An Independent Impact Assessment

Early experiences make an important difference in child’s life. It is universally believed that the linguistic, cognitive and social skills that children develop in early childhood are the foundations for lifelong learning. If children do not have access to these foundational skills because they lack adequate nutrition or opportunities to learn, then societies end up bearing significant costs and the effectiveness and equity of education systems are undermined.

In the Indian scenario, early childhood education is delivered as a part of ICDS scheme- the largest publicly funded program in the world. While at the national level the importance of structured preschool education (PSE) programme is gaining momentum with efforts by the Ministry of Woman and Child (DWCD) towards the development of the Draft National Curriculum Framework on ECCE in recent years, it is undisputable that any such efforts would take time to be translated in reality. Against this background Akshara’s pre school programme was designed as an initiative to strengthen the existing Preschool Education ICDS anganwadis in Karnataka. The initiative identified the gaps and provided solutions without disturbing the theoretical framework of the early childhood pedagogy adapted by the DWCD. The programme focused on the development of a pre-school kit (aligned to the department’s thematic approach), capacity building of the anganwadi workers and supervisory staff, measurement indicators and community participation as four key components all done at significant scale in a time span of four years.

We believe we are the first organization in the domain of pre-school education to initiate a large- scale PSE program with ICDS in India to invite a leading national level research organization in Early Childhood Education – CECED of Ambedkar University to evaluate its programme.

The report benchmarks Akshara's pre-school engagement in the context of a theoretical best-case scenario. While we consider this as a positive development we feel the practical issues are of concern and are mindful in understanding the areas of improvements. There is a practical challenge and urgency in bringing a paradigm shift and it is here that collective efforts from the entire spectrum of stakeholders will help improve the ECE situation in the country to ensure that our children get the preschool attention that we believe is in their best interests.
Summary of the Findings

1. The scale at which Akshara (1776 Anganwadi Centres) has worked is worth noticing.

2. Akshara interventions were planned in a holistic frame to cover all aspects of systemic reform, including teaching-learning materials, environment, training of all levels of functionaries, monitoring and community participation is worthy of appreciation.

3. The model has made significant difference in terms of
   
   a. Teaching learning materials in the form of pre-school kit in the Anganwadi Centres
   
   b. Additional training to Aanganwadi workers on class arrangement and organisation in terms of laying out of activity corners, classroom management, activities for fine motor skills and creative activities, age-appropriate seating arrangements, and planning of a daily schedule.
   
   c. With the availability of more materials, particularly LEGO blocks, children were observed to be considerably involved at individual levels in free play, which could be categorised as both fine motor activity and creative activity.

4. A commendable feature of the intervention was the development of 70 specific quality-related indicators for assessing the status of anganwadis with a view to support the improvement of their overall environment across Bangalore.

5. Akshara’s assessment framework comprising 56 indicators to track the annual progress of children is a step forward in terms of bringing in accountability and a focus on outcomes. A significant gain was that the ICDS system adopted the framework and understood the need to assess children in a formative mode.

6. The performances of children specifically in number concepts, classification skills and reading readiness is yet to be improved, indicating need for strengthening the ECE curriculum in these specific areas across the board. Child assessment data of the previous three years also indicates that concepts related to number readiness and classification of shapes, size and phonemic awareness were among the more difficult tasks for children, in the absence of specific curricular inputs.

7. A positive aspect of the intervention was the training of Child Development Project Officers which involved an actual visit to an anganwadi to observe the programme. The hands-on experience was found to be very useful by them as they were able to appreciate the importance of the preschool component by observing the responses of children.
8. Report suggests training to focus on the reflection, further understanding of how to use the materials, how to change seating arrangements and plan and use activity corners in ways that would promote children’s learning and development in a planned manner.

9. Evaluation Report suggests more frequent capacity-building refreshers for workers; mentoring and regular engagement of supervisory officials and resource persons with the field.

10. Report suggests linking of activities such as sequential thinking, pattern-making, and classification skills, be linked to cognitive skills in the PSE.

**Conclusion**

CECED’s evaluation report concludes that Akshara’s preschool interventions have, without doubt, created a much more child-friendly environment in anganwadis, with an abundance of attractive learning materials. To some extent, there is better awareness among parents, anganwadi workers and officials of what a child-friendly ECE programme should be, as opposed to a formal primary education programme. The indicators developed as learning outcome measures and grading system of anganwadis have been found to be useful by the Department of Women and Child Development, possibly because it has, for the first time, attempted to unpack to an extent what is the developmentally appropriate practice in ECE. However, while the feedback is positive overall from all stakeholders, the impact in terms of child outcomes and sustainability of the interventions is limited. Given the improvement seen in quality indicators, it is conceded that possibly the impact measured may have got amplified, had there been a more robust ‘contra-factuals’ for comparison.

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Impact Assessment of
Akshara Foundation’s Engagement with the ICDS System
in Karnataka

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Cover: Naftsa Crisha, Bangalore
Photo Credit: Greeshma Patel, CECED Team

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Foreword

The early years of life are of critical importance since these lay the foundation for lifelong learning and development. Recent research has clearly established this significance, since the development of the brain is at its fastest in these years. Research also tells us that the brain architecture is significantly shaped not only by the genetic factors but also the kind of psychosocial environment and experiences the child is exposed to. Good quality Early Childhood Education for children below six years has therefore proven to not only give children, particularly from disadvantaged communities, a sure start but also impact on their quality of life and learning all the way into adulthood. Reaching out to the child in these early years should therefore be our topmost development priority!

Prof. Venita Kaul
Director
Executive Summary

Akshara Foundation, a Bengaluru-based public charitable trust, initiated an engagement with the ICDS (Integrated Child Development Scheme) programme in 2006-07, and from 2009-10, a structured pre-school education programme was implemented, to strengthen the quality of its pre-school education programme. The Foundation worked across six ICDS projects with 1,767 Anganwadi centres over a period of five years. The Centre for Early Childhood Education and Development (CECED), Ambedkar University, Delhi, (AUD) was invited by the Foundation in 2012 to carry out an evaluation of the intervention. This section presents a summary of the main findings of the evaluation and the emerging recommendations.

An Overview
The significance of this large-scale initiative in Early Childhood Education (ECCE) needs to be seen in the context of the emerging global perspective on ECE as a key intervention for all children, not only for school preparedness but also as a foundation for life. Recent neuroscience research has unequivocally established this stage of childhood to be the critical period for the development of the brain and for development of specific cognitive and psychosocial competencies that serve as the foundation for lifelong learning. While in India, there have been several initiatives that have experimented with ECE and demonstrated an impact, these have primarily been small-scale programmes—the scaling up of which has been a major challenge.

This initiative by Akshara Foundation in supporting quality improvement in the pre-school education/ECE component of ICDS in Bengaluru emerges overall as a commendable effort in this context, both in terms of its systemic approach and the scale of operation. It is to the credit of the Foundation that the project interventions were planned in a holistic and comprehensive frame to cover all aspects of systemic reform, including materials, class environment, training of all levels of functionaries, monitoring and community participation. A remarkable feature of this intervention was also its scale, since it covered 1,767 Anganwadi centres across the entire Bengaluru district. Most interventions with ICDS and otherwise have been on a very limited scale. What is also notable is that, given the scale, the intervention was able to effect a visible change in the façade of the Anganwadis (AWs) in areas in which the project has been implemented. Most Anganwadis visited were found to be decorative, with abundance of play materials and displays, and generally children were observed to be actively engaged in some or the other play activity.
Many AWCs had a conducive worker-child ratio with, on an average, 1:21 attending the Anganwadi on the day of observations and parents were evidently keen to bring the children to these centres. Although there is no baseline available to validate this change, the review of literature in the field suggests that prior to Akshara’s intervention, the pre-school education component in Karnataka ICDS was a neglected area with little meaningful pre-school education being seen. Using that as a reference point, this shift at this scale is certainly commendable.

A unique feature of this project was also the institution of a system of child assessment—both at the beginning and end of the academic year—on identified indicators related to overall development of the child and school readiness. The fact that the assessment format with indicators from this initiative has been taken forward and introduced in the system by the Department of Women and Child Development, Government of Karnataka, can also be seen as a significant and sustainable achievement of the project. In addition, the project also introduced a system of rating Anganwadi centres (AWCs), based on specific quality related indicators, which brought in a focus on quality.

However, while overall the quality of the pre-school education programme in Bengaluru did get a boost, the impact of this quality improvement on school readiness outcomes of children—as assessed in the evaluation—was not entirely commensurate with this change, as discussed earlier. The report analyses the issue and highlights certain areas of the intervention that require further strengthening.

The Intervention

The major interventions instituted by Akshara Foundation from 2009-10 to 2012-13 were:

a) Supply of a pre-school kit developed for conducting pre-school education in Anganwadi centres,

b) Capacity building through training of the 1,767 AWWs (Anganwadi Workers), ranging from two to three days' duration and capacity building of 1,334 helpers for a day, both in a cascade mode,

c) Assessment of the learning outcomes of children twice a year; and,

d) Reactivation of Bal Vikas Samitiis through training of 15,730 members in 1,430 AWCs, to bring awareness regarding ECE among the members and parents of children in the Anganwadi (AWs) and the Balwadi centres.
A uniform intervention was provided for two years to almost all the AWCs. In the third year, specific training was given on use of Lego blocks to selected 150 centres. In addition, eight Anganwadi centres were identified and provided training to upgrade them to ‘model Anganwadi’ centres. However, in year four, Akshara limited its intervention to 333 AWCs out of 1,767 for a year in which the Foundation concentrated on providing additional inputs on classroom management, classroom layout, age segregation and child assessment as a follow up of an evaluation done by an ECE expert, Dr Francis Aboud. These Anganwadis were classified as receiving intensive intervention, while the larger group was considered as the non-intensive category. In addition, Akshara has also incubated more than a 100 independent Balwadis (BWs), which were not part of the evaluation.

**Evaluation Design**

A major limitation in this evaluation is the lack of a sound counterfactual to assess and establish impact, since the entire district was covered by the project. Consequently, the evaluation of the project focused largely on a comparison of the two categories, that is, Intensive and Non-intensive centres, with the assumption that, while the technical framework or principles informing the model are similar, the quantum of intervention has been relatively (by seven months) longer and more specific to quality, in terms of classroom management and organisation. The impact was assessed in a mixed mode involving the following components:

a) **Assessment of quality of the pre-school component of the programme, as measured by the Early Childhood Education Quality Assessment Scale (ECEQAS)** tool.

b) **A technical review of the pre-school kit by experts.**

c) **Assessment of 4-to-5-year-old children on school readiness indicators, and**

d) **Focus-group discussions and/or interviews with all categories of stakeholders and (2) intensive case studies of three Anganwadis of which two were A-category and the third was in a challenging situation, to get a more nuanced understanding of the nature and extent of impact on content and processes of the Anganwadi programme.**

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1 ECEQAS is an Indian adaptation of Early Childhood Education Rating Scale (ECERS) and observation tool.
Summary of Findings

A. Quality of the Pre-school Programme

The first level of analysis investigated differences in the quality of the programme across both categories of Anganwadi centres. This analysis demonstrates a positive trend in favour of the Intensive category centres—as compared to the Non-intensive—across all quality parameters assessed by the tool, including infrastructure, curriculum content and processes and teacher disposition. The concern is that these differences are significant only in the case of a few parameters, that is, classroom management, activities for fine motor skills and creative activities, and that too at $.05$ level of significance. This specific finding can be explained by the fact that these are the aspects that were strengthened by the additional inputs that were provided to the Intensive category of centres, and not given to the Non-intensive centres, and this evidently did have an impact. The Intensive centres were provided more teaching–learning materials and the focus of their additional training was also on class arrangement and organisation in terms of laying out of activity corners, age-appropriate seating arrangements and planning of a daily schedule. The two domains of fine motor activities and creative activities, which emerge significant, are also closely dependent upon availability and use of materials in the class and may, therefore, have shown impact. With the availability of more materials, particularly Lego blocks, children were observed to be considerably involved at individual levels in free, manipulative play. This play could be categorised by observers as both fine motor activity as well as creative activity.

However, an important observation made in the study was that the 'activity corners' were actually 'thematic' corners linked to different aspects of development, and were not linked to children's activities such as blocks corner, storybook corner, beads corner, doll's corner/make-believe corner, as is the child-centred practice. As a result, other than blocks play, particularly using Lego blocks, there was very little evidence of other kinds of play seen in which children were engaged, whether free or guided, which could have influenced development of other concepts and skills.
B. School-readiness Outcomes

While on programme quality indicators the trend was consistently in favour of the Intensive category of centres, in terms of child outcomes related to school-readiness levels, the trend was found to be reversed. Overall, the children from the Non-intensive centres did better in school-readiness assessment as compared to the Intensive category. This was found on most indicators of school readiness, although the differences were not always significant. The domains or indicators on which the children from Non-intensive category were found to be significantly superior were sequential thinking, pattern making and relative comparisons. All these competencies relate specifically to cognitive skills linked to number readiness.

While on other competencies the differences were not significant, the overall performances of children from both Intensive and Non-intensive centres were far from satisfactory. These were specifically number concepts (number–object matching and relative comparisons), classification skills and reading readiness (phonological awareness). This finding indicates the need for strengthening the ECE curriculum in these specific areas, across the board. This finding is further substantiated from the analysis of the child-assessment data compiled for the previous three years, which Akshara had shared with CECED for purposes of analysis.
This analysis also indicated that concepts related to number readiness, and classification of shapes, size and phonemic awareness were among the more difficult tasks that the children found difficult to complete, in the absence of specific curricular inputs.

The better performance of children from the Non-intensive centres in skills such as relative comparisons was further probed through disaggregated analysis of project-wise data and the trend appeared to be consistent. It is interesting to observe that the two competencies on which the differences were significant, that is, sequential thinking and pattern making are closely linked, as they both relate to concept of shapes, in which children showed better understanding. The third competency of related comparisons, although it demonstrated significant difference between the two categories, had low scores on both sides, thus requiring special attention.

The better performance of Non-intensive centres does not have a ready explanation, despite it being probed from all angles. The report explores various factors that may have created this inconsistency, despite the quality parameters being better for the Intensive category. The factors hypothesised to explain this inconsistency relate primarily to differing education levels of AWWs, advantage of location of AWC in the school, regularity of supervision, support from other NGOs, and so on. Moreover, performance of Non-intensive centres also indicates trace of sustainance of Akshara intervention as it started withdrawing from majority of centres after two years of intervention and in very few after three years.

A further comparison was undertaken of the school-readiness scores of this project with the scores obtained in another study by CECED from three known programmes in ECE in other states. Interestingly, the overall SRI (School Readiness Instrument) scores were found to be more or less consistent, overall indicating a need to strengthen the ECE curriculum from the perspective of reading, writing and number readiness. The specific areas that emerge as weaker in the Akshara Curriculum are conceptual understanding of numbers.

C. Assessment of Quality of Specific Interventions

As mentioned earlier, the fact that the interventions were planned in a holistic frame to cover all aspects of systemic reform, including teaching-learning materials, environment, training of all levels of functionaries, monitoring and community participation is worthy of appreciation. However, the detailed review reflects both strengths and some concerns with
regard to each of these interventions, which may explain the limited impact and provide useful lessons for future systemic reform. The following details are gathered from the main and intensive studies which were carried out as follows:

1. Teaching–learning materials

The idea of providing a variety of teaching-learning materials and that too in sufficient quantities at the centres was certainly very commendable, and an acknowledgement of the need for a child-centred and constructivist pedagogy in early childhood, as opposed to formal teaching. The fact that many of these materials were manipulative toys and not only teaching-learning materials, further gave a very joyful and activity-based environment in the Anganwadis, which was appreciated by all functionaries of ICDS, parents and children. However, the Foundation described this as a School Preparedness Kit, which implies that it is focused on development of school-readiness competencies and is complete in itself. On both these counts, there are issues with the kit. The specific school-readiness competencies related to pre-reading, pre-writing and pre-number concepts and skills are not getting catered to in a planned way through these materials. As indicated by the Expert Committee that reviewed the material, these do not seem to be based on a clear theoretical framework related to theory of Child Development and Early Childhood Education. It does not also define the concept of school readiness, which it is meant to be nurturing. It is, therefore, more a set of teaching-learning materials that were developed with a view to fill the gap seen in the ICDS kit keeping in view the ICDS curriculum, such as number and alphabets chart in English, plastic fruits, conversation charts, and so on.
Further, in terms of use of materials, it was observed that most children only played with blocks and toys and certain other materials provided that could have contributed to school-readiness skills, but concepts were not observed being used to the same extent. A possible factor for all materials not getting used could also be, as mentioned earlier, the planning of activity corners in terms of developmental domains rather than introduction of different kinds of play activities, which would have promoted a more balanced daily programme for children.

2A. Indicators for assessment and grading of Anganwadis

A commendable feature of the intervention was the development of 70 specific quality-related indicators for assessment of status of Anganwadi centres, with a view to support the improvement in their overall environment across Bengaluru. These indicators were used for periodic assessment by the field co-ordinators of Akshara pre-school programme through observation, discussion with Anganwadi workers and helpers as well as through cross-checking of documents maintained in the Anganwadi.

2B. Child-assessment framework

In addition, Akshara developed an assessment framework comprising 56 indicators to track the annual progress of children. Under the project, assessment sheets and a manual were prepared that were distributed to all the Anganwadis. The assessment of children was required twice in a year, once in August when children came in and once in March after a year of attendance. This assessment is a step forward in terms of bringing in accountability and a focus on outcomes. A significant gain was that the ICDS system adopted the framework and understood the need to assess children in a formative mode.

3. Training of Mentors

A positive aspect of the project interventions was the Child Development Project Officers (CDPOs) training that was carried out for two days and involved actual visit to the centre to observe the programme. The ‘hands on’ experience was found to be very useful by them, as they were able to appreciate the importance of the pre-school component by observing the responses of the children. However, from the perspective of mentoring, monitoring or implementing the programme, this short annual training could at best lead to surface changes only. This was evident perhaps in terms of better layout and seating arrangement, but there was little reflection of any deep understanding among the Anganwadi workers of how to use the materials, how to change seating arrangements and plan and use activity corners in ways that would promote children’s learning and development in a planned manner. Putting in place a two-tier team for mentoring and supervision was indeed a useful idea, but the question that required examination was, ‘To what extent were the mentors themselves enabled and trained to understand the philosophy and practice of ECE in terms of curricular objectives and methodology so as to guide the Anganwadi workers and provide handholding?’
4. Community participation/BVS members

Akshara prepared a Bal Vikas Samiti (BVS) manual for the community and trained members on a large scale. However, this framework had its own challenges. In addition, BVS charts were designed in the form of checklists by Akshara to facilitate discussion among the BVS members’ problems and track progress every quarter. However, the interactions with the BVS members showed that the new committee members were not very aware of their roles and responsibilities with regard to ICDS, although they were very appreciative of the teaching-learning materials (TLMs) supplied by the Akshara Foundation, and the children’s enthusiastic response to these. Instances were reported of community contributions but these were sporadic and not really common across the projects. It is possible that their lack of awareness could be due to the fact that the membership changes every two years and the training cannot keep pace with this change—this points to the need for periodic and regular training within the system.

These factors are to an extent reflected in the wide variance across quality scores and also reported in the qualitative observations of the researchers. Some factors that were found to support better performance of the centres included motivation of the Anganwadi workers, training of helpers and support from the school system.

D. Sustainability and Perceived Impact:

Interviews with the senior administrators and ICDS officials reflect an appreciation by them for Akshara’s initiatives. According to the Joint Director, ICDS, and some of the CDPOs, the environment in AWCs has improved, leading to better attendance of children. The children are visibly attracted to and engaged with the materials and even the community, especially parents, is participating in the AW activities. However, according to him, the sustainability of Akshara interventions through ICDS is very limited, particularly in terms of supplying of materials. His view was that to sustain this environment, the Akshara Foundation needs to also continue its support in terms of supervision, training and monitoring, since the ICDS functionaries are too overloaded with their routine work. This feedback does not hold out much promise of sustainability of these interventions if Akshara withdraws.

Conclusion

In conclusion, the Akshara project interventions have, without doubt, created a much more child-friendly environment in the Anganwadis with an abundance of attractive learning materials. To some extent, there is better awareness of what a child-friendly ECE programme should be like as opposed to a formal primary education programme, among parents, Anganwadi workers and officials. The indicators developed for the assessment system and grading system of AWCs has been found to be useful by the department, possibly because it has, for the first time, attempted to unpack to an extent what is the developmentally appropriate practice in ECE. However, while the feedback is positive overall from all stakeholders, the impact in terms of child outcomes and sustainability of the interventions are limited. Given the improvement seen in quality indicators, it is conceded that possibly the impact measured may have got amplified, had there been a more robust counterfactual for comparison.
Some Lessons and Recommendations

As mentioned earlier, the project conceptualisation was quite comprehensive with a systemic perspective. However, the impact of the interventions could have been enhanced, but for certain issues with the implementation of each of these interventions, which are highlighted above. Based on these issues, some recommendations are given below that may help in any further re-conceptualisation of interventions by the Foundation or by ICDS in its efforts to strengthen the ECE component of its programme under the Restructured ICDS initiative of the government.

1. Any initiative for improvement of quality of pre-school education must be informed by a strong theoretical base or framework that emanates from child development and early childhood education theory. This framework should focus on objectives related to both all-round development of the child as well as development of school readiness, in the context of emergent and early literacy. The content and nature of intervention need to be contextualised in accordance with these objectives. Although the Foundation did have planned consultations with experts (Subject Matter Experts), possibly the approach adopted was driven ultimately more by the need to strengthen the existing ICDS approach and less by theoretical considerations.

2. Theoretical framework should inform the planning and implementation of all aspects of the intervention, including development of a kit or materials, nature and duration of training, periodicity and mode of monitoring/mentoring, child assessment and community participation.

3. Given the existing dilution of quality in and lack of awareness about the right kind of pre-school education in the system, any improvement envisaged in curriculum and classroom environment in pre-school programmes requires a major attitudinal and knowledge shift, too, from existing practices. In other words, 'It is not about doing the same things better, but doing them differently.' To achieve this, any intervention planned in this area would need to be not only comprehensive in scope, as Akshara's was, but also more intensive, for it to be internalised and sustained by all stakeholders, especially the Anganwadi workers. This would require a well-conceptualised play-based curriculum and materials, longer and more frequent curriculum-based trainings/refresher, constant mentoring by trained mentors and regular engagement of supervisory officials and resource persons with the field.

