

Evaluation of Activity Based Learning As a Means of Child-Friendly Education Final Report



Submitted to:



Submitted by:



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ABBREVIATIONS

ABL	Activity Based Learning
ASER	Annual Status of Education Reports
B.Ed.	Bachelor of Education
BRP/ BRTE	Block Resource Person/ Block Resource Teacher Educator
CCE	Continuous and Comprehensive Evaluation
CFLC	Child-friendly, learning centred
CRP	Cluster Resource Person
CWSN	Children with Special Needs
DAC	Development Assistance Committee
DIET	District Institute of Education and Training
DISE	District Information System for Education
EdCIL	Educational Consultants of India Limited
EI	Educational Initiatives Pvt. Ltd.
EPO	Education Programme Officers
HDI	Human Development Index
HM	Head Master/Mistress
JEPC	Jharkhand Education Project Council
MGML	Multi-grade multi-level
MHRD	Ministry of Human Resource Development
MT	Master Trainer
NCERT	National Council of Educational Research and Training
NCF	National Curriculum Framework
NGO	Non-Governmental Organization
NUEPA	National University of Educational Planning and Administration
OECD	Organization for Economic Co-operation and Development
RA	Research Assistant
RIVER	Rishi Valley Institute for Educational Resources
RTE	The Right of Children to Free and Compulsory Education Act, 2009
RV	Rishi Valley School
SABL	Simplified Activity Based Learning
SSA	Sarva Shiksha Abhiyaan
TLM	Teaching Learning Materials
ToR	Terms of Reference
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund

CHAPTER 1: EXECUTIVE SUMMARY

1.1 BACKGROUND AND EVALUATION OBJECTIVES

“The top-performing school systems recognize that the only way to improve outcomes is to improve instruction: learning occurs when students and teachers interact, and thus to improve learning implies improving the quality of that interaction” (Barber, 2007). The pedagogy of Activity Based Learning (ABL) has been implemented with the aim of supporting learning through improved student-teacher interactions. This pedagogy has been widely implemented in primary government schools in various states in India, including the states of Rajasthan, Madhya Pradesh, Jharkhand, Gujarat, Andhra Pradesh, Karnataka and Tamil Nadu. These states have piloted, and many of them have scaled up their ABL programmes in the last few years, and as of 2013, many of these implementations were more than 5 years old. While there have been studies focused on individual states, there has been no national level evaluation that has attempted to understand the various models and implementations and their efficacy. All of these suggested the need for an evaluation that would help in understanding and strengthening ABL programmes in the country. Therefore, UNICEF, in consultation with MHRD, initiated an evaluation of ABL programmes in primary government schools in these 7 states of India in August 2013.

The objectives of the evaluation were:

- To undertake a comprehensive evaluation of UNICEF-supported ABL programmes in 7 states.
- To assess the comparative impact of ABL versus traditional teaching methods on both cognitive and non-cognitive learning outcomes of children and on the nature of classroom relationships in the light of Right of Children to Free and Compulsory Education (RTE) Act in 2009 and National Curriculum Framework (NCF) 2005.
- To identify areas that need further strengthening in the way that ABL is understood and implemented at various levels in different states.
- To build capacity of state and district level government functionaries to assess and strengthen their own ABL programmes, by involving them at all stages of the evaluation process.

The objectives of the evaluation and its wide scope make it relevant for many different audiences, including:

- Ministry of Human Resource Development (MHRD)
- Sarva Shiksha Abhiyaan (SSA)
- National Council for Educational Research and Training (NCERT)
- State leadership such as Directors of Education Departments, State Council for Educational Research and Training (SCERT), and other implementation personnel
- Various stakeholders such as teachers, Headmasters of schools, researchers, and experts.

In addition to this evaluation report, state-wise dissemination reports have also been prepared, which include state-specific insights and action points.

KEY FEATURES AND EXPECTATIONS FROM ABL PROGRAMMES

The Rishi Valley Institute for Educational Resources (RIVER) implemented ABL, a model of child-friendly education in its satellite schools, which was also adopted by some taluks in Karnataka on an experimental basis and statewide in Tamil Nadu. These pilot studies indicated the promise of ABL in ensuring a child-friendly education and gained the attention of the administrators in many other states of India. Eventually, the model was adopted by 13 states (UNICEF, 2012) with due modifications to suit the state context.

The ABL pedagogy as adopted by the various states had some common features, these being the mixing of students of different ages or grade levels in a single classroom, and students sitting in

small groups and carrying out independent learning through activities with the support of their teacher and peers. The methodology has been primarily implemented in classes 1-5 in primary schools.

Another feature of the initial models adopted by the states was that the curriculum in each subject was broken down into small manageable learning units, usually a competency, called 'milestones', which were arranged in a logical sequence from simple to complex in the form of a 'learning ladder' for each subject. The sequence of tasks within a milestone was such that a child typically goes through introductory, practice, evaluation and enrichment or remedial activities. These activities were recorded in the form of learning cards, which were labelled with child-friendly symbols and colours and organized in clearly labelled trays or pouches kept accessible to children. The child selected his or her activity card based on the position on the learning ladder, sat in the appropriate location and did the activity. The classroom environment was made colourful and stimulating by the presence of a number of Teaching Learning Materials (TLMs) and display of student work.

These models embodied many aspects of child friendly education that have been the focus of UNICEF's work. In addition to developing the students' ability to learn independently and to collaborate with others, this model was also expected to address critical problems in the Indian education scenario – like high absenteeism, multi-grade classrooms and low levels of learning. Over a period of time, state models have evolved and continue to be referred to as ABL.

These state models and their implementations, collectively referred to as 'ABL programmes' are the focus of the evaluation. Though documented log frames for ABL programmes were not available, this challenge was addressed through the formulation of 'Child Friendly Learning Centred (CFLC) principles,' which is explained in 1.2.

1.2 EVALUATION DESIGN AND METHODOLOGY

The evaluation was done in three stages:

- Stage 1 (Aug-Nov 2013): collection of ABL materials including training modules and understanding the current status and history of ABL in each of the 7 states by observing classrooms and speaking with different stakeholders at state/district/sub-district levels; development and piloting of tools for Stage 2 and development of training material for field evaluators
- Stage 2 (Dec 2013-June 2014): administration of achievement surveys, teacher surveys and basic classroom observations in a total of 857 schools in the 7 states, including both ABL and non-ABL schools; collection, cleaning and analysis of data using these tools
- Stage 3 (September 2014-February 2015): development of tools for stage 3, sub-sampling of the highest-performing and lowest-performing ABL classrooms from Stage 2; administration of a second round of achievement survey, and conduction of an in-depth qualitative study involving several hours of classroom observations and teacher interviews

The data from these 3 stages were seen together, and the insights integrated, to arrive at the findings and conclusions in this report.

The evaluation was managed by a team comprising of project in-charges from UNICEF Delhi and Educational Initiatives (EI), and was guided by an advisory committee¹ constituted for the purpose. The evaluation covered the states of Andhra Pradesh,² Gujarat, Jharkhand, Karnataka, Madhya Pradesh, Rajasthan and Tamil Nadu. ABL as practiced in different states varied widely. Some states

¹ An advisory committee with representatives from MHRD, NCERT, State leaders who had implemented ABL and pedagogy experts, chaired by Prof. Krishna Kumar, guided the activities of the evaluation from its inception and met periodically during the course of the study.

