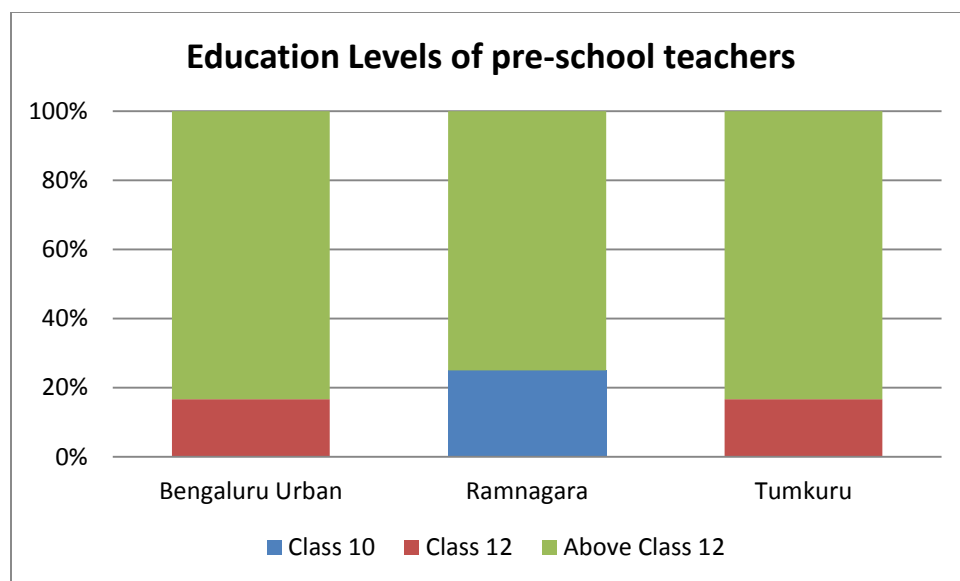
b. Education, Experience, Workload and Remuneration

In this section we compare teacher education levels and experience, along with other factors such as working conditions and remuneration. According to RTE, the minimum qualification for primary school teachers is HSSLC pass, i.e., 12th grade.

Majority of the sampled schools are meeting the norms across the district, except Ramnagara, where 25 per cent of the teachers have qualifications of 10th grade.

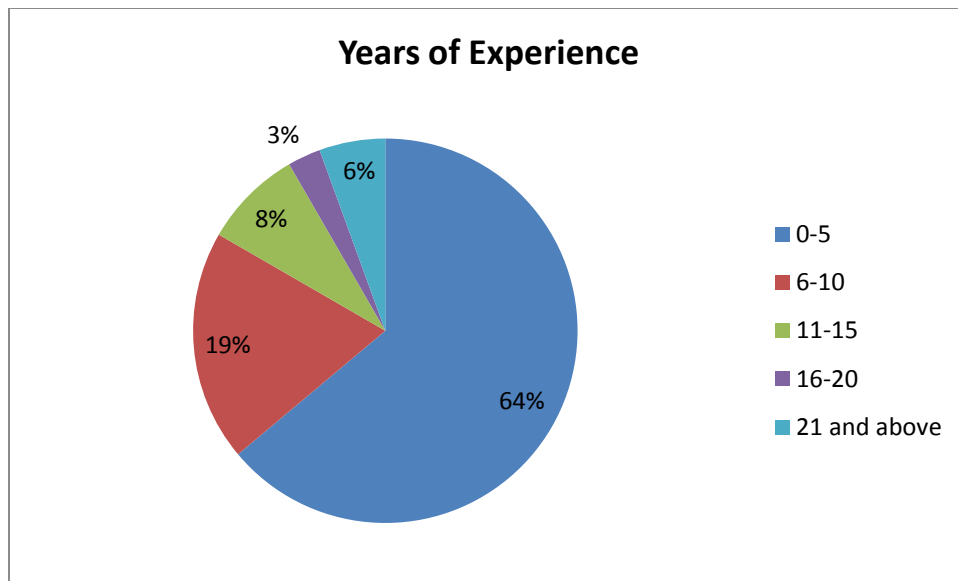
With respect to district-wise differences in qualification, it can be seen that the distribution of qualifications is similar for Bengaluru Urban and Tumkuru, wherein the majority of the teachers interviewed had above class 12 qualifications. This is also true for Ramnagara, though Ramnagara has a slightly lower proportion of teachers above class 12 qualifications (75 per cent) as compared to 83 per cent each in the other two districts.

Figure 56: Education levels of pre-school teachers across districts



With respect to experience, the average work experience for all teachers was about 6 years of total experience, and 4 years of service in the same school. From figure 57 below, it can be seen that the highest number of teachers with experience in the 0-5 years workers (64 per cent), followed by a second-large majority which had 6-10 years of work experience (19 per cent). Across the districts only Bengaluru Urban and Ramnagara had one teacher each who had above 20 years of experience, Tumkuru had more workers with 11-15 years of experience. Among the three districts, Bengaluru Urban is the only district with teachers who have 16-20 years of experience, as well as 21 years and above; while Ramnagara has the highest number of workers having about 0-5 years of experience.

Figure 57: Years of work experience among pre-school teachers

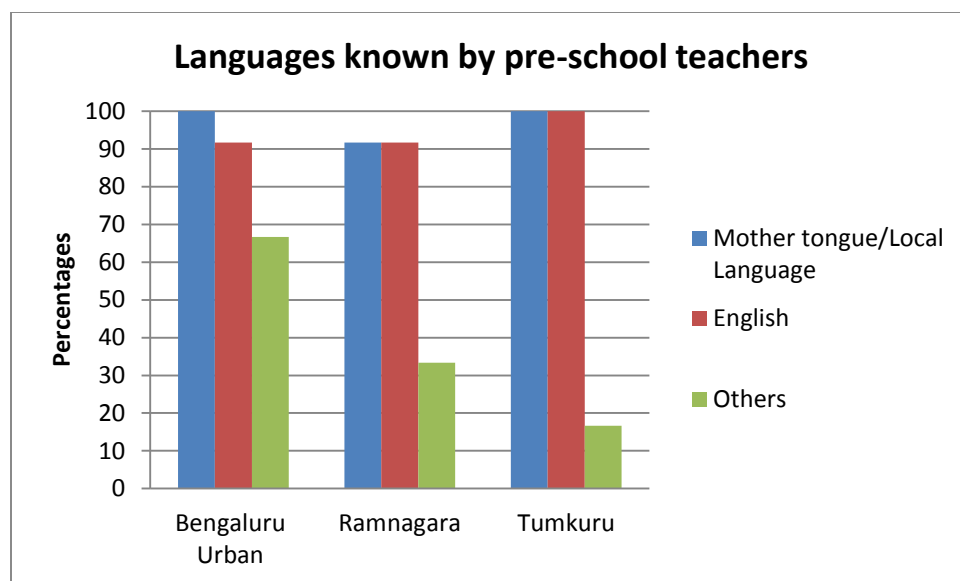


Languages known

The National ECCE Policy identifies teaching in mother tongue / home language / vernacular language as an important indicator of quality of ECCE programmes (MWCD, 2013). Our study sample shows that in private pre-schools, overall, 97 per cent of teachers known English, followed by 94 per cent of teachers who know the mother tongue/local language and 39 per cent of teachers know other languages like Telugu, Hindi, Tamil, etc.

A higher proportion of teachers have knowledge of other languages in Bengaluru Urban (67 per cent). This is important as a high proportion of children in Bengaluru Urban belonged to migrant families, mostly from Bihar, and hence knowledge of additional languages such as Hindi, at the very least, is also significantly important.

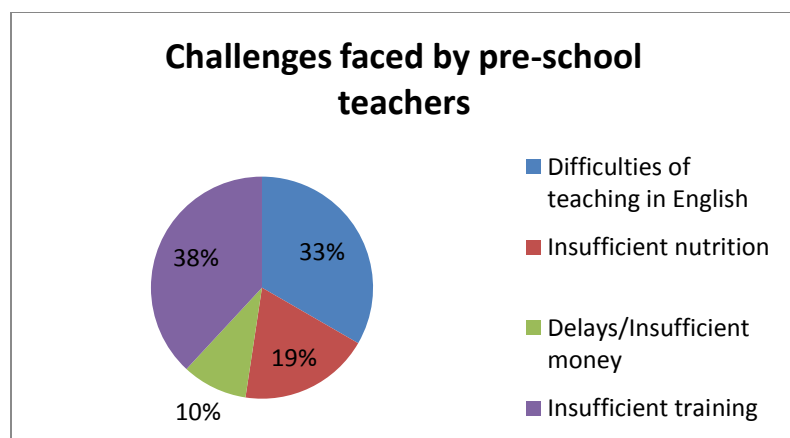
Figure 58: Languages known by pre-school teachers by districts



Workload

In trying to capture the challenges faced by teachers, the study asked questions based on literature that looked at the challenges faced by private school teachers. As seen in figure 59, the biggest challenge faced by the teachers was reported as the lack of sufficient training (38 per cent). This is followed by difficulties faced while teaching in English, which could be because of children being more comfortable in mother tongue-based learning (33 per cent). The third most common challenge was difficulties faced due to insufficient nutrition, indicating the importance of good health of a child, for classroom learning (19 per cent). The challenge least reported by teachers is delays/ insufficient salary.

Figure 59: Challenges faced in undertaking duties reported by pre-school teachers



Remuneration

From our study, the remuneration received by private school teachers show a large variation across districts and within districts. Overall, the average salary of a teacher across three districts is 7123 INR per month. Interestingly, salaries were correlated with work experience ($r=0.6$), though it was not correlated with education, thus suggesting that in the early years, schools perhaps valued experience in handling children as more important, compared to specific disciplinary knowledge. Across the districts, the teachers interviewed reported their average salaries for Bengaluru Urban was 9225 INR per month, followed by 7325 INR per month for Ramnagara, and 4818 INR per month for Tumkuru. The lowest salary in Bengaluru Urban was 5000 INR per month, 4500 INR per month in Ramnagara and 2500 INR per month in Tumkuru. This gradual decline in remuneration could be because of lack of regulation in private pre-schools, where teachers receive remuneration based on their qualifications. However, this is in contrast to the educational qualifications graph where Bengaluru Urban and Tumkuru had majority of teachers with qualifications above class 12. Therefore, this could be due to a higher cost of living in Bengaluru Urban, as well as a higher demand for private pre-school education, which might be determining the remunerations of private school teachers, more than educational qualifications.

Training and Supervision

Training forms an important factor that can add quality to teaching. Interviews with private school teachers showed that only few centres (33 per cent; 12 out of 36 centres) had received some form of formal training. Table 13 shows the duration of training reported by those having undergone training. The largest majority of teachers have reported up to one week of training (50 per cent) followed by up to 1 months of training (33 per cent). Across districts, only 4 out of 12 teachers in Bengaluru Urban, Ramnagara and Tumkuru reported having received training. The longest as well as the shortest duration of training was received by teachers in Bengaluru urban.

The nature of the training mostly comprised of pedagogic approaches and methods such as activity-based learning, usage of visual aids/props (such as paper balls, charts and other waste material) to teach, observing activities being done by children and ways of engaging.

Table 13: Duration of training received by pre-school teachers

Training received (in %)	Pre-school teachers
upto 1 week	50
upto 1 month	33
upto 3 months	8
more than 3 months	0

Out of the teachers who received training, only one teacher in Bengaluru urban reported training not being helpful as it is not connected to ECCE ground realities. Out of the 7 teachers who felt the training they received were beneficial, majority of them felt it was beneficial in terms of pedagogy methods and approaches (57 per cent), while 4 (29 per cent) felt it helped them understand child psychology better, and only 14 per cent spoke about support received with respect to administrative work (shown in Table 14).

Table 14: Benefits of training received by pre-school teachers

Benefits received from Training	%
Understanding child psychology	29
Administrative work	14
Pedagogy related	57

Teachers' expectations around training were largely around learning about age appropriate pedagogy, and to understand children better.

Table 15 shows the expectations of pre-school teachers from training activities. Teachers' expectations were mostly about better age appropriate teaching methods and approaches (64 per cent).

Table 15: Expectations from training by pre-school teachers

Expectations from Training	Percentage of Pre-school teachers
Age appropriate pedagogy	64
Understand children	18
Usage of play materials	9
Social development of children	9

Supervision

Private schools usually have institution based internal supervisory mechanisms, where the supervisor (in most cases the head of the institution) visits classrooms, to inspect teaching, homework of children. As shown below, most teachers reported having a weekly or a bi-weekly supervision visit (48 per cent), while 32 per cent of teachers reported daily supervisions, and 16 per cent reported monthly supervision visits.

Table 16: Frequency of supervision visits in pre-schools

Frequency of supervision visits	Pre-school teachers (%)
Daily	32
Weekly/bi-weekly	48
Monthly	16

The expectations from supervisory visits reported guidance with respect to engaging children, and pedagogic method. One teacher in Bengaluru Urban spoke about the school should reduce the classroom strength. The nature of supervision points to a formalised and micro level monitoring process in private schools.

c. Pre-school Teachers' perceptions regarding ECCE and their role

In addition to personal information related to teachers' qualification, experience, training and workload, the study also tried to understand their perceptions of ECCE and their roles, as a preschool teacher. From the qualitative responses received, as shown in table 17, it was observed that a majority of teachers viewed easier transition to primary school (44 per cent), academic learning (33 per cent) and behaviour-based learning (33 per cent) to be the key areas of development to be fostered through ECCE.

With respect to their own roles, as can be seen in table 18, teachers perceived their duties to be to prepare children for the future (28 per cent), which is further explained through other duties reported such as teaching good behaviour and discipline (24 per cent), providing academic training (21 per cent), self-learning process while teaching children (10 per cent), improving health (7 per cent) and performing the duties of a mother (10 per cent).

Table 17: Importance of ECCE as perceived by pre-school teachers

Importance of ECCE (in %)	Responses from pre-school teachers
Academic Learning	33
Easier Transition to Primary school	44
Behaviour based learning	22

Table 18: Pre-school teachers' perception of self as an educator

Perception of their own role (in %)	Responses from pre-school teachers
Teaching good behaviour and discipline	24
Preparing for the future	28
Improving health	7
Providing Academic knowledge	21

5.4 School Readiness Skills among Private School-Going Children

In this section we present the responses of children attending private schools to a cognitive-academic tool of school readiness. The section presents findings

Self-learning process while teaching children	10	from 35 different private schools and preschools across the three districts in our sample. While the majority of the classes covered were LKG and
Playing a motherly role	10	

UKG sections attached to primary or elementary private schools, there were also some in the form of standalone kindergartens, nurseries or montessoris. On an average classroom had a total strength of 29 children, but there was a high variation between schools ($SD=9.5$). In each school / preschool two groups of children, aged between five and six years, were assessed. The age group was identified bearing in mind that it marks the transition phase to primary school, during which children have presumably received adequate exposure to preschool education. While conducting the activities, though the entire classroom was engaged, by dividing the whole class into multiple groups of five children each, with all groups receiving opportunities to participate in the activities, but performance on the school readiness assessment recorded only for two groups of five children each. The average results of the two groups together are taken as indicative of results for each class.

a. Overall Performance

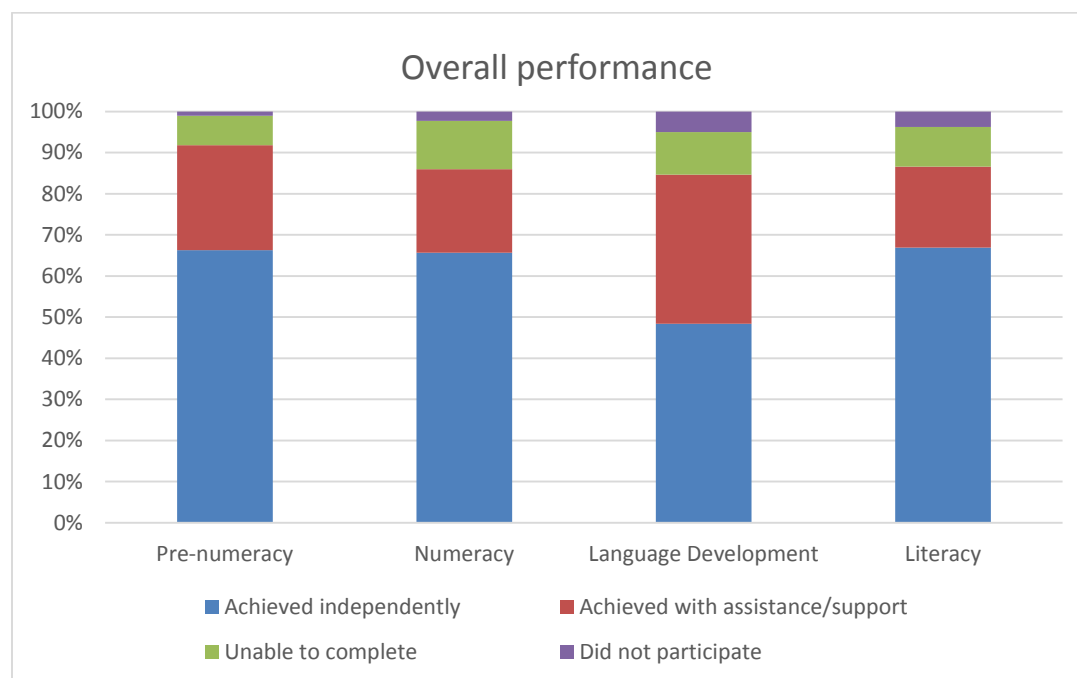
Figure 60 below shows overall performance in each domain for all schools. Children have performed equally well on pre-numeracy, numeracy and literacy, with approximately 66% of children on average being able to achieve tasks independently in these domains. Under language development, 48% children were able to complete the tasks independently, slightly lower than the other three domains. However, if one looks at children who were able to complete a task with or without help, almost all were able to do so across domains – 90 per cent in pre-numeracy, followed by 87 per cent in literacy, 86 per cent in numeracy, and 84 per cent in language development. The differences among proportions of children who were not able to complete a task were also very small – almost 12 per cent in numeracy, about 10 per cent in language development and literacy, and 7 per cent in pre-numeracy.