4. The curriculum for ECE needs to take into account age and contextual specificities and variations, particularly with regards to cultural and linguistic aspects. It should in a balanced way address the needs of the children in terms of all-round development of the child, that is, cognitive, language, socio-emotional, physical and creative and aesthetic development. In addition, it should also aim at giving children over four years of age opportunities to develop school-readiness skills and concepts related to pre-reading, pre-writing and pre-number work, which provide a foundation for the primary school curriculum.
Evaluations of most programmes indicate a greater stress on learning of the 3 R's and rote memorisation—which are not the objectives of ECE—which then result in a neglect of the cognitive and language-related concepts and skills that will eventually lay the foundation for future reading and math abilities. More specifically, as emerged from this study, these concepts and skills include phonemic awareness, sequential thinking, reasoning and problem solving and understanding of relative comparisons related to number concepts. It would be useful to develop this curriculum in co-ordination with the Primary Education department to ensure continuity in the curriculum and a smooth transition for children into school, given that the early childhood stage is considered globally as up to eight years of age.

5. The training of Anganwadi workers or teachers needs to focus on not only the use of materials or layout of classroom management, both of which are important, but also about their developmental and educational significance for the child at age-appropriate levels and be familiarised with principles of programme planning. The aim should be to enable her to plan a balanced and developmentally appropriate programme, with an understanding of how children learn and develop and are able to adapt this understanding to different contexts and situations within the classroom, while adhering to the basic principles, and not merely practise the given schedule in a ritualistic and repetitive manner.

6. Experiences from case studies of organisations such as Sewanidhi, Centre for Learning Resources, Pune, and Bodh Shiksha Samiti, Rajasthan, conducted by CECED clearly indicate that it is on-site mentoring and not so much training or monitoring that will be able to create a greater and more sustained impact and understanding among the practitioners. To enable this, a system of effective mentorship is required to be instituted. This training system should include not just the field mentors but even the ‘mentors of mentors’, that is, people at higher levels. This way, at each level, adequate training will be provided to impart in-depth knowledge of and sensitivity towards young children’s learning and development and will help formulate a developmentally appropriate curriculum for young children. As a result, a cascading structure of not just training but effective mentors and mentorship will be created.

7. Sustainability of an input-driven programme cannot be ascertained unless this aspect is built into and is made integral to the design of the intervention in terms of a clear exit strategy. This would require very close collaboration and sharing of responsibilities for the reform or project, right from its inception, with the parent department and programme. It may also need to take into account the multi-sectoral nature of ICDS and the resulting demands on the Anganwadi worker, who is not in a position to dedicate her time to any one sector. The consistently emphasised recommendation for a second worker or teacher trained for and dedicated to ECE is a possible way out.

8. An innovative intervention must in the design stage itself lend itself to a robust evaluation mechanism, to estimate and establish impact. The absence of this was a major limitation of this evaluation, since this was not anticipated.
One
Introduction

This evaluation was carried out in response to a request received from Akshara Foundation in August 2012 for an assessment of their intervention with the ICDS system in Bengaluru. The study was carried out with the help of a state partner, Dr. Usha Abrol, former Regional Director, National Institute of Public Cooperation for Child Development (NIPCCD), primarily for logistical reasons, including language constraints. Akshara Foundation started to operate in Karnataka in March 2000 with a Balwadi programme/Pre-school programme. This programme was a simple, community-based model that tried to bridge the gap for disadvantaged parents and children. Akshara later initiated an engagement with the government-sponsored ICDS in Bengaluru.

This chapter provides a description of the ICDS and maps Akshara Foundation’s intervention with the ICDS system over a period of time. It also introduces the Centre for Early Childhood Education and Development (CECED), which conducted the evaluation, and concludes with an articulation of the objectives of the study.

1.1 The Context

In 1975, the Ministry of Women and Child Development (MWCD), Government of India (GoI), launched the Integrated Child Development Scheme (ICDS) to meet the challenges of young children’s holistic development needs. The scheme aims at improving the developmental, nutritional and health status of vulnerable groups, including pre-school children, pregnant women and nursing mothers. The package of services includes—supplementary nutrition, pre-school education, immunisation, health check-ups, referral services and nutrition and health education. A key element of this programme is a non-formal Pre-school Education (PSE) component, which may well be considered the backbone of the ICDS programme, since all its services essentially converge at the Anganwadi Centre (AWC)—a village courtyard under one roof. The programme aims at providing a natural, joyful and stimulating environment for development and early learning of three-to-six-year-old children in the Anganwadi as a foundation for their optimal growth and development.

Over the years, there have been concerns raised regarding the ineffective implementation of the ICDS services in different parts of the country and the most neglected of these services is considered to be the Pre-school education component. As a result, a number of Non-governmental Organisations (NGOs)
in different parts of the country have been taking initiatives to help improve the delivery mechanism of ICDS at different levels or have initiated their own Balwadi programmes, for instance, Centre for Learning Resource, Pune, Sewanidhi, Uttarakhand, to name a few. The Akshara Foundation programme is one such initiative, but on a much larger scale.

Children in an Akshara-supported Anganwadi Centre

1.2 The Akshara Intervention

In 2006-07, Akshara Foundation, a Bengaluru-based Public Charitable Trust initiated an engagement with the ICDS programme to improve/strengthen the quality of pre-school education. Karnataka currently has about 63,000 AWCs, which cater to nearly 3.5 million children between the ages of 6 months and 6 years. Akshara Foundation began its engagement by providing a supplementary worker to 600 Bengaluru-based AWCs to conduct pre-school education for duration of 120 minutes daily from 2006 to 2008. This was later withdrawn by Akshara since Anganwadi workers started feeling threatened about their work and job. At this stage, Akshara changed its track and began carrying out the intervention with the involvement of the ICDS workers themselves by training them. The progression of Akshara activities year wise is detailed below:
**Figure 1: Akshara Systematic Intervention over 4 years**

**Year I:** Two days’ training was provided to 1,547 workers on pre-school methodology and child assessment followed by a day’s orientation on the use of the pre-school kit. Trained 873 members of 411 Anganwadi centres for a day.

**Year II:** Half-a-day orientation was given to all 1,767 workers on pre-school methodology, kit, assessment. Trained 625 members of 391 Anganwadi centres for a day. 1,954 helpers were trained on the use of kit.

**Year III:** New Anganwadi workers trained for a day. Trained 375 workers from 389 Anganwadi for a day. Selected 150 Anganwadi centres were trained on Lego blocks for a day. 85 Anganwadi were upgraded to Model centres by providing training for two days.

**Year IV:** 335 AWCs upgraded to Model Anganwadi centres by providing training on classroom management and layout, TLM segregation and child assessment. 100 centres were provided Lego blocks with one day training.

**Year II:** Half a day’s orientation was provided to 1,547 Anganwadi workers. Overall, as described above, the Akshara Foundation has been intervening over the last four years in six ICDS projects across 1,767 Anganwadi centres. A uniform intervention was given for two years to almost all the AWCs. In the third year, specific training was given on the use of Lego blocks to 150 selected centres. In addition, eight Anganwadi centres were identified and given training to upgrade these to ‘model Anganwadi centres’.

However, in year four, Akshara limited its intervention to 333 AWCs out of 1,767 for a year in which Akshara concentrated on providing additional inputs on classroom management, classroom layout, age segregation and child assessment. In addition, Akshara has also incubated over a hundred ‘independent’ Balwadis (BWs). Akshara’s support to the ICDS intervention has been primarily in the form of (a) supply of a pre-school kit developed for conducting pre-school education in Anganwadi centres, (b) capacity building through training of the 1,767 AWW, ranging from two to three days’ duration in a cascade mode, and capacity building of (1,354) helpers for a day and (c) measuring the learning outcomes of children twice a year (d) reactivation of Bal Vikas Samitis through training of 15,730 members in 1,430 AWWs, to bring awareness regarding ECE among the members and parents of children in the Anganwadi (AWs) and the Balwadi centres.

14
The details of the intervention strategies are given below:

1.2.1 Akshara Pre-school Kit
Akshara has compiled materials in the form of a pre-school kit based on the ICDS guidelines. The nature of the kit, which is comprehensive and has a variety of toys and teaching-learning materials, was according to the Foundation inspired by the Montessori method and a thematic approach. The materials in the kit include conversation charts and objects, building blocks, puzzles, creative materials, daily use materials, storybooks for children (to be read aloud to children), free play materials, dramatization objects, workbooks and academic learning aids. Along with the kit, a teacher’s training manual, assessment tool and assessment manual as well as Bal Vikas Samiti manual and monitoring charts were provided for Anganwadis to refer to and conduct discussions with BVS members, respectively. The kit was finalised in consultation with the Department of Women and Child Development and some pre-school experts, and then distributed to the Anganwadi centres. The details of the pre-school kit are shown in Annexure-1.

1.2.2 Capacity Building of Anganwadi Workers, Helpers and Other Functionaries
The Foundation provided the above kit to all the Anganwadis and the capacity building of Anganwadi workers and helpers was carried out in a cascade mode using this kit. In the first year, the trainings for Anganwadi workers were for two days, with a day’s follow up. In the two-day training, the Anganwadi workers were made familiar with the pre-school methodology, use of teaching-learning materials (TLM) and Child Assessment. This was further followed up in the subsequent year by imparting a half day’s training to all the centres. In addition, training for all the helpers was conducted for a day on the use of pre-school kit. During the third year of intervention, 150 Anganwadi centres were selected and given a day’s training on the use of Lego blocks. In 2010, since many new Anganwadi centres were set up by the Women and Child Development department, Akshara extended its training to these new AWW for a day on pre-school methodology, use of a kit and for conducting assessments.

In the year 2010, a comparative study of Akshara and non-Akshara AWCs was carried out by Dr. Frances Aboud of McGill University, which was based on the internationally used quality assessment tool called ECERS. On the basis of this assessment, she made some specific recommendations related to classroom organisation. These included (a) segregation of children by age in groups; (b) display of teaching-learning materials in the form of domain-wise corners; and fine tuning of the classroom management processes (1). As a result, Akshara, as a pilot project, selected eight Anganwadis and the Anganwadi workers from these centres were intensively trained for two days on the Akshara Model Anganwadi concept based on these recommendations. The focus was on classroom organisation, activity corners, age-wise segregation and introduction of a system of child assessment. In 2012-13, Akshara decided to scale up the main features of these ‘Model Anganwadis’ to 333 Anganwadis, that is, all the Anganwadis from 2 circles per projects in Bengaluru. A two-day training that focused on the usage of additional Teaching–Learning Materials (TLMs), classroom organisation and
management and child assessment were provided, followed by a day's training on Lego blocks to 200 AWCS. The capacity building of the ICDS supervisor cadre was also organised around themes such as age-appropriate grouping and activity corners and use of the TLM. In year 4, Supervisors of 333 AWs were trained by Akshara on the model Anganwadi concept and these supervisors acted as Master Resource Persons (MRPs) who further trained the workers on the same concept. The training of Child Development Project Officers (CDPOs) as well as the Assistant Child Development Project Officers (ACDPOs) was also initiated for two days, but was converted into observation visits during the course of which they observed the model centres using the kit. Overall, almost all 1,434 AW workers were covered through two sets of trainings on pre-school kit, but the 333 AWs, considered the 'Intensive' category, had three rounds of training (the details of capacity building is given in Annexure-IV).

1.2.3 Development of Monitoring Indicators for ICDS Anganwadi Centres and Children

Akshara Foundation developed specific indicators that could help assess the status of Anganwadi centres, with a view to support the improvement in the overall environment of the Anganwadi centres in Bengaluru. These indicators may be divided into five broad categories, namely, infrastructure related, process related, BVSS related, administration related and related to use of the Akshara school preparedness kit supplied to the Anganwadi. In all, there are 70 monitoring indicators for Anganwadi centres, developed to map the status of Anganwadi. These indicators are used for periodic assessment by the field co-ordinators of Akshara.

pre-school programme through observation, discussion with Anganwadi workers and helpers as well as through cross-checking of documents maintained in the Anganwadi. In addition, Akshara has developed an assessment framework to track the annual progress of children. The child assessment was non-existent prior to Akshara's Intervention and the intervention has now been adopted by the ICDS system, which is a singular achievement. It has been assessing children in Anganwadi centres twice in a year for the past four years. Children are being assessed on 56 indicators developed by Akshara. The assessment of children is performed by the Anganwadi worker and submitted to the field co-ordinators. Akshara had shared three years of this assessment data with CECED for analysis in the context of the evaluation.

1.2.4 Bal Vikas Samiti

As per government order No. 308 ICDS 07, Bangalore, dated 03.11.07, of Department of Women and Child Welfare, Bal Vikas Samitis were re-established and strengthened by delegation of financial powers. The role of the Bal Vikas Samiti is to complement the work of Anganwadi centres and women workers in the respective areas and to make departmental services reach the beneficiaries appropriately. This is a local committee comprising 13 members. This committee is established by the supervisor with the help of each Anganwadi worker. These meetings are expected to be conducted once in three months with four meetings in a year. Akshara Foundation created a manual for the BVSS members and trained them on its use. In addition, BVSS charts have also been designed by Akshara, which are meant to facilitate discussions in the committee linked to emerging problems in the centres, if any. The chart is in the pattern of a checklist that is required to be reviewed by the members every quarter. The details of involvement of the Akshara Foundation in the process of reactivating these BVSSs are given in section 3.3.4.
1.3 The Akshara Foundation's Project Structure

The Akshara Foundation has a supervisory structure that works parallel to the ICDS system. At the project level, the ICDS has a Child Development Project Officer (CDPO) who is meant to have 100 AWCs under him, but has currently about 160-495 AWCs, across 6-17 circles, under him/her. Corresponding with this level, the Akshara Foundation too has a Project Co-ordinator for each project from year-1 to year-3. In 2012-13, one Project Co-ordinator was in charge of two projects. At the level of the ICDS supervisor, there is an Akshara Field Co-ordinator who was expected to monitor on an average 28 centres in first two years of intervention. In year-3, the number increased to 68 centres as Akshara started withdrawing and reduced the field co-ordinators to 26. However, in year-4, the situation improved with each field co-ordinator getting 37 centres to monitor on an average. The detailed complementary structures of the ICDS and Akshara ICDS Project from the year 2009-13 are depicted below (Figure 2):

Figure 2: ICDS and Akshara Project Organogram from the year 2009-13
1.4 Involvement with CECED

After four years of intervention with ICDS, the Akshara Foundation took a decision to get its intervention evaluated and approached the Centre for Early Childhood Education and Development (CECED). CECED is an integral part of Ambedkar University, Delhi (AUD), which is a Delhi State University established through a statutory provision by the Government of Delhi in 2008. AUD is a unitary institution with a focus on Humanities and Social Sciences, for which it has within it a number of multidisciplinary schools and centres. CECED is the first centre established in AUD in 2009 with a mandate to promote systemic understanding of Early Childhood Education and Development (ECED) with a focus on early learning. Its role is to expand the landscape of indigenous knowledge in ECCD, narrow the gap between theory and research and provide evidence-based advocacy and capacity strengthening to varied stakeholders and, in particular, provide advice for planning and designing of effective and efficient ECED interventions. CECED considered the request from the Akshara Foundation for conducting an impact evaluation as a furtherance of its own interest and mandate to learn from field-based realities in diverse contexts through research and documentation and feed the learning into advocacy for policy and programming and institutional capacity strengthening.

1.5 Policy-level Implications of the Study

The evaluation of this field-based project, which has primarily engaged with the public sector that is, the ICDS, may have significant implications for larger policy and programmatic discourse and decisions at the central and state levels. ECE is steadily coming into the policy forefront in the country with the realisation of its significant importance for not only meeting the elementary education goals but also for a child's lifelong development. This is manifested in some recent policy-level initiatives at the central and state levels, including the Amended Article 45 under Part IV of Directive Principles of State Policy, which now states that, 'In addition, the Right of Children to Free and Compulsory Education Act, 2009 provides in Section 11, “With a view to prepare children above the age of three years for elementary education and to provide early childhood care and education to all children until they complete the age of six years, the appropriate Government may make necessary arrangements for providing free pre-school education for such children.”' More recently, the Ministry of Human Resource Development (MHRD) has set up a CABE (Centre of Advisory Board for Education) sub-committee to study the feasibility of making pre-school education an integral part of the Right to Education Act (RTE). The MWCD, which is the nodal ministry for ECE, has also prepared a draft policy on ECE which is about to be tabled in the Cabinet for approval. The policy framework includes the policy, a curriculum framework and quality standards in draft form. In preparation of the 12th Five Year Plan, the Planning Commission had also constituted a Working Group on Elementary Education and another on Child Rights, which have both submitted a chapter on ECE/pre-school education. Internationally too, there are significant concerns being raised by the Education For All (EFA) monitoring bodies regarding the neglect of the EFA Goal 1, which is Early Childhood Care and Education
Given this scenario, several initiatives and pilots are already in the system, in the areas of curricula, training designs and development of materials. However, there is yet inadequate empirical evidence in the country, given its diversities, to indicate what kinds of trainings and materials give better results and lead to better outcomes in children at a systemic, scaled-up level. There is a need, therefore, to study large-scale programmes in terms of their design, processes, inputs and outcomes so as to derive lessons at a systemic level for the proposed initiatives in ECE, both in the Education and Women and Child Development sectors.

1.6 Objectives of the Study

The Foundation in its Terms of Reference for the evaluation articulated that the scope of the evaluation is to assess the quality and robustness of the programme and levels of awareness creation among the community. To this end, it specified the following objectives:

1. To assess the basic elements of the pre-school education intervention, that is, the pre-school kit and the capacity building of the staff and evaluate the impact in terms of the quality of the programme and learning outcomes acquired in children.

2. To assess the effectiveness of the programme in terms of sensitisation and reactivating of the community in the context of the pre-school programme.

3. To identify the factors that led to the systemic change, in terms of institutionalisation of the structured pre-school programme in Bengaluru.

4. To ensure the evaluation would also focus on the changes that have been brought in due to the Akshara programme, such as the level of understanding of pre-school education among the Anganwadi workers (AWWs), helpers and higher levels of supervisors, CDPOs and the Director, ICDS, in Karnataka.

5. To estimate the financial implications of the programme.
Two Methodology

As stated in the previous section, the present evaluation’s primary objective was to assess the impact of Akshara intervention on children of ICDS Anganwadis. The current chapter describes in detail the design and method followed for the study, including challenges encountered in gathering information from the field, in the context of this objective.

2.1 The Logic Model

The Logic Model that was derived from the project description and which framed the project evaluation design is presented in Figure 3:

Figure 3 Logic Model—The Akshara Foundation Programme Intervention
A multi-level, mixed-method approach was adopted for the evaluation. Derived from the Logic Model, four levels of analysis/enquiry were carried out, as follows:

**Level 1: Design**

How appropriate and comprehensive is the pre-school kit? How was the pre-school kit conceptualised and designed? Is there a conceptual framework informing the designing of the kit? How was the two-day training designed? Was it adequate for preparing the AWWs with the required skills and knowledge? How was the BVS members’ training designed and imparted?

**Level 2: Implementation**

Have the outputs been achieved as listed above in terms of the kit and training? Has the kit been provided to all the AWWs? Have all AWWs and helpers been trained? Have the BVS members been trained as planned? What is the expected role of BVS members in monitoring the AW programme? Has this been communicated to them during the training?

**Level 3: Utilisation and Outputs**

Are the kits being used as planned by all AWWs? Are children participating actively in class and using the kit? Are the trained BVS members supporting and monitoring the pre-school education component?

**Level 4: Outcomes**

To what extent have the school-readiness levels of children improved at the age of five years as a result of the intervention?

The mixed method thus included the use of both quantitative and qualitative methods as follows:

1. Technical desk review of the pre-school education kit and training manual
2. Interviews with AWWs and helpers
3. Interviews with Joint Director, ICDS
4. Focus Group Discussions with supervisors, CDPOs, Akshara project and field co-ordinators along with BVS members
5. Comprehensive observation of the AW pre-school education component
6. Qualitative, in-depth case studies of three Anganwadi centres
7. Assessment of children on school-readiness levels, which also included analysis of three years’ assessment data of the centres generated by the programme to assess progress in children’s outcomes.
2.2 Sampling Method

A stratified random sampling design was adopted for the study.
The population for the evaluation from which the sample was drawn is as follows:

Figure 3: Spread of Anganwadis in Bengaluru Urban District²

² Samajik Seva Ashram (SSA) is an NGO that runs the Anganwadi's for the ICDS programme
2.3 Sampling Procedure

It is conceded that in a more robust impact evaluation design a counterfactual or a control group would be important, as also a pre- and post-test model, to control for maturational and individual factors. However, since in this case all AWCs were covered under the project, and these are being retrospectively evaluated, this becomes a limitation of the study design. The sample was selected in a stratified mode in consultation with the Akshara Foundation from the six projects that were running across Bengaluru Urban. The following steps were followed:

1. The six projects were categorised as Urban and Rural Peri-urban as per Government Jurisdiction, as informed by the Akshara Foundation.