² During the course of evaluation, the state of Andhra Pradesh was bifurcated into Telangana and Seemandhra. Stage 3 of the evaluation was not carried out in Telangana on account of the political uncertainty arising from the bifurcation.

followed activity-based textbooks, while others followed a card-ladder based approach. One state followed a combination of both. The differences in the conceptualization of ABL across the 7 states, and the absence of documented log frames, necessitated a common ground for the evaluation. This was achieved by identifying the common underlying principles. These principles – referred to in this report as principles of Child Friendly Learning Centered Education (CFLC) – were arrived at with the help of state officials, national experts and advisory committee members, and are listed below:

- a. Meaningful, learning-oriented activities
- b. Variety of learning materials in use
- c. Provision for self-paced and individualized learning
- d. Opportunities to learn through different modes
- e. Scope for higher order thinking and critical questioning
- f. Every child engaged
- g. Continuous assessment integrated with the learning process
- h. Democratic processes/ relationships in the classroom
- i. Equitable and inclusive learning environment
- j. Contextualization to children's everyday world and community
- k. Physical environment conducive to learning
- l. Attention to holistic, all-round development

The CFLC principles are used as a common lens for the evaluation. The alignment of the different state models (conceptualizations) and their practice on the ground (implementations) to these principles has been the focus of the evaluation.

A representative sample of 3 districts was selected from each state. Forty schools were selected from each of these districts, ensuring that there is a proportional representation of boys and girls, rural and urban areas, educationally backward blocks, maturity of ABL implementation and primary/upper primary schools. A total of 80 ABL schools and 40 non-ABL schools were selected from states that did not have a state-wide ABL implementation and 120 ABL schools were selected in states where there was a state-wide implementation. The overall sample at stage 2 consisted of 857 schools where an achievement survey was administered. Tools to elicit information on classroom and teacher parameters were developed and administered. The data were analyzed and broad trends were obtained.

Based on this analysis, the top 15% and the bottom 15% schools (35 schools in each state) were administered another round of an achievement survey. 20 schools from each state were selected from among 35 schools for an in-depth qualitative study. The observation notes and the interview transcripts were coded on the basis of an analysis framework developed and vetted by experts, and data from multiple sources were triangulated. Associations of different classroom parameters with teacher parameters were studied. In addition, a number of system level factors and their interplay with the classroom and teacher factors were also studied.

LIMITATIONS

- Gains in learning achievement across years could not be examined because the timeline of the project precluded the opportunity to conduct the assessments at the beginning and end of the same academic year. This has been mitigated by the comparison of learning achievement between classrooms that adhere more closely to the RIVER ABL method and other classrooms that do not.
- The design of the stage 2 survey was such that it was conducted by a mix of government evaluators and non-government personnel. As the government evaluators had a stake in the implementation of the model in their state, this could have led to a bias in the survey results. The bias could have resulted in mass assistance being provided to students during the achievement survey or reporting more positive classroom indicators in observation reports. Necessary steps were taken to mitigate the bias as much as possible, through the

conduction of field audits and triangulation of data. To mitigate the effect of possible inflation of test scores, the extent of unusual patterns across states was studied and found to be largely similar. Therefore the associations of classroom and teacher factors with learning levels are expected to be valid. On investigating similarity in response patterns, it was found that Stage 3 scores were more reliable and hence these were used for the analysis. However, the magnitude of learning outcomes reported may have some degree of inaccuracy.

- Non-academic outcomes like health and sanitation were excluded from the scope of the study. The autonomy of the child as observed through classroom transactions was taken as proxy for learner confidence.
- Data on funds release and usage for ABL programmes could not be tracked over the years as funds from different heads of Sarva Shiksha Abhiyaan (SSA) like Learning Enhancement Programmes (LEP), state innovation projects etc. were used at different times to fund components of ABL. Given the multiple sources from which funds were drawn at different times, a rigorous analysis was not possible.

1.3 KEY FINDINGS

1. Activity Based Learning (ABL) (an adaptation of the RIVER model) is associated with positive classroom indicators and better learning outcomes.
2. 27% of classrooms in the study had a child-friendly, learning centred environment and around 11% of classrooms were implementing ABL as intended in the initial state models.
3. Changes in ABL Design and Quality of Implementation have resulted in low adoption of ABL.
 - When changes are frequent, this leads to confusion among teachers and affects their practice. One example of this is the number of changes made in Tamil Nadu over the last few years- including the changes to the cards and the introduction of textbooks. Another example is the shift to textbooks in Rajasthan and Andhra Pradesh, which restrict the possibilities for self-paced learning and activity-based grouping to aid teacher classroom management, which were possible in their initial models.
 - The failure of ABL programmes is also associated with lower quality of implementation (adequate training & support, material supply timelines etc.). This is particularly true for the states of Rajasthan and Madhya Pradesh.
4. Teacher Effort and Buy-in are critical for successful practice of ABL. This effort is related to understanding underlying principles of ABL and buy-in into the state's ABL model. As described in point 3, these get affected due to insufficient training and support inputs or due to frequent changes in ABL design.
5. The sustainability of ABL programmes has been affected by focusing more on the procedural aspects of ABL rather than the underlying principles. A research-based systematic approach to evolving the programme to meet stakeholder needs has also been lacking.

The above findings, based on the three stages of evaluation as well as relevant secondary research, are elaborated in more detail below. Findings under the Relevance section pertain to the ABL programme design, while those under Effectiveness, Impact, Efficiency, and Sustainability are concerned with programme implementation. Needless to say, the design elements are inherent to the implementation of the programme in different states. Throughout the report, an attempt has been made to clarify this along with the findings presented.

Relevance:

- The RIVER model of ABL, which was adapted by most states, facilitates the implementation of a child-friendly classroom as envisaged in the NCF and RTE. Though most state models drew on the RIVER model and adapted it to their context, the models implemented by

different states have evolved over time. In the process, **some of them deviated from the underlying principles** of the original model.

- 'Activity' as seen in the learning materials that are part of the ABL programmes of different states, largely ignores the aspect of reflection after an activity, which is crucial for learning to happen. Most activities stop at the level of physical movement. Consequently, even the **best ABL classrooms are weak on conceptual understanding and higher order thinking.**

Effectiveness:

- **Less than a third of ABL classrooms meet the desired goals of ABL.** Practices in 75% of classrooms are largely fear-free, though this also includes classrooms where the atmosphere is casual and not oriented towards learning. High child engagement is seen in 27% of classrooms. Children are seen to take charge of their learning in only 13% classrooms.
- **The amount of effort taken by the teacher, her/his ability to keep all children engaged and a buy-in into the ABL programme contribute to alignment to CFLC principles.** Further, in classrooms where grouping with card-ladder was being followed, a greater autonomy of learners was observed. **Grouping based on card-ladder and high usage of materials correlate with better alignment to CFLC principles.**

Teachers in only 25 out of 110 classrooms were observed putting in the required effort. 22 of these teachers were in the 30 CFLC classrooms observed. This is in contrast to only 3 teachers putting in the required effort in the remaining 80 classrooms. Further, only 23 teachers in all had a favourable opinion of ABL, and 16 of these were following grouping based on card-ladder. In general, teacher understanding of the model is weak- at best many teachers have procedural understanding, while many lack even this. In the states which mandate grouping with card-ladder (Karnataka, Tamil Nadu, Gujarat, Madhya Pradesh) only 23% classrooms actually practiced it. Despite the availability of a variety of learning materials in approximately 40% classrooms, their usage is seen to be high in few (<15%) classrooms.