Given the excessive focus on formal learning in these schools, along with the focus on the acquisition of numeracy and literacy skills⁹, perhaps a good performance on academic readiness is expected in these schools. The relatively lower achievement levels in language development could

⁹ Refer to section 5.2 for details on curricular and pedagogic practices in private preschools.

be in part related to the fact that only 5 per cent of households of parents interviewed reported owning material related to language development (storybooks, rhymes etc), which was also the lowest among types of ECCE material available at home¹⁰. However, as we see in further sections, there is significant variation in performance among the different activities within each domain. These offer interesting insights into the specific kinds of learning taking place within schools.

Figure 60: Overall performance on school readiness among private school-going children



Looking at the district-wise performance overall on the school readiness assessment in figures 61, all districts appear to have performed relatively similarly in all domains, with the exception of Tumkuru in the language development domain. Tumkuru has less than half the proportion of children working in groups who have been able to complete the language development activities independently, unlike the other two districts, while performance on language development activities in Tumkuru appears to be similar to the other two districts when total performance of children working in groups who have been able to achieve the items with and without support is taken. This could be because at least half the centres covered in Tumkuru reported no teaching in English at all, while another half reported teaching in a mixture of English and Kannada, while 75 per cent schools in the other two districts were using a mixture of English and Kannada (see section

¹⁰ Refer to section 5.1 for details on parents and household characteristics of private school-going children

5.3).¹¹ On the other domains, all districts have more than half the proportion of children working in groups who have been able to achieve items independently.

Figure 61: District-wise overall performance on school readiness among private school-going children



b. Pre-numeracy

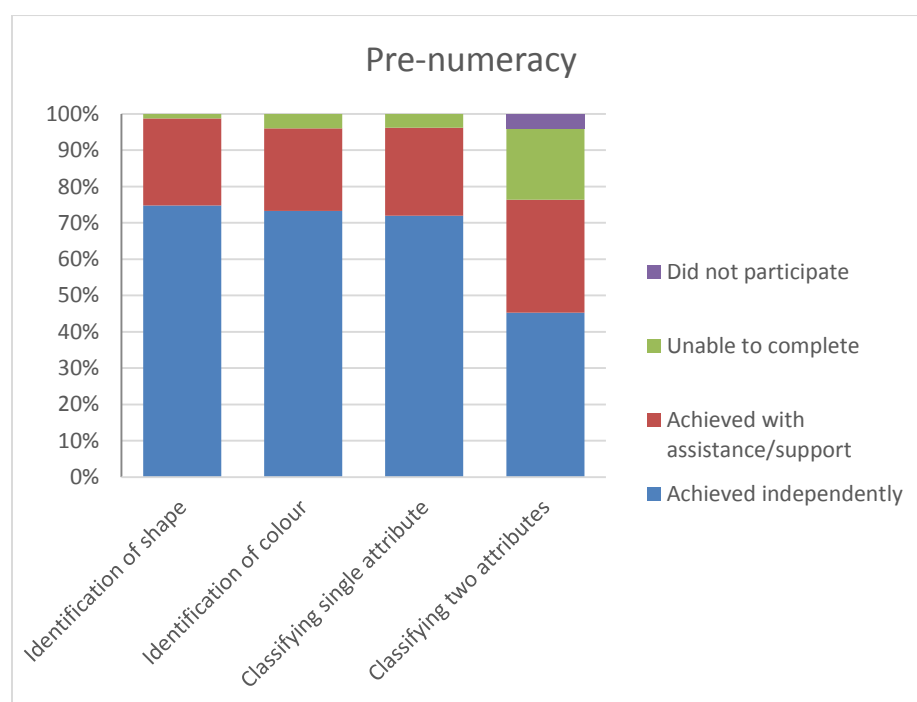
In the activities under pre-numeracy, a majority of children were able to achieve the first three tasks independently, namely identification of shape (75 per cent), identification of colour (73 per cent) and classifying based on a single attribute, i.e. classification based on shape (72 per cent). Taken with the proportion of children who could complete these three tasks with assistance, almost all children in a group were able to do so, as can be seen from figure 62. The last activity which

¹¹ We conducted the language and literacy activities in English in private schools based on the fact that these schools were English medium schools.

involved classifying based on two attributes (i.e. shape and colour) however had less than half the group on average being able to complete the task independently (45 per cent), with 31 per cent requiring assistance to complete the task, and 20 per cent being unable to complete the task even with support.

The focus on colours and shapes as part of the curriculum, as reported in over 80 per cent of the private schools¹², would have ensured that knowledge of these topics is familiar to most children in these schools. Moreover, classification based on two attributes is a higher order skill compared to the other three tasks, requiring the simultaneous pattern recognition of two different attributes, perhaps explaining the relatively lower performance on this task.

Figure 62: Performance on pre-numeracy items by private school-going children

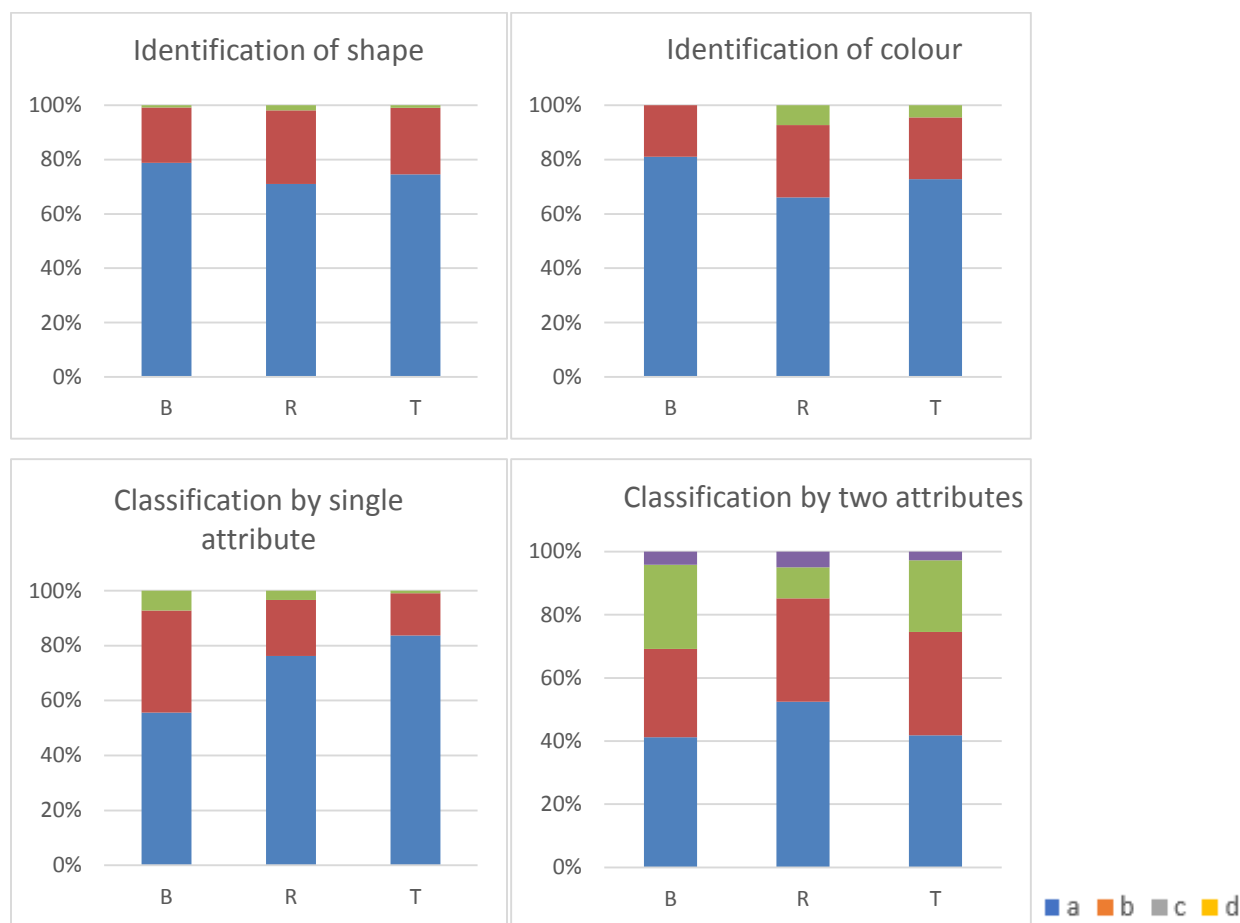


As seen in figures 63, though all children in groups from Bangalore Urban are able to complete (with and without assistance) identification of shapes and colours, the highest proportion of children from among the same groups are unable to complete the classification activities, when compared to Ramnagara and Tumkuru – 7 per cent in single attribute, and 26 per cent in double attribute. A significantly higher percentage of parents in Bangalore Urban compared to Ramnagara

¹² Refer to section 5.2 for details on curricular and pedagogic practices in private schools

and Tumkuru reported engaging their children in school readiness-related interactions which may explain children's ability to identify shapes and colours but difficulty with tasks involving higher order cognitive thinking. It is also interesting to note that a higher proportion of children in groups in Tumkur are able to achieve single attribute classification independently, and similarly a higher proportion of children in Ramnagara are able to achieve double attribute classification, both with and without assistance.

Figure 63: District-wise performance of private school-going children on pre-numeracy activities



c. Numeracy

The results on numeracy present interesting trends. Five skills were tested, namely rote counting, one to one principle, cardinality, more or less and stable order principle. The tasks were ordered based on the expectation that certain skills would need to be acquired prior to the emergence of other more complex skills.

Firstly, as seen in figure 64, almost all children in a group (95 per cent) were able to independently achieve the task of rote counting, which is to be expected since numbers form an important part of the curriculum, and receive focus in 80 per cent of the schools. The activity that children performed next best in was cardinality, which involves knowing that the last number counted to in a set represents the total number of objects in the set (90 per cent children, with or without help), followed by one to one principle, which is the knowledge that each number corresponds to a single entity (72 per cent children, with or without help). The higher proportion of children being able to complete cardinality compared to one to one principle is curious, since the latter skill is a prerequisite for counting totals of a set. One to one principle being the item where the highest proportion of children are unable to complete the task (26 per cent), along with the high percentage achieving cardinality nonetheless could also be the result of not having achieved the skill of abstraction. Abstraction involves learning that principles of counting can be applied to any collection of items, similar or dissimilar. While cardinality was tested using picture cards, one to one principle was observed on counting of fingers. Since teaching methods are focused on written numeracy skills, as is also evident from the lack of curricular material and teaching aids in the classrooms¹³, it is possible that children are able to count objects in a rote manner when it is on a sheet of paper, but are unable to abstract this skill to other kinds of items.

Only half the proportion of children working in groups have been able to achieve the more or less item independently, and 87 per cent have been able to achieve the item with and without support. The much lower proportion of children who have been able to achieve this activity independently, in comparison to other items like rote counting and cardinality (which could have also have been achieved through subitizing) is curious as the more or less activity also depends on the process of subitizing. This perhaps suggests that abstraction has been the main problem, wherein children are able to deal with numbers strictly only in the manner that has been taught at school, and are perhaps not applying other skills that are not emphasised within the classroom.

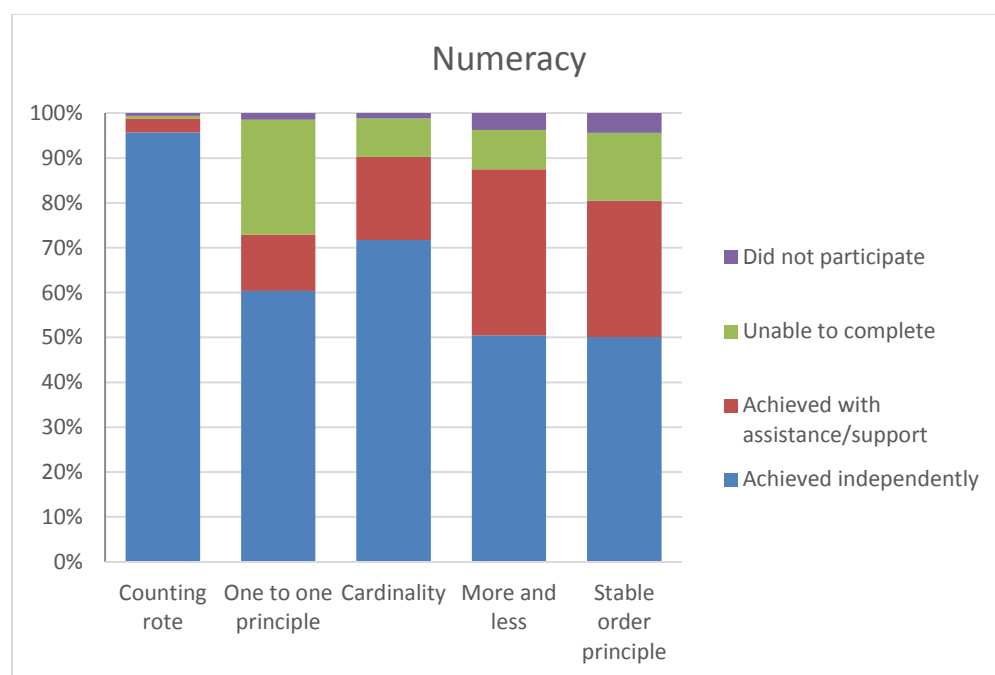
The stable order principle involves knowing that the sequence or order of numbers is fixed, and cannot be altered. While this is another skill that should emerge before cardinality, the fact that fewer children were able to achieve this independently (50 per cent) might be since the ability to recall numbers which come before another number is a more difficult task, and emerges after one

¹³ Refer to section 5.2 for details on availability and usage of curricular material in private schools

is sufficiently familiar with numbers in the ascending order. Interestingly, though the smallest proportion of were able to achieve stable order principle and ‘more or less’ independently (both 50 per cent), these are also the two tasks where a significant proportion of children were able to achieve the task with help (30 and 37 per cent respectively). This is unlike one-to-one principle, where despite 60 per cent children achieving the task independently, only 13 per cent children were able to achieve with support, perhaps indicating the relative conceptual difficulty of the principle.