2. The relative proportion of Anganwadis under each project was noted. It was observed that Yelahanka was the largest project followed by South, Anekal, Central, SSA and State (in descending order). The categorisation of the projects is as follows:

Table 1: Categorisation of Projects Based on Geographical Location

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Projects</th>
<th>Total</th>
<th>Rural (%)</th>
<th>Urban (%)</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>South</td>
<td>383</td>
<td>205 (53.5)</td>
<td>178(46)</td>
<td>Peri-Urban</td>
</tr>
<tr>
<td>2.</td>
<td>State</td>
<td>139</td>
<td>0</td>
<td>139(100)</td>
<td>Urban</td>
</tr>
<tr>
<td>3.</td>
<td>SumangaliSeva Ashram</td>
<td>169</td>
<td>0</td>
<td>169(100)</td>
<td>Urban</td>
</tr>
<tr>
<td>4.</td>
<td>Yelahanka</td>
<td>495</td>
<td>360(73)</td>
<td>135(27)</td>
<td>Rural</td>
</tr>
<tr>
<td>5.</td>
<td>Anekal</td>
<td>392</td>
<td>392(100)</td>
<td>0</td>
<td>Rural</td>
</tr>
<tr>
<td>6.</td>
<td>Central</td>
<td>189</td>
<td>183(98)</td>
<td>6(2)</td>
<td>Rural</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1767</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Across the six projects, all Anganwadi centres were listed and then categorised into (a) Intensive intervention centres and (b) Non-intensive centres, as per information shared by the Akshara Foundation. The definition of Intensive and Non-intensive centres is elaborated in a box below. Of the total 1,767 AWCs, 333 AWCs were in the Intensive intervention category and 1,434 AWCs in the Non-intensive. Thus, the ratio of Intensive to Non-intensive in the fourth year of intervention was 4:1.
Non-intensive refers to centres where intervention was carried out through two rounds of trainings. In the first round, training of Anganwadi workers was carried out for two days, followed by a one-day orientation. This was further followed by a second round of training in the next year in the form of half-a-day’s orientation. The training was on pre-school methodology, use of kit materials and child assessment. These centres did not receive training on Akshara’s Model Anganwadi concept. The helpers were also trained for a day.

Intensive refers to three sets of trainings provided by Akshara Foundation, that is, the first two rounds include the same training as mentioned above, for all AWCs, followed by a third round of training for the intensive category. This group of AWWs were also given additional materials and training on the model Anganwadi concept, which included use of mentioned materials, and on classroom-management skills. These AWCs were also provided an additional year of mentoring and monitoring by Akshara co-ordinators.

4. From the total of 1,767 Anganwadi centres, a sample of 48 Anganwadi centres was selected, through a systematic random sampling method. The N of 48 was determined keeping in view (a) adequate representation of categories (b) time availability and logistics.

5. From the sample of 48 AWCs, 2/3 of the sample got selected from Non-intensive and the rest from the Intensive category. Thus, 16 AWCs were selected from Intensive and 32 AWCs from Non-intensive categories.

6. Since the sample was selected through a randomised mode, it also reflected the proportionate representation of each of the six projects, in terms of numbers.

Figure 5: Distribution of Intensive and Non-intensive Category Centres by Projects

7. The Akshara Foundation has graded its Anganwadi centres as A (good), B (average) and C (not so good) based on its 20-item indicators. The random selection of the centres from Intensive and Non-intensive across the projects yielded a distribution of these three grades or categories as follows:
Figure 6: Distribution of Sample in Terms of Internal Grading by Intensive and Non-intensive Treatments

In the Non-intensive category, though the selection was completely through a random method, majority of the centres are found to be in category A and these are primarily located in Yelahanka, South and Anekal projects. In South Project, all 7 AWCs are from the A-category. From the Intensive category, as represented in the graph, most of the centres are again from A-category (selected from total number of A-category, that is, 155 AWCs) followed by B-Category (total number of B-category, that is, 154 AWCs). Interestingly, none of the C-category centres were selected through the randomised method, possibly because the total number of C-category AWCs was 24, which was too small to be represented.
8. Identification of Children: Five children between the ages of four-and-a-half to five-and-a-half years per centre, were randomly selected from each AWW register for the assessment of school readiness levels. Thus, in all, a sample of 240 children was assessed, which included a mix of boys and girls.

2.4 Qualitative Case Study

With a view to explore and study the Akshara Model of intervention in a more nuanced manner, the case study method was also employed. CECED selected three AWCs for this purpose. These included two A-category centres from the eight model centres and a C-category centre. The rationale for selecting the two A-category Anganwadi centres was to be able to identify factors from the 'good practice' centres, factors that have led to a positive impact of Akshara's intervention and are, therefore, prerequisites for a quality programme. The C-category Anganwadi centre was in addition also selected for in-depth study from the same circle of AWCs as the other two, to understand the challenges and/or variables that impede the implementation of the model, keeping other variables such as the administrative environment constant. Five children in the age group four-and-a-half to five-and-a-half years from each AWCs were selected randomly on the same pattern as the sampled AWCs to assess them on school readiness using the same tools. In addition, participant observations and selected video documentation was conducted for half a day in each of the AWCs. The findings from the case studies are discussed in a separate section of the report.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Respondents/Project components</th>
<th>Methods and Tools Used</th>
<th>Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>AWWs, Helpers, Supervisors</td>
<td>Interviews covering training, feedback on training, follow up on training, frequency of training programme, qualifications; supervision process monitoring. Focus Group Discussions (FGDs) with supervisors based on a framework</td>
<td>48 AWW &amp; 47 Helpers+6 FGDs at project level with almost all the supervisors</td>
</tr>
<tr>
<td>2.</td>
<td>Parents, BVs members</td>
<td>Focus Group Discussion based on framework—on level of awareness</td>
<td>16 FGDs</td>
</tr>
<tr>
<td>3.</td>
<td>DD (Deputy Director), CDPOs, &amp; Senior Mgt. officials of Akshara</td>
<td>Interview schedule on awareness levels, impact of Akshara's intervention, ECE, vision, mission of Akshara, level of investment in the programme</td>
<td>1 DD+6 CDPO+1 Akshara Master Trainer</td>
</tr>
<tr>
<td>4.</td>
<td>Akshara Trainers</td>
<td>Interviews and observations of training programmes/ review meetings on training support system and the monitoring process</td>
<td>11 Trainers (3 Project co-ordinators &amp; 8 Field Co-ordinators)</td>
</tr>
<tr>
<td>5.</td>
<td>Akshara Centres</td>
<td>Observation Tools of AWWs-ECEQAS developed by CECED was used.</td>
<td>48 (AWCs)+3 centres for intensive case studies</td>
</tr>
<tr>
<td>Videos (as part of case study)</td>
<td>Focus on activities that demonstrate practices in ECE such as: Classroom processes, meetings with BVs members and so on. Videos were taken only after administering ECEQAS</td>
<td>In two out of three AWCs, video documentation was conducted for half a day</td>
<td></td>
</tr>
</tbody>
</table>

2.5 Involvement of State Partner

CECED drafted the proposal for the study including designing of the methodology, using technical expertise from AUP, particularly for the sampling frame, which was finalised in concurrence with the Akshara Foundation. While CECED took the lead in the designing and tool preparations for the study, a state partner was invited by CECED for the data collection in order to overcome logistical and language constraints since
the study had to be carried out in another state. In this regard, CECED engaged Dr. Usha Abrol, who is a specialist in Early Childhood Care and Education (ECCE) and has retired as the Regional Director from NIPCCD, and her team who are based in Bengaluru.

2.6 Project Timeline

**Figure 7: Sequence of Project Activities**

- The Akshara Foundation approached CECED for third-party evaluation
- CECED shared evaluation proposal
- CECED 1st Bengaluru visit to firm up the sample selection and Methodology with Akshara
- MoU signed between Akshara Foundation and CECED, AUD
- Identified state partner
- Recruitment of CECED staff

- Engagement and recruitment of state partner
- Preparation of tools of the study
- Orientation of state partner about the study and tools
- Data collection

- Data collection continued
- Pre-school kit evaluation & analysis
- Case study initiation and completion
- Analysis of the study
- Documentation of the study

2.7 Analysis of Data

The analysis of data has been undertaken to align with the objectives of the evaluation.

At the first level, descriptive analysis for quality of classroom processes and child outcomes, that is, ECEQAS, SRI and ABS were undertaken to assess the status of each. This was for the total sample and then was performed in a bifurcated form for Intensive and Non-intensive categories as a whole and then project-wise. Box-Whisker plot, scatter plot and line diagrams have been used for the visual presentation of summary descriptive statistics.

To further study the association between the independent variable, that is, quality of ECE centres and the dependent variables, that is, child outcomes in the form of school readiness and adaptive behaviour, two linear regression analyses were carried out. The first regression analysis is based on the SRI as dependent variable, and the domains of ECEQAS have been treated as independent variables; while in the second, ABS has been treated as a dependent variable and the domains of ECEQAS are treated as independent variables. Subsequently, all the three variables, that is, ECEQAS, SRI and ABS were taken into consideration for the analysis of variance (ANOVA). Here, the dependent variable is SRI and all the domains of ECEQAS and ABS are used as independent variables to study differential impact, if any. The quantitative analysis was complemented by analysis of the qualitative data obtained from the field notes and the three case studies.
Three
Detailed Findings

The lens adopted for assessment of the Akshara project interventions was informed by a review of existing research and field-based experiences of ECE programmes for disadvantaged communities globally and, specifically, in India. This provided a realistic perspective of the status, challenges and possibilities that guided the assessment. A brief review of these researches is discussed below.

3.1 Brief Review of Relevant Researches

Early Childhood Care and Education (ECCE) is emerging as an area of high priority across the globe. This is largely due to path-breaking multidisciplinary research undertaken in the first few decades across the fields of Neuroscience, Child Development and Economics, which has demonstrated a range of benefits, including social and economic benefits, better child well-being and learning outcomes as a foundation for lifelong learning, more equitable outcomes, reduction of poverty, and increased intergenerational social mobility. These benefits are explained by the fact that the pace of development of the brain is most rapid in the earliest years of life, to the extent that 90 per cent of the brain growth has already occurred by the time a child is 6 years old. It has been further demonstrated that children’s early experiences have an influence on the formation of the synapses or the neural pathways of the brain and, thus, have far-reaching and solidifying effects on the overall development of the brain and behaviour. It has been recently estimated that, in developing countries, almost 215 million children below the age of 5 have not been achieving their full potential due to adverse early experiences, and are at risk of developmental delays and school failure (2).
But, it must be emphasised that these benefits are directly related to the 'quality' of Early Childhood Care and Education available to children. Research in the West has indicated that benefits are more significant for children from disadvantaged communities and are clearly dependent upon the quality of the programme. The High Scope Study carried out by Schweinhart and his colleagues (5) specified the pre requisite elements of quality, defined as qualified teachers, validated curriculum, parent involvement and feedback from assessment. Similar results have been obtained from longitudinal studies from England (7) and from Turkey (Kayitcihasi, 2001), which emphasised an enriched curriculum. More recently, Bonguen et al (3) found quality of curriculum and attention to parental demand as two very critical elements that may influence impact.

Research in India, on a sample of 38,000 children across eight states, has endorsed significant benefits of participation in ECE programmes in terms of enhancing rates of retention of children to an extent of 15 to 20 per cent in the primary grades (Kaul, 1996). Another longitudinal study on a smaller scale demonstrated significant and sustained gains in learning of mathematics concepts through the primary grades, as a result of a well-conceptualised and systematically implemented number-readiness programme at the preschool stage (4). Currently, CECED is conducting a longitudinal research in partnership with ASER Centre in three states, which is demonstrating a significant increase in participation of children in ECE. However, the school-readiness levels of children despite the ECE experience are very low, primarily because of poor quality of the curriculum in these programmes across public, private and NGO sectors. The study has probed into the quality of each programme in all its dimensions and the intention is to relate these dimensions to school-readiness outcomes. The data from the study is currently under analysis.

As mentioned above, the analysis was directed at addressing the defined objectives of the evaluation. The findings from the analysis are, therefore, discussed with regard to each objective.

3.2 Impact of the Intervention on Quality of the Programme and Children's Learning Outcomes

The Akshara Foundation intervention covered the entire Bengaluru Urban district. As a result, a major limitation in the impact evaluation was, as mentioned earlier too, the absence of a counterfactual to prove causal impact. However, there were two categories within the intervention sites—the Intensive intervention sites and Non-intensive intervention sites. The Intensive had three sets of trainings, a few additional materials, and closer monitoring and mentoring. The Non-intensive did not have training on classroom management, age segregation and TLM segregation and also had lesser quantity of materials.
In lieu of the counterfactual, analysis of these two categories was undertaken to compare relative impact, which could then be associated with the quantum of intervention, since the model or approach was similar in both categories. The difference was that the Intensive centres were mentored for longer duration as compared to Non-intensive centres. The results are discussed below sequentially in terms of (a) status of both categories on the quality domains (b) status of children from both categories of centres on school readiness and adaptive behaviour and (c) association between the two sets of variables to assess impact.

3.2.1 Comparative Status of Intensive and Non-intensive Centres on ECE Quality Domains and with Other Studies

The quality domains assessed by the ECEQAS were as follows:
- Physical infrastructure and setting
- Learning/play aids, programme schedule and class arrangement
- Class composition
- Teaching–learning process
- Personal care, hygiene and habit formation
- Language and reasoning experiences
- Fine and gross motor activities
- Creative activities
- Social development
- Teacher disposition

ECEQAS provides scores on each item in each domain on a three point scale of 2-1-0.

Overall, a comparison of the total scores on quality across domains clearly indicates a consistent trend in favour of the Intensive category of centres as compared to the Non-intensive in terms of the means. However, the differences are only significant at >.05 level in the case of classroom management, activities for fine motor skills and creative activities.
Table 3: Descriptive Statistics of ECEQAS

<table>
<thead>
<tr>
<th>Domains</th>
<th>Total</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Standard</td>
<td>Mean</td>
<td>Standard</td>
<td>Mean</td>
<td>Standard</td>
</tr>
<tr>
<td></td>
<td>Deviation</td>
<td>Deviation</td>
<td>Deviation</td>
<td>Deviation</td>
<td>Deviation</td>
<td>Deviation</td>
</tr>
<tr>
<td>Physical Infrastructure</td>
<td>5.6</td>
<td>1.8</td>
<td>6.0</td>
<td>1.4</td>
<td>5.4</td>
<td>1.9</td>
</tr>
<tr>
<td>Learning Aids</td>
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<td>5.3</td>
<td>1.9</td>
<td>3.0</td>
<td>1.9</td>
</tr>
<tr>
<td>Classroom Management</td>
<td>4.7</td>
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<td>6.6</td>
<td>1.6</td>
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<td>1.5</td>
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<tr>
<td>Personal Care</td>
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<td>1.8</td>
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<tr>
<td>Teaching Learning Process</td>
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<td>3.0</td>
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<td>Learning Language</td>
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<td>2.0</td>
<td>4.5</td>
<td>1.8</td>
</tr>
<tr>
<td>Gross Fine Motor</td>
<td>3.8</td>
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<td>6.3</td>
<td>3.0</td>
<td>2.5</td>
<td>3.0</td>
</tr>
<tr>
<td>Creative Activities</td>
<td>5.0</td>
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<td>6.5</td>
<td>2.7</td>
<td>4.2</td>
<td>3.1</td>
</tr>
<tr>
<td>Social Development</td>
<td>6.2</td>
<td>2.4</td>
<td>6.5</td>
<td>2.4</td>
<td>6.0</td>
<td>2.4</td>
</tr>
<tr>
<td>Teachers’ Disposition</td>
<td>5.7</td>
<td>2.3</td>
<td>6.3</td>
<td>2.5</td>
<td>5.3</td>
<td>2.1</td>
</tr>
<tr>
<td>Grand Total</td>
<td>5.2</td>
<td>1.8</td>
<td>6.2</td>
<td>1.6</td>
<td>4.7</td>
<td>1.7</td>
</tr>
</tbody>
</table>

*At 95% Confidence Interval
N=235, Intensive n=81, Non-intensive n=154

Figure 8: ECEQAS: Intensive vs Non-intensive
This finding is to be expected since these are the aspects that were strengthened by the second training in the Intensive category of centres. The Intensive centres were provided more teaching-learning materials and the focus of training was also on class arrangement and layout. The Anganwadi workers were provided orientation in setting up domain-wise corners in the classroom, such as language corner; fine and gross motor development corner; and so on, with related materials, and in maintaining a daily schedule. The other two domains of fine motor activities and creative activities also emerge as significant. Both these domains are closely dependent upon availability and use of materials in the class. With the availability of more materials, particularly Lego blocks, children were observed to be considerably involved at individual levels in free, manipulative play. This play could be categorised by observers as both fine motor activity as well as creative activity. The concern is that, although the trend is in favour of the Intensive category of centres on all other domains too, the differences are not significant. This may be due to the fact that the difference in quantum and nature of interventions between the two categories may not have been significant.

The data on ECFQAS was further subjected to more detailed analysis in terms of each item within each domain to identify differences, if any in the two categories [Figure 1 and Box A1 (Annex II)]. As evident in Box A1 (Annex II), the following items indicate a positive trend in favour of the Intensive category: (a) Classroom management: In terms of appropriate sitting facility for children; multi-level classrooms; age-wise composition; class arrangement according to activities; cooperative learning; time and materials provided for free play; weekly and daily schedule followed; (b) Activities and materials: for concept formation; workbooks; (c) Availability and use of materials, workbooks, chalk and blackboard with children and (d) Teacher disposition. Further probing in teacher disposition revealed that more than education and experience, training of the Anganwadi workers made a difference. The workers who had received all the three trainings, that is, on-the-job, refresher and Akshara training performed better (scoring an average mean on teacher disposition of 5.8) as compared to those who had received only two trainings (3.9). Interestingly, those who had received job and refresher training scored better on teacher disposition, while those who had received only Akshara training demonstrated lower scores (Annexure IIc). This substantiates the benefits of recurrent training.
Consistent with the results on other quality dimensions, the Anganwadi workers from the intensive centres demonstrated higher scores on teacher disposition as compared to those from the non-intensive centres, although the difference was not significant (Annexure IIe). It may, therefore, be concluded that the intervention has led to some improvement in the ECE programme on the above parameters.

Figure 9: Mean Scores on All Items of ECEQAS for Intensive and Non-intensive Categories
Note: The top-right corner (Virtuous: High Intensive and High Non-intensive) of the figure shows the maximum clustered zone than bottom-right (Intensive Lopsided) and bottom-left corner (Vicious: Low Intensive and Low Non-intensive) of the scatter plot. There is no item in the top-left corner (Non-intensive Lopsided). This implies that maximum number of items are more than score 5 (score is computed as out of 10) for both—Intensive and Non-intensive. The quadrant-wise list of items is presented in the box.

However, there are evidently some significant domains of quality on which the programme needs to be strengthened. These emerge as low in the case of both intensive and Non-intensive categories. The more significant among these include:

- Activities and materials for development of cognitive skills, including opportunities and activities for creative thinking and higher-order cognitive skills. Interestingly, while concepts are introduced, the development of skills such as reasoning, questioning, experimenting and problem solving are not addressed.
- Activities and opportunities for creative self-expression with appreciation by teacher, display of children's work, and so on,
- Activities for writing readiness,
- Availability and use of a picture books' corner;
- Child-centred planning.

3.2.2 Disaggregated Analysis of Project-wise Quality Scores

A disaggregated analysis of quality scores across the six projects was undertaken to understand the extent of variance across geographical locations (Annex II: Box-Whisker plot depiction). The distribution of centres reveals that the peri-urban, that is, South project, has demonstrated the highest score on the quality parameter as compared to urban and rural projects, with the intensive category centres within it performing significantly better than the Non-intensive. If we consider project wise too, the peri-urban, that is, South project has performed better than all the other five projects, both for Intensive and Non-intensive categories of centres. This is reflected in the upper fence and upper quartile, which is higher in case of South (for Intensive, Non-intensive and combined) as compared to all the other projects. An important observation is that the project-wise performance of the intensive category centres in the South project is not only better than Non-intensive as a whole, but it is significantly superior with regard to each quality domain, as compared to the Non-intensive centres within the project.
These findings merit further probing in terms of what the supportive factors leading to this outcome are. One of the clear advantages this project has in the sample is that despite the random selection, the seven centres selected in the South project were all graded A internally by the Akshara staff—while the other projects had a mixed set of AWs. This possibly reflects a positively skewed distribution of centres. In addition, the investigator team observed that the supervisors monitoring the centres in South project were found to be more active and participative in the centres’ activities. Moreover, the Anganwadi teachers were more motivated in the overall running of the centre.

3.2.3 Comparative Status of Children from Intensive and Non-intensive Categories of Centres on School Readiness as Assessed by SRI.

The School Readiness Instrument (SRI) is a ‘dip stick’ population measure of school readiness levels in children between the ages of four-and-a-half to five-and-a-half year olds. It is individually administered and provides specific feedback on cognitive and language competencies related to preparedness for primary-grade curriculum. These include language competencies such as following instructions, sentence making and vocabulary and phonetics, pre-number concepts related to quantity and space, number concepts and reasoning competencies reflected in sequential thinking and pattern making.

<table>
<thead>
<tr>
<th>Table 4: Descriptive Statistics of SRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domains</td>
</tr>
<tr>
<td>--------------------------------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Pre-number Concept</td>
</tr>
<tr>
<td>Space Concept</td>
</tr>
<tr>
<td>Sequential Thinking</td>
</tr>
<tr>
<td>Classification of Birds and Animals</td>
</tr>
<tr>
<td>Following Instructions</td>
</tr>
<tr>
<td>Number/Object Matching</td>
</tr>
<tr>
<td>Reading Readiness</td>
</tr>
<tr>
<td>Pattern Making</td>
</tr>
<tr>
<td>Sentence Making</td>
</tr>
<tr>
<td>Relative Comparisons</td>
</tr>
<tr>
<td>SRI Total</td>
</tr>
</tbody>
</table>

* At 95% Confidence Interval; N=235 (Intensive n= 81, Non-Intensive n=154); PS: The scores are adjusted out of 10.
Figure 10: Comparative SRI Scores for Intensive Vs. Non-intensive categories

A descriptive analysis of the SRI scores in a comparative frame between children from Intensive and Non-intensive category centres indicates a puzzling trend. The overall score on SRI for the Intensive category, which demonstrated a trend of better quality, was also expected to be higher than the Non-intensive. However, as evident in Table 4, the total score is in favour of the Non-intensive category, although not significant. However, a further disaggregation indicates that children from the Non-intensive category centres are performing significantly better (> .05) as compared to those from the Intensive category on the following domains:

- Sequential thinking
- Pattern making
- Relative comparisons

All these competencies relate specifically to cognitive skills linked to number readiness. While on other competencies the differences were not significant, it is important to note that in number concepts (number-object matching and relative comparisons), classification and in reading readiness (phonological awareness), both categories had very low scores, indicating the need for strengthening these in the curriculum.
3.2.4 Variance in School-readiness Levels across Projects

The fact that the Non-intensive centres are demonstrating significantly better results as compared to the Intensive intervention centres on some competencies is not easily explained. A further probe into the data on these competencies was conducted through a project-wise disaggregation of scores. It is interesting to find that in South project, which has all A grade Anganwadis (as per internal assessment), and may therefore be considered model Anganwadis, the results are more in the predicted direction. On all the specific competencies, the intensive Anganwadis are doing better as compared to the Non-intensive. While this possibly indicates the widespread variance in quality of centres even within the Intensive category and supports the advocated curriculum or approach in the programme, it still does not explain the reverse finding in the other projects with lower scores on quality, and in the sample as a whole.