Impact:

- The differences in learning outcomes and classroom parameters between ABL and Non-ABL schools in the states of Rajasthan, Madhya Pradesh and Jharkhand are not significant. These differences are significant in Gujarat. **When comparisons are made between classrooms that adhere more closely to the original state models (adapted from the RIVER model) and those that do not, there are significant differences.**

Classrooms, where grouping based on card-ladder is followed, are 0.5 standard deviations ahead on learning outcomes, of classrooms where whole class teaching is practiced. Similarly, classrooms where high usage of learning materials is observed are 0.3 standard deviations ahead on learning outcomes, of classrooms where usage of materials is low.

Efficiency:

- **The management of training and support showed low efficiency in Rajasthan and Madhya Pradesh. The perception of the usefulness of these trainings was also low** in 39% of cases in these states compared to 8 % in other states of Karnataka, Gujarat, Tamil Nadu, Andhra Pradesh and Jharkhand.
- **Support activities are primarily focused on record keeping and data collection, and teachers did not cite support personnel as the primary source for resolution of academic issues.** The profile of support personnel, their lack of teaching experience and their lack of focus owing to the variety of tasks they do, made it difficult for them to provide the support teachers needed in implementing ABL successfully in classrooms.
- **Basic factors such as availability of teachers, support personnel and learning materials were inadequate in many cases.**

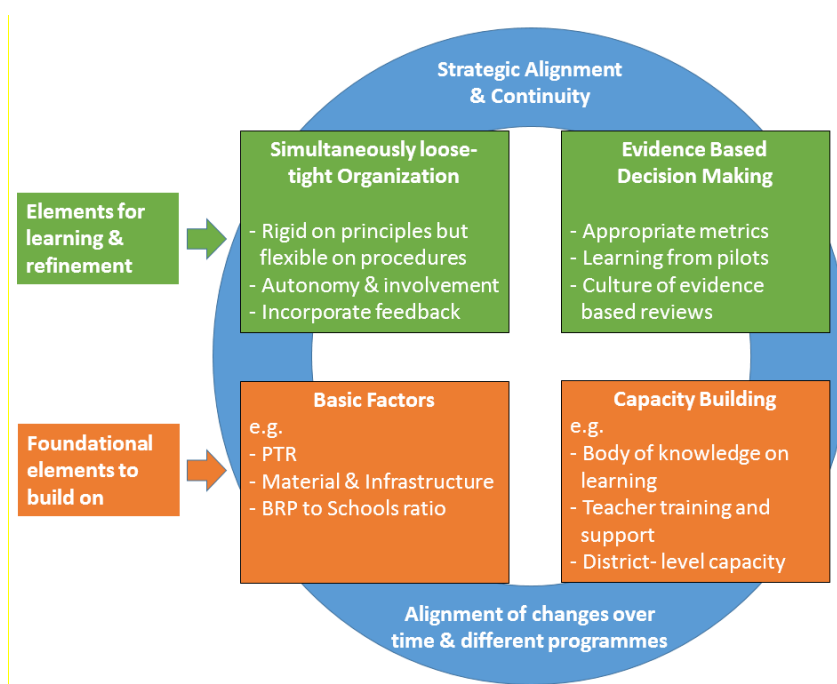
Sustainability:

1. **The following reasons account for the low rate of success of ABL programmes:**
 - a. **Frequent changes in ABL design, or lack of continuity in implementation, have made adoption of ABL difficult.**
 - b. **Implementation issues have also exacerbated the difficulties in adopting the ABL model.** Challenges on many basic factors like the pupil-teacher ratio being too high, the quality of training being inadequate, the support personnel lacking teaching experience, and late deliveries of material have come in the way of successful ABL implementation
 - c. **Efforts on stakeholder education and involvement have not been adequately sustained,** leading to a lukewarm implementation of ABL, without sufficient conviction about the value of the method or its underlying principles.
 - i. Low confidence of leadership, in ABL as an effective method for learning: ABL is not a focus area for current state leaders across states. At best, state leaders view ABL as a child-friendly pedagogy, but are generally not convinced about its efficacy in improving learning outcomes, at least as a method, which can work at large scale.
 - ii. Underestimating the systemic change effort and extent of teacher support needed
 - iii. Low involvement of teachers: While involvement of teachers was high in the initial pilot years, the system has either been unable or unwilling to involve teachers sufficiently when designing and implementing ABL on a large scale.
2. **Lack of a research-based systematic approach** to evaluate and refine educational programmes and institutionalize knowledge has been a hindrance to evolving the ABL model to meet the needs of different contexts successfully.
3. The system is placing its **hopes for improvement on short-term initiatives and individual programmes**, rather than on a long-term vision and continuous, incremental efforts.
4. **The focus has been on implementation of the mechanics of ABL**, rather than viewing it as a means to an end, and this has led to taking an isolated view of ABL programmes, which is limiting.

1.4 KEY RECOMMENDATIONS

The overall framework for arriving at the recommendations is shared in Figure 1. This framework identifies basic factors and capacity building as foundational elements. Once these are in place, an approach balancing centrality of purpose with autonomy of local practice is recommended. A culture of evidence-based decision-making, then helps in evolving the programme over a period of time to meet the goals. All these are held together through a common vision that ensures strategic alignment and continuity across programmes and over a period of time.

Figure 1 Structural and Cultural Elements of a Successful System



A summary of the key recommendations, stakeholder wise, derived from the above framework, is provided below:

National Institutions and Organizations

- Build systemic and institutional capacity on both technical (pedagogical) and governance aspects. This should help to develop a 'science of learning' that drives the design of ABL models and their revisions. Currently some of the changes are not based on systematic review and evaluation.
- Facilitate the development of institutional memory and access to this knowledge. Examples of specific actions for development of institutional memory could include:
 - Inclusion of learning from evaluations into pre-service teacher training courses.
 - Databases of 'what has worked' and 'what has not' collated with the assistance of state bodies, and made available in an easily accessible manner to all stakeholders.
- Provide orientations, training and learning visits on educational improvement to state leadership.
- Support states to build, execute and monitor long-term plans for improvement. E.g. what kind of metrics are required to monitor whether ABL is on track? How much time is required for changes to happen? Many of the current metrics focus on mechanical adherence to the method and do not recognize the time required for adoption of ABL practices.

State Leadership

- Articulate where ABL stands within vision, strategies and guiding principles of the state's educational programmes. Currently there are cases where different programmes pose conflicting requirements on stakeholders.
- The highest levels of leadership need to spend significant time in communicating the vision and goals of ABL and requirements from different stakeholders. This was the practice in early years of ABL in many states and this needs to be continued to stress the seriousness of the state and help stakeholders change their mindsets.
- Integrate support personnel closely with teacher workforce. Only high quality support can lead to demonstration of results and required buy-in. This results in the creation of a 'community of practice' which is required to implement ABL.
- Set up responsibility and processes for rigorous programmatic reviews and have evidence-based yearly reviews as well as shorter reviews 2-3 times in a year. In some of the states, the

evaluation team observed that no regular reviews of ABL were happening at the level of principal secretary or even State Project Director, SSA.

- e. Set up a mechanism for teacher feedback and addressing and responding to teacher feedback.