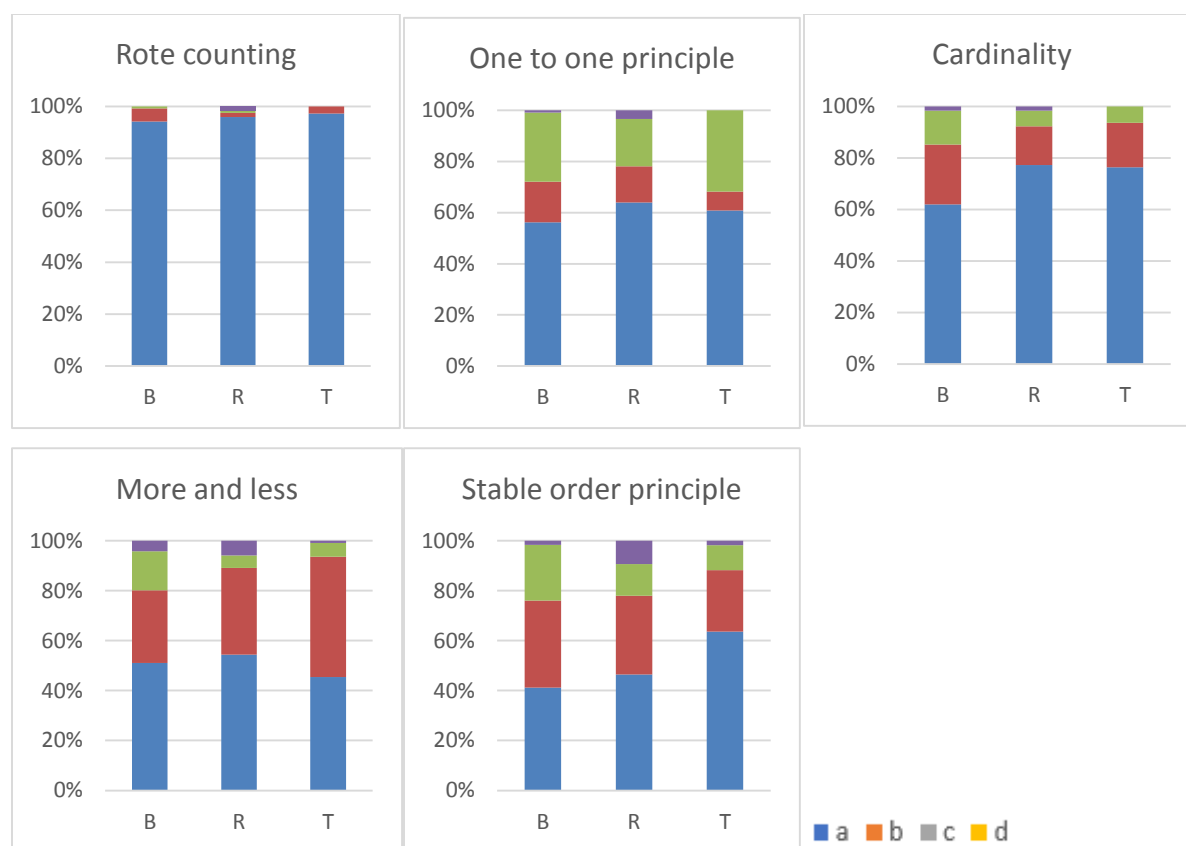
These observations suggest that children have performed better on skills that have been cultivated through rote practice, and indicate a need to expand their learning capacities by focusing on conceptual aspects of numeracy.

Figure 64: Performance on numeracy items by private school-going children



District-wise observations (figures 65) reveal patterns similar to pre-numeracy items, where all children from Bangalore Urban are able to achieve rote counting, but the same groups have the highest proportion of children unable to complete the other four tasks, when compared to the other two districts.

Figure 65: District-wise performance of private school-going children on numeracy activities



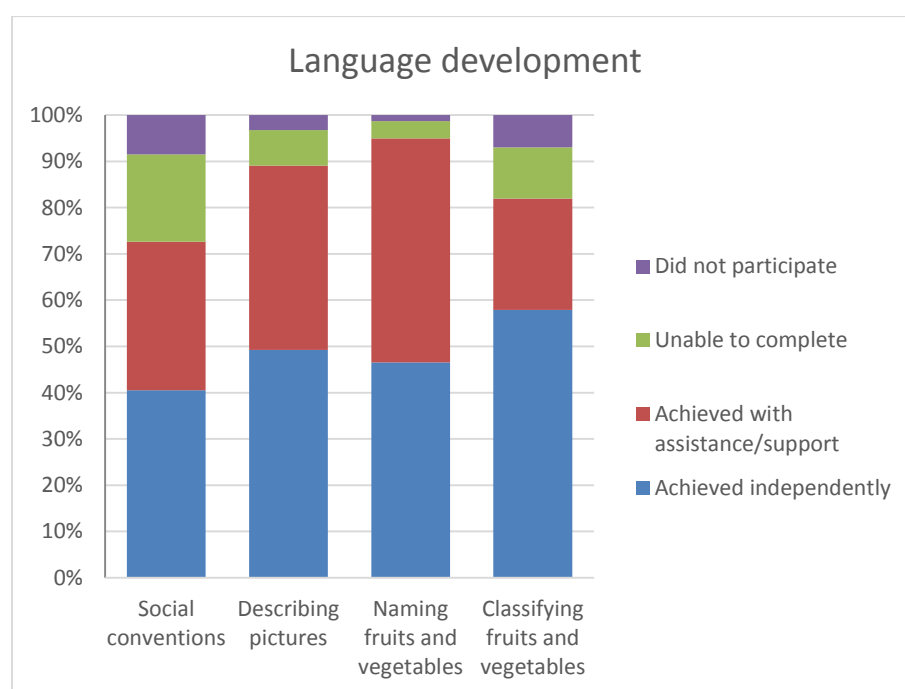
d. Language development

Language development tested for competency in verbal language skills which included the social usage of language, listening and speaking. Under this we assessed four tasks, namely, knowledge of social conventions, describing pictures with simple depictions (eating; sleeping), naming fruits and vegetables, and finally classifying fruits and vegetables. All activities were tested in English based on the assumption that a basic knowledge of the language would have been developed in English-medium schools.

As seen below in figure 66, Although children performed best on naming of fruits and vegetables (95 per cent, approximately equal proportions with and without help), independently achieving a task was found to be highest for classification fruits and vegetables (58 per cent). The higher proportion of children with the ability to classify fruits and vegetables compared to the proportion being able to name them points at the lack of development of vocabulary in English, despite a recognition of the items and the concept of them, perhaps in their mother tongues. Describing pictures had results similar to naming of fruits and vegetables, with 49 percent achieving the task

independently, and 40 percent requiring support for it. This again indicates a gap in vocabulary, however, one that children are able to bridge with assistance. While the knowledge of social conventions also follows a similar pattern, it is also the task which the highest proportion of children were unable to achieve (19 per cent), despite using greetings like ‘good morning’ used regularly in classrooms. It is possible that while children can recall the vocabulary required for such phrases, this knowledge is linked to the context of usage of these phrases (for example, ‘good morning Miss’ when a teacher walks into the room), rather than the actual meaning of the phrase itself.

Figure 66: Performance on language development items by private school-going children



Overall, language development had the poorest results amongst the four domains. Despite being English medium, most private schools were found to be using a mixture of English and Kannada¹⁴. In fact, none of the schools in Tumkuru were using English for teaching, with all either using a mixture of English and Kannada, or exclusively Kannada, and this is reflected in children’s relatively poorer performance in independently achieving items requiring an English vocabulary (figures 67), yet having comparable results for classification of fruits and vegetables which does not require a knowledge of the vocabulary. This is in spite of all teachers in Tumkuru schools

¹⁴ Refer to section 5.2 for details on curricular and pedagogic practices in private schools

reporting knowing English, indicating shortcomings in the quality of teaching. The relatively higher proportions of children in Tumkuru and Ramnagara (more than half) having required support for naming activities (like naming of fruits and vegetables and identifying pictures) compared to Bengaluru Urban might also be suggestive of teaching-learning standards across the districts, with low-cost private schools in Bengaluru Urban perhaps being slightly better in their teaching-learning practices focused on academic learning. The high proportions of children in Tumkuru that have been unable to perform on the social conventions activity (which required recall of everyday and regularly enforced conventions in schools such as wishing the teacher good morning or wishing a classmate happy birthday) is perhaps indicative of the overall poor quality of schools in Tumkuru, which are not just poorer in academic learning activities, but with respect to enforcing everyday routines of discipline and social learning. It is interesting to note that such basic knowledge of social skills and social conventions, along with academic learning is lower in Tumkuru despite schools in Tumkuru, on an average, focusing on more domains of development (i.e., self-help, literacy and numeracy, cognitive and fine and gross motor skills).

Figure 67: District-wise performance of private school going-children on language development activities

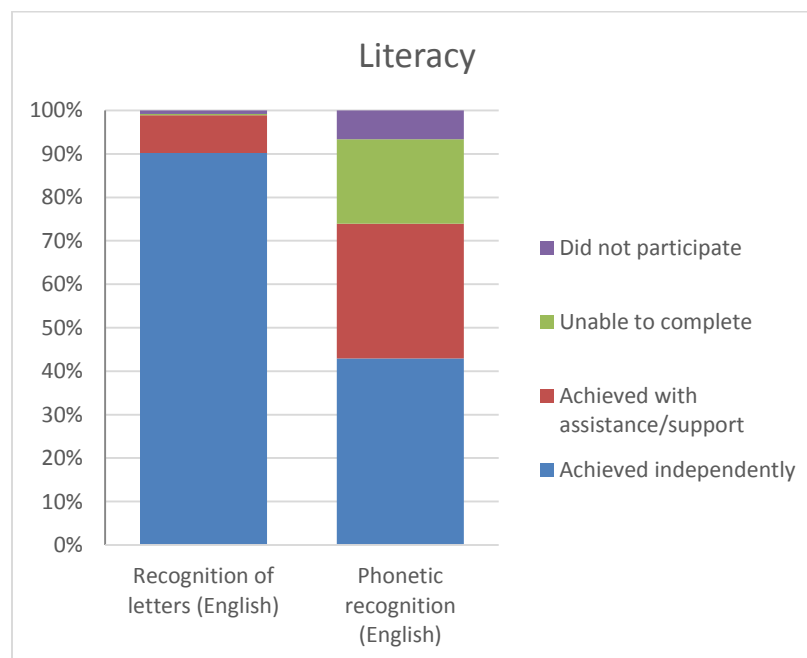


Along with this, curriculum in schools pays little attention to domains such as creative expression, which would help enhance verbal language skills, and instead remains immersed in written literacy. These practices appear to have consequences for children's performance on English language skills. Moreover, the national ECCE policy stresses on the importance of using the mother tongue during the early years, since it is crucial for fostering children's learning capacities. There is thus an urgent need to address questions around language choice as well as teaching practices within private schools, which currently are neither adhering to policy recommendations, nor adequately imparting English language learning.

e. Literacy

Under literacy, two skills were assessed – the recognition of alphabets and phonetic recognition of sounds. Figure 68 below shows the stark contrast in performance on the two tasks. While 90 percent children in groups were able to independently recognize alphabets (and 99 per cent, including children who required support), only 42 per cent children could achieve phonetic recognition independently, with another 31 per cent completing this with assistance. This trend reconfirms observations from the language and numeracy domains, which indicate that there is extensive focus on formal, often rote learning, and little importance given to building conceptual capacities. Instances from the field also support this observation, where it was noted that often children would be able to associate letters with only one of the given pictures (for example ‘D’ with ‘dog’), and not with any of the other pictures beginning with the same letter, in spite of knowing the word for all the pictures (for example, ‘doll’ or ‘drum’). It was thus evident that rather than learning phonetics, i.e. the association of letters with sounds, children were simply rote learning words.

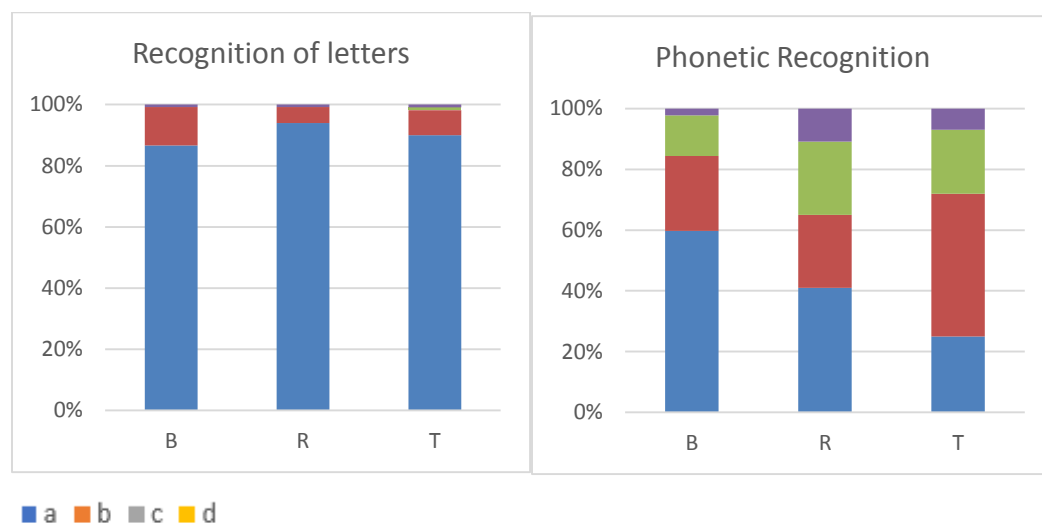
Figure 68: Performance on literacy items by private school-going children



District-wise variation (figure 69) reveals that a significantly higher proportion of children in groups are able to independently achieve phonetic recognition in Bangalore Urban (60 per cent), followed by Ramnagara (41 per cent), and finally Tumkuru (25 per cent), again possibly arising

from the non-usage of English as a medium of instruction in Tumkuru schools. However, a higher proportion of children in Tumkuru are able to achieve the same task with assistance (47 per cent) as compared to Ramnagara (23 per cent).

Figure 69: District-wise performance of private school-going children on literacy activities



f. Summary

All in all, private school children appear to perform significantly better on skills that can be learnt through rote learning and repetition, and are able to achieve these tasks without assistance in larger proportions. Tasks involving comprehension of concepts that cannot be learnt in a rote manner are where there seem to be learning gaps. At the same time however, if one includes children who complete tasks with support or assistance, almost all children in a group are able to succeed on most items. The higher proportion of children able to complete a large majority of the items must also be seen in relation to the age and stage of children, all of whom had at least two years of prior exposure to many of the activities (i.e., in nursery and LKG). The few exceptions were classification by two attributes, one to one principle, social conventions and phonetic recognition where around 20 per cent of children are unable to complete tasks even with support. While learning social conventions involves regular exposure to, and usage of a language, the inability to perform other tasks may stem from the excessive curricular focus on formal and rote learning, instead of building conceptual cognitive capacities and higher order skills. Few tasks, such as classification by two attributes might also require more time to develop greater cognitive skills and maturity. Further follow-up to understand barriers for performance in these activities will be useful.

6.0. Summary of Findings

A growing body of research has established the importance of Early Childhood Care and Education (ECCE) to children's and nations futures. Investments in ECCE have come to be accepted as necessary to achieving several developmental goals, ranging from poverty and hunger to education and social equity. Against this context, the study sought to examine children's developmental status in relation to the kinds of ECCE provisions and inputs available to them. Understanding children's developmental status in relation to their social and educational backgrounds is particularly important considering the wide inequalities within Indian society, as well as the highly stratified ECCE market that has been growing in size in the last few decades.

Specifically, the study sought to examine the effects of ECCE programmes on children's readiness for school. The study was conducted across two states – Karnataka and West Bengal, but this report presents the findings for Karnataka alone.

Across three districts of Karnataka, we sampled an equal number of anganwadis, and private preschools and schools with pre-primary sections. Across the two sets of institutions more or less equal number of parents, teachers and children were covered. The data shows several similarities across these institutions, but some differences as well. Below, we provide a summary of the differences and similarities across contexts and their implications for children's development.

6.1 Socio-economic contexts

A comparison of family and household data for children attending anganwadis and private schools and preschools showed the groups to be largely similar, though families sending children to private schools were also marginally better off. Children attending both types of ECCE institutions were largely OBC, followed by SCs in anganwadis and 'Others' in private schools. Across both sets of institutions, the largest proportion of parents interviewed reported having completed SSLC, with more parents from anganwadis and private schools in Ramnagara and Tumkuru having completed post-SSLC. Occupational composition showed some variations however, with the majority of fathers of children in anganwadis engaged in wage labour or agriculture, whereas a majority of fathers of children from private schools were engaged in petty trades or company work. This could be a significant factor perhaps in choice of institutions for their children, both as a result of hard

economic differences related to income and livelihood security, and more tacit differences related to social and cultural capital, knowledge and peer influenced available for educational decision-making. Mothers of children going to anganwadis and private schools were largely housewives, with more mothers in Bengaluru Urban and Tumkuru engaged in paid work, compared to Ramnagara (where perhaps opportunities for work for women were perhaps lesser).