The findings provide some specific feedback on the model of ECE developed and implemented by Akshara Foundation. While the overall environment in terms of layout and materials was visibly found to be better in the Intensive category centres, and children were found playing with more materials involving fine motor and creative activities, on language and cognitive activities, the differences across categories were not significant, indicating lesser emphasis. Therefore, while the overall quality score was enhanced due to the above parameters, the findings do indicate some areas of the curriculum that need further strengthening. The significantly better performance of the Non-intensive centres on sequential thinking and pattern making is not very easily explained and may need further probing (Annexure IIb Figure 1 & 2).

3.2.5 Comparison on SRI with other ECE Programmes

A further comparison was made of the SRI scores of Akshara sample as a whole with scores obtained in a recent research by CECED from known programmes in ECE in three different states. These three programmes that also cater to the lower socio-economic category, including a tribal community, are considered to be innovative to the extent that they have experimented with a model of ECE different from the ICDS. Table 5 provides the comparison of scores with Akshara project scores both general/main study and for A-category Anganwadis (from Akshara intensive studies/case studies). Interestingly, the profile does not appear very different, with Akshara demonstrating a significant edge over the three programmes in competencies that require shape concepts such as pattern making. This could perhaps again be attributed to the accessibility of variety of teaching-learning materials, especially blocks. The reverse is seen in the case of number object matching and relative comparisons and to an extent in reading readiness scores. The issue that emerges is that even the known programmes in ECE do not lay adequate stress on specific activities for school readiness, such as phonetic awareness, sequential thinking and conceptual understanding of numbers, and the emphasis continues to be on rote learning. This raises an important curricular and pedagogical issue that needs to be given due attention in any future planning for ECE.
Table 5: Comparative Scores of Akshara SRI with Scores on SRI in Known Programmes in ECE in Three States (CECED Impact study, 2013)

<table>
<thead>
<tr>
<th>Domains</th>
<th>Akshara Main</th>
<th>Akshara A Grade AWCS</th>
<th>K-shreni, Assam</th>
<th>Bodh, Rajasthan</th>
<th>IKP, Andhra Pradesh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-number Concept</td>
<td>80.4</td>
<td>70</td>
<td>88.2</td>
<td>83.6</td>
<td>87.2</td>
</tr>
<tr>
<td>Space Concept</td>
<td>90.7</td>
<td>100</td>
<td>100</td>
<td>91.4</td>
<td>97.2</td>
</tr>
<tr>
<td>Sequential Thinking</td>
<td>50.2</td>
<td>60.4</td>
<td>52.3</td>
<td>44.2</td>
<td>15.5</td>
</tr>
<tr>
<td>Classification of Birds and Animals</td>
<td>30.3</td>
<td>40</td>
<td>88.9</td>
<td>43.1</td>
<td>11.4</td>
</tr>
<tr>
<td>Following Instructions</td>
<td>90.9</td>
<td>90</td>
<td>93.8</td>
<td>93.9</td>
<td>99.4</td>
</tr>
<tr>
<td>Number / Object Matching</td>
<td>10.9</td>
<td>10</td>
<td>92.9</td>
<td>71.4</td>
<td>57.3</td>
</tr>
<tr>
<td>Reading Readiness</td>
<td>10.6</td>
<td>10.8</td>
<td>31.3</td>
<td>31.8</td>
<td>9.0</td>
</tr>
<tr>
<td>Pattern Making</td>
<td>60.9</td>
<td>70.2</td>
<td>42.4</td>
<td>52.4</td>
<td>25.3</td>
</tr>
<tr>
<td>Sentence Making</td>
<td>40.1</td>
<td>80.8</td>
<td>35.4</td>
<td>42.7</td>
<td>33.1</td>
</tr>
<tr>
<td>Relative Comparisons</td>
<td>10.6</td>
<td>30</td>
<td>56.3</td>
<td>31.1</td>
<td>15.1</td>
</tr>
<tr>
<td>Overall</td>
<td>40.7</td>
<td>50.8*</td>
<td>53.4**</td>
<td>48.2</td>
<td>31.2</td>
</tr>
</tbody>
</table>

* n=10; **n=17

3.2.6 Variance in Psycho-social Readiness Levels in Children

School readiness also includes the psycho-social domain, in addition to the language and cognitive domains, which have been assessed by the SRI. The psycho-social domain was assessed with the use of the Adaptive Behaviour Scale developed by CECED, which elicits feedback on the child from the parents/caregivers on four major sub domains—namely, socialisation, emotional control/adjustment, self-help skills and communication skills.

The results on this scale do not indicate any significant differences between children from the two categories of centres, that is, Intensive and Non-intensive. It may be noted that the scores on this domain are based on parental reporting and are not an absolute and objective assessment of the child, which can be a limitation.
However, it is interesting to note that across the four sub-domains of adaptive behaviour, the pattern of distribution of scores across both categories is similar. The scores are consistently higher across the other three domains but low on the sub-domain of emotional control and adjustment and on ability to listen to others. While to an extent this can be a maturational phenomenon, it is also a reflection of the content and quality of the ECE programme. Storytelling and free/guided conversation as regular activities in an ECE classroom can contribute significantly in this area and these very evidently needed strengthening across both categories. The fact that the scores on the other sub-domains are consistently high across categories again does not reflect an impact of the programme but of the outside environment and exposure available to most children across categories, particularly in urban and peri-urban settings.

Figure 11: Comparative Adaptive Behaviour Scores for Intensive Vs Non-intensive Categories

N=235 (Intensive n= 81, Non-Intensive n-154)
3.3 Assessment of Specific Interventions

The four main categories of interventions that have been carried out by the Akshara Foundation include the following:

1. Supply of teaching-learning materials (TLMs) to all AWWs, with a larger quantity given to the Intensive category.

2. Training of all functionaries and monitoring and supervision: In the case of Non-intensive category, the trainings were given in two rounds whereas in the Intensive category, third round of training was more focused on the model Anganwadi concept. The training or orientation was conducted for AWWs, helpers, supervisors and CDPOs. The Akshara Co-ordinators have been assigned around 37 centres each, and they are expected to visit these centres at least once a month and provide guidance and supervision.

3. Child Assessment and Anganwadi monitoring indicators: Akshara for the first time developed child-assessment indicators and was involved in assessment that is being conducted bi-annually. In addition, it has developed Anganwadi monitoring indicators to grade its Anganwadi centres.

4. Reactivation of community: The Akshara Foundation trained Bai Vikas Samiti (BVS) members in providing support to the Anganwadi centres.

The review of these interventions is discussed below under each of the above heads:

3.3.1 The Pre-school Kit

Assessment of the Materials from Field Observations
a. Availability and use: In all the 48 centres observed, except one, the AWWs reported having received the materials. Only in one case, the worker had no information about the material. In the interviews with the AWWs, 45 out of a total of 48 shared that they found the kit to be very helpful in classroom transactions and most materials were easy to use. There were a few exceptions, such as the lacing board activity—which according to them was difficult for children to handle. This is further corroborated by experts’ opinion in the review as well that the thread is difficult for children to insert in the hole, as it is too broad. While blocks and manipulative play materials were more popular with children, as reflected in the observations and interviews with Anganwadi workers, the use of storybooks was quite limited. These were generally displayed in a corner and ‘storytelling’ as an activity was not commonly undertaken. This is further corroborated by ECEQAS scores, where storytelling by teachers is observed only on eight occasions across 48 centres. The experts’ opinion on the storybooks was that though the books meant for 2–4 year olds were appealing and appropriate, they may not have the same appeal for older children. However, in certain storybooks, pictorial depiction does not go well with the intention of the text (For instance, Namma mane, depiction of salt in Bannagalu). The details are annexed as Annexure I in the report.
b. Overstimulation in classrooms: The observations from the field visits do report abundance of materials available in the AW centres. This has been provided not only by the Akshara Foundation but also through various organisations such as the ICDS, Bruhat Bengaluru Municipal Corporation (BBMP), Maya Foundation/Prajayam (observed during field visits) and the Akshara Foundation. Evidently, the quantum of materials was observed to be higher in urban areas as compared to the rural. On further probing, it was found that in urban areas, BBMP is very active and supply of TLM is done on a regular basis as compared to the rural areas, which are under the Gram Panchayat. In some Anganwadi centres, Akshara has supplied Lego blocks to children. In most of these Anganwadi centres, the blocks were observed to be the most popular activity for the children.

While the materials were found in abundance, the actual use of materials was not found to be commensurate with the quantity supplied. Most materials were often displayed on the walls or in corners to such an extent that not even an inch width of space was left blank, leading to a state of overstimulation. Moreover, in most centres, the materials were found displayed inappropriately, much above the eye level of children. In most cases, perhaps due to shortage of space, the materials were also observed to be hanging on the wall beyond the reach of children, thus limiting their interaction with the materials. These observations are further corroborated by ECEQAS scores where very few centres (10 centres out of 48 centres) received a score of 2 on a three-point rating scale related to materials displayed at the level of children. Akshara believed that, in many Anganwadis, the materials related to theme for the week are brought down, but this was not observed and reported by the workers.
c. Activity corners: A significant aspect of the two days' training by the Akshara Foundation was on classroom organisation with the layout of the classroom with materials to be organised in 'activity corners'. Thus, in most AWCs visited, the layout did include the activity corners that were organised and labelled as Language corner, Fine Motor Activities corner, Cognitive corner, and so on. However, these activity corners were actually organised by domains and served the purpose of facilitating the teachers' or AWW’s work by keeping the materials displayed in terms of domain categories. This arrangement was not observed to actually promote activities in children. For children, the activity corners should have been play activity wise in terms of blocks corner, art corner, doll’s corner, storybooks’ corner and so on, which lends itself directly into play and activity. As a result, most free play was observed to be unplanned.

d. Feedback from ECE Experts on the Kit: Overall, the experts comprised of professional experts and practicing teachers were of the view that the kit was addressing the needs of preschoolers to some extent, as evident from the score of 1 given to the kit on a three-point rating scale 0-1-2. Its score of 1 was explained by the fact that the materials were more focused on formal learning of the 3Rs, whereas the focus should have been on pre-academic skills and concepts. Some believed it was more appropriate for children in grade 1 and above. An important concern expressed by the kit reviewers was that it was not informed by any sound theoretical framework. The CDPOs and supervisors as well as the BVS members were on the other hand appreciative of the materials since possibly they added colour to the classrooms or Anganwadis. A detailed review of the materials is annexed (Annexure I) with this report.

3.3.2 Training of Functionaries and Monitoring with Mentoring

(a) Anganwadi workers training: As indicated earlier, the project Anganwadis could be categorised as 'intensive' and 'non-intensive' categories. In the Non-intensive categories, the intervention was in the form of three days of training followed by half-a-day's training, over the period of two years, along with supply of some materials. In the Intensive category, the AWWs got further two days' training over the period of one year on the Model Anganwadi concept with supply of some additional material and supervision of Akshara staff, besides those given to the former category. The difference, therefore, between the two categories was essentially of maximum two to three days’ of additional training on classroom management/model Anganwadi concept, supervision and mentoring, which is a critical component, and some other additional materials. In terms of the content of the training, the first two rounds were common to both categories—focused largely on use of the pre-school kit, assessment and pre-school methodology. The training in the third round of intervention given to the Intensive category included use of the additional materials, along with classroom management skills comprised of age-TLM segregation and assessment.
The workers also reported that the topics covered in the training also included importance of pre-school education, how children learn, importance of play, disciplining, attending to children with special needs and focusing on activities that help children learn.

The feedback received from the functionaries trained was overall positive. A majority of the Anganwadi workers, that is, 44 out of 48, reported having received the training. This included all the AWWs from the intensive category and 88 per cent of the workers from the sampled Non-intensive centres who had received at least one day of training from Akshara Foundation. The ones who reported not receiving the training were those who had recently been transferred or posted. Those having received the training also included the three Anganwadi workers covered in the case studies, of which two were from the Intensive category and one from the Non-intensive. Most workers also reported having taken 'job' as well as 'refresher' training from the ICDS.

The AWWs from the Intensive category found the third training to be different and more useful as compared to the first two ones that were given to all. The reason for this preference was that in the third training, they were given more materials—including Lego blocks for children—which according to them were more useful in conducting the pre-school activities. They were also trained in use of these materials and in setting up of activity corners for each developmental domain.

On being asked how the trainings helped them, the response was generally that it helped them 'make children understand the concepts better', and 'new activities were learnt by children especially songs and rhymes' and they knew how to use the teaching-learning materials with children. These observations are supported by the data elicited from the intensive interviews of AWWs in the case studies, where at all the three selected centres, they reported that they found the training provided by Akshara to be very helpful and also an opportunity to learn many new things. With the help of training, they were now able to conduct age-wise activities with children by making use of more and more materials. In addition, they found themselves to be more polite and child friendly in handling children. The Vajarahalli AWW also drew a comparison between the ICDS and Akshara training and said that, 'ICDS mei khali batate the... ICDS mei purchase karte the... yaha toh milta hai... Practical kara ke dikhate hai'. In other words, she found the training to be very helpful, as there was more exposure and hands-on practice in the use of materials. In terms of limitations of the training, an important concern was the varied duration of training as in the first year, more days were dedicated for training. But, over the years, the number of days declined to just one or two days. The number of topics was very evidently overwhelming for such short-duration training. As one AWW reflected, it would have been better if more time was allocated for discussion on activities that help children learn and also show how to include children with special needs.
The supervisors, when interviewed, saw value in the training. They gave a positive feedback on some changes observed in the AWWs workers post the Akshara training—they reported that the workers had been observed to be conducting group activities with children, providing age-appropriate activities as also developing activity corners based on domains of development in the classrooms. They also believed that Anganwadi workers were now more aware of the need for assessing children’s progress. In the same vein, the four CDPOs who were interviewed gave a positive feedback. While they were of the view that where the AWW is good, the impact is better; they believed that the main areas in which they could see some change were as follows:

- The Pre-school Education component of ICDS had become more attractive as the pre-school kit was good and age-appropriate activities could be conducted.
- The AWWs were maintaining better time; they would plan their activities and were generally performing better.
- The Anganwadis are attractive and maintain a neat appearance, as so much of play and learning material is now available for children and displayed in activity corners, and children are seen engaged in activities.
- Supervision by Akshara supervisors had been regular and useful.

(b) Anganwadi helpers’ training: The Akshara Foundation also conducted training of helpers in the Anganwadis and at least half of the 47 helpers interviewed reported having received the training. Majority of the helpers who received the training were from the Intensive category, including those from the centres selected for the case studies. The duration of their training was for one day. The helpers, when interviewed, found the training to be very helpful—as one of them expressed, “It was a wonderful opportunity to learn new things.”

Regarding the content of the training, the helpers reported that they learnt new action songs as well as methods to engage children in meaningful activities at the centre with the teaching–learning materials. When asked if there had been any change at the centre after the helper training, only one AWW reported that the helper is now able to engage children with the use of charts, songs and stories. This is further corroborated with classroom observations where, in a few cases, the helper seemed to be supportive to the Anganwadi worker in conducting activities with children from the intensive studies.

(c) Supervisors and CDPOs Training: Supervisors Training: In the course of the Focus Group Discussions held with the supervisors, around 62 per cent of the supervisors present confirmed having received training from the Akshara Foundation.
The duration of training was reported to be of two days. Akshara trained the supervisors for two days in the first year on pre-school methodology, kit and assessment. In the subsequent years, one day training was provided on Lego blocks and BVS. In the fourth year, only 12 supervisors from the Intensive category were given three days' training on classroom management, age and TLM segregation and the Model Anganwadi concept. The feedback on the training was very helpful, as it gave them an opportunity to learn many new aspects of the pre-school education component of ICDS, including the following:

- Age-appropriate grouping of children
- Appropriate use of material in ways that ensure it is accessible and used by all children
- Creation of activity corners based on domains of development
- How to guide Anganwadi workers
- How children learn and develop

The above information was also substantiated by the supervisor in the case study of Supervisor of Konnakunte circle; she conveyed that her training was of three days but not at a stretch. She said they had been trained on TLMs, assessment of Anganwadi and activation of the Bal Vikas Samitis. Commenting on how useful the training was, she felt she was more confident now of training the Anganwadi workers. The supervisor had, in collaboration with Akshara field co-ordinators, later trained the AWWs also. She admitted that, 'Earlier, we used to visit and check only records; pre-school activities were also observed but now more emphasis is being given to them comparatively.' She also expressed her view that now AWW is more interested in conducting activities and children's participation has also improved.

The supervisor of Utrarahalli circle, which is from the Non-intensive category, had not received any training from Akshara Foundation. Although, she had not been trained, she was aware about the intervention, as she had visited the Intensive category Anganwadis and had observed the materials that were available being used. She mentioned that, 'Akshara activities are good... but it is difficult for AWW to separate the group in 3 to four-and-a-half-year olds and four-and-a-half to six year olds.' She mentioned that when Maya (an NGO) had intervened earlier, they were providing ongoing training every month to the AWWs. The supervisor mentioned that one short training for AWW does not work, and that there should be refresher courses or on-going training every month, or at least quarterly, so that it would boost the motivation of AWWs.

CDPOs' training: Interviews were conducted with three CDPOs who had attended Akshara Training. Ms. Latha, Akshara's Master Trainer, informed the research team that at the CDPO level, observation visits were organised for them to model Anganwadi centres to give them an overview of the way classroom activities are conducted in the Anganwadi with materials.
The feedback on the training was positive. All the three CDPOs reported that the training was effective, especially as it made them understand the use of the kit or teaching-learning materials.

**Monitoring and Mentoring:** As indicated in Figure 2, the Akshara Foundation has also created a well-planned supervisory structure for the project as evident from the year 2009-12 (the year of evaluation), with programme co-ordinators at one level—who are responsible for one to two ICDS projects each—and field co-ordinators and the second level, who have responsibility for 26-38 centres each, within the six projects. The field co-ordinators are expected to visit each centre at least once a month for mentoring and supervision. The project has also developed specific monitoring indicators to assess and monitor the quality of the programme. These, as discussed earlier, are divided into three categories, namely, (a) quality of infrastructure; (b) classroom process and (c) use of kit or teaching-learning materials supplied to the Anganwadis (d) BVS related (e) administration. In all, there are 70 indicators developed to map the status of Anganwadis, and grade them from A to C. These indicators are used for periodic assessment by the field co-ordinators through observation, discussion with Anganwadi workers and helpers as well as through cross-checking of documents maintained at the Anganwadi centres.

In addition to the Akshara Field Co-ordinators, the ICDS supervisors are also expected to monitor the work of the Anganwadis. However, while the ICDS supervisors have to cover all six services, the Akshara co-ordinators only concern themselves with the pre-school education component.

**Monitoring by ICDS Supervisors:** Experience in other projects indicates greater impact of regular mentoring over periodic monitoring and supervision. Most AWWs reported regular visits by the ICDS supervisors to the centres. According to their feedback, the supervisors observe activities and check records. In an FGD with supervisors too when asked what they do on their visits, they indicated they check on cleanliness, observe the pre-school activities, conduct/demonstrate pre-school activities, organise health camps, advise AWWs and check attendance, kitchen management, toilets and other requirements, and also check records of growth monitoring, registers, ration, and the like.

**Monitoring by Akshara Project and Field Co-ordinators:** A regular pattern is reflected in the case of field co-ordinators (FCs) and project co-ordinators too but the frequency is greater. In most of the centres, the Anganwadi workers did report that the Akshara Co-ordinators visit between 1 to 3 times a month. There were only a few centres that had not been visited within the past 6 months. From the interviews of the field co-ordinators, it was learnt that the frequency of visits is determined by the need of the centre.
If the centre is A grade, it is visited only once, but a B or C grade centre may be visited three or even four times a month to help it improve itself. As part of their monitoring and supervision, the Programme Co-ordinators and Field Co-ordinators fill assessment records, monitor activities at the centre, often help to conduct activities, prepare case histories of children and advise and help the AWW in the context of any challenges she may be facing.

The feedback from the field does indicate the mode to be possibly more of supervision and monitoring and less of mentoring, wherein the field co-ordinator actually does hand-holding and demonstrates better practice. Yet, the two-tier supervision and monitoring by Akshara Field co-ordinators was effective to some extent, as reported by the supervisors and CDPOs, since their own supervision was not so regular or focused on pre-school education.

Impact of Monitoring: A review of the status of centres in terms of quality provides significant feedback on the impact of the dual monitoring, both from ICDS and Akshara. The qualitative observations for each centre when compiled indicate that there is wide variance across centres in terms of the programme itself. For instance, in terms of teaching-learning materials, again, while many were using different parts of the kit, at least seven centres were found not using materials, some had charts hung up high on the walls, some were using very few materials. A similar variation was seen in teacher behaviour, which ranged from being very child friendly in many cases to even abusing and punishing children! While complete standardisation is not expected, nor perhaps desirable, the variance in the essentials of the model or intervention package does reflect the need for greater mentoring and hand-holding. It also raises the issue of the extent to which the field co-ordinators themselves were prepared for the mentoring role in terms of skills and understanding.

Review meetings: At the project headquarter level, monthly meetings are organised among the Akshara staff and the programme and field co-ordinators. The discussions in these meetings include an update on the status of the centres and working out of their respective tour plans as well as visit reports. Monthly meetings are also organised by ICDS where they also sometimes focus on the use of TLM, the concept of a good AW, and so on.

Validation of Quality Indicators: An important aspect of the Akshara initiative has been the development of quality indicators for assessment of AWCs and children. A validation of these indicators with the ECEQAS scores was attempted by comparing the AWCs as per their grades with the ECEQAS scores.
As presented in Figure 12, on most indicators of ECEQAS A-grade AWs are performing the best followed by B-grade, which validates the indicators and grading system adopted under the Akshara Project. However, school-readiness levels do not reflect this consistency (Figure 13).