State Implementation Personnel

- a. Align roll-out plans with readiness of field conditions.
- b. Strengthen the learning-centred aspects of the ABL model based on a detailed material review.
- c. Move towards providing greater flexibility to teachers in classrooms and district/ block level resource persons, while focusing on desired end-results (positive classroom climate, and learning outcomes).
- d. Train Block Resource Persons (BRPs) / Cluster Resource Persons (CRPs) on learner-centred pedagogies and develop their capability to observe classrooms and provide meaningful actionable feedback to teachers.
- e. Strengthen teacher training. This can be strengthened on the following aspects:
 - i. Provide greater emphasis on underlying principles of ABL and reinforce these periodically.
 - ii. Provide more subject-specific training. The focus of this should be for teachers to understand subject content at a deeper level and common difficulties children may face, and learn how to use the ABL material *to make learning happen*.
 - iii. Include more practical content on classroom management. It is seen that classroom management is more of a challenge in the ABL pedagogy- teachers need to understand how to handle children, how to pay attention to all children, and also how to implement differentiated instruction. Teachers need to be equipped with strategies to handle specific practical problems.
 - iv. Include content on purposes and methods of assessment. Many teachers are still not convinced that ABL is a 'serious' method of learning that can result in tangible learning. They do not find the assessment in ABL to be 'proper'. Teachers will need to understand what formative assessment is about and strategies for the same. The teacher's capability for better assessment directly influences her capability to offer differentiated instruction.
 - v. Provide full-fledged training on ABL every 3-4 years even for older teachers. For states that have had ABL implementations for a long time, there may be a tendency to assume that all teachers have received sufficient training, and they may only need to receive short refreshers. However, full-fledged training may be needed for reinforcement, based on our findings.
 - vi. District and block level trainers should have additional training and guidelines beyond the training and manuals teachers get. Training on facilitation skills should be included and areas where trainees may have problems in understanding could be anticipated and emphasized.
 - vii. Use video clips of master trainers in cascaded trainings appropriately to ensure the quality of training.
 - viii. Subject knowledge of the teacher also needs to be considered in assigning training roles (e.g. a biology graduate may find it difficult to conduct a Maths training) - so people who have majored in that subject could be assigned to conducting trainings related to that subject. It would be ideal if they also have experience in teaching that subject.
 - ix. Involvement of State Resource Group, in reviewing percolation of key messages at district and cluster level training, can be ensured. The module developers of the State Resource Group could go beyond module development and observe the cascaded trainings at district and cluster level and this would give them an idea as to what kind of difficulties teacher face in understanding ABL and what is getting missed out in the training content. This would help them to adjust the trainings at state-level accordingly.

UNICEF

UNICEF is well positioned to support national bodies and state leadership in building systemic capacity to bring about change and should consider supporting them on the recommendations laid out for them above. Specifically, it is suggested that UNICEF:

1. Disseminate the findings of this evaluation and recommendations widely through a communication kit, and initiate a larger dialogue through conducting a national workshop including representatives from states.
2. Organize a round table of senior state functionaries as well as national functionaries on the study findings and larger lessons related to education and bringing about systemic change.
3. Support the building of systemic capacity in national and state institutions, especially related to creating a 'body of knowledge' or 'science of learning'. This could be done by providing technical assistance and handholding.
4. Support the improvement of pre-service teacher education programmes like B.Ed., and D.Ed. as well as in-service programmes, based on the recommendations from this evaluation.
5. Assist states in weaving in recommended actions from this evaluation into state educational plans, by organizing consultations for this purpose.

CHAPTER 2: OBJECT OF EVALUATION

2.1 BACKGROUND

Over the past decades, India has realized the goals of access and enrolment in primary education to a large extent. The focus over the last few years has been improving the quality of education through child-friendly classroom practices and enhancement of learning outcomes. One of the initiatives in this direction has been the implementation of Activity Based Learning (ABL) across states of India.

With the enactment of The Right of Children to Free and Compulsory Education (RTE) Act in 2009, states across India have a mandate to provide free and compulsory quality education to all children. The Act mandates that elementary education must involve 'learning through activities, discovery and exploration in a child friendly and child-centered manner' and should 'make the child free of fear, trauma and anxiety and helping the child to express views freely'. In this context ABL has emerged as one model of child-centred pedagogy to achieve the goals of RTE. States across India have been piloting and up-scaling various versions of ABL, also known as Multi-Age Multi-Level (MAML) or Multi-Grade Multi-Level (MGML) programmes. The UNICEF desk review highlights that these programmes cover over 250,000 primary schools and more than 10 million children in 13 states.

2.2 ABL METHODOLOGY: KEY FEATURES

The origins of what is now known as ABL method came from Rishi Valley Institute for Educational Resources (RIVER), which implemented this in the satellite schools of Rishi Valley. This method was adopted by various states with certain modifications to suit their local contexts. These models had some common features, which are described later in this section. These models have also evolved since inception, the details of which are described in section 2.3.

CARD-LADDER, LOGOS AND GROUPING CHARTS

The curriculum for each year is broken down to small units called 'milestones'. Each milestone is a learning unit and these are sequentially arranged. In order to attain mastery over each learning unit or milestone, the child has to go through a number of learning activities. The activity cards may denote outdoor activities, games, role plays, discussions, reading, writing or discussions. Each activity is described in a card. The activity cards are intended to bring in local traditions, local terms, words, objects into the curriculum, thus encouraging the use of a variety of learning materials and making the study materials useful and relevant for the child.

These learning activities or the cards are sequenced. Therefore, there is a sequence of cards or learning activities to master a learning unit or a milestone and these milestones themselves are sequentially arranged to form a learning ladder.

The cards are displayed prominently in an ABL classroom either on the wall or on the floor, allocating some floor space for a particular group. The logos on the cards and the grouping charts facilitate a seating arrangement in the classroom whereby specific locations are demarcated for students involved in different types of activities. For example, students who are working independently sit at one location, those who are working with peer support sit at another location, and those who need teacher support, at yet another location. These arrangements form the basis for 'grouping' in an ABL classroom, which is discussed in the following section.

Each card has a logo on it, which indicates the nature of the activity on the card and the extent of teacher support required for the activity. Logos are grouped together into grouping charts based on the extent of teacher intervention needed (see figure 2). For example, all activities on cards that have logos that are in circle 1 and 2 require teacher support while those on cards that have the logos in circle 6 can be carried out independently by the student. Thus the 6 grouping charts point out to students which location in the classroom they should sit in- by matching the logo on their card, to the logo inside the circle on the grouping chart.

Figure 2: Logos and grouping charts



GROUPING OF CHILDREN

The learning activities within a milestone fall into the following broad categories:

- Preparatory activities
- Learning Activities
- Practice/ reinforcement activities
- Evaluation activities
- Enrichment/Remediation activities

The extent of teacher support required for each of these categories varies. For example, a preparatory activity or a learning activity may require hand holding by the teacher whereas a practice activity can be carried out with some peer support and hardly any teacher support. After the initial stages, the child may be able to carry out a practice activity independently, without any peer or teacher support.

Depending on the extent of support required, the activities fall into 4 broad categories.

- Teacher-supported activities
- Peer-supported activities
- Self-driven practice activities
- Assessment activities

These form the basis of 'grouping for children' – the other key feature of model. Groups of children doing activities that require the same nature of teacher support are in the same location. Students are guided to the appropriate location by the logo on the card.