In terms of economic assets and living conditions, both sets of children had similar home backgrounds. The largest majority of children from anganwadis and private schools lived in pucca houses, though a higher proportion of children going to private schools lived in pucca houses. Across districts there were noticeable variations only for children attending anganwadis with many more families in Bengaluru Urban living in kaccha houses, and a large proportion of children attending anganwadis in Ramnagara living in semi-pucca houses. Along with the large proportion of fathers in anganwadis who have reported being engaged in wage labour, this is perhaps indicative of the slightly lower economic position of households sending children to anganwadis, compared to private schools. The difference in economic strength of households is also evident from the much larger proportion of households sending children to private schools owning two-wheelers (75 per cent, compared to 50 per cent anganwadi households) and at least one consumer durable items such as TVs, fridges and washing machines (98 per cent compared to 83 per cent of anganwadi households). While a majority of the families sending children to anganwadis and private schools had basic amenities such as water, electricity and LPG for cooking, more families in Bengaluru Urban and Tumkuru did not have piped water at home, and LPG for cooking.

A similar pattern was also observed with respect to provisions of ECCE-related material at home with a higher proportion of households sending children to private schools having play material such as plastic toys, blocks, kitchen set and so on (92 per cent, compared to 82 per cent homes of children going to anganwadis); school readiness material such as charts and books on alphabets, numbers, fruits and vegetables, and so on (84 per cent, compared to 77 per cent of anganwadi-going children's homes); and outdoor play material such as balls, rings and so on (64 per cent, compared to 55 per cent anganwadi-going children's homes). Similar to other economic assets, more families of anganwadi-going children in Bengaluru Urban were unable to afford ECCE material at home. A higher proportion of families sending children to private schools also invested in tuitions (27 per cent, compared to 10 per cent of households sending children to anganwadis),

although the overall proportion of children attending tuitions was low. Interestingly a much larger proportion of families in Bengaluru Urban were investing in tuitions for their children (31 per cent families sending children to private schools and 17 per cent families sending children to anganwadis), suggesting a higher degree of competition and need to competitively prepare children for later schooling in urban localities like Bengaluru.

Overall thus, data gathered to understand economic status of households suggests that anganwadi-going children were slightly poorer compared to children going to private schools, and the economically weakest population consisted of children going anganwadis in Bengaluru Urban. The findings are perhaps not surprising considering that urban poverty is higher compared to rural poverty, and urban poor have been shown by several studies to be among the most vulnerable populations (IIHS, 2014). Economic levels of families appear to have some linkages to family investments and provisions for ECCE, including in relation to selection of ECCE institutions, availability of ECCE material at home and investments in tuitions.

Interestingly however family engagements with children are higher among parents sending children to anganwadis compared to parents sending children to private schools. Across both sets of children, more parents in Bengaluru Urban reported having no engagements with their children at home, while a higher proportion of parents from Bengaluru Urban also reported engaging the child in school readiness activities compared to the other two districts, where parents focused more on stories, rhymes, songs and play. While the focus on school readiness in Bengaluru Urban again suggests the pressure to get children competitively ready for school, it would be interesting to ascertain whether the fewer families engaging with children at home in Bengaluru Urban and among those attending private schools may be related to the nature of parental job profiles and structure of the workday, and related concerns of travel for work, etc., which perhaps reduces the time available at home with children.

Finally, looking at parents aspirations related to education, it was observed that both parents sending children to anganwadis and private schools aspired to provide their children better opportunities compared to what they had themselves received, and aspirations for better futures were tied to accessing education to prepare children for more professional jobs such as that of doctors, engineers, teachers, and IPS officers. What was interesting to note however was a slightly better understanding of educational trajectories (i.e., what degrees for what kinds of professions)

among parents sending children to private schools, as well as a greater degree of freedom they offered their children with respect to the nature and extent to which they could pursue education. Among parents sending children to anganwadis the ability to offer their children a choice of studying to whatever level they wished to pursue seemed to be constrained by parents' capacities to provide for this.

6.2 Infrastructure and pedagogic practices

A comparison of infrastructure and teaching-learning practices of anganwadis and private schools revealed several differences. Among the centres sampled, 64 per cent of the anganwadis and a higher proportion of 84% private schools were self-owned by the parent department: Department of Women and Child Development (WCD) and the private school management respectively. Ownership of building is important as previous studies (CBPS-UNICEF 2017) have noted how there was a disruption of teaching-learning activities when buildings or premises are rented. Close to half the anganwadis visited in Ramnagara were rented or community-donated, while Bengaluru Urban had the least number of schools with own property.

Despite a high proportion of centres that were self-owned, anganwadis and schools revealed several deficiencies in terms of infrastructure with high numbers lacking outdoor space (80% of anganwadis and 50 per cent of private schools). While indoor space was largely adequate across most centres, about 1/3 private schools did not meet indoor space norms, and the number of schools not meeting norms was highest in Ramnagara.

With respect to toilets private schools performed better, with just 1/3 schools in Tumkuru lacking toilets or presenting a scenario where toilets were not being used. In contrast 55 per cent of the anganwadis surveyed did not have toilets or the toilets were not being used. Clean, filtered and covered drinking water was available in 30 per cent anganwadis, while in 75 per cent private schools' children carried water from home (even though in many schools filtered drinking water was available).

With respect to hazardous conditions private schools did better, with 80 percent schools having no outdoor hazardous conditions, while indoor difficult or hazardous conditions seen only in 25 per cent centres in Tumkuru. Half the anganwadis surveyed had outdoor hazards close to the anganwadi that could potentially endanger the child (mainly traffic), while close to half also had indoor

hazards or difficult conditions like broken rooks, uneven surfaces, cooking undertaken at close proximity and lack of adequate lighting. More than half the centres in Ramnagara and 1/3 in Tumkuru had these indoor challenges.

With respect to seating arrangements, angnwadis and private schools differ in the provisions made for seating. The National ECCE Policy recommends that mats or tables and chairs suitable for children's heights can be used. Ninety per cent of the angnwadis surveyed had mats to sit on, but in 40% of the centres, the mats were torn or unclean. The number of centres with torn and unclean mats was higher in Ramnagara. With respect to private schools almost half the centres (48 per cent) had inappropriate seating, with tables and benches that were too high for the child's height.

Overall, centres appeared to have a mixed record with respect to infrastructure. While space constraints were more prominent in Bengaluru Urban, other infrastructural shortages appeared to be seen more for Ramnagara and Tumkuru.

Looking at curricular material and teaching practices, it was observed that while angnwadis lacked outdoor material, private schools lacked adequate indoor material. Close to half the anganwadis surveyed had no outdoor material, while the others had only 1-2 materials like balls and rings. In contrast, more than half the private schools surveyed had outdoor material such as balls, bats, and even swings, with many centres in Bengaluru Urban and Tumkuru also having about 3-4 items. In contrast more than half the private schools visited lacked indoor material for teaching and learning (or this was kept locked in a room), and only 15 per cent schools had a display of charts and posters at children's eye level in their schools. Close to 48 per cent anganwadi centres had indoor teaching-learning material such as puzzles, blocks and flashcards, and most centres had displayed charts at children's eye level. Opportunities for using indoor and outdoor material for children in anganwadis and private schools was reported by most as 'sometimes' only. Thus, the provision of indoor and outdoor material for play and learning was not a regular feature of the classrooms. While a mixture of play-way method, with activities and informal learning is prioritised in at least half the anganwadis surveyed, learning in private schools were traditional, direct and didactic, and more developmentally inappropriate compared to anganwadis. Despite being English medium schools, teaching in most schools were conducted in a combination of English and Kannada (and only in Kannada in half the schools observed in Tumkuru), reflecting the poor quality of low-cost English medium schools. In addition over half the private schools were also not following norms

for teacher-student ratios, with the over 70 per cent centres in Bengaluru Urban having overcrowding of classrooms, and about 58 per cent in the other two districts having overcrowding. In contrast 80 per cent of anganwadi centres appeared to be following the appropriate student-teacher ratio norms.

Although anganwadis appeared to be following more appropriate classroom practices, and teaching according to what is generally accepted as developmentally appropriate practice, significant issues emerged from the lack of time spent on preschool education as prescribed (i.e., at least 3-4 hours) in half the anganwadis surveyed, and close to 80 per cent anganwadis in Ramnagara and Tumkuru not adhering to this norm. In addition, a lack of adequate training received for preschool education was also a factor that has implications for teaching practices within anganwadis.

Overall the focus of curriculum in both anganwadis and private schools appeared to be similar with both sets of institutions prioritising the development of self-help skills such as the ability to independently eat, go to the toilet, and so on, and school readiness skills such as learning alphabets, numbers, shapes and colours. Slightly more private schools also provided opportunities for other areas of development such as cognitive development (through activities related to classifying, sorting, etc), and gross and fine motor skills (particularly in Tumkuru), while some anganwadis also prioritised cognitive skills.

6.3 Teachers

A survey of teachers across these two institutions, who form the crux of the quality of the institutions was undertaken, to understand how this impacts children's development. At the outset it needs to be borne in mind that ICDS norms for recruitment and expectations of anganwadi staff (or workers) expected to teach children also, is very different from norms for teachers in schools. While ICDS norms stipulate a local woman community member, with minimum qualifications up to SSLC as the norm for anganwadi workers, RTE norms prescribe a minimum qualification of 12th standard for school teachers. All anganwadi workers in our sample and a majority of private school teachers met with these respective norms, though 25 per cent private school teachers from Ramnagara had a qualification of only up to class 10. The majority of teachers in private schools and anganwadis belonged to the 'Others' category followed by OBCs and SCs. On an average anganwadi teachers in a sample had higher work experience (14 years) compared to private school

teachers who on an average had 6 years of experience. Only in the case of Bengaluru Urban there was a higher proportion of anganwadi workers with less than 10 years of experience. The lower years of experience among private school teachers and anganwadi workers in Bengaluru Urban is suggestive of high attrition, which may be due to work conditions, salaries and so on. Private school teachers on an average received a lower salary (Rs. 7123) compared to anganwadi workers (Rs. 8000 in Karnataka), but there was high variation between the districts with Bengaluru Urban on an average paying as high as approximately Rs. 9000, while Tumkuru paying as low as Rs. 4000 on an average. Salaries were also correlated with experience among private school teachers, while there is a one fixed rate for anganwadi workers, who also have a higher workload compared to teachers, as they have to manage integrated areas of children's health, nutrition and education, along with maternal nutrition and health. The fixed slab for anganwadi workers perhaps also explains why there is greater attrition in places like Bengaluru Urban, with multiple opportunities for higher paying jobs within the lower ends of the urban and service economy, compared to the post of an anganwadi worker, which offers no benefits for years of experience.

With respect to teaching and training, all anganwadi workers had a knowledge of Kannada, as required for mother-tongue based learning in anganwadis, but only 1/3 knew local languages or English respectively. This has significant implications for teaching, as many children particularly in places such as Bengaluru Urban belong to migrant populations and may be unfamiliar with the state language, while English is important for children's entry into schools. In contrast 97 per cent of private school teachers reported knowledge of English (although few schools seemed to be wholly teaching in English), and 94 per cent reported knowledge of the local language.

Interestingly private school teachers also pointed to teaching children wholly in English as one of the main challenges related to their work, while 38 per cent also reported the lack of training to undertake their roles and 19 per cent reported lack of nutrition among children which affects their performance in school.

A high proportion of anganwadi workers had received training (89 per cent), though much of this training revolved around health check-ups and maintaining registers, unlike in private preschools, where the few who reported (33 per cent) spoke of learning about activity-based teaching, use of props and teaching-learning material and observing children. Anganwadi workers on the other hand indicated the high administrative work and non-ICDS duties, which takes away time from

preschool education as challenges related to their work. Both sets of challenges have significant implications for teaching-learning outcomes within these respective institutions. In both cases, teachers demanded more training to understand children's psychology and development.

Teachers understanding of their roles difference slightly between anganwadis and private schools, and this has implications for what became the focus of their pedagogic practice. *While a majority of teachers viewed behaviour-based learning (30 per cent), academic learning (25 per cent) and peer interactions (16 per cent) to be the key areas of development to be fostered through ECCE, in private schools teachers consider their role to be to facilitate easier transition to primary school (44 per cent), provide academic learning (33 per cent) and behaviour based learning (33 per cent).* Other reasons identified for the importance of ECCE by anganwadi workers were related to nutrition (14 per cent) and easier transition to primary schools (13 per cent), as was discussed by private school teachers.

6.4 School Readiness

Finally, the study attempted to assess the learning that children are afforded as part of the two types of institutions that they attended. Although we intended to gain a comparative understanding of children's performances across anganwadis and schools, and attempted to sample a similar and equal proportion of children from both types of institutions, various field-level contingencies (such as different age groups of children available in anganwadis, and much smaller class sizes within anganwadis) has been a barrier in adopting a comparative framework to understand the results of the school readiness assessment. Further, the format of the tool adopted for the study (group assessment) allows us to make comments only at a group (or class level), rather than for individual children. This method was deliberately adopted based on an understanding of knowledge as 'co-produced' within learning situations (Lave and Wenger, 1991), as well as based on research that suggests that young children express their learning and performance differently from older children, and the need to guard against "high stakes decision making" that may unfairly track children' based on their projected abilities to learn (Shepherd, Kagan & Wurtz, 1998). New approaches to assessment in early years have sought to move away from the formative-diagnostic approach to seeing 'assessment as learning' which involve engaging students in monitoring their own performance through self-, peer -, and instructor-based feedback (Pyle and Deluca, 2013). We sought to achieve this by adopting a group approach to assessment where children could learn or

draw cues from each other's performance, and rectify their own mistakes through observation of others or by receiving support from others. This has meant, however, that the data presented does not represent individual children. Another challenge we encountered was that the data presented for private schools may not be generalisable to the performance of a whole class as well, despite oversampling in private schools (compared to anganwadis, based on the expectation of larger class sizes), because there are huge variations in class sizes within private schools, with several flouting ECCE policy norms, as discussed earlier.

The study however did reveal some interesting findings. Though anganwadi children's performance on the various items of the test were comparatively lower than private schools, what was heartening to note is that only a small proportion have been unable to complete the activities under the various sub-sections of the assessment tool. The relatively lower performance can be explained as an effect of age, as majority of the children assessed in the anganwadi were between four and five years, with some even as young as three years, and thus have had a maximum of one year of formal instruction. On the other hand, majority of the children assessed in private schools were between the ages of five and six, and have had at least two years of formal instruction.

What was also interesting to note about the anganwadi children's performance is that they have performed better in areas of cognitive learning/ pre-numeracy skills, compared to formal literacy and numeracy skills, in line with the focus of the curriculum within anganwadis which is on pre-numeracy and pre-literacy skills, in line with an understanding of developmentally appropriate practice (DAP). Formal literacy and numeracy are to be introduced according to the National ECCE policy guidelines for older children, aged between 5-6 years, and at the transitional phase from anganwadis to schools. Unsurprisingly then formal literacy and numeracy have been the areas that the highest proportion of children working in groups, in anganwadis, have been unable to complete, although these are the areas that parents report as having improved.

Among the areas that children have more successfully achieved, the language development section stands out as the majority of children in groups have been able to independently achieve at least three items in this section naming vegetables and fruits (77 per cent), describing simple pictures (63 per cent), and classifying fruits and vegetables (52 per cent); while the highest proportion of children have interdependently achieved at least two items in this section compared to all other sections and items (i.e., classifying fruits and vegetables and describing simple pictures). Children

performed much more poorly on social conventions however, with about half the number of children in groups being able to achieve this activity only with help. This could be because of variations in language and differences in culture.