**Figure 12: Comparative ECEQAS Scores of AWs by Grades**

![Graph showing comparative ECEQAS scores by grades.](image)

**Figure 13: Comparative SRI Scores of Children in Graded AWs**

![Graph showing comparative SRI scores by domains.](image)
3.3.3 Development and Implementation of Anganwadi Monitoring Indicators and Child Assessment

A unique feature of the Akshara Project has been the institution of a system of bi-annual assessment of children, both at the beginning and end of the academic year. By August 2009, Akshara Foundation’s pedagogic intervention was already in place and most of the Anganwadi workers had been trained to use the kit. The baseline assessment of children was administered in September 2009 across all the Anganwadis where the Anganwadi workers were trained to conduct the assessment. Child assessment was based on child-development indicators developed across critical developmental domains such as psycho-motor, socio-emotional, pre-school reading, pre-school writing and pre-school mathematics (pre-academic). The child assessments administered in the Anganwadi were designed to help the Anganwadi worker work closely with children on pre-school education. With the information collected, the Anganwadi worker could pay individual attention to each child, depending on his or her learning outcomes and prepare them for the primary school stage. Informal discussions by the Akshara Foundation Team with the workers showed that the child-assessment tool has helped them understand the learning levels of each of the children in their centres, on the basis of which they can carry forward their task of school preparedness (9).

In March 2010, Akshara conducted post-test/endline assessment of the children to track the improvement levels and gauge impact of the intervention. Similarly, the same assessment tools were used to conduct pre- and post-test/baseline and endline assessment sheets for the subsequent years, that is, three years. Akshara shared the time series data of pre- and post-test/baseline and endline with CECED from August 2009 to March 2012 for analysis. The assessment is conducted on 56 child-assessment indicators. This assessment has evidently been appreciated by the Department of Women and Child Development, Government, of Karnataka, who have assimilated the framework of outcomes in their system.

The assessment data shared with CECED was analysed to further understand the quality and impact of the Akshara intervention. It also provided interesting and useful insights into the difficult level of certain expected learning outcomes for children at this stage of education.

Table 6: Percentage gain Domain-wise across 3 Years from Pre- to Post-Test

<table>
<thead>
<tr>
<th>Domains</th>
<th>2009-10</th>
<th>2010-11</th>
<th>2011-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>General awareness</td>
<td>14</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Gross Motor</td>
<td>11</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Fine Motor</td>
<td>21</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Socio-emotional</td>
<td>24</td>
<td>14</td>
<td>23</td>
</tr>
<tr>
<td>Language</td>
<td>25</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td>Intellectual</td>
<td>20</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Pre-academic</td>
<td>29</td>
<td>17</td>
<td>27</td>
</tr>
</tbody>
</table>

Table 6 shows the percentage improvement in different domains for children in each year from pre- to post-test, that is, after a year of intervention.
**General Trend:** The trend across the three years shows progress or gain in children’s performance levels, but not at consistent levels. While maturational factors may also play a role, this evidence of gain indicates a favourable impact of the programme as well. As evident in the table, the second year demonstrates a slump in percentage gains as compared to the other two years, with the first year showing maximum gain. A possible reason for this inconsistency could be that in the first year, the gain is high because children may have started at a much lower level since no major intervention was in operation earlier. After Akshara’s intervention, the gain in children’s abilities at the pre-test stage would have been higher and, therefore, the scope for improvement was less. Also, in the first year, the intervention was more intensive in terms of training as compared to the second year; which could have had an impact on the outcomes. In the second year, there was only a half-day orientation given. However, in the third year, again the pace seems to have picked up, with additional training and distribution of Lego blocks to 150 centres from 56 circles that could add to the level of performance of children. This could also be a cumulative impact since many children could have been in the AW for more than a year. While multiple factors could be at play, overall, the trend does indicate the need for recurrent training and hand holding of the AWWs.

### Table 7: Training Provided to Anganwadi Workers in First 3 Years of Intervention

<table>
<thead>
<tr>
<th>No. of Trainings</th>
<th>Year I (2009-10)</th>
<th>Year II (2010-11)</th>
<th>Year III (2011-12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1547 Anganwadi workers trained (1st round of training). All the core BVS members of 641 AWCs were trained</td>
<td>1772 Anganwadi workers trained (2nd round of training). 1334 helpers, core BVS members of 391 AWCs were trained (of those centres which were not covered in previous year)</td>
<td>New Anganwadi workers from New AWCs trained for 1 day; 8 AWCs were selected as Model Centres and those workers were trained for 2 days on classroom management, Classroom management, Child and TLM segregation. AWWs from 150 randomly selected AWCs were trained on usage of Lego for 1 day; core BVS members of 389 AWCs were trained</td>
<td></td>
</tr>
<tr>
<td>Days of Trainings</td>
<td>2 days in August and 1 day in December for AWWs and 1 day for BVS members</td>
<td>Half a day training for 1772 AWWs and 1 day training for 1334 helpers on usage of kit; 1 day for BVS members</td>
<td></td>
</tr>
</tbody>
</table>

**a. Item-wise Analysis**

An item-wise analysis was undertaken to identify the competencies that were evidently more challenging for children at the early childhood stage, as assessed from the baseline and endline data. The items that appeared difficult consistently for three years from pre- to posttest in terms of showing less gain are shown in the table below:
Table 8: Tasks That Emerged as Difficult in 3 Years of Assessment

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Domains</th>
<th>Tasks</th>
<th>Percentage Gain from Pre-/Post-Test over 3 years</th>
<th>Percentage gap in attaining 100% achievement over 3 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>General awareness</td>
<td>Child tells name of school</td>
<td>21</td>
<td>30</td>
</tr>
<tr>
<td>2.</td>
<td>Fine motor</td>
<td>Child can finger paint, do buttoning</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>3.</td>
<td>Socio-emotional</td>
<td>Child expresses emotions, makes friends and shares objects</td>
<td>21</td>
<td>25</td>
</tr>
<tr>
<td>4.</td>
<td>Language</td>
<td>Child follows 3 instructions, make 3-word sentences, identifies verbs, indicates positions, articulates initial sound</td>
<td>25</td>
<td>24</td>
</tr>
<tr>
<td>5.</td>
<td>Pre-academic writing, reading and mathematics</td>
<td>Pre-mathematics: Tells days in a week, names of month, year, more/less, counts 9 objects, recognises 1–9, rote counting; Pre-writing includes copy nos. and alphabets, trace patterns, good pencil grasp and control, puts adequate pencil pressure; Pre-reading includes: odd one out, recognises a–z, a–aha.</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>6.</td>
<td>Intellectual</td>
<td>Child can name shapes, separate piece by shape and size</td>
<td>24</td>
<td>22</td>
</tr>
</tbody>
</table>

As evident in the above table, the tasks in each domain were identified where 30 or higher percentage of children could not perform in the pre-tests over three years of assessment although over the years, percentage gain from pre-test to post-test is higher in all these domains due to cumulative learning. Yet, the gap in these domains is also high as 100 per cent of children could not attain proficiency in the above tasks during post-tests.

The pre-academic learning outcomes emerge as difficult in this analysis also, which is an endorsement of the SRI results discussed earlier. The indicators used also reflect the absence of school-readiness indicators in the curriculum, as these are largely based on the primary curriculum and do not focus adequately on the conceptual foundation and understanding of reading and numbers. This observation further endorses the recommendation of revisiting the curriculum to strengthen school-readiness skills and concepts.

3.3.4 Reactivating of the Bal Vikas Samiti (BVS) in the Context of the Pre-school Programme

The study also focused on the contribution made by Akshara Foundation through this project to activate the role of the BVS. This was assessed on indicators such as regularity of meetings, instances of BVS support, and levels of awareness and impact of trainings.
Sixteen Focused Group Discussions were conducted with BVS members to gauge their participation in Anganwadi centres. The sample comprised 9 Intensive centres and 7 non-intensive centres. In almost all the intensive centres and majority of non-intensive centres (57 per cent), it was reported that BVS meetings were conducted regularly. From the discussions, it emerged that the mode of conducting meetings is different. Mostly, it is based on personal contact rather than a group meeting. For instance, if the problem can be resolved at Head Master's (HM) level, then he/she is directly contacted. In case there is an issue that requires parents, then only the BVS members are informed or involved. Technically, minutes are being signed by all the members. The biggest challenge in conducting the BVS in a group is the constraint of time with the members. It was reported by Anganwadi workers, supervisors, CDPOs and observed as well in field visits, that gathering a group together was a herculean task.

Awareness levels of BVS members regarding their role: The current group of members was comprised of new members, as BVS membership gets changed every three years. As a result, most of the members were not aware of their roles and responsibilities. Only the Anganwadi worker or presence of an old member reflected some level of awareness in the discussion. This is corroborated by the FGD conducted with supervisors where they also reported that the current group was not active. The need for periodic and regular training in a systematic mode is very evident.

Areas of Discussions in the meetings & support provided: The previous members who seemed to be aware of their roles and responsibilities shared that whenever the meetings happened, the discussions primarily revolved around infrastructure. This included a need for separate centres (where two centres were running under one roof), renovation, separate kitchen, toilet facility, electricity connection, fan, storage (almirah), materials for teaching-learning process and clearance of unclean surroundings (garbage, drainage behind AWC). Instances of BVS support were, however, mentioned occasionally with regard to infrastructure and maintenance, nutrition and health or helping out the AWW, whenever required. It was noticed that with the exception of one Anganwadi out of the 16 covered, the BVS chart was neither displayed nor used. Perceptions of Akshara’s Intervention: A strong indicator of the appreciation of Akshara Foundation’s intervention among the BVS members came when the members said that this programme should be sustained, otherwise, new children would not get the teaching-learning materials. Some even said that if it was not sustained, they would continue to support it!

In the Intensive category centres, the members were more aware of and praised the presence of teaching-learning materials, improved teaching and children learning better. The members were of the view that children’s learning is faster now because they have exposure to materials; they have learnt many new things—such as, they could identify fruits and vegetables, vehicles etc. This may be further corroborated with case studies and field visit observations that more and more parents are now bringing and dropping their wards at the centres. In rural centres, the participation of parents was reported more in terms of support like preparing and serving food, cleaning dishes, monitoring the centres and its activities.
3.4 Programme Costs Related to the Intervention

Any intervention needs to be assessed in terms of its cost vis-a-vis outcomes, especially from the perspective of sustainability and scaling up of the intervention. A review was therefore undertaken of the funds allocated and spent in different areas of implementing the intervention. The cost that the Akshara Foundation shares is in addition to that of the ICDS system. Akshara Foundation provides salaries to its own staff such as project co-ordinator, field co-ordinators and Akshara head. The table below shows year-wise investment in different areas, indicating relative priorities.

Figure 14: Total Allocated Funds and Expenditure for 4 Years

![Total Allocated Funds and Expenditure](image)
An analysis of the funds overall, as evident in the Figures above, indicates that about 52 per cent of the total expenditure was incurred over the four years on elements related to quality improvement, such as teaching-learning materials, training of functionaries and monitoring. Another 16 per cent on technology could to an extent also be directed towards quality improvement. This is a positive feature of the project that emerges from the cost analysis, reflecting the project priority.

However, a more nuanced analysis indicates that while the two most critical elements of improvement in the ECE programmes, that is, teaching-learning materials and monitoring/mentoring were addressed appropriately, the expenditure planned and incurred on training of functionaries, including mentors and AWWs, which is critical for capacity strengthening and therefore for implementation quality, was minimal. This possibly also influenced the quality of mentoring and monitoring, since the capacities for co-ordinators to also mentor were observed to be limited.

Table 9: Years-wise Programme Costs Related to Intervention

<table>
<thead>
<tr>
<th>S.No</th>
<th>Particulars</th>
<th>2009-10</th>
<th>2010-11</th>
<th>2011-12</th>
<th>2012-13</th>
<th>Total of 4 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Salaries (Resource Person including Head)</td>
<td>7</td>
<td>7</td>
<td>5</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>TLM (Teaching-learning materials)</td>
<td>27</td>
<td>16</td>
<td>13</td>
<td>12</td>
<td>19</td>
</tr>
<tr>
<td>3</td>
<td>Training</td>
<td>8</td>
<td>3</td>
<td>5</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>A</td>
<td>In-House Staff Training</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Capacity Building Training of Teachers</td>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>C</td>
<td>Capacity Building of Community</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Monitoring (Field Staff Expenses)</td>
<td>15</td>
<td>11</td>
<td>12</td>
<td>10</td>
<td>26</td>
</tr>
<tr>
<td>5</td>
<td>Technology (Data, website etc)</td>
<td>10</td>
<td>18</td>
<td>17</td>
<td>19</td>
<td>25</td>
</tr>
<tr>
<td>6</td>
<td>Research (Child assessment, learning outcomes,</td>
<td>23</td>
<td>3</td>
<td>11</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>periodic project reports and case studies)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>7</td>
<td>Film/Documentation</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>Admin Expenses (Admin staff, utilities ...,</td>
<td>9</td>
<td>11</td>
<td>16</td>
<td>21</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>expenses)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.4.1 Trend of Expenditure

Table 9 demonstrates the trend in expenditure over the four years of the project. An interesting observation is that as indicated in the analysis of the assessment data, the second year showed a slump in child outcomes. This is visible in the expenditure trend as well with the second year showing comparatively less expenditure on quality elements as compared to the other two years. The training expenditure has been consistently less than what was even planned for and allocated. While the expenditure on monitoring was substantially higher than the allocated amount in the third year; in the fourth year, this was considerably reduced, though planned for. This trend in expenditure demonstrates a clear correspondence with the findings in terms of programme quality and learning outcomes. The analysis leads to a clear recommendation of the need to provide in the budget for recurrent training and mentoring on a consistent basis at all levels of implementation as an indispensable input.
References


<table>
<thead>
<tr>
<th>S.No</th>
<th>Items</th>
<th>Positive Feedback</th>
<th>Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Conversation charts</td>
<td>Attractive, colourful, durable, clear pictures</td>
<td>Instructions may be printed on the reverse side of the conversation charts</td>
</tr>
<tr>
<td>2</td>
<td>Conversation objects</td>
<td>The quality of the material was constrained by the need to suit the budget without compromising on the health of the children</td>
<td>Vegetables need to be more realistic and attractive</td>
</tr>
<tr>
<td>3</td>
<td>Dramatisation objects</td>
<td>Kitchen set was appreciated</td>
<td>Incorporation of colourful dupattas, cap/pogri instead of crown in the kit, as providing the materials in the kit are important. Appropriate colour may be used to make kit and be more realistic.</td>
</tr>
<tr>
<td>4</td>
<td>Puppets</td>
<td>Inclusion of puppet is good</td>
<td>Due to budget constraints, sufficient numbers of glove puppets were not provided. Suggestions to have more variety of puppets: rod, stick was also made.</td>
</tr>
<tr>
<td>5</td>
<td>Puzzles</td>
<td>Inclusion of seriation rings &amp; number puzzles are good</td>
<td>Age appropriateness of animal puzzles provided in the kit needs to be examined; simple animal may be used, like dog, etc., puzzles with straight cuts, bigger size, would be better</td>
</tr>
<tr>
<td>6</td>
<td>Workbooks</td>
<td>Join the dots, colour-within-boundary were appreciated</td>
<td>Manuals and workbooks are not consistent; sequence not followed in the workbook</td>
</tr>
<tr>
<td>7</td>
<td>Storybooks</td>
<td>Appreciated books in regional language; some books were attractive &amp; appropriate for pre-schoolers</td>
<td>In some storybooks, pictorial depiction does not go well with the intention of the text (for example: Namma mane, depiction of salt in Bannagai)</td>
</tr>
<tr>
<td>8</td>
<td>Manuals</td>
<td>Simple &amp; activity-oriented; appreciated</td>
<td>Activities in Manual 2 may be made stepwise rather than knot in paragraphs.</td>
</tr>
<tr>
<td>9</td>
<td>Drawing materials</td>
<td>Creative art is important</td>
<td>Paint brushes need to be appropriate—soft, bigger in size, prescribed drawing may be discouraged (refer Manual 2, p. 31)</td>
</tr>
<tr>
<td>10</td>
<td>Lacing board</td>
<td>Board durable &amp; attractive</td>
<td>Lacing thread may be strong like a shoe lace; children may learn straight patterns prior to criss-cross patterns for hanging fruits on trees, and numbers of lacing board need to be adequate for children</td>
</tr>
<tr>
<td>11</td>
<td>Daily-use materials (baskets &amp; bag for storage, dustbins)</td>
<td>Inclusion of dustbin for habit formation was appreciated</td>
<td>Kit bag may be made of cloth with separate sections, plastic box divided into separate sections; the kit may have sand carts, tub/gardening equipment, samples of clothes-zips, buttons, plastic bottles</td>
</tr>
<tr>
<td>12</td>
<td>Free play materials</td>
<td>Ball may have durable plastic, beads may be bigger in size make doll culturally appropriate—skin &amp; hair colour; kit may have more materials for all the centres for free play, such as rag dolls, which are culturally appropriate and may be made by Akshara</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Number charts &amp; Alphabet charts</td>
<td>The number chart may have vertical alignment and fewer pictures</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Blocks</td>
<td>Cardboard blocks may be simpler (restricted to alphabets); lego blocks may be replaced with wooden blocks/any other cost-effective material and be provided to all centres</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Alphabet cards</td>
<td>Focus should be on building English vocabulary</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Shapes and colours</td>
<td>Shapes having colours may be restricted to primary colours for 2–6 years of age group. However, Akshara Foundation feels that due to functional reasons, wide range of colours need to be introduced to older children</td>
<td></td>
</tr>
</tbody>
</table>
Figure 1: ECEQAS-Box-Whisker Plot of Total, over Geography (Urban–1, Peri-urban–2 and Rural–3)

Figure 2: ECEAS-Box-Whisker Plot of Total, over Intensive and Non-intensive (Intensive–1 and Non-intensive–2)
Figure 3: ECEAS–Box–Whisker Plot of Total, over Projects
(South–1, SSA–2, Yelahanka–3, State–4, Anekal–5 and Central–6)

Figure 4: ECEQAS–Intensive: Box–Whisker Plot, over Projects
(South–1, SSA–2, Yelahanka–3, State–4, Anekal–5 and Central–6)
Figure 5: ECEQAS—Non-intensive: Box-Whisker Plot, over Projects (South–1, SSA–2, Yelahanka–3, State–4, Anekal–5 and Central–6)
<table>
<thead>
<tr>
<th>Bottom-Left Corner (Low Intensive and Low Non-intensive)</th>
<th>Bottom-Right Corner (High Intensive and Low Non-intensive)</th>
<th>Top-Right Corner (High Intensive and High Non-intensive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriateness learning materials for children with special needs</td>
<td>Availability of water in toilet</td>
<td>Use of language to extend children’s thinking &amp; express themselves</td>
</tr>
<tr>
<td>Inclusion of children with special needs</td>
<td>Availability of medical aid</td>
<td>Interaction between peers &amp; with teachers during meal/snack time</td>
</tr>
<tr>
<td>Teacher demonstrates sensitivity &amp; awareness regarding needs of children with special needs</td>
<td>Appropriate sitting facility for children</td>
<td>Teacher makes effort to break gender stereotypes</td>
</tr>
<tr>
<td>Quality of infrastructure facilities for children with special needs</td>
<td>Use of Workbooks/activity books in the class</td>
<td>No use of corporal punishment</td>
</tr>
<tr>
<td>Individual planning for children</td>
<td>Addressing multi-grade classrooms</td>
<td>Habit of washing hands by children</td>
</tr>
<tr>
<td>Availability and use of outdoor equipment</td>
<td>Activities for number readiness</td>
<td>Comfort level of children with strangers</td>
</tr>
<tr>
<td>Opportunity for all children in creative activities</td>
<td>Activities &amp; materials for concept formation</td>
<td>Participation level of children</td>
</tr>
<tr>
<td>Display of material produced by children</td>
<td>Use of blackboard and chalk for teacher and children</td>
<td>Display of material at children’s level of understanding</td>
</tr>
<tr>
<td>Activities &amp; materials for developing cognitive skills</td>
<td>Cooperative learning encouraged by the teacher</td>
<td>Keeping the classroom clean</td>
</tr>
<tr>
<td>Clean surroundings around centre</td>
<td>Opportunity and activities for reading readiness</td>
<td>Listening opportunities provided by teacher</td>
</tr>
<tr>
<td>Opportunity for divergent thinking</td>
<td>Conduct activities for fine motor development &amp; ensuring participation</td>
<td>Speaking opportunities provided by teacher</td>
</tr>
<tr>
<td>Promoting higher order thinking</td>
<td>Conduct activities for gross motor development</td>
<td>Opportunity for children to participate in both individual &amp; group recitation</td>
</tr>
<tr>
<td>Does not conduct activities for reading, writing &amp; number</td>
<td>Age-wise composition of children in class</td>
<td>Liberal classroom environment for the children to interact with peers &amp; teachers</td>
</tr>
<tr>
<td>Availability of class library and its use</td>
<td>Arrangement of the class according to activities</td>
<td>No noise pollution</td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
<td>Sub-Description</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>All children greet the teacher on arrival &amp; departure</td>
<td>Weekly/daily schedule followed by teacher</td>
<td>Asking children questions</td>
</tr>
<tr>
<td>Teacher encourages self-expression in arts &amp; craft activities &amp; appreciation with guidance</td>
<td>Classroom arrangement &amp; time provided by teacher for free play</td>
<td>All children’s performance &amp; participation in recitation &amp; singing</td>
</tr>
<tr>
<td>Teacher uses positive guidance as incentive for good performance</td>
<td>Teacher provides opportunity for free choice play and interact with children during play</td>
<td>Ensuring teacher-child interaction</td>
</tr>
<tr>
<td>Toilet availability &amp; use</td>
<td>Teacher’s child friendly disposition/behaviour</td>
<td>Teacher’s response to children’s errors</td>
</tr>
<tr>
<td>Class composition</td>
<td>Use of activity based learning materials in the class</td>
<td>Teacher responsive to the needs &amp; problems of children</td>
</tr>
<tr>
<td>Teacher introduces a new concept/activity innovatively</td>
<td>Availability of workbooks/activity books for children</td>
<td>Safety level of building that is maintained</td>
</tr>
<tr>
<td>No hazardous conditions around the centre</td>
<td></td>
<td>Children come well groomed</td>
</tr>
<tr>
<td>Appropriate facility available for children to keep their belonging</td>
<td></td>
<td>Clean classroom &amp; sitting arrangement</td>
</tr>
<tr>
<td>Regular checking of personal grooming of children</td>
<td></td>
<td>Flexible seating arrangement</td>
</tr>
<tr>
<td>Opportunity and activities for writing readiness</td>
<td></td>
<td>Using bilingualism/Multilingualism as a resource</td>
</tr>
<tr>
<td>Planning activities to ensure learning of cooperative &amp; sharing</td>
<td></td>
<td>Opportunity for the children to recite rhymes and songs</td>
</tr>
<tr>
<td>Availability of space for outdoor play</td>
<td></td>
<td>Teacher-child ratio less than 1:25 in class</td>
</tr>
<tr>
<td>Level/age appropriate activities</td>
<td></td>
<td>Availability of classroom space for children to sit comfortably</td>
</tr>
<tr>
<td>Age/ development appropriateness of activities ensured by teacher</td>
<td></td>
<td>Inclusive seating arrangement</td>
</tr>
<tr>
<td>Teacher greets children on arrival &amp; departure</td>
<td></td>
<td>Planned meal time</td>
</tr>
<tr>
<td>Regular &amp; relevant display of</td>
<td></td>
<td>Disciplining of children</td>
</tr>
<tr>
<td>Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunity for children to participate in activities involving music &amp; movement</td>
<td>No toileting accidents</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Most children understand language of teacher</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No bias displayed by teacher towards gender</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proper Storage for teacher to keep material</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Availability and appropriateness of activity based learning material</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interaction between girls &amp; boys during play time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quality of teacher’s voice</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Availability of clean water for drinking</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Children’s ability to eat independently</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre-school class conduct in appropriate space</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teacher assigned to the class</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teacher supervision of class</td>
<td></td>
</tr>
</tbody>
</table>
Figure 1: SRI Scores on Sequential Thinking Based on Project Categorisation
(1–Urban, 2–Peri urban and 3–Rural)