Finer distinctions are also possible between 'fully teacher-supported or teacher led activities' and 'partially teacher-supported or teacher assisted activities'. Similar distinctions can be made between 'Peer-led activities' and 'Peer-supported activities'. Accordingly, there could be 4 to 6 locations in the class, each requiring different levels of teacher support.

CLASSROOM PROCESSES

The logo on a card determines which group/location a child will sit in. The cards are sorted by logos and displayed in the classroom, and all cards with the same logo are put in a tray or pouch which has an image of the logo pasted on it. As soon as a child picks up a card, she looks through the grouping charts to find out which chart has a matching logo to the one on her/his card, and sits in the appropriate location based on that. Once the child finishes an activity, she/he finds out the next activity in the sequence from the ladder, picks up the relevant card from the trays and moves to the appropriate location. Each child is supposed to mark her/his progress on the ladder in a specially provided progress chart. Thus the concept of the ladder gives the flexibility to the child to progress at her/his own pace. Also the logos and grouping charts enable the formation of dynamic groups without specific directions from the teacher.

The teacher teaches basic competencies in each milestone to children in the teacher-led group on a one-to-one basis. At the same time, practice work of these competencies through activities continues in the other groups of children. In the partially teacher-supported group, children work with practice cards, but seek the teacher's help as and when needed. The multi-grade multi-level classroom facilitates peer learning in the peer-led/ peer-supported groups. In these groups, the older children or the ones who have gone ahead on the ladder, help others perform the activities on the cards. The peer supported activity serves as reinforcement for the children who are ahead and helps the ones who are behind, learn something new from their peers. Finally, as children gain mastery over a concept, they move to individual practice and assessment. There is also a provision to conduct whole class activities for a short time in the morning at the beginning of the session and in the evening at the end of a session.

The teacher is supposed to see his/her role as a 'facilitator' of learning rather than as an authoritative figure and dispenser of knowledge. The teacher being seated at the same level as the children encourages better rapport between students and teacher. She/he needs to initiate children into their learning tasks, ensure that every child is engaged in the learning process and be sensitive to each child's level and needs.

ASSESSMENT

Assessment is built into the ladder. At the end of each milestone, the child is assessed on the competencies that she/he is supposed to have mastered in that milestone. This happens in a natural and non-threatening way. The assessment card is usually indistinguishable from the other cards and a child may not even realize that she/he is being assessed. The assessment determines whether the child requires extra remedial work, or if she/he has mastered the concept well enough to move on to the next concept or to further activities to enrich her/his understanding. The teacher is expected to understand the child's needs and assign activities appropriately.

CLASSROOM SPACE

The classroom space is made attractive by displaying children's work in the class. These are changed periodically and filed in portfolios maintained for each child. The presence of a variety of learning materials like the Maths kit box, charts, flash cards, posters, game boards etc. also add colour and vibrancy to the classroom environment. The walls of the classroom are painted as a blackboard up to a height of 2 to 3 feet and divided so that each child can write on an allotted wall space.

2.3 STATE ABL MODELS: VARIATIONS

The initial conceptualizations of different states incorporate most of the features described in section 2.2. However, as the models evolved, many of these features have undergone changes, sometimes minor – like Gujarat replacing the low level black boards with large child slates, and sometimes significant – like Rajasthan and Andhra Pradesh moving away from card-ladder system to activity based textbooks. This section examines the changes that have come about, as states evolved their models.

CARD-LADDER, LOGOS AND GROUPING CHARTS

The states of Madhya Pradesh, Gujarat, and Karnataka follow the card-ladder system described in section 2.2 with supplementary workbooks. These workbooks are essentially a compilation of the cards that require some written work. Tamil Nadu has a card-ladder system, and also a textbook, which is self-contained and complete in itself. The textbook is integrated into the ladder through the means of 'textbook cards', which indicate that the student has to go through a particular chapter in the textbook. Andhra Pradesh and Rajasthan have moved away from the card-ladder system and have an activity-based textbook instead.

The cards themselves have undergone major revisions in the states of Tamil Nadu and Madhya Pradesh with the number of cards being reduced significantly (by almost 50%) over a period of time. Rajasthan and Andhra Pradesh went through a phase of large reduction in the number of cards before they eventually incorporated the cards into a textbook. Though there has been reduction in the number of cards in Karnataka also, the scale of reduction has been smaller compared to the above-mentioned states. Gujarat has also not seen any major revision of materials since inception.

Similarly the system of logos adopted has also undergone some changes. For example, Tamil Nadu and Madhya Pradesh have tried to institute a common set of logos across subjects, instead of having subject-wise logos.

GROUPING OF CHILDREN

The states of Karnataka, Gujarat, Madhya Pradesh and Tamil Nadu follow card-ladder based grouping. The current model in Andhra Pradesh does not mandate any grouping. The choice and the basis of grouping is left to the teacher. In Rajasthan, different programmes running in parallel had different bases of grouping

CLASSROOM PROCESSES

In an ideal situation any conceptualization of ABL especially the ones following card-ladder system should enable a child to progress at her/his own pace. Though this was largely true of the initial conceptualizations of different states, the variations over the years have placed limitations on the extent of self-paced learning possible.

Madhya Pradesh has mandated monthly tests based on specified cards. Tamil Nadu has divided the ladder into 3 parts to correspond to the trimester system being followed in the state and it is expected that each part of the syllabus is completed within the trimester. There are summative assessments at the end of each trimester, which is based on all the preceding cards. There are guidelines prescribing the time to be spent on a card/ number of cards to be done in a prescribed time interval in Gujarat and Karnataka as well.

ASSESSMENTS

Though the assessment cards are part of the ladder, they are given prominence in the states of Tamil Nadu and Madhya Pradesh by assigning logos like cups and medals to them. Tamil Nadu has introduced a marking scheme for some designated assessment cards in order to meet Continuous and Comprehensive Evaluation (CCE) requirements. Andhra Pradesh and Rajasthan have also tailored their assessment systems to meet CCE mandates³.

A summary of the features of the current state implementations and the scale of implementations is shared in table1 below.

³ As per CCE requirements there should be 2 summative assessments in an academic year and 4 formative assessments, which can draw on the children, work at home/class, or performance in oral tests, quizzes, projects etc. In addition to this students are also graded on other skills like teamwork, cleanliness, responsibility etc.

Table 1: Summary of ABL models in different states

State	Card-ladder	Grouping	Work Book	Text Book	Proportions of state schools covered	Year of starting	Classes Covered
Karnataka	✓	✓	✓	✗	100%	1995	1 - 3
Gujarat	✓	✓	✓	✗	47%	2010	1 - 5
Madhya Pradesh	✓	✓	✓	✗	20%	2008	1 - 4
Tamil Nadu	✓	✓	✗	✓	100%	2003	1 - 4
Andhra Pradesh	✗	✗	✗	✓	100%	2004	1 - 4
Rajasthan	✗	✓	✗	✓	100%	2008	1 - 5

EXPECTATIONS OF THE ABL METHODOLOGY

The ABL methodology was implemented by different states with the aim of providing child-friendly education to children. The states adapted the RIVER model to their needs and context, with the goals of promoting a fear-free environment in elementary schools, and ensuring equity and inclusion for every child. . As seen in the Table 1, ABL as practiced in different states varies widely. Some states followed activity-based textbooks, while others followed a card-ladder based approach. One state followed a combination of both. In spite of these differences, the aims and expectations from ABL programmes across states are largely similar. This was evident through the interviews and discussions held in Stage 1 of the study, elaborated further in the next paragraph.