Children's performance on cognitive/pre-numeracy skills also showed interesting results 92 per cent of children in groups able to achieve recognition of colour, and 87 per cent of children in groups able to achieve shape when supported, but a higher proportion of children able to classify single attributes independently compared to the other two activities. We hypothesise that language (and requiring recall of names) could have affected the first two items, while classification of shapes, which relied on recognition (rather than recall), and did not require knowledge of names could have been easier due to the absence of the linguistic component.

The numeracy section had more items that have been achieved by at least half the proportion of children working in groups. Our results suggest that children may have undertaken several tasks under numeracy (e.g., cardinality, more or less), through a process of 'subitizing' that require perceptual skills, and based on developmental capacities, than through the development of number sense or through a process of counting. With support, over 70 per cent children were able to complete counting, and more or less, 60 per cent could undertake cardinality; while only 54 per cent were able to undertake one-to-one principle (a skill that should have developed before cardinality, based on which we predict that the latter task was undertaken perceptually). Close to half the proportion of children in groups were unable however to complete the stable order task, which is also a result of the younger age group assessed.

Literacy was the most difficult component to assess, as our field experiences showed inconsistencies in children's abilities to recognise letters and phonetic sounds in one language. This could also be a result of the pattern of the inconsistent and mixed teaching patterns within anganwadis. During fieldwork, anganwadi workers across different anganwadis variously reported teaching children Kannada and/or English alphabets, with no consistent pattern across anganwadis. Close to half the children assessed were unable to recognise letters in Kannada, though a much larger proportion of children were able to recognise phonetic sounds in Kannada (66 per cent with support). The findings are contrary to expectation as none of the anganwadis appeared to be focused on phonetic training. However, it seems that children were able to draw on their own resources and familiarity with language to identify phonetic sounds. This finding in fact provides

a valuable pointer for pedagogy and how it can naturally harness children's potential for learning by creating opportunities for them to experiment and play with concepts. This finding also gains significance when performance among children in private school is observed, where more children were able to achieve the letter recognition task, but fewer were able to achieve the phonetic sounds recognition task, despite direct instruction around formal literacy.

Overall all items have been achieved by at least half the children working in groups, with the exception of the letter recognition and stable order tasks. Children appeared to have performed better on items that required little knowledge of language, task that required lesser cognitive manipulation and on items that they were more frequently exposed to such as names of fruits and vegetables, colours and shapes. Among the districts, Bengaluru Urban had the highest proportion of children unable to complete the activities across several domains, with over half the proportion of children in groups unable to complete activities in numeracy. Several factors could be related to this: the higher poverty among families in Bengaluru Urban sending their children to anganwadis, and their lower purchasing power compared to other families for investing in ECCE material; overcrowding seen in slightly more anganwadis compared to other districts; and / or because of workers with lesser experience compared to the other districts. It would be useful to understand these factors in more detail to also reflect on how children's learning and development are affected by these factors.

Turning to private schools, the data showed that over 80 per cent of children working in groups were able to complete items across all domains with support. Over 60 per cent of children working in groups have also been able to complete activities across all domains interdependently, except in the case of language development, wherein a much lower proportion of just 48 per cent completed the activities independently. The domain that the largest majority of children were able to achieve (with support) is pre-numeracy, while 12 per cent of children working in groups have been unable to achieve numeracy and close to 10 per cent children have been unable to achieve language development and literacy.

While more than 70 per cent of children have achieved three items under pre-numeracy independently, with respect to one item – two-attribute classification, only 45 per cent were able to achieve this independently, while a similar proportion were able to achieve this with support. With respect to numeracy, most groups of children have been generally able to complete rote tasks

or tasks emphasised in pre-primary years such as rote counting and cardinality (90 per cent respectively). However, with respect to tasks such as one-to-one principle (which is required for cardinality), a higher proportion of children in groups have been unable to achieve these items even with support (25 per cent and 15 per cent respectively). We hypothesise that these activities may have been affected by the nature of teaching-learning transactions within the classroom, wherein the teaching of these skills in a format repetitively, using paper and pencil, may have limited their ability to generalise their understanding of counting to other formats or tasks. The findings suggest limited ability to abstract learning skills learnt in one context to other situation requiring similar kinds of reasoning skills, which could be due to an over-determination of rote methods, or due to the lack of development of a holistic understanding of numbers and the relations between them.

With respect to language development it was seen that children were better at classifying fruits and vegetables compared to naming them. Since the items were tested in English in private schools, the development of vocabulary in English may be an issue. While naming requires the recall of specific names, classification requires more of an ability to recognise what are considered as fruits and vegetables, thus perhaps being easier for children. Across the language items however, the highest proportion of children were able to complete the naming of fruits and vegetables when given support, providing important suggestions for pedagogy again: in the learning phase, providing cues to learners to assist recall can be a valuable resource in strengthening learning. This finding also supports our contention that formative, outcome-based assessments, which simply mark children as ‘pass’ or ‘fail’ do not allow for the identification of the specific nature of struggle that children might encounter in learning specific concepts. Further, a district-wise variation was also observed, with over half the children in groups from Tumkuru and Ramnagara requiring help to complete the naming of fruits and vegetables, and a high proportion of children in Tumkuru also unable to achieve the social convention activity. These differences suggest a high variation in quality of private schools across districts. As noted earlier, none of the schools in Tumkuru appeared to be using only English as the medium of instruction, while half the schools in Tumkuru were teaching only in Kannada.

With respect to literacy skills, over 90 percent of children in groups have been independently undertake the task of letter recognition, while the proportion is close to 10 per cent with help.

However, with respect to phonetics, less than half the children in groups have been able to independently undertake this activity, and around 70 per cent have undertaken it with help. Like numeracy, these trends seem to similarly suggest a high degree of rote learning within schools, due to which children have been able to identify letters, but have had difficulties in recognising phonetic sounds.

Overall, the data for anganwadis and private schools suggest that a majority of the children assessed have been able to achieve the different items for school readiness. The data also suggests the importance of peer support and assistance (what Vygotsky has described as ‘scaffolding’) for allowing children to develop on their own prior learning and knowledge. This has been true for private schools as well, except for items that are largely taught by rote (e.g., recognition of letters and counting). The performances have shown important ways in which learner’s incomplete concepts can be supported through assessment practices that offer opportunities for individual students to perform within groups, by carefully documenting their performance individually and with group support.

7.0 Conclusion

The need for investing in ECCE has been well established through research, as well as global and national policy commitments and programmes. Yet with the wide-ranging models, it is important to take stock of current provisioning and developmental outcomes of children, especially in contexts of deep socio-economic inequalities. As suggested by prior research on ECCE in India early childhood educational provisioning is witnessing a stratification along socio-economic divides, as is seen in the case of elementary education (see Sriprakash et al, 2020). Parental preferences for an English medium education, and the perceived superiority of private-school education has led to an increasing number of parents investing their resources in private preschools of varying types and quality. Anganwadi centres, the main form of state ECCE provisioning, continue to be seen primarily as ‘feeding centres’ for children, rather than as providing an educational foundation for primary schooling.

These trends were also observed during the study, with what has been noted as an emptying out of government elementary schools (Nambissan, 2014) extending to ICDS centres. Children attending anganwadi centres were not only fewer in number, but were also in a younger age group of 3-4 years, as compared to the 4-6-year olds in private preschools. The socio-economic backgrounds of children, as understood through their household characteristics, occupations, and caste positions, indicated a slightly higher status for private school children as compared to children attending anganwadi centres. Though income data was not collected, it is likely that this marginal difference is invested in education – as was reflected in higher availability of ECCE material and tuition attendance among these families, over and above the user-fee charged in private ECCE institutions. It becomes significant then to examine what families and children receive in return for the investments made in private education, and how these compare with those available in state-run anganwadi centres.

In this regard, the quality of private preschools was neither significantly better than that of anganwadi centres, nor were they age-appropriate for ECCE aged children. Though anganwadi centres are far from perfect and were found lacking in terms of infrastructural facilities and curricular material, private preschools were largely observed to equally poorly equipped. More worryingly, private preschools were found to be actively engaged in age-inappropriate pedagogies such as formal, instructional literacy and numeracy, with little to no focus on other critical domains

of development, having potentially adverse consequences for children's learning capacities. In comparison, anganwadi centres, though not focussing sufficiently on curricular transactions in the domains of literacy and numeracy, were found to be utilizing informal teaching-learning strategies directed towards other domains of development such as cognitive and motor skills.

These pedagogies were further reflected in school readiness outcomes of children. It is important to note here that we refrain from comparing the performance of children from private preschools and anganwadi centres, since the ages of these two cohorts were different, as were the languages used for teaching and assessments, as well as the educational strategies in the respective institutions. Rather, the findings here aim to illustrate the relationship between children's school readiness performance to the specific forms of learning that they are exposed to, and further consider what the implications of these are for children's early development and how these may be improved. It is with this in mind, that the method adopted for school readiness was contextualized with items of local relevance, and was conducted in groups to account for peer-supported learning that is known to occur in the early formative years.

In private preschools, though a large number of children were able to complete school readiness tasks independently, a closer examination revealed how this was due to an ability to complete tasks that involved repetitive exercises such as rote memorization of alphabets, shapes and numbers. The lower proportion of children being able to complete higher order cognitive tasks, that require one to abstract basic concepts to more complex ones, such as phonetic recognition, or classification of two attributes, corroborate this interpretation. In fact, instances such as that of a higher proportion of children completing activities on cardinality (understanding that the last count in a set is the total number of items in that set) compared to the activity on one-to-one principle (understanding that one number count corresponds to one single item) signifies the lack of conceptual foundations in pre-numeracy, and points to the prevalence of rote learning. Outcome-oriented teaching, which stresses on children's individual performance on certain tasks as an indicator of their educational achievement, does not attend to learning concepts and capacities which form the foundation of learning. The absence of this foundation is likely to adversely impact educational acquisition in later years. There is thus a strong case to be made not just for addressing the rampant developmentally-inappropriate teaching that characterizes the unregulated private preschool market, but also the nature of assessments themselves. Since evaluations and

assessments mirror the priorities of teaching itself, it is important that both are oriented towards the expansion of learning capacities of children, rather than the acquisition of indicators of learning.

A related set of lessons can be evinced from the findings on school readiness in anganwadi centres. Here, children were found to be able to perform on relatively simpler cognitive tasks, and concepts that they had frequent exposure to. This is in line with the educational emphasis in the ICDS curriculum on informal forms of learning as opposed to instructional literacy and numeracy. The first thing to be noted here is the difference in curricular emphasis itself in private preschools and the ICDS, and consider pathways towards designing and enforcing curriculum based on sound principles of early child development in both kinds of institutions. Secondly, a significant proportion of children were able to complete these tasks with assistance from their peers and cues from the assessor. This was also found in private preschools on some of the tasks such as language development, which fewer children were able to complete independently. This is a crucial form of learning in the early years, and is unaccounted for in individualized testing. It is therefore necessary to design assessment in order to incorporate multiple modes of learning that take place in the foundational years, to assess where the gaps lie, and subsequently scaffold the process of development.

These observations are important if one is to centre the child in ECCE policy in India, while simultaneously keeping in mind existing socio-economic inequity which extends to ECCE institutional provisioning. Any kind of uniform evaluation of children in these differentiated ECCE institutions will demonstrate differentiated results, if one overlooks the structurally different arrangements of provisioning and the outcomes they produce, and the nuances of learning in the early years. This is also especially pertinent to consider in the context of existing advocacy networks for low-budget private schools under the justification of parental choice and improved educational outcomes in these schools (see Tooley & Dixon, 2007).

It is also worthwhile to note in the context of growing preference towards private education, that parents of children from both private preschools and anganwadi centres expressed similar understandings of, and expectations from ECCE. Along with teachers at these institutions, they viewed ECCE as important for peer-socialization, learning sitting tolerance, acquiring basic self-help skills, and learning early numeracy and literacy. These expectations diverge significantly

from the reality of private preschools, and align more closely with principles of developmentally appropriate practice, as established by research. In this regard, the recommendation of the draft National Education Policy, 2019 to extend the period of early childhood up till the age of 8 years is a welcome move, as one hopes it will facilitate an upward extension of the early years into the first few years of primary schooling, as an informal period of play and learning. What remains to be seen is how one bridges the gap between the under-emphasis on education in ICDS centres and the excessive focus on formal teaching in private preschools, through institutions which cater to holistic and developmentally appropriate curriculum and assessment.

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Appendices

Appendix I: Surveys and Questionnaires for Parents, Classrooms and Teachers

***Centering Children in the Development Debate in India: Public
Action for Early Start, Fair Start and Fitting Start***

Parent Questionnaire

ID NO:

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(State) (District) (Village/Ward) (Centre)

Date: _____

Field Investigator: _____

Field Supervisor: _____

District: _____

Village/Ward Name: _____

Child Name: _____
(First Name) (Surname)

1. Person (s) interviewed: A. Father / B. Mother / C. Both

2. Age of (a)Father: _____

(b)Mother: _____

Information about Family

3. Education of

(a) Father (actual level of completion)

(b)Mother (actual level of completion)

4. Occupation of

(a) Father (actual- including multiple occupations, wherever applicable):

(b) Mother; in addition to housework (actual including multiple occupations, wherever applicable):

5. Place of Work

(a) Father

- A. Within Home
- B. Within walking distance or in locality
- C. Far away transport needed
- D. (Any other, specify in details): _____

(b) Mother

- A. Within Home
- B. Within walking distance or in locality
- C. Far away transport needed
- D. (Any other, specify in details): _____

6. Duration of occupational work (actual hours)-

a) Father: _____

b) Mother: _____

7. Child's siblings

S. No.	Sex	Age	Education

8. Religion:

- A. Hindu
- B. Muslim
- C. Christian
- D. Sikh
- E. Jain
- F. Buddhist
- G. Any Other (Specify) : _____

9. Caste:

- A. FC
- B. OBC
- C. SC
- D. ST

10. Type of House:

- A. Katcha
- B. Semi Pacca
- C. Pacca

11. Type of Family:

- A. Nuclear
- B. Extended/ Joint

12. Distance of Centre from Home

- A. Near (less than $\frac{1}{2}$ km)
- B. Moderate distance (1/2km – 1 km)
- C. Far (more than 1 km)

13. Consumer durables available

- A. Cycle
- B. TV
- C. Motorized two wheeler
- D. Any other (specify): _____

14. Which of these is used for cooking:

- A. Chulha (with firewood, cow dung, coal etc)
- B. Kerosene Stove
- C. LPG Gas Stove
- D. Any others, specify: _____

15. Whether electricity supply at home

- A. No
- B. Yes

16. If yes, then number of hours daily: _____

17. Water supply sources for household activities:

- A. Common well/hand pump
- B. Piped water
- C. Tankers
- D. Any other, please specify: _____

18. Is your child fully immunized?

- A. Yes
- B. No

Parental Perception

19. What are the parents' aspirations for your child?

20. How far do the parents want to educate this child?

21. Does the child help any family member in any manner with their day to day work or occupational work? (If yes, specify the nature of work and for how long in a day).

22. Does the child go for tuition? If yes, how much do the parents pay monthly for tuition?

23. Whether any ECCE related material (such as toys, books, or even locally available material that can be used as toys) is available at home?

24. What kind of activities do household members engage the child in? (could be ECCE related, such as playing, storytelling etc.)