Figure 2: SRI Scores on Pattern Making Based on Project Categorisation
Figure 1: Means on Teacher Disposition and Training Received

Figure 2: Means on Teacher Disposition and Project Categories
Trainings received Vs Not received

On the Job received (46)  Not received (2)  Refresher received (31)  Not received (17)  Akshara received (43)  Not received (5)

5.3  2.1  5.7  4.3  5.14  6.2

Figure 3: Teacher Disposition for Training Received
Annexure III

Description of Main Tools used in the Study

Quality Assessment of ECE centre: A comprehensive assessment of the quality of the programmes that the children were attending in terms of the content and processes of the classrooms and centres was conducted through an Early Childhood Education Quality Assessment Scale (ECEQAS). This tool, which is inspired by the internationally known and widely used tool called ECERS, Early Childhood Environment Rating Scale, has been substantially modified from the original and adapted to suit the Indian context. It yields both quantitative and qualitative information. Unlike ECERS, it is comprised of three parts, of which Part 1 records direct observations of activities being conducted in narrative form along with information on kinds of activities, materials used, classroom organisation, level of participation of children, etc. It follows a snapshot technique, requiring the observer to describe/record the activity in the classroom every ten minutes for the full duration of a day’s programme. Initially, it was proposed that each centre be observed for two days. This was done during the pilot phase and when the observations for the two days were analysed, the scores were found to be highly correlated (.93). It was therefore decided that the observations be carried out for a day.

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

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

The tool also includes within the above domains aspects specific to the Indian context and related to social inclusion, particularly of children from marginalised communities and children with special needs, and issues related to transition from home language to the school language.
Assessment of Child Outcomes: SRI and ABS

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

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

**Details of the Year-wise Capacity-Building Programme & TLM Distribution**

<table>
<thead>
<tr>
<th>Year</th>
<th>To whom</th>
<th>On what</th>
<th>Duration</th>
<th>Method</th>
</tr>
</thead>
</table>
| 2009 | 1. All Anganwadi workers—both intensive & non-intensive | • Pre-school methodology  
• Kit  
• Assessment | • 2 days in August  
• 1 day in December | Cascading:  
Through supervisors and Akshara field staff |
| 2009 | 2. 641 Anganwadi BVS members including worker (from both intensive & non-intensive) | • On BVS | • 1 day | Directly through Akshara staff |
| 2010 | 1. All Anganwadi workers—both intensive & non-intensive | • Pre-school methodology  
• Kit  
• Assessment | • Half-a-day orientation in August | Cascading:  
Through supervisors and Akshara field staff |
| 2010 | 2. 391 Anganwadi BVS members including worker (from both intensive & non-intensive) | • On BVS | • 1 day | Directly through Akshara staff |
| 2010 | 3. All Anganwadi Helpers—both intensive & non-intensive | • Kit | • 1 day | Cascading:  
Through supervisors and Akshara field staff |
| 2011 | 1. New Anganwadi workers (from both intensive & non-intensive locations) | • Pre-school methodology  
• Kit  
• Assessment | • 1 day | Directly through Akshara staff |
| 2011 | 2. 389 Anganwadi BVS members including worker (from both intensive & non-intensive) | • On BVS | • 1 day | Cascading:  
Through supervisors and Akshara field staff |
| 2011 | 1. 150 Anganwadi (from both intensive & non-intensive) | • Lego | • 1 day | Cascading:  
Through supervisors and Akshara field staff |
| 2011 | 3. 8 Anganwadi were selected as model (from intensive category) | • Classroom management  
• Children segregation  
• TLM segregation | • 2 days | Cascading:  
Through supervisors and Akshara field staff |
| 2012 | 1.335—Intensive Anganwadi | • Classroom management  
• Children segregation  
TLM segregation  
• Assessment | • 2 days | Cascading:  
Through Supervisors and Akshara field staff |
| 2012 | 2. 200 Anganwadi (from intensive) | • Lego | • 1 day | Cascading:  
Through supervisors and Akshara field staff |
<table>
<thead>
<tr>
<th>Year</th>
<th>Nomenclature</th>
<th>Number of Anganwadis supported</th>
<th>Tasks performed</th>
<th>Number of field staff &amp; Level of operation</th>
</tr>
</thead>
</table>
| 2009-10| 1. Field co-ordinators (FC) | 1,554                         | • Trainings—supported supervisors for conducting trainings given by Akshara  
• Regular monitoring  
• Distribution of TLM & Assessment sheets  
• On the spot support | 56—each FC was at supervisor’s level  
1 circle per FC |
| 2009-10| 2. Project co-ordinators (PC) |                              | • Team leader  
• Licensing with Govt  
• Regular review of tasks delivered by FCs  
• Data consolidating and submitting reports | 6- Project co-ordinators  
They were placed at CDPO level  
1 PC per project |
| 2010-11| 1. Field co-ordinator s (FC) | 1,776                         | • Trainings—supported supervisors for conducting trainings given by Akshara  
• Regular monitoring  
• Distribution of TLM & Assessment sheets  
• On the spot support | 56—each FC was at supervisor’s level  
1 circle per FC |
|        | 2. Project co-ordinators (PC) |                              | • Team leader for 8–10 FCs  
• Licensing with Govt  
• Regular review of tasks delivered by FCs  
• Data consolidating and submitting reports | 6- Project co-ordinators  
They were placed at CDPO level  
1 PC per project |
| 2011-12| 1. Field co-ordinators (FC) | 1,776                         | • Trainings—supported supervisors for conducting trainings given by Akshara  
• Regular monitoring  
• Distribution of TLM & Assessment sheets  
• On the spot support | 26—FCs  
Supervisor’s level  
2 circle per FC |
|        | 2. Project co-ordinators (PC) |                              | • Team leader for 4–5 FCs  
• Licensing with Govt  
• Regular review of tasks delivered by FCs  
• Data consolidating and submitting reports | 6- Project co-ordinators  
They were placed at CDPO level  
1 PC per project |
| 2012-13| 1. Field co-ordinators (FC) | 335                           | • Trainings  
• Monitoring  
• Distribution of TLM & Assessment sheets  
• On the spot support | 8—FCs  
Supervisor’s level  
1 circle per FC |
<table>
<thead>
<tr>
<th>Year</th>
<th>To whom</th>
<th>On what</th>
<th>Duration</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-10</td>
<td>1. 56 FCs</td>
<td>• Pre-school methodology&lt;br&gt;• Kit&lt;br&gt;• Assessment&lt;br&gt;• On BVS</td>
<td>• 2 days in July&lt;br&gt;• 1 day in November&lt;br&gt;• 1 day orientation on BVS</td>
<td>Direct by Project Head &amp; Subject Matter Experts</td>
</tr>
<tr>
<td></td>
<td>2. 6 Project coordinators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010-11</td>
<td>1. 56 FCs</td>
<td>• TLM&lt;br&gt;• On how to conduct Helper’s training</td>
<td>• Half-a-day orientation&lt;br&gt;• 1 day</td>
<td>Direct by Project Head &amp; Resource Team</td>
</tr>
<tr>
<td></td>
<td>2. 6 Project coordinators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-12</td>
<td>1. Concerned field staff (1 FC )</td>
<td>8 Model Anganwadi were selected as model&lt;br&gt;• Classroom management&lt;br&gt;• Children segregation&lt;br&gt;• TLM segregation</td>
<td>• 2 days</td>
<td>Direct by Project Head &amp; Subject Matter Experts</td>
</tr>
<tr>
<td></td>
<td>2. 2 Akshara Master Resource team</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-12</td>
<td>1. 26 FCs</td>
<td>• Logo</td>
<td>• 1 day</td>
<td>Direct by Project Head &amp; Resource Team</td>
</tr>
<tr>
<td></td>
<td>2. 4 Project coordinators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012-13</td>
<td>1. 9 FCs</td>
<td>Model Anganwadi&lt;br&gt;• Classroom management</td>
<td>• 1 days</td>
<td>Direct by Project Head &amp; Resource Team</td>
</tr>
<tr>
<td></td>
<td>2. 3 Project coordinators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>What</td>
<td>Number of Anganwadis supported</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 2009-10| 1. Teacher manual  
2. Kit (32 items)  
3. Workbook, pencil, activity book, crayons, paint box, per child  
4. Storybooks—43  
5. BVS Planner  
6. Assessment manuals (56 indicators)  
   Assessment sheets (56 indicators) | 1,547                          |
| 2010-11| Replaced:  
1. Fruits & Vegetable basket  
2. Workbook, pencil, activity book, crayons, paint box, per child  
3. Assessment sheets (56 indicators)  
4. BVS manual | 1,547                          |
| 2011-12| Full set for new Anganwadis | 229                            |
| 2011-12| **Remaining Anganwadis**  
1. Workbook, pencil, activity book, crayons, paint box, per child  
2. Assessment sheets (56 indicators)  
3. BVS manual for those who underwent training | 1,554                          |
| 2011-12| **8 Model Anganwadis—Additional support**  
1. 18 items were given like  
   a. Per child mat  
   b. Per child KG sheet  
   c. Per child Colour papers  
   d. Glove puppets  
   e. Dolls  
   f. Lego Box, etc  
   g. Laminated conversation chart  
   h. Storage cane basket | 8                              |
| 2012-13| 1. Replaced materials of the original kit  
2. 18 items were given like  
   a. Per child mat  
   b. Per child KG sheet  
   c. Per child colour papers  
   d. Glove puppets  
   e. Dolls  
   f. Lego Box, etc  
   g. Laminated conversation chart  
   h. Storage cane basket  
3. Assessment Manual for assessing age wise segregated groups  
4. Lego box | 335                            |
<table>
<thead>
<tr>
<th>Year</th>
<th>To whom</th>
<th>On what</th>
<th>Duration</th>
<th>Method</th>
</tr>
</thead>
</table>
| 2009-10| 1. All Supervisors 2. Some Project coordinators | • Pre-school methodology  
• Kit  
• Assessment | • 2 days after training the Akshara Staff | Direct by Project Head & Master Trainers |
| 2010-11| All Supervisor                    | • Lego                         | • 1 day                            | Direct by Project Head & Resource Team     |
| 2011-12| 51 Supervisors                    | • BVS                          | • 1 day                            | Direct by Project Head & Resource Team     |
| 2012-13| 12 Supervisors & 6 CDPOs          | • 335 Model Anganwadi  
• Classroom management  
• Children segregation  
• TLM segregation  
• Assessment  
• Lego blocks | • 2 days  
• 1 day lego training | Direct by Project Head & Resource Team, Subject Matter Experts |
Case Study

Introduction Akshara Foundation is a Public Charitable Trust in Bengaluru, established in 2000 as a part of the Pratham Education Initiative and has replicated Pratham's approach of comprehensive, scalable, replicable and cost-effective education solutions. It envisages a tripartite partnership between the government, corporate sector and the voluntary sector to achieve its mission, 'every child in school and learning well'.

So far, Akshara Foundation has undertaken various programmes and they are as follows:

- Pre-school (Balwadi) Programme (being core to Akshara)
- In-School Programme
- The Library Programme
- The Karnataka Learning Partnership

All Akshara's programmes are child centric and are designed to ensure increase in enrolment ratio in schools, along with improved learning outcomes among children, with overall child's development and decreased dropout rates in schools.

Akshara embarked on its journey in Karnataka with Pre-school (Balwadi) programme, a community-based model. Over the years, Akshara has grown in the area of ECE and has developed various ECE models. Being in the area of ECE, Akshara Foundation felt the need for quality ECE programme for children's overall development. Therefore, they have started supporting Anganwadis in Bengaluru Urban District with a volunteer service from 2005 onwards. The volunteers were trained to support the Anganwadi workers and work alongside without breaking down the existing structures of functioning. Each volunteer visited two Anganwadi centres every day and spent an hour and a half engaging children in pre-school activities. This model continued for three years.

Ms. Latha (Trainer at Akshara) during her interview stated, “It acted as a stepping stone to work in the ICDS system.” It resulted in a deeper engagement with all the Anganwadis in Bengaluru. Currently, Akshara is intervening in six ICDS projects across 1,776 Anganwadi centres. The intervention primarily entails the following:

(a) Supply of pre-school kit developed for conducting pre-school education at the Anganwadi centres.

(b) Capacity building of AWWs and helpers by providing two day trainings in cascade mode.
(c) Reactivation of Bal Vikas Samitis (BVS) through training of members in 1,767 AWs, to bring awareness regarding ECE among the community members and parents of children attending the Anganwadi (AWS).

In a broader design of the study, case study was included as an important component to explore the quality aspects of the programme and to complement the evidence gathered through quantitative mode. In addition, it was undertaken to get a more nuanced understanding of how processes within the programme get articulated, planned for and practised to derive key indicators of effective programming in ECE.

Methodology

This section includes a description of the following—the research design, sampling process, the tools and techniques for data collection, procedures for data analysis and strategies used to ensure the credibility of the study. Although these four processes are discussed in sequence, it is important to note that they are closely interconnected and often occur simultaneously.

Research Design

The study used cross-sectional design, as various stakeholders were involved in having a better understanding about various aspects of the programme.

Sampling Process

Centres

Since Akshara intervened in ICDS with multiple centres, we have purposively selected three Anganwadi centres (AWC) comprising two A-category AWC, namely Konanakunte and Agara and one C-category AWC, that is, Vajarahalli in consultation with the Akshara project staff to understand the contextual factors related to implementation of the programme. Akshara has graded AWCs in five categories on 70 item indicators, which include teachers, material, infrastructure, etc.

- A-category: AWCs that are rated good
- B-category: AWCs that are rated average
- C-category: AWCs that are rated as not even average

In order to control for intrinsic factors, we purposively selected Agara and Vajarahalli AWC as they fall in the same circle and have the same supervisor. The table below gives a brief description of the selected centres.
Table: Description of sampled anganwadis for case study

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<th>ID</th>
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Participants
Children
We selected five children purposively from each centre to assess their school-readiness skills. The criterion for selection of children was as follows:
- Age: child should be four-and-a-half to five-and-a-half years old
- Diversity in terms of gender
- One child who is a better performer in class

AWW/AWH
A total of six teachers (that is, one AWW and one AWH (Anganwadi Helper) from each centre) participated in this study. Some of these teachers belong to the same community where they serve and run their AWCs.

Parents
A total of 15 parents (majorly mothers) were interviewed on Adaptive Behavior Scale (ABS) as well as to understand their perceptions about Bal Vikas Samiti (BVS). The sample comprised of five parents of the sampled children from each centre. Usually, the data collection was conducted at the end of the programme.

Community members
We had planned to interview one or two influential members of the community at each centre to know their perceptions regarding ECE and BVS. But depending upon the availability on the day of visit, we were able to interview only one person at Agara AWC. In addition, we got the chance to conduct FGD with the BVS members at Vajaranahalli centre. As getting the BVS members together was a challenge at Konanakunte, we had an informal chat with the community members.
Supervisors

We interviewed two supervisors under whose supervision the selected centres falls. They were interviewed to know their perception about Akshara’s intervention and to get an insight about the factors contributing to varied performance level of AWCs under their supervision.

Master Trainers/Field Co-ordinators

In order to understand the ownership and impact of the programme by diverse stakeholders, we interacted with the master trainer, programme co-ordinator and field co-ordinators of the same AWCs.

Tools and Techniques for Data Collection

Over a period of a week, data collection was performed. We initiated the data-collection process by visiting the Akshara office, had an informal talk with Ms. Latha (Master Trainer) and decided upon the AWCs to be covered for the case study. In order to speed up and facilitate the data collection, we split up in two teams. The team comprised of one researcher from CECED and one field investigator from state partner team who was familiar with the tools and proficient in Kannada, local language.

The following tools were used for data collection:

- **Early Childhood Education Quality Assessment Scale (ECEQAS):** We observed three centres for one full day and assessed the quality of ECE programme through ECEQAS developed by Centre for Early Childhood Education and Development (CECED).
- **School Readiness Instrument (SRI):** It was used to assess the school readiness of children. The field investigators conducted the tool as they were familiar with the language as well as the tool.
- **Adaptive Behaviour Schedule (ABS):** It was conducted with the caregivers of the sampled children to assess their adaptive behaviour skills. The field investigators facilitated the administration of the tool. In some cases the parents knew Urdu, so the researchers were able to communicate.
- **Interviews:** We conducted interviews with various stakeholders such as master trainer, programme co-ordinator, field co-ordinator, supervisors. In most of the cases, copious notes were taken whereas some were audio recorded and later transcribed.
- **Participant Observations:** To get the nuanced understanding of the classroom processes, we have conducted participant observations at the centres.
- **Video Documentation:** We video documented the classroom processes at two centres.
Analysis of Data

After data collection, the qualitative as well as quantitative data was organised. The recorded qualitative data was transcribed and coded. The findings are supported by triangulation of data from multiple sources.

Overview

Overall, we developed an understanding that the intervention in ICDS pre-school programmes by the Akshara Foundation has been visualised strategically. The programme has been conceptualised very well, aiming towards strengthening the Early Childhood Care and Education (ECCE) in a planned manner. It is reflected in its comprehensive design, where the emphasis was on reviving and strengthening the already existing structures in ICDS to ensure effective implementation of ECE at AWCs. These features of the programme reflect an effort to address the important issues of scalability and sustainability, which can be appreciated.

Although the programme has been designed comprehensively, it has taken care of intricacies involved in the processes at every stage. This programme has been designed and implemented by people who have the expertise and experience in ECE and familiarity with real-time processes in ICDS, like Latha, who have served long at ICDS as AWTC trainer and are very well aware of the difficulties faced by the system.

Through their implementation strategy, the following steps were undertaken for achieving the goal of strengthening ECE in ICDS:

- Akshara supplied a teaching-learning kit to all the Anganwadis
- Akshara trained the Anganwadi workers in using the teaching-learning material.
- Baseline and endline child assessments were conducted every academic year
- Bal Vikas Samiti members were trained
- The programme catalyses community support in the form of Friends of Anganwadis groups, a forum of mothers and like-minded community members, to support the Anganwadi worker in imparting the educational component of pre-school.
- Monthly meetings of mothers were conducted to generate awareness of the importance of pre-school education.
- General awareness was also created in the community about the significance of pre-school education and the important role of Anganwadis in delivering it.

While the programme provides several positive learning, there are also some gaps, particularly with regard to ensuring ownership and the need for community involvement, which indicate the critical importance of these factors in terms of sustainability and scalability of the model.

Each of the above mentioned elements has led to some significant findings, based on the evidence from the field. These are discussed in the following section.
OBSERVATION OF REAL-TIME PROCESSES

CENTRE-1
KONANKUNTAE

Location & Profile of the Centre
It is a centre located in urban Bengaluru. The centre is located in the midst of a close
habitation. It is situated at the back of a government school. It falls in A-category, going by the
classification provided by Akshara Foundation.

Classroom Setup
With respect to ECEQAS, the AWC has obtained a score of 7 out of 10 for infrastructure or
physical setting available at the centre. This domain takes into account the availability of
toilets, water at the toilet as well as drinking water at the centre, safety level of the building,
noise pollution around the centre, and so on.

The class was a big room with a blackboard and teacher’s table–chair at one side and child’s
display on the other. There were material corners where TLM was arranged as per different
domains of development. But it was felt that this segregation was more to for teachers rather
than the children as the latter were not making use of those materials. There was appropriate
space to engage children in group activities. Children were made to sit in six groups at a
distance to provide them opportunities to engage in different group activities.

Teaching-Learning Material
There was manipulative material available at the centre. Manipulative materials refer to the
materials being used by the children themselves, such as, puzzles, picture books, etc. In
addition, academic materials were also available with children. Academic material is used by
the children for formal reading, writing and numeracy and this included alphabetical writing
slate with pencil, which was used to teach English and Kannada alphabets to children. During
the observation, it was also evident that the teaching-learning material was available in
plenty at the centre and that too included material from various sources such as Akshara
Foundation, MWCD and materials provided by many other organisations.