The different models of ABL in the 7 states, and the absence of clear documented log frames, made it necessary to evolve a common lens for the evaluation. This was done through discussions with stakeholders both at national and state levels, and with experts and the advisory committee. The themes that emerged through these discussions are referred to as Child Friendly Learning Centered (CFLC) principles, and are listed below:

- Teaching through meaningful, learning-oriented activities
- Providing students with a variety of learning materials
- Creating a provision for self-paced and individualized learning
- Creating opportunities to learn through different modes
- Providing scope for higher order thinking and critical questioning
- Keeping every child engaged
- Ensuring continuous assessment integrated with the learning process
- Ensuring democratic processes/ relationships in the classroom
- Providing equitable and inclusive learning environment
- Contextualizing learning to children's everyday world and community
- Providing physical environment conducive to learning
- Paying attention to holistic, all-round development

2.4 STATE ABL MODELS: IMPLEMENTATION STATUS

A brief overview of the current state models is presented here. Appendix 2.1 describes the state models in detail and traces their evolution.

Andhra Pradesh has had at least 4 distinct variants across its experiment with ABL over the last 15 years. The model currently advocated by the state, SLIM card based textbooks, has a state wide coverage which translates to about 68,000 schools. It covers grades 1-4 and is offered in the subjects of Telugu, Math, Environmental Science (EVS) and English.

In **Jharkhand**, ABL was called as MGML for Grades 1-2 and Self Learning Material (SLM) for Grades 3-4. For Grades 1-2, it was offered for the subjects of Hindi and Maths. For grades 3-4, it was offered for Hindi, Maths, and EVS (split into two as *Paryavaran I*, *Paryavaran II*). It was

designed using NCERT Learning Competencies as its basis. The MGML programme was followed in a total of 235 schools (0.6% of total schools in the state offering primary education) impacting a total of about 20,000 children (0.4% of total primary school children in the state). Out of the total 24 districts, it was present in 4 districts. As of writing of this report, a new programme called '*Buniyaad*', which involves activities and ability based learning, has been implemented in the state. MGML in its original format has been discontinued.

In **Gujarat**, *Pragna* (Pravrutti dhvara gnan) – the approach of ABL is implemented in 16,000 schools. It is offered for subjects Maths, EVS (*Paryavaran*) and Gujarati. It also includes a section 'Rainbow activities' (*Saptarangi*) aiming to provide holistic education for the child. The state follows card-ladder system and uses workbooks for writing practice. Materials like *Vachan-Mala*, *EVS-Manan* have been conceived to give additional practice and homework to the child.

Karnataka's ABL programme is known as *Nali Kali* (Joyful Learning). It is offered in the subjects of Kannada, Math and EVS for grades 1-3. English has also been added from the year 2014. The programme has a statewide implementation excluding government-aided schools, the total number of government schools offering primary schooling being 45,690. The state follows a card-ladder system with workbooks.

In **Madhya Pradesh**, the current model of ABL introduced in 2013 is offered in the subjects of Hindi, Maths and English for grades 1-2. The medium of instruction is Hindi. It is followed in a total of 16005 schools (20% of total schools in the state offering primary education). Every district of the state has some ABL schools. The state has a card-ladder system with some cards being incorporated into the workbook.

In **Rajasthan**, the ladders/cards based ABL model was called LEHAR (Learning Enhancement Activity in Rajasthan). It was offered in three subjects of Maths, English and Hindi for grades 1 and 2. The programme was piloted in 2009 and was gradually up-scaled to 12,000 schools (spread out all across the state) by 2012-13. The state has discontinued the programme from the year 2013-14 and has moved on to an activity based textbook model. Ability based grading (A, B, C) has been advocated with specific formats for assessments, which are aligned to the CCE requirements.

In **Tamil Nadu**, ABL is offered in grades 1–4 in all the government and government-aided schools. It is offered in Tamil, English, EVS and Maths in grades 1 and 2 and Tamil, English, Science, Social Studies and Maths in grades 3 and 4. Initially it was offered only in Tamil medium schools. From the year 2013-14 it is also being offered in Malayalam, Urdu, Kannada, Telugu and English mediums. It covers over 37,000 schools in the state.

From the seven states covered in the study, three south Indian states, namely, Andhra Pradesh, Karnataka and Tamil Nadu have implemented the programme statewide, covering all the primary schools. In Jharkhand and Rajasthan, the programmes have evolved to take a new name and form. The states of Gujarat and Madhya Pradesh have been scaling up the programme over the years. These different models have to be evaluated within the larger context of the states, which also vary widely. The data on variation of two key parameters - development index and literacy rates – against the backdrop of which the results of the study should be viewed is shared in table 2 below.

Table 2: Human Development Index and literacy rates of selected states

State	Human Development Index (2007-8)	Literacy Rate (2011)
Andhra Pradesh	0.473	67.6
Gujarat	0.527	79.3
Jharkhand	0.376	67.6
Karnataka	0.519	75.6

State	Human Development Index (2007-8)	Literacy Rate (2011)
Madhya Pradesh	0.375	70.6
Rajasthan	0.434	67.1
Tamil Nadu	0.661	80.3

Monitoring of ABL programmes: Since the ABL programme is implemented under the umbrella programme of SSA in each state; it does not have a special monitoring team or structure. The monitoring happens through the existing system of SSA or the Education Department. The state resource team is supported by the district resource team, who in turn are supported by Block Resource Coordinators (BRCs) and Cluster Resource Coordinators (CRCs). Over a period of time, UNICEF has supported states and trained resource persons at various levels in monitoring of ABL programmes.

2.5 STAKEHOLDERS

The objectives of the evaluation and its wide scope make it relevant for many different audiences as listed below. In addition to this report, dissemination reports are also being provided to states, which include state-specific insights and action points.

1. **National Institutions and Organizations:** Government bodies such as the MHRD, SSA, have driven policy and provided large scale funding support. Organisations like NCERT and NUEPA have conducted programmatic evaluations and provided advisory support
2. **State government:** State governments, with the support of national governments, have implemented ABL programmes in states. This included the design of the ABL programme, creation of the learning material, building the support team, providing support and refining the model over a period of time.
3. **UNICEF:** UNICEF has supported the pilot and scale-up implementations technically by providing teacher support and enabling a support system. It has also provided partial financial support

CHAPTER 3: EVALUATION PURPOSE, OBJECTIVES AND SCOPE

Chapter 2 provided an overview of the ABL model and how it evolved in different states and the current implementation status. This chapter looks at the purpose and scope of this evaluation.

3.1 RATIONALE FOR THE EVALUATION

Many of the studies conducted so far have been in single states, each using different tools that makes it difficult to consolidate findings across states. Moreover, the reports available are mostly from Tamil Nadu since this is the state where ABL has been implemented on the largest scale for the longest time (NCERT 2011, EdCIL 2010, Akila 2009, Shukla 2009, SchoolScape 2008, Anandalakshmy 2007). Only a few reports were available from other states like Karnataka (CMDR 2010, Kaul 2004, Usha 2004, Lalitha 2003), Assam (Deka 2009, ORG 2005), Chhattisgarh (Sarangapani 2013), and a few internal field-monitoring reports from UNICEF-supported pilots in Chhattisgarh, Jharkhand, and Madhya Pradesh. UNICEF's desk review (2011) synthesized findings of available research studies that have examined the impact of ABL on children and classrooms.