25. Which centre is the child attending?

- A. ICDS
- B. NGO
- C. Private
- D. Not attending

SKIP QUESTIONS 26-41 FOR CHILDREN NOT ENROLLED IN ANY ECCE CENTRES

26. Who decided that the child would go to this Centre?

- A. Mother
- B. Father
- C. Both
- D. Others (specify): _____

27. Why do the parents send the child to this centre?

28. Is the child benefitted by attending the centre?

- A. Yes
- B. No
- C. Not Applicable

29. If yes, in what way? If No, in what way (write the first 3 answers given)

30. Did the parents send the older child to this centre?

- A. Yes
- B. No
- C. No older child

31. If yes, why? If not, why?

32. Does the teacher make home visits to the house?

- A. Yes
- B. No

33. If yes, what does the teacher do during home visits? : (write first 3 answers given)

34. Whether and how often do the parents visit the centre to observe its activities?

35. In the parent's knowledge, is the centre kept open regularly?

- A. Yes
- B. No
- C. Cannot say

36. Does the child attend the centre regularly?

- A. Yes
- B. No

SKIP QUESTIONS 37-38 FOR CHILDREN ATTENDING PRIVATE PRE-SCHOOLS

37. If the child attends the Anganwadi centre, is the child weighed regularly?

- A. Yes
- B. No
- C. Cannot say

38. If child attends Anganwadi centre, has the child's growth chart been discussed with you?

- A. Yes
- B. No

39. To the parents' knowledge, are any playing or learning activities organized at the centre?

- A. Yes
- B. No
- C. Not Aware

40. Do the parents think that these playing or learning activities benefit the child?

- A. Yes
- B. No
- C. Cannot say
- D. No such activities conducted

41. In the parents' view, does this centre have any important role in the child's development?

- A. Yes
- B. No
- C. Cannot say

SKIP QUESTION 42 FOR CHILDREN ENROLLED IN AN ECCE CENTRE

42. Why do the parents not send the child to any ECCE centre?

***Centering Children in the Development Debate in India: Public Action for
Early Start, Fair Start and Fitting Start***

ECCE TOOL TO ASSESS QUALITY OF CENTRE¹

ID NO:

--	--	--	--	--	--	--	--

(State)(District) (Village/Ward) (Centre)

Date: _____

Field Investigator: _____

Field Supervisor: _____

District: _____

Village/Ward Name: _____

Name of Pre-school/Anganwadi Centre: _____

¹Adapted and developed by Centre for Budget and Policy Studies, Bangalore and Centre for Studies in Social Sciences, Calcutta. Parts of the tool have been adapted from: *Quality Matters! Understanding the Relationship between Quality of Early Childhood Education and Learning Competencies of Children: An Exploratory Study in Tamil Nadu*, M.S.Swaminathan Foundation, 2000; *Early Childhood Education Quality Assessment Scale*, CECED, Ambedkar University, NewDelhi; *School Readiness Instrument*, the World Bank, India, CECED adaptation; *Adaptive Behaviour Scale for Young Children*, CECED, Ambedkar University, New Delhi; *Investing in Early Childhood Development: Review of the World Bank's Recent Experience*, 2015; *Quality and Diversity in Early Childhood Education*, CECED, Ambedkar University, NewDelhi, 2015; *Focus on Children Under Six*, 2006.

A. Infrastructure

1. Toilet availability & use

- 0 - Toilet is not available or is not used by any child.
1 -Toilet is available and used by some children but more than half use open spaces.
2 -Toilet is available and all or more than half of the children use the toilet and not open spaces.
88 - Any other, specify _____

2. Availability of water in toilet

- 0 -Toilet has no water available
1 -Toilet has water
99 -Toilet facility is not available
88 - Any other, specify _____

3. Availability of clean water for drinking

- 0 - Drinking water is not available.
1 - Drinking water is available but not covered / clean / filtered.
2 - Drinking water is available and is covered and clean/filtered.
3- Children carry their own drinking water from home
88 - Any other, specify _____

4. No hazardous conditions around the centre

- a. Tick the specific hazardous conditions that exist and circle the code.

Motor vehicles/traffic	Open well	Open drain/sewer
Pond / large water body	Dangerous Equipment	Electrical Uneven surface

Any other hazard which could cause injury or death (Write detail)

- b. 0 -There is one or more of these hazards within 10 metres of the building or play area and without a protective barrier.
1-There is more than one or more of these hazards beyond 10 meters of the building or play area and without a protective barrier.
2 -There are no hazards or there is a protective barrier such as good wall and lockable gate between the children and the hazards.

88 - Any other, specify _____

5. No hazardous conditions within centre

a. Tick the specific conditions that exist and circle the code.

Broken or uneven floors	Leaking roof.	Falling roof material
Broken or severely cracked surface in the wall plaster	Broken windows or doors, handles etc.	Inadequate lighting
Inadequate ventilation so that children are uncomfortable or there is smoke in the classroom.	Door which cannot be closed or latched.	Kitchen activities happen in the classroom or in close proximity.

Any other condition (write detail) _____

b. 0-More than five conditions exist

1-Two to four conditions exist

2- None or one of the conditions exists.

88- Any other, specify _____

6. Clean surroundings around centre

a. Tick the specific conditions that exist around the centre /preschool and circle the code.

Open defecation or urination around centre	Stagnant water or damp ground providing breeding places for flies and mosquitoes	Garbage dump
Open drain	Exposure to pesticide / diesel pumps	

Any other unclean condition (Write detail) _____

b. 0 -There is one or more of these unclean conditions within 10 metres of the building/centre and without a protective barrier.

1 -There is one or more of these unclean conditions beyond 10 metres and within 50 metres of the building or play area and without a protective barrier.

2 -There are no unclean conditions or there is a protective barrier such as a good wall and lockable gate between the children and these unclean conditions.

88 - Any other, specify _____

7. No noise Pollution

- 0 - Sound from outside regularly prevents hearing of conversation in the centre.
- 1- Sound from outside sometimes prevent hearing of conversation in the centre.
- 2- There is no disturbance from outside sources which prevents hearing of conversation or does so for less than one third of the time.
- 88 - Any other, specify _____

8. Ownership of Space (on which centre is located)

- 0 – Own property / owned by WCD or other government department and no rent is paid
- 1- Rented or leased
- 2- Community donated and no rent paid
- 88 – Any other, specify _____

9. Freedom to Use space

- 0 –Face regular problemsin using space to run centre
- 1- Face occasional problems in using the space to run centre.
- 2 - Face no problems in using space to run the centre.
- 88- Any other, specify _____

10. Quality of infrastructure facilities for children with special needs

- a. Tick the specific conditions that exist and circle the code.

Ramp	Supporting rail along walls	Special seating arrangement	Wheelchair
Appropriate books and stationery, such as in Braille	Appropriate play equipment	Trained teacher	

Any other, specify _____

- b. 0-None of the above facilities available
- 1-Five or more of the facilities exist
 - 2- Two to four of the facilities exist

11. Adequate availability of classroom space(NECCEP norm: 35 sqmts for 30 children)

- 0-Classroom space is inadequate for the total number of children in the class to sit and undertake activities comfortably
- 1-Classroom space is adequate for the total number of children in the class to sit and undertake activities comfortably
- 88- Any other, specify _____

12. Adequate outdoor space for play (NECCEP norm: 30sqmts for 30 children)

- 0-Outdoor space is inadequate for all children attending toplay / undertake activities
- 1-Outdoor space is adequate only for some children attending toplay / undertake activities
- 2-Outdoor space is adequate for all children attending toplay / undertake activities
- 88- Any other, specify _____

13. Proper storage for teacher to keep material

- 0- No storage is available for teacher to keep her records, registers and /or teaching learning materials, including play materials.
- 1 - Some storage (cupboard, box, rack) is available for the teacher and to keep materials but it is inadequate.
- 2- Storage available is adequate for the teacher and materials
- 88 - Any other, specify _____

14. Proper seating arrangements for children

- 0- Children are seated on a bare floor with no covering.
- 1- Children are seated on a mat but it is torn or unclean.
- 2- Children are seated on clean mats
- 3- Children are seated on benches and desks, but these are not appropriate for age/ height
- 4- Children are seated on benches and desks that are appropriate for age/ height
- 88- Any other, specify _____

B. Everyday Routines in ECCE centre

15. Time spent on pre-school education (NECCEP norms: 3-4 hours /day)

- 0- 2 or less than 2 hours a day
- 1- 3-4 hours day
- 2- More than 4 hours a day
- 88- Any other, specify _____

16. Weekly / Monthly Schedule

- 0- Teacher does not have nor appears to follow any pre-planned schedule and routine care (eating, sleeping, toileting take up most of the day).
- 1- Teacher has a pre-planned schedule (that maybe displayed or in print) but is not observed to be using it
- 2- Teacher is conducting the programme, to a large extent, according to a planned schedule.
- 88 - Any other, specify _____

17. Teacher supervision of class

- 0- Classroom is left unattended most of the time, with or without older child supervising
- 1- Classroom is left most of the time in the supervision of the helper/ community member/ other support staff (Ayah)
- 2- Classroom is mostly supervised by the Teacher / Anganwadi worker
- 88-Any other, specify _____

C. Learning/Play Aids

18. Equipment for outdoor play and activities

- a. Tick the specific equipment that exist around the centre /preschool and circle the code

Swings	Slides	See-saws
Bats	Balls /rings	Skipping ropes

- b. 0- No outdoor equipment or play item is available and usable
 - 1- Only one or two outdoor play equipment is available and usable
 - 2- Three to five outdoor play equipment is available and usable
 - 3- More than five kinds of outdoor play equipment is available and usable
 - 88- Any other, specify _____
- c. 0- Children never or rarely get opportunities to use available outdoor material
 - 1- Children sometimes get opportunities to use available outdoor material
 - 2- Children regularly get opportunities to use available outdoor material
 - 88- Any other, specify _____

19. Indoor material for learning and play

- a. Tick the specific equipment that exist around the centre /preschool and circle the code

Blocks	Beads	Dolls
Books/flashcards/charts	Puzzles	Sound/smell boxes

- b. 0- No indoor material for learning and play is available and usable
 - 1- Only one or two indoor material for learning or play is available and usable
 - 2- Three to five indoor material for learning or play is available and usable
 - 3- More than five kinds of indoor material for learning or play is available and usable
 - 88- Any other, specify _____
- c. 0- Children never or rarely get opportunities to use available indoor material
 - 1- Children sometimes get opportunities to use available outdoor material
 - 2- Children regularly get opportunities to use available outdoor material
 - 88- Any other, specify (including if material available is inadequate for all children attending centre) _____

D. Classroom Management, Organisation and Pedagogic Practice

20. Teacher-child ratio less than 1:20 in class (based on NECCEP norms)

0- No. of teachers and children in the classroom is more than 1:20

1- No. of teachers and children in the classroom is equal or less than 1:20

88- Any other, specify _____

21. Classroom organisation facilitating specific teaching styles

0 – classroom space is disorganised and no specific pedagogic pattern is visible

1- Frontal classroom organisation (children are seated facing the teacher)

2- Circular classroom organisation / children seated to work in groups

3- Mixed classroom organisation (to allow some amount of frontal teaching and some amount of group interaction and activity)

88- Any other, specify _____

22. Arrangement of Materials in the Classroom

0-Arrangement of material is disorganised / does not aid any specific pedagogic practice

1-Classroom has been arranged with specific activity corners or areas for different kinds of activities such as blocks' corner, dolls' corner etc to aid specific pedagogic practice

88- Any other, specify (describe any other kind of classroom arrangement and how it aids pedagogic practice) _____

SKIP QUESTION: 23. To be filled only in centres which have multiple age groups in one classroom.

23. Multigrade teaching (multiple age groups of children in the same classroom)

0 – Multigrade teaching is not conducted and children of all ages learn the same thing

1- Multigrade teaching is conducted, and children of different ages learn different things

2- Classroom has multiple age groups, but teaching practices could not be observed

88- Any other, specify _____

99- Not applicable

24. Curriculum focus

a. Tick the specific activities focused on in the curriculum (use observations and time-table)

Creative expression (story telling, make believe play, free play, singing, dancing, etc)	Fine motor development (threading, beading, cutting, colouring)	Gross motor development (outdoor play, exercises and other activities)	Pre-literacy and numeracy (shapes, colours, alphabets, numbers, etc)
Self-help skills	Socio-emotional	Language development	Cognitive Skills

(eating, going to the toilet, washing hands, dressing, etc)	skills (greetings, turn taking, working in groups, empathy, etc)	(encourages understanding and use of language through rhymes, stories, verbal descriptions, free conversations, etc)	(classification, sorting, seriation, reasoning, etc)
-------------------------------------------------------------	----------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------	------------------------------------------------------

- b. 0-Explicitly focused on formal and direct instruction to gain reading, writing and arithmetic skills
- 1- Uses play-way method, focused on development of pre-literacy skills such as categorisation, classification, recognition of shapes / fruits, etc.
 - 2- Teaching learning activities focus on a mixture of skills (pre-literacy, social-emotional development, fine-motor, gross motor, creative expression, formal learning)
 - 3- Focus is on informal knowledge – only focused on songs, stories, etc
 - 88- Any other, specify _____
 - 99- Could not be observed or ascertained

25. Display of material at children's level of understanding

- 0- There is no display material /material is not at children's level of understanding
- 1- Age appropriate material is displayed, but it is placed too high on the wall and not easily visible to the children.
 - 2- Age appropriate material is displayed, and is at eye level and is easily visible to the children
 - 88-Any other, specify _____

26. Display of material produced by child

- 0-There is no display of children's work in the class
- 1- The display of children's work is more than a month old.
 - 2- The children's work display is changed regularly.
 - 88-Any other, specify _____

E. Teacher-Child Interactions

27. Use of local languages / mother tongue

- 0- Medium of instruction in classroom is predominantly English / does not include children's mother tongue or local languages
- 1- Medium of instruction in classroom is predominantly children's mother tongue or local languages
- 2- Medium of instruction in classroom is a mixture of English and children's mother tongue / local languages

88- Any other, specify _____
99- No opportunities to observe use of language by teacher was present

28. Liberal classroom environment for the children to interact with peers & teachers

- 0- Teacher maintain strict discipline, and little or no freedom is allowed to children to talk, question or discuss ideas
- 1- Children are allowed to talk but not encouraged to talk with their peers or with the teacher on their own, other than during an activity or when teacher asks a question.
- 2- Children talk freely and comfortably with their peers and teacher
- 88- Any other, specify _____
- 99 – No opportunities to observe teacher-child and/or peer interactions

29. Interaction between girls and boys during lessons and play time

- 0- Interactions between girls and boys is completely disallowed/discouraged
- 1- Interactions between girls and boys is allowed / encouraged
- 88- Any other, specify _____
- 99- No opportunities were present to observe interactions between girls and boys

30. No bias displayed by teacher towards gender

- 0- Nature and the way activities are conducted; quality of worksheets, nature of children indicates gender bias on more than three occasions.
- 1- Nature and the way activities are conducted; quality of worksheets, nature of interactions with children indicates gender bias on one occasion.
- 2- Nature and the way activities are conducted, quality of worksheets, nature of interactions with children indicates no gender bias/ no discrimination act observed
- 88- Any other, specify _____
- 99- No opportunities were present to observe teacher's attitude towards boys and girls

31. Teacher demonstrate sensitivity & awareness regarding needs of children with special needs

- 0- Teacher is indifferent and/or unaware about the needs of children with special needs.
- 1- Teacher showed one instance of sensitivity or awareness about the needs of children with special needs.
- 2- Teacher showed more than one instance of sensitivity or awareness regarding the needs of children with special needs.
- 88- Any other, specify _____
- 77- No child with special needs in the class.
- 99- No interaction between teacher and children was observed

32. Teacher demonstrate sensitivity and awareness regarding children from other

socially disadvantaged groups such as tribal, SC & OBC

- 0- Nature and the way activities are conducted; quality of worksheets; and nature of interactions with children indicates teacher's bias against them or indifference towards their needs on more than three occasions.
- 1- Nature and the way activities are conducted; quality of worksheets; and nature of interactions with children indicates her bias or indifference towards their needs on one occasion.
- 2- Nature and the way activities are conducted; quality of worksheets; and nature of interactions with children indicates her sensitivity and awareness regarding their needs/ no discriminatory act observed
- 88- Any other, specify _____
- 77- Children and teacher are from the same caste
- 99- Unsure about teacher's caste / opportunities for teacher-children interaction was not present

Centering Children in the Development Debate in India: Public Action for Early Start, Fair Start and Fitting Start

Pre-School Teacher/Anganwadi Worker Questionnaire

ID NO:

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(State) (District) (Village/Ward) (Centre)

Date: _____

Field Investigator: _____

Field Supervisor: _____

District: _____

Village/Ward Name: _____

Centre Name: _____

Profile of Teacher:

1. Name: _____

2. Age:

A. 18 – 30years

B. 31-45 years

C. Above 45 years

3. Caste:

A. SC B. ST. C. OBC D. Others

4. Religion:

A. Hindu B. Muslim C. Christian D. Sikh E. Jain F. Buddhist G. Others (specify)

5. Language(s) spoken (multi-response allowed):

A. Bangla/Kannada B. Hindi C. English D. Others (Please specify) _____

6. Level of formal education completed:

A. Uneducated B. Primary C. Upper Primary / Class 8 D. High School / Class 10 E. Senior Secondary / Class 12 F. Above Class 12