On the day of observation, as a festival theme was being followed, more of materials provided
by the Department of Women and Child Development (DWCD) were evident in the activities,
for example, blackboard, alphabet boards, etc. A few of the activities involved the use of
Akshara materials on the day of observation such as storybooks for younger children. There
were also activities that were conducted without the use of any TLM.
Classroom Processes

Most of the activities conducted at the centre were for all the children together but at times individual as well as group activities were also performed with them. During the observation, it was felt that most of the children were engrossed in all the activities performed at the centre. The activities conducted with children provided them an opportunity to share the material with other children while playing/working with them. Positively, there were also activities where children were asked to wait for their turn, for example, during group work, each child was given a chance to make use of materials.

As far as ECEQAS is concerned, Classroom Management & Organisation domain covers availability of flexible, inclusive seating arrangement, arrangement according to the activity, age/development appropriateness of the activities, weekly/daily schedule, class composition and so on. ECEQAS scores reveal that above average attempts are made by the AWW in this respect.

Teacher

The AWW reported that children were coming to the centre on time. She said that she checked health and hygiene of the children on a regular basis. During her interview, she also said that at times, she made children take bath but now parents are doing it on their own. She even opined that support provided by Akshara is really helpful and should be extended for a long period.

At the time of observation, the teacher basically focused on children in the age group of 4–6 years whereas children below 3 years were left to the helper. A variety of school-readiness activities were conducted with children. Lots of opportunities for free play were provided at the centre, especially for children below 3 years. The older children were engaged in guided conversation with the teacher on theme of ‘festivals’. The conversation was also supported by puppets or role-play material, like tying up of dupatta to turn it into a snake to hold the children’s attention. In addition, children were provided opportunity to get involve in a lot of circle or group guided games using different kinds of materials, for example, puzzles, alphabet boards, etc. Rhymes and action songs were also recited with respect to the on-going theme. Most of the activities were handled by the teacher.

As far as ECEQAS scores are concerned, the teaching–learning process covers participation levels of children, the ways in which innovative concepts were introduced and providing opportunity to children to answer the questions asked by the teacher. ECEQAS reveals an average score with regard to the teaching–learning processes.
Teacher's characteristics and disposition aspect covers questions with regard to teachers voice, her child-friendly disposition, her response to child’s errors and also to child’s needs and disposition. The result reveals a slightly above average score of 5.5, which means that there was some attempt by the teacher to cater to children’s needs and also no incidence of corporal punishment was observed.

Children
The school-readiness instrument focuses on three types of categories of competencies—Pre-mathematical concepts, Number concept, Language skills & reading readiness. The total adjusted score varied between 3.8 and 8.5. It is important to note that the age of the children varied between four-and-a-half and five-and-a-half years.

The SRI is typically administered to children between this age group (4.5 to 5.5) who are getting ready to enter school. The table above shows that while the pre-mathematical and language scores are above average, children’s performance on number concept is very poor. The scores may also reflect that the curriculum needs to focus more specifically on number skills. The total scores on the School Readiness Instrument reveal that most of the children have scored above average.

Looking at the ECEQAS adjusted scores for activities provided to children for learning language and reasoning experiences, the results reveals a score of 7.3 out of 10. It can be concluded that a good number of opportunities are provided to enhance children’s language and reasoning experiences at the centre. This section includes items on understanding the teacher’s language, listening and speaking opportunities provided by the teacher, writing and reading readiness and concept formation for children.

The table also shows poor scores for fine and gross motor activities as well as creative opportunities for children, as it was not observed during the day of observation. Further, good personal care, hygiene and habit formation opportunities were provided at the centre. This further reflects that the teacher checks the personal grooming on a regular basis and also children come well groomed to the centre. In addition, children have also developed a habit of washing hands after going to the bathroom and before taking meals.

Parents and Community
The five children performed well (above 50 per cent) on ABS, suggesting that they have acquired important social-emotional skills needed to interact with their peers, as well as with adults. The ABS focuses on four important areas: socialisation, emotional control, self-help and communication.
Items on socialisation include the child’s ability to relate to other children and form friendships. It also records their ability to interact with neighbours and relatives who live close to the child’s house. The items on the emotional domain primarily ascertain children’s ability to recognise basic emotions and regulate them when they encounter frustrations. The self-help domain captures a child’s ability to perform routine tasks such as working hard, wearing clothes and caring for one’s belongings. The fourth domain focuses on the child’s receptive and experience language. The items determine the child’s ability to understand simple instructions and communicate using simple sentences.

CENTRE-2
Vajarahalli
Location & Profile of the Centre
The Anganwadi centre is located at Vajarahalli, an urban centre. The Anganwadi centre is being run on the premises of government upper primary school. Being inside the school premises, it shares resources with the school. We observed how the optimal utilisation of resources could be conducted, such as children from AWC were freely playing in the playground and, at times, the food was also shared by the school with the AWC children. This centre falls in C-category as per Akshara’s ranking.

Classroom Setup
The AWC has proper infrastructure in terms of rooms, kitchen, and toilets. The centre had three rooms; one bigger room was dedicated to the classroom activities, which had the capacity to hold 30–35 children, there was one kitchen and a store as well. There was a toilet and washroom adjacent to the classroom. Moreover, ECEQAS scores reveal that the centre scored well on physical infrastructure domain but keeping in mind the number of children attending the centre, space constraint was felt as there were around 45–50 children on the day of observation.

Teaching-Learning Material
It was evident that the centre had ample amount of TLM being provided by various agencies. The classroom was overloaded with TLM—there were charts, pictures all over the walls, some TLM were also hung from ceiling, such as the fruits and vegetable toys, and the cut-outs provided in the Akshara kit. We observed that TLM such as writing pads were also piled up at one end in the centre or the Akshara kit was locked in a cupboard in the store room. Moreover, we didn’t find different learning corners, which are the soul of Akshara’s intervention. In the whole day’s observation, we observed that children had restricted access to TLM; the AWW was the one who provided them the material. It was found that most of the activities didn’t entail any TLM or they had a combination of material from different sources. Akshara’s TLM was used in a limited manner, such as, only Lego blocks and puppets were used with children. In a nutshell, we can say that due to overloading of TLM, somewhere the Akshara kit didn’t get its due attention on the part of AWW. Although there was too much TLM, we didn’t observe effective arrangement and use of TLM with children.
Classroom Processes

Classroom processes are a mirror that reflect the quality of the programme. At Vajarahalli, we observed that children were coming happily to the centre and were involved actively. It was found that for most of the time, routine activities were performed where children learnt certain rules, and learnt to take care of themselves. It was observed that children were involved actively in activities that were meant for the whole class - there was no focus on age and developmentally appropriate activities. Most of the time, they were involved in activities such as singing songs and rhymes, indoor and outdoor play, guided play with material such as Lego blocks, where they got an opportunity to work/play with other children and enjoy the activities. Somewhere down the line, expectation from the community was reflected in classroom processes where rote learning was observed. We observed that AWW was scolding or slapping children to discipline them. In addition, ECEQAS score also reflected weak classroom management.

Teacher

The teacher plays a crucial role in providing meaningful experiences to the children, which fosters their overall development. The AWW at the Vajarahalli centre was a middle-aged woman from the local community. She was a graduate and had received many trainings from different agencies such as Maya, before receiving the Akshara training. Ironically, loads of TLM received from various sources was there, but we didn't observe the TLM being used effectively. This led me to think, 'Does mere supply of TLM make the difference with little training or is there something else on the part of teacher?' While getting deeper on this, I found that this was a lady who had to take care of 50–55 children. On the day of observation, we observed that she was not following Akshara's philosophy of developing various corners and conducting age-appropriate activities; throughout the day she conducted whole class activities. She seemed very erratic with the activities, as no pre-planning had been done. There was a mixed reaction to children on the part of the AWW—on one side, she was feeding a child who was not able to eat, on other hand, she got irritated easily and scolded the children; instances of slapping were also observed. ECEQAS scores on teacher disposition were very low, affirming the fact that the teacher was not providing requisite experiences for scaffolding. This teacher's attitude and perception about ECE affects the classroom processes and management to a great extent.

Children

There were around 50 children at the centre on the day of observation, belonging to a mixed age group. Children were well groomed and nicely dressed. Small girls were wearing frocks and gajra in their hair. Children were coming with a smile on their faces. It was evident in our observation that they were not at all bothered about our presence and were carrying out their routine activities normally; one reason could be that outsiders visit this centre frequently or probably the children enjoy coming here. Moreover, the scores on ABS indicates that children are well prepared in terms of adaptive behaviour needed to adjust in school settings, whereas the SRI scores point to the fact that that children were prepared at an average level for school. This implies more inputs are needed to be given on domains pertaining to number concept, language skills and reading readiness.

Community

We observed that some parents were coming to drop and pick their children. In some cases, they were also helping the AWW in serving food. As such, no involvement in classroom processes were found.
CENTRE-3
AGARA

Location & Profile of the Centre
It was a rural Anganwadi centre located at the periphery of Bengaluru, a one-and-a-half hour drive away from the city. It is away from noise and pollution, surrounded by serene environment in the lap of nature. The centre was situated amid the habitations. It falls in A category of Akshara ranking.

Classroom Setup
The centre was located on a lane from where light traffic passes occasionally. The entrance was decorated with rangoli reflecting the local tradition. The centre had one classroom that could accommodate 30 children. There was a kitchen, store, washroom and toilet. The room was painted very beautifully with alphabets, numbers, fruits, vegetables, etc. It was very well lit and ventilated. However, there were no corners arranged.

Teaching-Learning Material
We observed that there were a lot of TLMs kept aside in the store or in the corner. It was not displayed or arranged effectively within the reach of child. There was no evident corner for activities pertaining to different domains. On the day of observation, we saw limited use of TLM with children. Some meaningful activities were conducted with children where Akshara kit material was used such as story telling was conducted for the children with storybooks. At times, print material was being used with children.

Classroom Processes
Classroom transactions play an important role in learning and development of young children. At Agara centre, we found that the majority of the time, routine activities followed by free/guided conversation and songs/rhymes were being conducted, where children were provided with an opportunity for rote learning with an element of fun and enjoyment. AWW was there whole day but not able to conduct and involve children effectively; the activities were held in a whole-class setup with some group activities. ECEQAS scores also reflect negligible classroom management. It may, however, be acknowledged that the day of observation was not the typical one, as there was lot of intrusion from outsiders such as doctors and medical students who visited the centre and disrupted the normal routine.

Teacher
The teacher acts as a facilitator to ensure child’s optimal development by enriching child’s experiences in a meaningful way. The AWW at the Agara centre was middle aged, moderately educated (till class X) with 21 years of experience. As observed, she was very soft spoken and responsive to the children’s need. We observed many instances where she was trying to soothe a child who was a newcomer. She was dealing with children in a very polite manner. Although she was not able to control the children, the way she was handling children was very child friendly. Not a single instance was observed where she got irritated or behaved badly with the children.
Children
On the day of observation, there were around 55 children in the centre, ranging from 2–6 years of age. The children were neat, clean and well dressed. There was a good mix of girls and boys. The children were coming of their own will and were dropped there by their parents. There was a sense of flexibility, as children were coming and welcomed by AWW even if they were coming 1 and 1.5 hours after the AWC opened. On the day of observation, there was a child’s birthday, and her mother came to the centre to distribute sweets among the children. AWW made it an activity by placing a crown on her and then asked her to distribute taffies to every child and, in return, the child had to wish her and say ‘Thank you’. It was conducted very beautifully and enthused the children who sang Happy Birthday many times with the same zeal.

We conducted SRI with some children and the scores showed that the children scored average. More attention needs to be given to the number concept and language domain.

Community
We observed that parents were coming to drop and pick their children. Mothers were observed helping in preparing and serving food. At times, if the child was new to the centre, then the mothers also sat there with the child to soothe him/her.

Overall, we found that all the AWs we visited were aware about Akshara’s intervention. They were implementing it to various degrees. The following section will cover the AWCs in detail, dealing from background information to in-depth understanding of nuances at AW level:

Location and Profile – The centres visited were in urban areas and sharing a government school campus except in the case of Agara, which was in a rural area. Two of the centres fell in A-category as per Akshara ranking and one in C-category.

Classroom setup – It was pleasing to see that all the AWCs have their own buildings with facilities such as classroom, toilet, washroom, kitchen and store. Although the centre had proper infrastructure as reflected in ECEQAS score, where the centres have scored above average, but it needs to be mentioned that it was not sufficient to serve the number of children coming to the centre, except in the case of Konunkunte, which had two classrooms.

Teaching-Learning Material (TLM) – We were amazed with the amount of materials present at all the centres. The TLM was provided through various organisations such as BBMP, Maya, Akshara, etc. Somewhere, we felt that the urban areas have more TLM as compared to rural areas. On further probing, it came across through interviews that BBMP is very active in urban areas and they supply TLM on regular basis; it is not so common in rural areas where AWC falls under the purview of Gram Panchayat.
The TLM kit that was provided by the Akshara Foundation was found to be used in varying degree across the AWCs. The Akshara Foundation has developed a TLM kit of developmentally and age-appropriate materials, which tries to supplement the ICDS curriculum and strengthen the quality. While designing the kit, ECE curriculum in ICDS was reviewed, consultative meetings with experts were held and it was field tested. We found that Lego blocks are the most popular TLM, as it was mentioned by all the functionaries. It was observed that the TLM was not organised and used in an effective manner, the way it was meant to be, except in Konunkuntae where the material was displayed in a useful manner within the reach of the child. The reason could be the space constraint at other two AWCs or the AWW was not motivated enough to take initiative or she was not competent enough and may need more hands-on experience.

Classroom processes – Classroom transactions were mainly whole-class oriented with a few instances of age-segregation activities, except at Konunkuntae, where children were divided into two groups, three to four-and-a-half and four-and-a-half to six years. AWW was carrying activities with older children whereas AWH was taking care of younger ones. As the festival was theme, it was followed in varying degree at the AWCs. In both A-grade AWWs, we found that the AWW had carried the activities in consistency with theme, whereas the C-grade AWW was conducting the activities in an unplanned manner. We observed an element of health and hygiene and discipline being followed at all three centres. It was observed that the children were given opportunities for fun and enjoyment, sharing, working with children, at times, getting them to be curious, followed by practice of rote learning across centres.

While Akshara has added introduction to alphabets and numbers in their kit, surprisingly, we have seen academic material being used by the children for formal reading, writing and numeracy and this included alphabetical wooden boards with pencil, which was used to teach English and Kannada alphabets to children. While talking with the community, preference for English and reading, writing was conveyed; this in turn, directs the classroom activities.

Teacher – It was interesting to see that across all centres the AWW were middle aged with an education background varying from secondary school to graduation with years of experience in the field ranging from 15–25 years. We witnessed how the personalities of the teachers across the three centres directed the classroom processes. The AWW at the Konunkuntae AWW had a strong personality, having full control over the classroom. Although children were given opportunities for learning in a planned manner, we felt that it was more teacher directed. In contrast, at the Agara centre, the AWW was a very soft spoken lady, responsive to the needs of children with a child-friendly attitude but had weak classroom-management skills. On the other hand, the AWW at Vajarahalli centre was a knowledgeable lady but not conducting activities in a planned manner. At times, instances of corporal punishment were witnessed in Vajarahalli.
Children – It was quite fascinating to see the way children were confident and open to outsiders without any hesitation and shyness at all the centres. Across all centres, we observed that the children were well groomed and actively involved in the activities. Since the number of children at the centres was quite high from 45–55, the AWWs were finding it difficult to organise group activities except in Konunkunta and to a certain extent at Agara.

The scores on the SRI reveal that most of the children are scoring average and above, especially at Konunkunta and Agara, followed by Vajarahalli. While the pre-mathematical and language scores are above average, children’s performance on number concepts are very poor. The scores may also reflect that the curriculum needs to focus more specifically on number skills.

Parents/Community – We observed that parents’ role was very limited, as in they come to drop and pick the children. As compared to urban, at rural centres, we observed that parents helped in the AWC functioning, such as by joining in the preparing and serving of food and cleaning dishes. Even supervisors also confirmed that parents are more active in rural areas as compared to urban.
A Day at Agara Centre

We reached at 9:15 a.m.; the helper was cleaning the centre. As soon as we reached, we were informed that there would be a health check-up at 10:30 a.m., and which will continue at least for an hour. After that, both the AWW and helper got busy in organising the materials and placed the TLM for free play in the baskets that were placed in the corners of the room. There were 7 pre-school children by that time. One child cried badly as her mother was leaving for work, but was attended to by the worker who made her sit in her lap and the child was quiet after some while. The AWC was placed in a nice rural location surrounded by households. The place looked spacious and clean. The walls were beautifully painted and had lots of text written on them as provided by the DWCD. The room was not big and was also attached to three other openings—one was the kitchen, the second was the small storage space and the third was the open toilet and hand-washing space for children.

The children got engaged in free play using materials by this time. Most of the children looked neatly dressed up and were dropped by their mothers at the centre. The children were allowed to go to the toilet without taking permission. By this time, most of the children had gathered, so the worker started with an informal discussion about hygiene and their morning routine activities. They discussed about brushing teeth, bathing and about eatables at breakfast. After that, it was time for prayers where all were made to sit in a circle with joined hands. All of them recited the prayer after the worker and later slogans were repeated. After prayer all were made to stand for P.T. and were given instructions all the time. Attendance was taken after prayer and physical activity. AWW was finding it difficult to discipline children as they were above 30 by that time and taking attendance was also an issue. Then we also witnessed a birthday celebration at the centre where the child came with her mother with a packet of sweets. Then, the worker made her wear a crown and explained to children the way to unpack the sweets and also asked one child to collect toffee wrappers from all the other children. After that sambar was served in small glasses to children as a snack before lunch.
The Stakeholders
This section will provide insights from interviews with stakeholders with respect to education status/professional training, other training experience, work/ responsibilities allocated in general and specific to ECE. It also describes their perceptions regarding ECE programme and factors affecting the functioning of AWCs.

Community (parents, and other significant members) expectations from the ICDS and perception about Akshara’s intervention were also discussed.

I: ICDS Functionaries—Anganwadi workers/Helpers/Supervisors

Educational status and work experience:

AWW – The AWW’s educational levels vary from secondary pass to graduate. They have an experience of 15–25 years in the field.

AWH – The helpers’ educational levels varied from no education to some minimal education and in some cases till secondary levels with an overall experience of 5 years and above.

Supervisor – Supervisors of Konarkuntae and Uttarakhalli circle educational level were graduates and post-graduates respectively, with an experience of 8 to 21 years.

Responsibilities
AWW – At all the three centres sampled for the study, the AWW were interviewed. The major responsibilities performed by the AWW include keeping records of pregnant mothers, providing immunisation at the time of delivery, growth monitoring and health check-ups and so on. An AWW’s role includes teaching children, engaging them in classroom practices, incorporating discipline and involving them in various outdoor and indoor activities. One of the helpers also said social service was her major duty.

AWH – As reported in the three interviews with helpers, the major responsibilities performed by them at the centre includes cleaning work, preparing food hygienically according to the time table, taking care of children in the absence of the teacher and making children sleep in the afternoon. In addition to above, the other tasks performed by her include filling water and distributing ration to pregnant women, as stated by the helper at Vajarahalli.

Supervisor – Two supervisors who were interviewed mentioned that their role and responsibility involved visiting centres, solving their problems, checking records regarding nutrition, growth monitoring, conducting nutrition programmes with mother and lactating mothers, through demonstration, taking great care of severely malnourished children, creating awareness among community about various government programmes like Bhagyashakshi Scheme, and bank loans. One of them also mentioned about demonstrating ECE activities to the AWW and encouraging them to conduct ECE activities. The Konarkuntae supervisor also mentioned that she had trained the AWW on the Akshara kit and its use whereas the other supervisor mentioned that she hadn’t received any training from Akshara.
Activities conducted at the centre

AWW – When asked about the activities conducted at the centre, some of the activities named by her include sishu geet/action songs, drama, story telling, outdoor–indoor games—such as walking on rope, catching ball—drawing and colouring, identification of vegetables, fruits, flowers, numbers, teaching Kannada and English alphabets. Demonstration, observation and making use of action songs and stories are some of the ways that are used by the teacher to engage children in learning activities.

When asked about their own experience about children’s learning, most of them said children learn through the use of pictures, by observing others, by repeated drilling of concepts, by playing and through practical experiences. Two of the AWWs out of three, reported that children should be taught to read and write at the AWC. The reasons given by them were that the children would get basic knowledge and also learn to sit, eat and talk at the Anganwadi centre. In addition, the Vajarahalli AWW believed that private schooling is good as 'A, B, C' is taught, as indicated by the parents for the reason for sending children there. Whereas, the AWW at the other centre rightly stated that reading–writing should not be taught as AWC focuses on all round development of children.

The teachers at all the centres revealed that children should be disciplined in class by engaging them with pictures, playing material and by involving them in more of oral activities. One AWW also said that if 'shala purv shiksha' (pre-school education) is conducted properly, then there will be more of learning and discipline will be maintained.

AWH – Some of the activities conducted by the Anganwadi helpers for young children coming to the centre included recitation of action songs, use of balls/outdoor play, teaching of numbers, alphabets, letters using charts, sounds, writing on slates, story telling, exercises, and so on. When asked about their efforts in engaging children in learning activities, sharing other children's examples was reported by helpers of two centres whereas Vajarahalli helper said 'children see other children and join in activities'.

They even reported the use of pre-school kit material in the absence or presence of AWW. When asked about the materials that are used most often by them, these included plastic fruits and vegetables, activity books and Lego blocks. The helper at Vajarahalli named a couple of other materials such as skipping rope, ball, colouring book and flash cards. Lego blocks were something that was appreciated by all the helpers as well as Anganwadi workers. All the helpers graded the pre-school kit provided by Akshara as very useful as rated on a scale of 5. When asked for reasons, the helpers at all the centres stated that because of the kits, children sit silently as they have lot of play material to engage happily in.
Training

AWW – All the workers reported having taken job as well as refresher training from ICDS and also training from Akshara. Only the Vajaranhalli worker said that she has not enrolled in any refresher training by ICDS.

Both the A-category AWWs reported having received Intensive training, which refers to two sets of trainings. The first round includes the training on the use of pre-school kit with material followed by second round of training, including additional materials and training on use of those materials along with classroom-management skills. The Vajaranhalli AWW reported having participated in Non-intensive training, which refers to training provided on the use of pre-school kit with material, pre-school methodology and child assessment only.