Much of the above available research has several limitations: some of them are general reports based on impressions rather than rigorous evidence; many do not track improvement in ABL schools over time against a baseline, and do not compare ABL schools with non-ABL schools.

Besides the paucity of research evidence available, whatever research is available thus far on ABL's impact in fact reveals a mixed picture. While many reports do note that ABL programmes have had positive effects in improving children's learning processes and outcomes, some studies have called into question whether children in these programmes are indeed learning better. Studies like Akila (2009) and NCERT (2011) from Tamil Nadu have highlighted some concerns about children's learning levels in reading, Maths and English, and particularly about whether children are able to maintain an age-appropriate pace of learning over the 4-year primary cycle.

In light of the limited and inconclusive evidence available at present, there is need for a stronger evidence base across states that can provide a clearer understanding of the impact of ABL on classroom processes and learning. As states seek effective strategies for achieving the goals of RTE, and as more and more states continue to pilot and expand ABL programmes, it is important to take stock of how successful the implementation of ABL programmes in various states has been, what has been the comparative impact of ABL methods on classroom processes, relationships, and outcomes for children, and the areas that still require further strengthening.

3.2 EVALUATION OBJECTIVES

The following are the objectives of the evaluation:

- To undertake a comprehensive evaluation of UNICEF-supported ABL/MAML programmes in 7 states
- To assess the comparative impact of ABL/MAML versus traditional teaching methods on both cognitive and non-cognitive learning outcomes of children in different states, as well as on the nature of classroom processes and relationships in light of the goals of RTE and NCF 2005, including child-friendly constructivist processes, continuous assessment, social interaction & inclusion of children, elimination of discrimination & corporal punishment
- To identify areas that need further strengthening in the way that ABL/MAML is understood and implemented at various levels in different states
- To build capacity of state and district level government functionaries to assess and strengthen their own ABL programmes, by involving them at all stages of the evaluation process.

This evaluation will feed into state processes of piloting and up-scaling ABL programmes, giving them concrete suggestions of areas that need further strengthening or modification to ensure

positive outcomes for children. The evaluation results will generate an evidence base that can be used in advocacy to inform the implementation of child-friendly, learning-centred education as part of RTE provisions. It will also help in strengthening teacher education programmes to improve children's learning outcomes, and in designing interventions for both pre-service and in-service teacher preparation programmes. Additionally, the findings will inform the impact of pedagogical practices (ABL and non-ABL) towards children's learning.

3.3 EVALUATION CRITERIA

This report uses the five OECD's DAC criteria for evaluation⁴:

- i. **Relevance** – The extent to which the aid activity is suited to the priorities and policies of the target group, recipient and donor.
- ii. **Effectiveness** – A measure of the extent to which an aid activity attains its objectives.
- iii. **Efficiency** – measures the outputs in relation to the inputs. It is an economic term, which signifies that the aid uses the least costly resources possible in order to achieve the desired results.
- iv. **Impact** – The positive and negative changes produced by a development intervention, directly or indirectly, intended or unintended. This involves the main impacts and effects resulting from the activity on the development indicators.
- v. **Sustainability** – is concerned with measuring whether the benefits of an activity are likely to continue after donor funding has been withdrawn. Projects need to be environmentally as well as financially sustainable.

These criteria are widely recognized as the most appropriate criteria for evaluations and also help to understand the various dimensions of ABL. UNICEF has adopted these criteria to conduct most evaluations and the research questions in the Terms of Reference (ToR) are aligned to these criteria.

3.4 EVALUATION SCOPE

Table 3 below gives the key evaluation questions, sub questions and their respective outcome indicators:

Table 3: Research questions and indicators

#	Key Questions	Sub-Questions	Indicators
1	What is the nature of learning processes and relationships in ABL classrooms compared to non-ABL classrooms, and to what extent are these aligned with the goals of RTE and NCF 2005?	a. To what extent are ABL materials and processes child-friendly, constructivist, and do they encourage interactive peer learning as per RTE and NCF 05 goals? b. What is the nature of relationships and classroom management in ABL classrooms, and to what extent do these reflect values of inclusion, non-discrimination, respect for children?	<ul style="list-style-type: none"> • Theoretical underpinnings of advocated ABL model and materials • Degree and spread of advocated changes visible in classroom processes & relationships
2	How is ABL being understood and implemented on the ground, vis-à-vis the pedagogical model as intended by educational	a. How is ABL understood by stakeholders at various levels (education planners, SCERT, SSA, DIETs, Trainers, Monitoring officials, teachers, HMs)? Are there differences/ inconsistencies across different levels?	<ul style="list-style-type: none"> • Understanding of ABL by teachers, administrators, trainers, officials, planners • Degree and spread of intended ABL processes seen on the ground

⁴ Sources: The DAC Principles for the Evaluation of Development Assistance, OECD (1991), Glossary of Terms Used in Evaluation, in 'Methods and Procedures in Aid Evaluation', OECD (1986), and the Glossary of Evaluation and Results Based Management (RBM) Terms, OECD (2000).

#	Key Questions	Sub-Questions	Indicators
	planners? Are there areas that need strengthening in its understanding or implementation?	b. Is ABL being implemented on the ground as intended by education planners? c. What are the gaps if any, reasons for the gaps, and areas that need strengthening in its understanding or implementation?	(classroom organization, use of materials, & classroom processes) • Consistency between intended model and ground implementation
3	How well have the logistics of ABL been managed (in terms of efficient use of resources and timeliness)?	a. What have been the costs of rolling out ABL programmes, and how effectively have resources been used? b. How timely have been the funds release, trainings, delivery of materials, academic support to schools, etc.?	• Use of resources • Timeline of implementation
4	What has been the impact of ABL in improving learning outcomes and reducing achievement gaps, compared to non-ABL schools?	a. Is there any difference in learning outcomes between ABL and non-ABL schools, or significant changes in learning over time against a baseline? b. Does ABL have any impact on children' conceptual understanding & higher order thinking? c. Has ABL had any impact on achievement gaps based on gender, social groups, school-type/size, locality?	• Learning Achievement of children in ABL & non-ABL schools, at beginning & end of year • Differences in achievement by gender, social groups, etc.
5	What has been the impact of ABL on non-academic outcomes for children?	a. Has ABL had any impact on the enrolment, participation, attendance and retention in schools? b. Has ABL had an impact in non-academic outcomes for children, such as confidence levels, children' enjoyment & engagement in learning, higher-order skills, creativity, socio-emotional development, co-curricular areas, health and nutrition, use of sanitation & hygiene facilities, etc.)?	• Changes in enrolment, attendance & retention trends in states/districts which have up scaled ABL in recent years • Identifiable impact of intended ABL processes on non-academic outcomes • Focus in ABL schools on co-curricular areas, health & nutrition, sanitation & hygiene
6	What are the key factors that influence ABL's impact on children (or lack thereof), related to ABL processes themselves, implementation rigour, contextual factors and/or child-related factors?	a. Are there any correlations between specific ABL processes and improved learning outcomes? b. Are there differences between the highest and lowest performing ABL classrooms in terms of implementation rigour, contextual factors and/or child-related factors?	• Identifiable impact of intended ABL processes on learning outcomes • Impact of implementation rigor or other contextual factors • Impact of child-related variables such as starting ability, SES, gender, etc.
7	What has been the response towards ABL by different stakeholders?	a. What are the views on ABL of children, teachers, HMs, parents, community, education personnel, teacher unions, SCERT?	Various stakeholders' stated perceptions of ABL