7. Marital status:

A. Unmarried B. Married C. Widowed D. Divorced/ Separated/Deserted E. Other

8. What is the main occupation of your household?

A. Agricultural labour/Informal labour B. Cultivation C. Self-employed (other than cultivation) D. Salaried employment E. Other (specify in details)

9. Years of experience as Anganwadi worker/Pre-school teacher: _____

10. Years of service in the present centre/school: _____

11. Have young or school-going age children to take care of (age 0 – 14)

- A. Yes
- B. No

12. Salary/Honorarium (per month): _____

Distance of Centre/School from Home

13. S/he lives in the same village/area

- A. Yes
- B. No

14. If no, the distance to reach centre/pre-school from home: _____

15. Mode of travel?

- A. Walking
- B. Public Transport
- C. Personal Two Wheeler
- D. Personal Car
- E. Any Other, please specify _____

16. Time to reach centre/pre-school from home

- A. Less than 15 minutes
- B. 15-30 minutes
- C. 30 minutes - 1 hour
- D. 1-2 hours
- E. More than 2 hours

17. Amount spent to travel daily: _____

Training

18. Whether s/he has received any formal training at the time of joining

- A. Yes
- B. No

19. If yes, what kind of training s/he has received?

20. If it is ICDS related training, please specify the nature of training:

21. If it is non-ICDS training, please specify the nature of training:

22. Duration of training. (Number of days): _____

23. When did you receive the very first training (mention the date): _____

24. Were there any recurring trainings after that?

A. Yes

B. No

25. If yes, when was the last training held? _____

26. Do you feel that the training you received is helpful? If yes, why?

27. If not, why? (Multiple response allowed)

- A. Poor design B. Not connected to ECE centre realities C. Poorly conducted D. Focus only on administrative details E. Others (please specify)
-
-

28. What are some of the challenges you face in your work? (Multiple responses allowed)

A. For Anganwadi Workers

- i. Performed non-ICDS duties in the last six months
- ii. Which of the following non-ICDS duties have you been involved in? (Multiple response allowed)
 - a. Pulse polio b. Leprosy c. Election work d. Self-help groups e. Family planning f. Census g. Other work (please specify)
- iii. Money received is inadequate to run the AWC
- iv. Not received AWC equipment on time
- v. AWC equipment received is inadequate
- vi. Salary received is inadequate
- vii. Salary not received in last 30 days/ Irregular receipt of salary
- viii. Use of personal money to run AWC

- ix. Maintenance of registers (if yes, how many?): _____
- x. Inadequate training received
- xi. Did not receive pre-service training

B. For pre-school teachers

- i. Salary received inadequate
- ii. Did not receive salary during last 30 days / Irregular receipt of salary.
- iii. Inadequate training received.
- iv. Did not receive pre-service training.
- v. Challenges of teaching in English.
- vi. Challenges of dealing with lack of adequate nutrition of students.
- vii. Money received is inadequate to run the pre-school

SKIP QUESTIONS 29-30 FOR PRIVATE PRE-SCHOOL TEACHERS

- 29. When was the Anganwadi Centre last supervised?
- A. Within last 6 months B. between last 6 months and 1 year C. before 1 year D. Never
- 30. Do you find supervision visits helpful?
- A. Yes B. No (Why/why not? At least two reasons)

SKIP QUESTIONS 31-32 FOR ANGANWADI WORKERS

- 31. Do you have any supervision in your pre-school? If yes, what is the nature of supervision in the pre-schools?

32. How often do supervisions occur?

ACTIVITIES (FOR BOTH ANGANWADI WORKERS PRE-SCHOOL TEACHERS)

33. Time spent daily in educational activities

A. More than three hours B. Between 1 and 3 hours C. Less than 1 hour

34. Time spent daily in other activities (specify the activities, for example, either in other child related duties or administrative duties).

A. Less than 1 hour B. Between 1 and 2 hours C. More than 2 hours

Names of Activities:

35. Parents' meetings are held:

A. Regularly (once in 3 months or less, 3-4 times a year) B. Sometimes (2 or less times a year) C. Rarely (Once a year, only if special needs)

36. Do you think children should go/come to private pre-schools/Anganwadi centres?
Why do you think ECE is important?

37. Do you think the children are benefitting from coming to this anganwadi centre/private pre-school centre?
a. If yes, in what ways?

b. If no, why? How could this be improved upon?

38. How do you think of your own role in terms of your current work in the ECE Centre?

39. What are your expectations from: (a) supervision visits, if there are any (b) trainings

(a)

(b)

40. How would you describe the relationship between:

(a) your centre/pre-school and the community? (probe: nature of community participation; extent of community participation);

(b) the current stage of education and the next stages of education? (probe: how school teachers regard the role of the pre-school educators; nature and extent of their cooperation).

Appendix II: School Readiness Tool

Centering Children in the Development Debate in India: Public Action for Early Start, Fair Start and Fitting Start

GROUP ADMINISTERED TOOL FOR ACADEMIC READINESS IN CHILDREN BETWEEN 4-5 YEARS

GENERAL INSTRUCTIONS:

- Divide the class into age based groups of five children each. Only groups with 4+ year olds are to be assessed, but picture cards can be distributed to all children so as to keep them engaged.
- Before interacting with the children, instruct the AWW/teacher to not help or assist the students in any way. Request them instead to engage groups who are not participating so they do not disrupt the other groups being assessed.
- One administrator will be responsible for conducting, observing and scoring activities with only one group at a time, however it is necessary that all groups remain engaged at all times.
- For each activity the investigator has to distribute the cards within the group, in order to reduce fights / competition over the cards. For certain activities the investigator may also have to instruct children to look at their cards first, and then put their cards down in front of them so that others in the group can also take a look at their card.
- The instructor should carefully observe the behavior of the children throughout, constantly encouraging children who remain silent or do not take part to also engage in the activities. This may require some individual attention and prompting, but should not involve assistance.
- An icebreaking activity should be conducted before beginning the activities. This could involve asking everyone their names, followed by ringa-ring roses.
- Ice-breaking activities should be conducted in between every section (i.e., after pre-numeracy, after numeracy).

GENERAL SCORING INSTRUCTIONS:

- Children will first undertake a trial with the dummy cards themselves, which will not be scored. The rationale here is that allowing them a chance at the activity will help them understand what is being expected of them more clearly. The administrator can assist by demonstrating the activity if required during the dummy trial, demonstrating how the activity has to be conducted (e.g., by showing how to classify with the dummy cards for classification activities; how to look across the cards held by different members of the group for activities which involve selecting one answer). The dummy trial is not be counted while scoring.
 - Score for each activity across the trials attempted by children – that is, when children are required to identify different colours, arrive at the proportion of children who could/not complete the task only after they have identified all the colours. This will reduce the effects of chance / fluke answers.
 - After the dummy trial has been completed, for each activity, carefully observe the proportion of children in the group that are able to do the following and score accordingly:
- (a) **Finish the activity without any assistance:** It is important to note here that the child has been able to demonstrate the concept that we are intending to assess for a particular activity, and that they are not penalized for not knowing an unrelated concept – for example, in classification

of shapes, the child need only to be able to recognize and classify similar shapes or colours, and should not be penalized for not knowing the vocabulary for shapes and colour names.

Similarly, a child who evidently knows the concept but is too shy or reluctant to participate without some prompting should not be scored down. Here it is important to note whether the child was unable to perform the task without conceptual assistance only.

(b) Finish the activity with assistance: This kind of assistance includes probes and cues from the administrator, but *not* assistance which requires explaining of the concept/principle/process being tested for. (For example, while classifying, cues such as “where will you put that” (pointing to the shape in the child’s hand, can be considered a probe and allowed; but asking “put the circle/it with other circles?”, or “where are the other circles” should not be offered as probes, as they involve naming the principle based on which classification is to be made.) It also includes children who look to each other for help, or imitate each other to complete the activity, or are able to correct their answers after clarification of instructions.

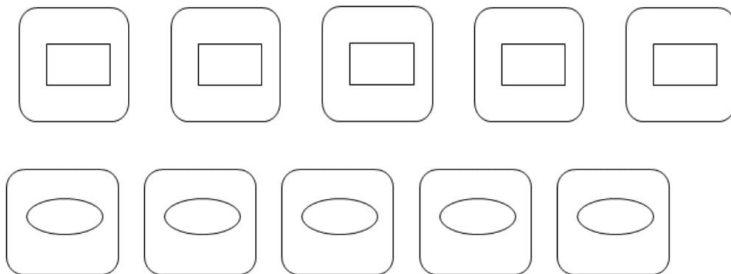
(c) Is unable to complete the task after multiple attempts/responds incorrectly repeatedly: This refers to students who are actively participating, but are unable to answer correctly even after multiple attempts, probes from the administrator or imitation/help of peers.

(d) Did not participate: Children who did not participate at all in the activity, or did not pay attention or lost interest/focus during one or more activity should be categorized under this section. In this case, they may or may not know the answers, but we are unable to ascertain this because of non-participation in the activity.

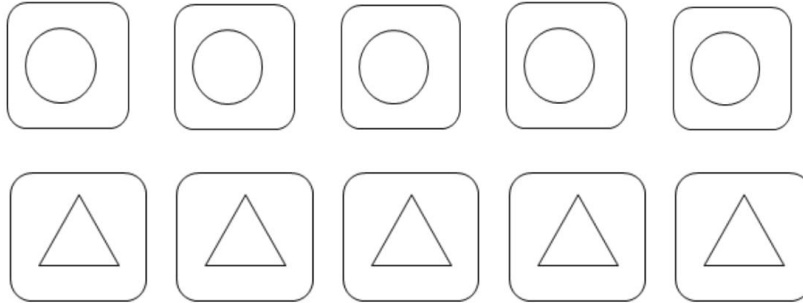
INSTRUCTIONS FOR ACTIVITIES

1. Identifying shapes

Dummy material:



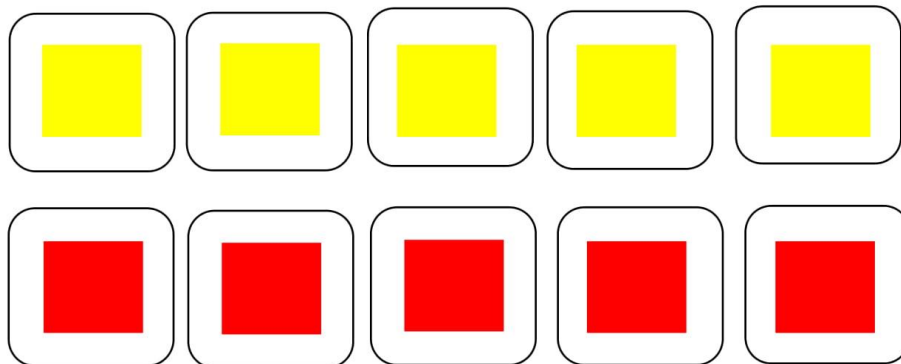
Scoring Material:



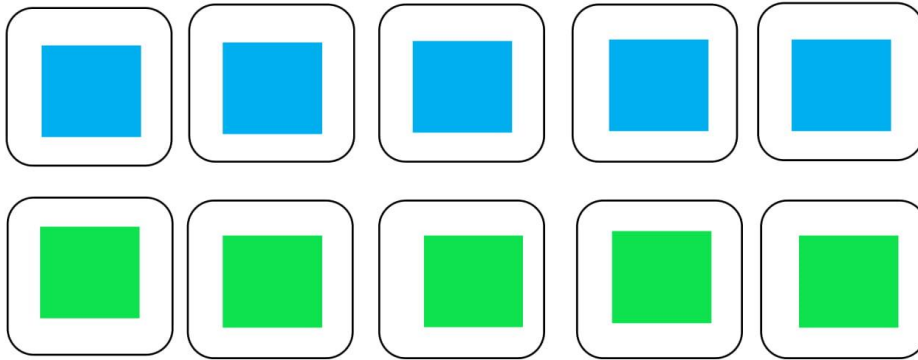
- **Dummy:**
 - Distribute the dummy cards to the group, giving one card each of both shapes to each child simultaneously.
 - Explain that when you say ready, you will call out the name of a shape, and they have to hold up the picture card with that shape on it.
 - Observe carefully to note whether the children recognize the names of these shapes or not, and if not, then assist them by teaching them the local vocabulary for all the shape names (rectangle, oval, circle, triangle)
 - Repeat the activity with dummy cards to see whether they are now able to hold up the right card, or have at least followed the purpose of the exercise.
- **Activity to be Scored:**
 - Distribute the triangle and circle picture cards to the group, giving one card each of both shapes to each child simultaneously.
 - Repeat above instructions for 'triangle' and 'circle' and observe carefully to note scores.
 - Collect all cards after activity is completed and keep them aside

2. Identifying colours

Dummy material:



Scoring Material:



- **Dummy**
 - Distribute one card of each colour to each child in the group simultaneously.
 - Explain, that when you say ready, you will call out the name of a colour, and they have to hold up the picture card with that colour on it.
 - Observe carefully to note whether the children recognize the names of these colours or not, and if not, then assist them by teaching them the local vocabulary for all the colour names (yellow, red, blue, green)
 - Repeat the activity with dummy cards to see whether they are now able to hold up the right card, or have at least followed the purpose of the exercise.
- **Activity to be scored:**
 - Distribute the blue and green picture cards to the group, giving one card of each colour to each child simultaneously.
 - Repeat above instructions for 'blue' and 'green' and observe carefully to note scores.
 - Collect all cards after activity is completed and put them aside

GROUP ACTIVITY TO BE CONDUCTED

Before beginning the next activity, conduct a short simple group activity, since the next few items require the children to work collectively with each other. Such an activity could involve, as an example, collectively colouring a common picture of a flower with five petals.

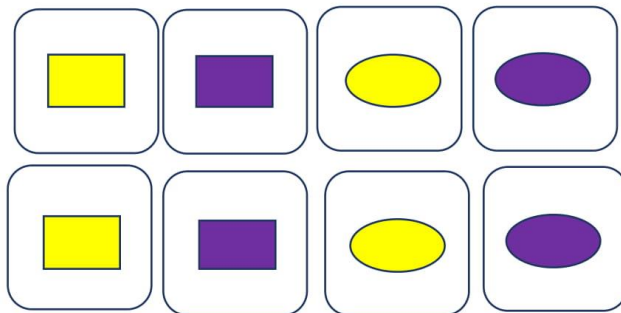
3. **Sorting and Classifying (Using Single Attribute)**
Dummy Material – Same as Activity 1
Material for Activity to be Scored – Same as Activity 1

- **Dummy:**
 - Distribute the dummy shape cards such that each child gets one card of each shape.
 - Instruct them look at both their cards carefully, and then place it face up in front of them, so that others can also see their cards.

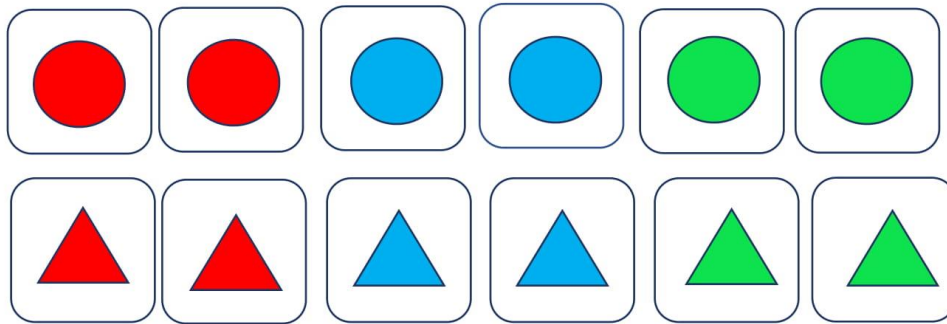
- Explain to the group that they should all work together to put all the cards with the same shape in one group/set, and all the cards with a different shape in another group/set.
- Demonstrate if required, for example, "These two cards have ovals on them, so I will make a set with it. Can you tell me which other cards have the same shape, and add those to the set?"
- Instruct children also to look at the cards that other members of their group have to complete the activity, if all cards of one shape have not been placed in one group after a minute of giving the instruction.
- Observe carefully to see if children pick or point to other children's cards to classify / and notice whether or not children classify their own cards after other children point out what is to be done.
- Collect dummy shape cards after this is completed.
- **Activity to be scored:**
 - Distribute the shape cards such that each child gets one card of each shape.
 - Instruct them look at both their cards carefully, and then place it face up in front of them, so that others can also see their cards.
 - Repeat the above instructions for sorting cards based on shape, and observe carefully to note the scores.
 - Collect all the cards after activity is completed and put them aside.