They found the subsequent training to be different from the first one as they were given more materials and also were suggested ways to use them. They also talked about special reference of Lego boxes as part of second training. They added that some additional materials were also provided as part of second training, which were quite useful in conducting pre-school activities.

The Anganwadi workers at all the three selected centres found the training provided by Akshara to be very helpful and also an opportunity to learn many new things. With the help of training, they are now able to conduct age-wise activities with children by making use of more and more materials. In addition, they found themselves to be more polite and softer in handling children. The Vajaranhalli AWW also drew a comparison between the ICDS and Akshara training and said that, ‘ICDS mei khali bata the… ICDS mei purchase kare the… yaha toh miltta hai… Practical kara ke dikhate hai.’ In other words, she found the training to be very helpful as there was more of practical exposure with the use of materials.

Some of the topics covered in the training as recalled by the workers include importance of pre-school, children’s learning, importance of play, disciplining, children with special needs and activities that help children learn. The Vajaranhalli AWW felt that there was no discussion on activities that help children to learn and also on children with special needs as a part of training.

AWH – Only the two helpers from A-category AWCs reported to have received training from Akshara for a duration of one day. In addition, both the helpers found the training to be very helpful or in other words, a wonderful opportunity to learn new things. No such things were reported by the helper of C-category AWC, that is, Vajaranhalli.
The helpers at the first two centres reported having learnt new action songs and also methods to engage children in meaningful activities at the centre. All the three helpers stated to have received pre-school kit materials with training about its usage from the Akshara Foundation. It was further confirmed by AWW that the helper had been provided training from the Akshara Foundation whereas C-category AWW did not report any such training. When asked about any changes felt at the centre after the helper’s training, only one AWW reported that the helper was now able to engage children with the use of charts, songs and stories.

**Supervisor** – The Supervisor of Konankunte circle reported that she received Akshara’s training of 3 days, though not at a stretch, where they were trained about the TLM, assessment and BVS. She mentioned that now that the AWW is interested in conducting activities, children’s participation has improved. Further, she stated, ‘pehle tha par ab jyada hua’. She also said, ‘Earlier we used to visit and check only records, pre-school activities were also observed but more emphasis is given now comparatively.’ She reported that now she feels confident enough to train the AWW. The supervisor in collaboration with field co-ordinators has later trained the AWWs. The supervisor of Uttarhalli circle shared that she hasn’t received any training from Akshara, although she seems aware about the intervention as and when she visits the AWC. She mentioned that, ‘Akshara activities are good… but it is difficult for AWWs to divide the group based on the age, 2–3 years and 3–6 years’. She talked about the importance of intensity of training. She referred to the intervention by MAYA (an NGO), where they were providing ongoing training every month to the AWWs. The supervisor mentioned that one short training for AWW doesn’t work—there needs to be refresher or ongoing training every month, or atleast quarterly, so that it would boost the motivation of AWW.

**Assessment of the children** – All the three AWWs said that they conduct regular assessment of children. In addition, Vajarhalli AWW reported doing it on a yearly basis. All of them reported use of the Akshara tool as it is a age-wise assessment tool. The other method stated by them includes taking DoB of children and by checking whether a child knows her name, can read charts, handle materials easily, based on which the Akshara assessment tool is filled. Vajarhalli worker reported that she calls children one by one, asks questions which are given in the tool and gives marks according to the tool.

They also elaborated that assessment of children was also one of the aspects covered in the training. The Vajarhalli AWW also shared that the training covered methods of assessment using the tool and also focused on ways of asking and giving appropriate marks to children. Another AWW appreciated the assessment tool as it gives lots of details about the child.
**Bal Vikas Samiti** — Bal Vikas Samitis are support groups for Anganwadis comprising of stakeholders from various backgrounds such as the mothers of children, self-help group members, elected representatives of the area, the Headmaster of the nearest government school and the health worker. The group supports the Anganwadi worker in running her centre smoothly and solves everyday problems at the centre level. Akshara has given training to the members to rejuvenate this institution.

While talking about BVS to various stakeholders, we got mixed reactions regarding its implementation and the issues discussed.

**AWW** — All the three AWWs reported having a Bal Vikasa Samiti at their centre and also indicated that they are able to convene a meeting of BVS once in three months; however, Vajarahalli AWW reported that they met on a monthly basis. According to them, some of the key issues covered in the meeting include discussion on eradication of polio and problems with regard to water, immunisation and toilets at the centre. Generally, four parents and Stree Shakti members form part of BVS meetings. All the workers believed that BVS plays an important role in the working of the AWCs. They also shared instances where the BVS members supported the AWC by providing tap and infrastructure facility and, in one case, a big room as the number of children was high. Only one A-category AWW felt that the Akshara training had helped the BVS members understand their role better but the rest were not very clear about it.

**AWH** — All the three helpers reported that they attend the Bal Vikas Samiti (BVS) meetings regularly. As a matter of fact, after Akshara’s intervention, the BVS members are more readily available to help the AWW and helper, which was not there earlier as stated by one helper.

**Community** — To tap the community’s perception, we conducted FGD at Vajarahalli centre. The BVS at Vajarahalli has 14 members at present. As reported through the discussion, one member attained the membership through Gram Panchayat and is a member for the past three years and the mothers who were part of the interview became members just three months back, as their children started coming to the centre. The Head Master is a member for the past one year. The responsibility of the Samiti, as understood through the discussion, is to check the number of children attending the centre and also to look at the quality of food given to children. Another set of responsibilities includes pregnant women’s health checkups, efforts to reduce the dropout rate, visiting the centre on national festivals, sharing of donations that come to the school and for providing facilities such as water and other materials. It is also the duty of the Samiti to monitor the psycho-social development of children and to maintain regularity and awareness levels of parents with regard to taking care of children.
None of the members with whom group discussion was undertaken had taken training provided by Akshara and the reasons given by them were different, as most of them were new to BVS. When asked about the frequency of BVS meetings, diverse responses were given—one group reported holding monthly meetings whereas the other said they have it 4-6 times in a year or only when there is some problem reported by the teacher.

On being asked about the topic of discussion at the last meeting, the members recalled observing a national day, that is, 26 January. It was decided to celebrate it as a green day where children and teachers wore green dresses and the centre was decorated with green leaves and so on.

Positively, one group discussion reported the availability of pre-school kit at the centre and also revealed some positive changes at the centre as the children were able to use materials and were involved in activities such as drawing, learning alphabets, etc. They also said the food available to children was good. Recent support and contribution provided by the Samiti as reported were the provision of jans, parents contributed by providing vegetables, spoons, etc. In addition, the Sree Shakti meetings also helped by providing pipes and mats.

Both the group discussions reported that they did not think there would be any change even if Akshara withdraws as whatever comes for government school children are also shared at the Anganwadi centres to make them participate in the programme such that they can intermingle with each other. One discussion even highlighted that there was no need for Bai Vikasa Samiti meetings as they could call up the members as and when required and the problems would be addressed.

**Parental Perception of ECE**

Positively, majority of the sampled parents from all the three centres reported their child's interest in going to the AWC. When asked if the child discussed about the activities performed at the centre, most said 'yes' and named these as action songs, stories, drawings, drama, knowing their alphabets and numbers and so on. A few also talked about food preparation and teaching-learning materials available at the centre. One even shared that her child reports if there is any homework being given by the worker.

When asked about any change observed at the centres, 67 per cent of parents felt there was some positive change at the AWC whereas 20 per cent felt there was no change at the centre and there were also a few who reported to have no idea about this. A few believed that there was improvement in the quality of education as well as a lot of cultural activities were organised where parents are also invited to participate. Others indicated that there was some improvement at the level of child outcomes as they had learnt identification of various objects, could speak properly, have started taking interest in studies and also are more active in most of the tasks given to them. There is also some improvement in the level of food available to children at the centres.
When asked about their suggestions for further improvement at the centre, most of them agreed that there could be further progress in the knowledge as well as learning levels of children. There can be some up-gradation in the quality of food being provided for children too. An addition in activities conducted for children and some improvement in writing skills were also mentioned.

**Importance of Attending the AWC Programme** – Parents from all the three centres shared their reasons for attending the AWC and its importance for their child. A couple of parents reported that the Anganwadi centre was a safe place for children rather than playing on the streets or being at home. Another set of parents mentioned about some kind of learning happening at the centre. Some of them also rightly shared that attending the AWC is a kind of preparation to primary school where children could learn basic education and become disciplined. The child also learns alphabets, names of the months in addition to reading and writing skills. Further, they also added that it was a very good place where children could interact with other children and also get opportunities to get involved in play activities with others.

Above 70 per cent of the parents reported being involved or contributing in some or the other activities performed at the centre. Very few of them reported to have attended BVS meetings where they discussed childcare and the importance of nutrition. Only one mother indicated that she took care of children at the centre for a full day in the absence of the AWW. In addition, a parent also reported participating in pre-school activities on a regular basis with the AWW. Most of them indicated participation in celebrations of national festivals and other special occasions such as a campaign for population control conducted at the centre.

Around 80 per cent of the caregivers reported to have made attempts to visit the AWC or meet the AWW to know about their child’s progress. For some of them, the last interaction with the worker generally focused on physical development of the child, about health check-ups and the child’s behaviour in the class, in terms of discipline and habits. Some reported to have discussed about the child’s performance in class or in other words, about their child’s learning process with respect to reading, writing and other activities performed at the centre. One mother reported to have talked about the benefits of Bhagya Lakshmi Scheme (a scheme supporting education of girl child) for her daughter.

**Suggestions to Make the Programme Better** – Most parents were unable to provide any kind of suggestions to make the programme better. A very few of them who responded talked in terms of improvement in aspects related to nutrition among children. One of the respondents was completely satisfied with Akshara’s intervention.
Perception about Sustainability

AWW – On being asked about the impact of Akshara’s withdrawal, one of the respondents shared that activities such as dividing children into age groups and assigning names to the groups such as banana, etc., are very nice but would be difficult to continue without support. The other A-category AWW said that they would continue with the learning received from the Akshara training and carry on their activities even if the Foundation withdraws. However, the Vajrahalli worker shared that the impact would be significant as the materials provided by Akshara were very useful.

II: AKSHARA STAFF

Project Co-ordinator

The major responsibilities performed by Bhagya, the Akshara project co-ordinator includes preparing budget, handling problems of the centre with the Anganwadi worker, teacher and other staff members training and doing follow-ups after BVS and parents’ meeting. She is in charge of the South project and presently looking after 120 AWCs.

The project co-ordinator reported having received ECE training from Akshara Foundation which was for a week’s duration and later she got an annual refresher training on a regular basis. According to her, a model AWC should have at least basic facilities such as water, toilet, play space, etc. in addition to these basic facilities, she also talked about importance of an educated AWW, teaching-learning materials and age-wise groupings as important components of the centre.

On investigating about the training that is jointly organised for project and field co-ordinators and ICDS supervisors, she shared that it primarily focused on the use of TLM, training and BVS responsibilities. However, the training programme for BVS members focused mainly on the challenges faced at the Anganwadi centre. She also reported that one training was organised initially and, subsequently, three monthly BVS meetings are expected to be conducted. In addition, training for friends of AWCs was also talked about. She stated that friends of AWCs group are only in a few AWCs. She also added that most of the trainings were initially organised for two days and then refresher trainings were provided every year. It was also reported that handling children with special needs was not really touched upon in detail in any of the trainings.

About follow-ups: Follow-up visits by the co-ordinator are organised to AWCs generally 3–4 times in a month, although in some cases, it was reported as only once in a month. (The number of visits can vary depending on the performance of the centre.) Her follow-up visits include monitoring of activities at the centre, preparing case histories of children and helping the AWW for the upcoming challenges to be faced.
Impact of the Programme – According to her, there has been a tremendous impact of the programme, which is primarily evident in the fact that in around 70 per cent, AWCs there has been some change observed at the level of teachers’ attitude. Corporal punishment has also reduced to some extent and the centres are found to be running regularly on time. Moreover, there are more and more materials at the centres to organise age-appropriate activities for children.

Review Meetings and Monitoring System – She reported that monthly meetings are organised among Akshara staff and project as well as field co-ordinators. The discussions in these meetings include update on the status of the centres and their tour plans as well as visit reports.

Meetings with AWW are also happening at the ICDS office twice a month. The discussions generally focus on the ideas of a good AWC, the use of TLM and various other issues.

Challenges Faced: The major challenge as reported by the project co-ordinator is to make the AWW understand about right practices in Early Childhood Education (ECCE) and commuting to centres placed in rural areas. In order to improve the centres, she suggested that ICDS visits should focus more on ECE and the teacher should make efforts to involve the community and BVS members in matters concerning the AWC.

Field co-ordinator

Being the field co-ordinator, some of the major responsibilities performed by her include providing training to AWWs, distribution of materials as well as monitoring their use, home visits, meeting with stakeholders and participation in BVS meetings.

The field co-ordinator reported having received four days’ training pertaining to orientation on the pre-school kit, community participation, assessment of children, library training for primary school (from II to VII class), math programme (from IV to V standard) and also about other programmes run by Akshara Foundation. She was also provided training on the Balwadi programme by Mrs. Latha (the Master Trainer), for two days, that is, three hours per day, which focused on orientation about ICDS, demonstration of kit material, assessment and storytelling techniques.

In addition, two days’ refresher training was also received by her where there was visit to the model centres. Whereas, the training basically focused on creation of corners for arrangement of material as well as grouping of children in accordance with age. Then, the third training was also provided on the use of Lego blocks and their use. According to her, a model pre-school programme should have separate corners and different activities should be conducted for different age groups such as two to four-and-a-half and four-and-a-half to six years.
## PART-2

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<th>S. No.</th>
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She stated that now the AWW was running 90 minutes pre-school activities with children, which was not done earlier. She also said that, AWW had been provided with induction training of one day followed by a one-day refresher training every year. The refresher training has been delivered since the last three years, which generally focussed on reviewing the work and the assessment of children. She added that whenever new material was provided, training was also given to the AWW. Further, she elaborated that Lego blocks' training was provided by supervisors with the support of field co-ordinators. After-training feedback from AWW was also taken. When she was asked to compare the trainings given to AWW’s by Akshara Foundation and by iCDS, she reported that the Akshara training was better as it focused more on the pre-school component.

**Review Meetings** – Akshara field co-ordinator as well as project co-ordinator meet twice in a month to discuss about the progress and challenges in the field, where they also reflect on the ways to resolve the issues.

**Challenges** – She mentioned some key challenges, for instance, initially the AWC were not functioning properly and there was no focus on ECE. So, the CDPO was approached and he started giving memos to the workers who were not running the centre regularly.

She added that with support from community and the system, the functioning of AWC has improved to an extent where AWW has become punctual and also started conducting meaningful activities with children. While discussing about the sustainability, the FC shared her experience that out of 30 AWCs under her supervision, 25 will continue using the kit to make the teaching–learning process interesting for children. She also pointed at the crucial role of the supervisor in making the intervention successful.

According to her, AWCs are categorised into A-, B- and C-grade centres based on their performance. **A-grade** AWCs are those where it scored high in terms of teacher, building and pre-school activities and other related aspects. **B-grade** refers to those centres where the pre-school activities are not up to mark and required further inputs. **C-grade** are those centres where the routine is followed only during the supervisor’s visit and not otherwise, and requires more focus on pre-school education. She informed that the A-grade centre are visited twice a month whereas B-grade centre three times and C-grade centre four times, based on the need.

Further, the field co-ordinator shared an example of the worker from **Vajrahalli centre** that learning’s from the training are not followed by the AWW. AWW follows routine when someone visited centre for observations. Efforts were made to motivate the AWW but there was no change in the worker as she gave an excuse of being overloaded with work. Moreover, the community members also complained about her.

She added that during the BVS meetings, many of the problems of the AWW were solved such as arrangement of functions, support for building of AWC or rent for the space.
**Master Trainer**

Ms Latha, former AWTC trainer has years of experience in ICDS as she worked as an aide in designing the training and kit. She mentioned that the training was designed in a cascade model where Department of WCD as a whole was involved. The first training was held to orient the department about the importance of TLM in an ECE setting, which focused on organisation and use of TLM and assessment. She drew attention to the fact that they have not focused on special needs in TLM and assessment.

She mentioned that the first-year training was given to the supervisors and MRPs (selected from Akshara field team) who further trained AWWs where one day each was devoted to TLM and assessment. Second-year training was held for half an hour to replace and orientate about new TLM. She said, while visiting centres, it was felt that the AW Helper could be trained for smooth running of AWC, so in the second year, the AWH was also trained. In the third year, supervisors were also trained in involvement of BYS. She reported provision of internal review meetings that are held twice every month wherein supervisors, project co-ordinator and field co-ordinator share their field experience and challenges, if any.

She also mentioned that in order to showcase good ECE practices, eight AWCs were identified that had been positive about Akshara's approach. The AWW of these AWC were trained on classroom management, segregation of children into groups, TLM arrangements and classroom rules in order to develop these as Model AWCs. In the fourth year, this concept of model AWC was scaled up in 12 circles that is, 331 AWCs. She mentioned that during training, AWWs gave a mixed reaction like some mentioned about their workload while some were fine with the work. Latha stated, 'I can see changes in attitude... the spoken language has changed.' She further shared, 'We can see the changes in model Anganwadis... and in non-model Anganwadis... Somewhere the whole circle is becoming very good... I think 60-70 wellness, we can see the changes comparatively...’

She cited that the teacher is an important factor in implementing good ECE practices in classroom. She said, ‘If you give good teaching—learning materials, training, everything... If teacher is not committed, it doesn't work... so that commitment should come from the worker only...’ She further mentioned, ‘If the AWW has a feeling that this is my centre, my centre should be like this... then definitely everything will work.’

Regarding sustainability she said, 'If it's mandatory from the department, definitely the Anganwadi worker will do... if it is not... it won't happen.'

**Challenge**

- **Overdependence on TLM Kit** – The supervisor mentioned, 'Akshara is supplying TLM, the books and all other materials... if it stops coming, then we can't do anything'.
➢ **Regular and ongoing training** – It was shared that the training was not sufficient enough to bring the change. It was affirmed by supervisor who suggested, 'At least not once... in a month... three months once... six months once, it is necessary to re-train them.'

➢ **Space constraint** – A large number of children in centres were found to be confined to very small spaces.

➢ **Unstable BVS** – Regarding BVS, it was cited by various stakeholders that it is not very impactful because the members are not permanent; they change very frequently and are not trained about their functions. In addition to this, some of the members are very affluent and busy with their work and they would not attend the meetings.

**Suggestions**

- It may be suggested that to bring in an attitudinal change among the functionaries, there needs to be more focused, continuous training rather than a once-a-year event, with continuous mid-term course corrections possible.
- The AWW, who is the key person and directly involved with the children, needs a continuous boost or motivation to carry on the activities. Therefore, it is important to take into account their field realities and support them in addressing their problems.
- **Space constraint is a reality in urban city like Bengaluru. To handle this, the AWW should be trained in efficient space management to be able to carry out activities in a more effective manner.**

**The Way Forward**

*After covering Bengaluru, Akshara Foundation is planning to take the pre-school effort to another level where they have designed an intervention in Maloor district, where child marriage is prominent. With an aim to delay the age at which a girl gets married, and to strengthen the ECE component, it is planned to build the capacities of girls who will in turn support the AWW and strengthen the ECE component.*
Scores from ECEQAS – PART 1

### Organisation

<table>
<thead>
<tr>
<th>Code</th>
<th>Organisation</th>
<th>Konunkunte</th>
<th>Vajarahalli</th>
<th>Agara</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Individual</td>
<td>7</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>In groups</td>
<td>5</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>All children</td>
<td>11</td>
<td>16</td>
<td>31</td>
</tr>
<tr>
<td>4</td>
<td>Other</td>
<td>2</td>
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### Material used code

<table>
<thead>
<tr>
<th>Code</th>
<th>Material</th>
<th>Konunkunte</th>
<th>Vajarahalli</th>
<th>Agara</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Manipulative Material</td>
<td>11</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Audio/visual</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Print material</td>
<td>1</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Academic material</td>
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<td>2</td>
<td>2</td>
</tr>
<tr>
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### Material source code

<table>
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<th>Code</th>
<th>Source</th>
<th>Konanakunte</th>
<th>Vajarahalli</th>
<th>Agara</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Akshara kit</td>
<td>2</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>DWCD</td>
<td>7</td>
<td>1</td>
<td>-</td>
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<tr>
<td>3</td>
<td>BBMP</td>
<td>-</td>
<td>1</td>
<td>1</td>
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<tr>
<td>4</td>
<td>Self-created</td>
<td>6</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Combination of material</td>
<td>-</td>
<td>14</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
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<td>8</td>
<td>4</td>
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</tr>
<tr>
<td>7</td>
<td>Any other</td>
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</table>
### Opportunities Provided

<table>
<thead>
<tr>
<th>Code</th>
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<th>Konanakunte</th>
<th>Vajarahalli</th>
<th>Agara</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Learn to share</td>
<td>14</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Think and answer</td>
<td>4</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Express curiosity and ask question</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>Learn to wait for turn</td>
<td>12</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Play/work with other children</td>
<td>12</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>Cooperative learning</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>Enjoy and have fun</td>
<td>7</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>Rote learning</td>
<td>3</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>None</td>
<td>1</td>
<td>7</td>
<td>5</td>
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### Participation Code

<table>
<thead>
<tr>
<th>Code</th>
<th>Participation</th>
<th>Konanakunte</th>
<th>Vajarahalli</th>
<th>Agara</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Most involved</td>
<td>18</td>
<td>18</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>Some involved</td>
<td>3</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>3</td>
<td>Very few involved</td>
<td>1</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>None involved</td>
<td>1</td>
<td>6</td>
<td>2</td>
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</table>

### Class Handled

<table>
<thead>
<tr>
<th>Code</th>
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<th>Konanakunte</th>
<th>Vajarahalli</th>
<th>Agara</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Teacher</td>
<td>10</td>
<td>26</td>
<td>34</td>
</tr>
<tr>
<td>2</td>
<td>Helper</td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Parents</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Older child</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Child from same age/class</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Nobody</td>
<td>12</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>