4. Sorting and Classifying (Using Two Attributes)

Dummy material:



Scoring Material:



- **Dummy:**
 - Distribute the dummy cards such that each child gets two cards, both of different shapes as well as different colours
 - Instruct them look at both their cards carefully, and then place it face up in front of them, so that others can also see their cards.
 - Explain to the group that they should all work together to make separate sets of picture cards that have the same shape and the same colour. For example – “Look at the pictures. Now look at the shape and the colour of the picture. If the shape and colour of the picture is the same as another one, then put these cards together in one set”.
 - Demonstrate, if required, with a few cards, explaining for example “These two picture cards have rectangles of them, and both of them are yellow, so I will make one set out of them. Now can you do the same with the purple rectangle here? Which card has the same shape and colour as this one?”
 - Collect the dummy cards after this is completed.
 - **Activity to be scored:**
 - Distribute the activity cards such that each child gets two cards, both of different shapes as well as different colours
 - Instruct them look at both their cards carefully, and then place it face up in front of them, so that others can also see their cards.
 - Repeat instructions as above asking children to create sets of picture cards with the same shape and same colour.
 - Observe carefully to note scores.
- 5. Counting by rote**
- **Activity to be scored:**
 - Explain – “When I say ready, I want you all to start saying numbers from one to ten”
 - Observe carefully to note scores

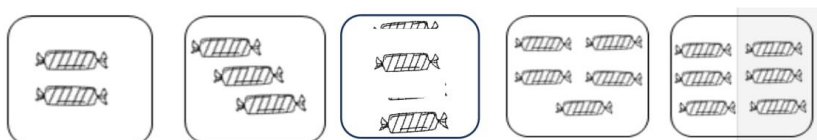
6. One to one principle

- **Activity to be scored:**

- Explain – “When I say go, I want you all to say the numbers one to five on your fingers”
- Observe carefully to note scores
- Additionally, observe if children have motor difficulties with opening up their fingers, in the remarks section on the scoring sheet. The activity should be carefully observed to note whether the child has difficulty with motor functioning or whether it is coming from not having understood the one-to-one principle.

7. Cardinality

Material:



Dummy:

- Distribute one card each to each child in the group so that all children have a different card.
- Ask the children to look at their cards carefully and then place their cards in front of them so that everyone in the group can see all the cards.
- Explain – “Now when I call out a number, count and put your hand on the card which has the same number of sweets. Which card has 3 sweets?”
- Demonstrate if required – “If I call out 3, then you have to look at the cards and count three sweets like this – one, two, three, and put your hand on this card”

- **Activity to be scored:**

- Continue the above activity with the following instructions –
- “Show me the card which has 6 sweets”
- “Now show me the card which has 4 sweets”
- “Now show me the card which has 5 sweets”
- Observe each trial carefully to note scores.

8. More and less

Material: One set of picture cards with sweets on them (same as activity no. 7)

- **Dummy:**

- Place a card with 2 sweets, and one with 3 sweets face up in the centre of the group, holding them in place.
- Explain that the children should place their hand on the card which has more sweets, gesturing with the hand to show more and less.

- Demonstrate if required– “There are two pictures of sweets here. Now I will put my hand on this card because it has more sweets”.
- Collect these two cards after dummy is completed
- **Activity to be scored:**
 - Place the card with 4 sweets and 6 sweets face up in the centre of the group, holding them in place
 - Ask the children to put their hand on the card with more sweets.
 - Observe carefully to note scores
 - Collect cards after activity is completed and put the cards aside.

9. Ordinality

Material:



- **Dummy**
 - Distribute one card each to each child in the group so that all children have a different card.
 - Ask the children to look at their cards carefully and then place their cards in front of them so that everyone in the group can see all the cards.
 - Now ask the students to place their hands on the card which comes after 2. Next ask the students to place their hand on the card which comes before 2.
 - Demonstrate if required – “There are three cards with numbers here. Now I want to find the card which has the number which comes after 2. Because 3 comes after 2, I will put my hand like this on 3. Now 1 comes before 2, so I will put my hand on 1 like this.”
 - Collect these cards after dummy is completed.
- **Activity to be scored:**
 - Ask the children to identify and put their hand on the on the number which comes after 5.
 - Next ask the children to put their hand on number which comes before 5.
 - Observe carefully to note scores, considering the average of three trials.
 - Collect all cards and put them away after the activity is completed.

10. Social conventions

Activity to be scored:

- Ask the group to respond together to the following questions:
- “All of you together tell me, how will you greet or welcome someone who comes to your house?”

- “How will you wish someone whose birthday it is?”
- If these are unfamiliar situations for the children, then use different greetings/conventions which may be contextually relevant for the children.
- Observe carefully to note scores, considering the average of both trials

11. Vocabulary (Describing Pictures)

Material:

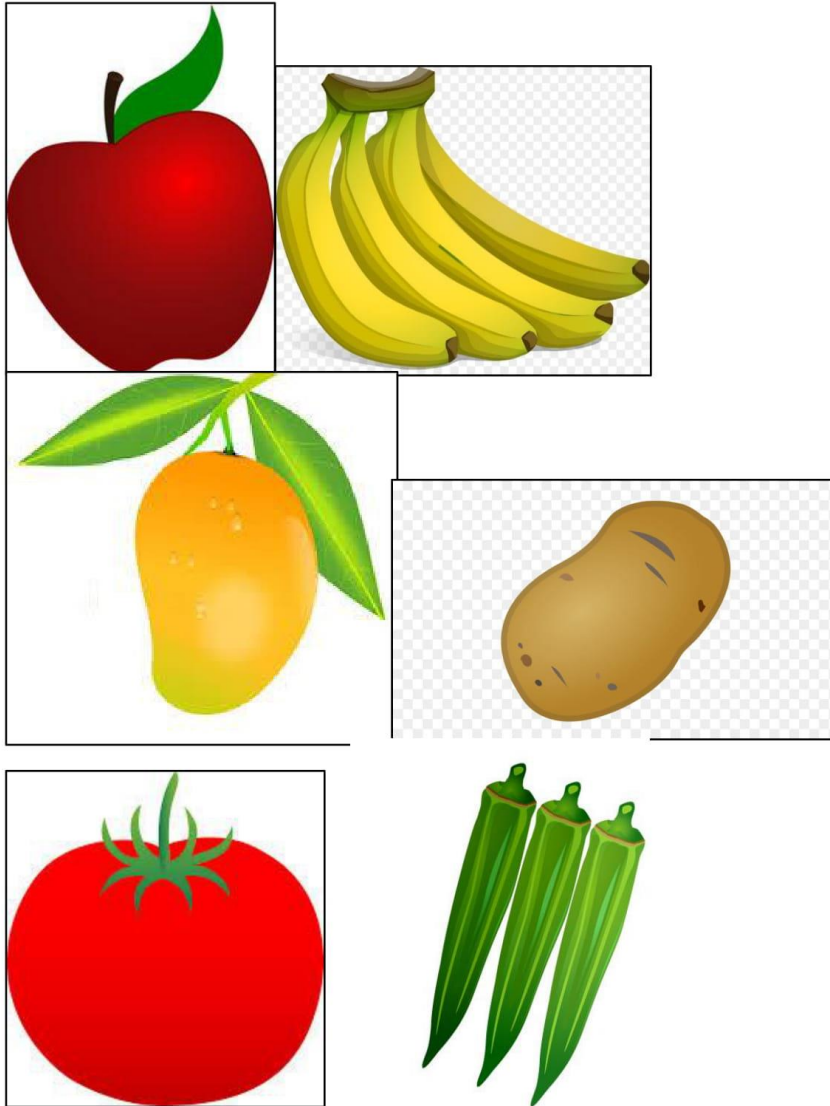


Activity to be scored:

- Hold up one picture at a time asking the children to describe what they see explaining “now all of you look at the picture and tell me what you see”
- Do the same with the second picture
- Observe carefully and note scores, considering the average of both trials.
- Collect cards and put them away after activity is completed.

12. Vocabulary – Naming of fruits and vegetables

Material:



Activity to be scored:

- Hold up one picture at a time, asking the children to name the fruit or vegetable they see
- Instruct as “Now all of you tell me what this is, together”.
- Allow children to answer in any language (English or local) – depending on the word commonly used in the area.
- Observe carefully to note scores, taking the average of all fruits/vegetables named.

13. Categorization of fruits and vegetables

Material: Fruit and vegetable picture cards

Activity to be scored:

- Distribute one card each to each child in the group, so every child has the picture of a different fruit/vegetable
- Instruct the children to look at their cards carefully and then place their cards in front of them, so that all the cards are visible to everyone.
- Indicating two spots with each of your hand, explain that they should make two sets – one with pictures of fruits, and one with pictures of vegetables.
- Instruct as “Now look at all the cards, and keep all the pictures of fruits in front of this hand (indicating with the left hand) and put all the pictures of vegetables in front of this hand (indicating with right hand). You can discuss among yourselves before deciding.”
- Observe carefully to note scores.
- Collect cards and put them away after activity is completed.

14. Recognition of letters

Material:



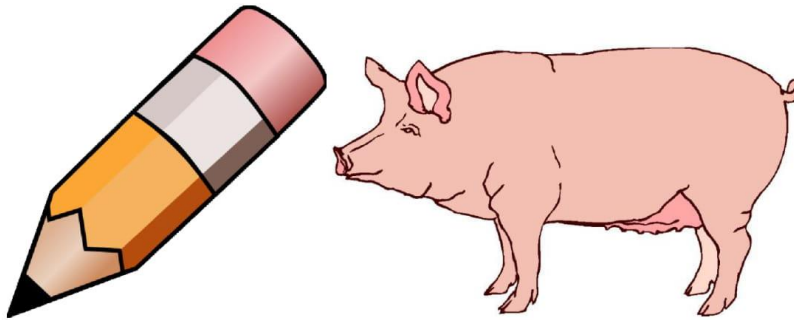
• Activity to be scored:

- Distribute one card each to each child, so that each child has a different letter card
- Instruct the children to look at their cards carefully and then place their cards in front of them, so that all the cards are visible to everyone.
- Explain that you will call out a letter, and they should work together to identify and hold up that letter
- Instruct – “Listen carefully to the letter called out. Whoever has the card with the letter called out must hold the card up. You can all help each other in deciding which card matches the letter called out. Ready? Show me the card which has ‘M’”

- If children find it difficult to recognize the letter 'M', then instructor can use the phonetic sound /m/ instead.
- Do the same for two more letters.
- Observe carefully to note scores, considering the average of three trials with three different letters.

15. Phonetic Awareness

Dummy Material:



Scoring Material:



• Dummy

- Distribute one picture card with 'D' and one with 'B' each to each child, so that every child has a picture beginning with D and B.

- Instruct the children to look carefully at their cards and then place their cards in front of them, so that all the cards are visible to everyone.
- Keep the dummy cards in the centre
- Ask the children to identify all the pictures one by one, English, and ensure that children know the names of all the objects depicted. Assist them with recognizing the pictures in this activity if required.
- Next explain that you will call out a sound, and they should identify the pictures which start with the sound.
- Instruct "I will call out a sound. Listen carefully and show me the pictures which start with the sound. Ready? Show me the pictures which start with /p/"
- Demonstrate if required "The words pencil and pig start with /p/, so I will select these two pictures"
- Put aside the dummy picture cards after the dummy is completed, but let the children keep the other picture cards.
- **Activity to be scored:**
 - Instruct- "Now show me all the pictures which start with the sound /d/. You can discuss and help each other."
 - "Now show me all the pictures which start with /b/"
 - Observe carefully to note scores, considering the average of trials for both letters.

16. Recognition of letters (Kannada)

Material:



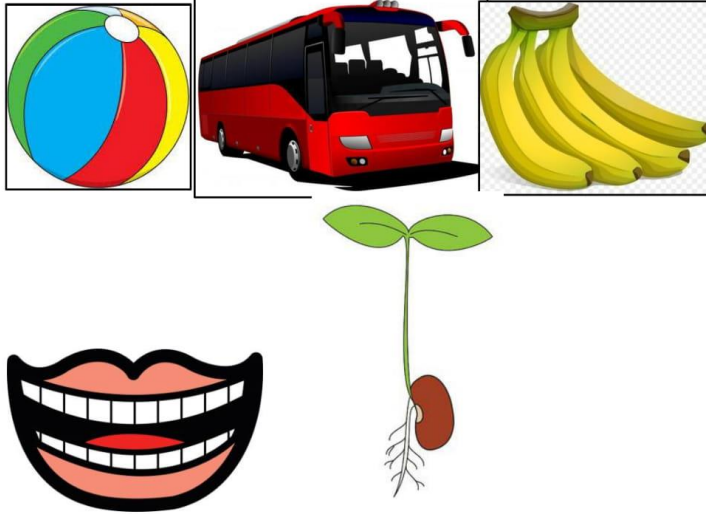
- **Activity to be scored:**
 - Distribute one card each to each child, so that each child has a different letter card
 - Instruct the children to look at their cards carefully and then place their cards in front of them, so that all the cards are visible to everyone.
 - Explain that you will call out a letter, and they should work together to identify and hold up that letter
 - Instruct – "Listen carefully to the letter called out. Whoever has the card with the letter called out must hold the card up. You can all help each other in deciding which card matches the letter called out. Ready? Show me the card which has '/ka/'"
 - Do the same for two more letters.
 - Observe carefully to note scores, considering the average of three trials with three different letters.

17. Phonetic Awareness (Kannada)

Dummy Material:



Scoring Material:





- **Dummy**
 - Distribute one picture card with 'p' and one with 'b' each to each child, so that every child has a picture beginning with p and b.
 - Instruct the children to look at their cards carefully and then place their cards in front of them, so that all the cards are visible to everyone.
 - Keep the dummy cards in the centre
 - Ask the children to identify all the pictures one by one, Kannada, and ensure that children know the names of all the objects depicted. Assist them with this activity if required.
 - Next explain that you will call out a sound, and they should identify the pictures which start with the sound.
 - Instruct "I will call out a sound. Listen carefully and show me the pictures which start with the sound. Ready? Show me the pictures with start with /tha/"
 - Demonstrate if required "The words 'tharkari' and 'thappu' start with /tha/, so I will select these two pictures"
 - Put aside the dummy picture cards after the dummy is completed, but let the children keep the other picture cards.
- **Activity to be scored:**
 - Instruct- "Now show me all the pictures with start with the sound /p/. You can discuss and help each other."
 - "Now show me all the pictures which start with /b/"
 - Observe carefully to note scores, considering the average of trials for both letters.

*Centering Children in the Development Debate in India: Public Action for Early Start,
Fair Start and Fitting Start*

**SCORING SHEET FOR GROUP ADMINISTERED TOOL FOR ACADEMIC READINESS IN
CHILDREN BETWEEN 4-5 YEARS**

ID NO:

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(State) (District) (Village) (Centre)

NAME OF INVESTIGATOR:

SCHOOL/CENTRE NAME:

LOCATION:

DATE:

TOTAL NUMBER OF STUDENTS IN CLASS: _____

GROUP TO BE ADMINISTERED	Boys	Girls	Total

DOMAIN / CONCEPT	Activity	PROPORTION OF STUDENTS WHO COMPLETE TASK					PROFICIENCY LEVEL (CLASS)
		Achieved	Partially achieved or achieved with assistance	Unable to complete despite assistance	Did not participate	Remarks	
		(a)	(b)	(c)	(d)		
Pre-numeracy	1. Identification of shape						
	2. Identification of colour						
	3. Classify using single attribute						

	4. Classify using two attributes						
Numeracy	5. Counting (Rote)						
	6. One-to-one principle						
	7. Cardinality						
	8. More and Less						
	9. Ordinality						
Verbal Language	10. Social Convention						
	11. Vocabulary – Describing pictures						
	12. Vocabulary – Naming fruits and vegetables						
	13. Classification of fruits and vegetables						
Emergent Literacy	14. Recognition of Letters (English)						
	15. Phonetic Awareness (English)						
	16. Recognition of Letters (Kannada)						
	17. Phonetic Awareness (Kannada)						