#	Key Questions	Sub-Questions	Indicators
		b. To what extent is there ownership and consensus among different stakeholders regarding the desirability of ABL?	
8	Have the principles of ABL been internalized by teachers themselves, and imbibed into mainstream curricula and teacher education programmes?	a. Has ABL made any impact on teachers' education-related attitudes, beliefs & understanding? b. Have ABL principles been incorporated into curricula and training programmes?	<ul style="list-style-type: none"> Teachers' beliefs/ views in ABL vs. non-ABL schools Extent of integration of school curricula and teacher education programmes with ABL principles
9	What are the key factors that influence the system adoption and sustainability of ABL programmes, and what steps can be taken to increase likelihood of sustainability?	a. In those states where ABL has or has not been up-scaled and/or sustained over years, what factors are perceived to have influenced its sustainability? b. Are there any serious threats to ABL's continuity in each state?	Various stated perceptions of ABL's sustainability

COVERAGE OF EVALUATION QUESTIONS

As the evaluation questions were discussed with Advisory Committee and experts, the evaluation team was asked to restrict the scope of work on some of the questions. These included evaluation questions 5 and 6. Regarding the impact of ABL on non-academic outcomes, it was advised that measurement of this be limited to child autonomy in the classrooms. Similarly, it was agreed that the contextual factors in evaluation question 6 were not defined specifically and may not be possible to capture.

There were some practical challenges in the data collection also, especially for evaluation question 3 with regards to costs involved in rolling out ABL and timings of fund release. Most of this information was not easily available across the states.

MANAGEMENT STRUCTURE OF THE EVALUATION

The evaluation was supervised and technically guided by an advisory committee chaired by Dr. Krishna Kumar, Former Director, NCERT. The advisory committee comprised of representatives from MHRD, EdCIL, NCERT, experts in the field and practitioners. The project was led by a project core committee that comprised of project in-charges from UNICEF Delhi and EI. The Advisory Committee met the core committee periodically keeping the research guided with their inputs. Additionally, an external expert team was closely working with the project core committee to strengthen the work through their research expertise. An extended team of external experts was also involved in the review of the tools.

The responsibility to manage and oversee the evaluation process was transferred to the Research and Evaluation Specialist from the Policy, Planning and Evaluation Section after the completion of the Draft Report stage – owing to new procedures at UNICEF India to increase transparency and independence of evaluations.

CHAPTER 4: METHODOLOGY

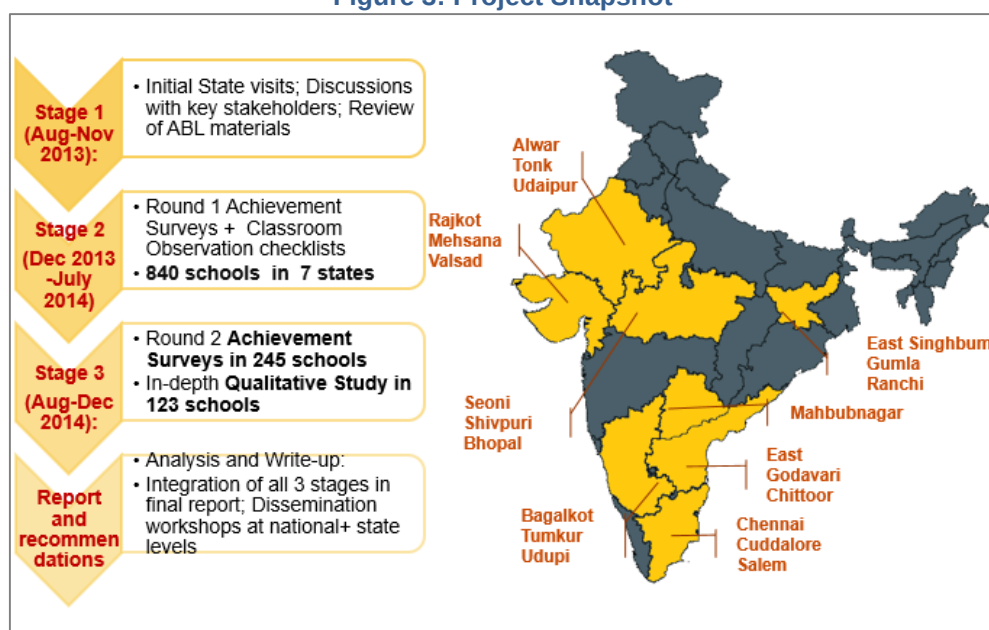
4.1 EVALUATION STAGES

Based on the scope and objectives outlined in Chapter 3, the design of the study was visualized in consultation with UNICEF. The stages of evaluation, the sampling methodology and the approach to analysis and limitations of study are discussed in this chapter.

For the evaluation, a mixed methods design involving qualitative and quantitative analyses was suggested as per the terms of reference with UNICEF. The evaluation was divided into the following three broad stages:

- Stage 1 (Aug-Nov 2013): collection of ABL materials including training modules and understanding the current status and history of ABL in each of the 7 states by observing classrooms and speaking with different stakeholders at state/district/sub-district levels; development and piloting of tools for Stage 2 and development of training material for field evaluators
- Stage 2 (Dec 2013-June 2014): administration of achievement surveys, teacher surveys and basic classroom observations in a total of 857 schools in the 7 states, including both ABL and non-ABL schools; collection, cleaning and analysis of data using these tools
- Stage 3 (September 2014-February 2015): development of tools for stage 3, sub-sampling of the highest-performing and lowest-performing ABL classrooms from Stage 2; administration of a second round of achievement survey, and conduction of an in-depth qualitative study involving several hours of classroom observations and teacher interviews

Figure 3: Project Snapshot



A snapshot of the coverage and scope of the project is given in figure 3. A detailed description of each evaluation stage is included in Appendix 4.1.

4.2. SAMPLING

Selection of states for evaluation was included in the terms of reference with UNICEF. For **district selection** four criteria were used at the highest level for a representative sample:

1. Population weighted average of the Human Development Index (HDI)
2. Population weighted average of the Educational Indexes
3. Percentage of Educationally Backward Blocks (EBB)
4. At least one the selected districts with high tribal population (Scheduled Tribes (STs)).

In cases where there was a contradiction between the above metrics, the decision was based on discussion with stakeholders in the state, while ensuring a broad alignment with the key criteria above. Geographic coverage of the state was also factored in to the extent possible. Based on the suggestions from states and the criteria listed above, the list of districts for stage 2 and 3 is mentioned in table 4 to the right.

The objectives of the **school selection for Stage 2** were as follows:

- Top level objective: Select 80 ABL and 40 non-ABL schools in states where ABL is not state-wide, and select 120 ABL schools in states with a state-wide implementation.
- Next level objective: The sample should have a proportional representation of – boys and girls, children from urban and rural areas, different types of schools (primary only, primary with upper primary), different blocks, maturity of ABL implementation, Educational Backwardness etc.

Stratified Two-Stage Cluster Sampling was adopted for school selection using the Probability Proportional to Size (PPS) method.

School Selection for Stage 3: Stage 3 school selection involved a purposive sampling at state level. The attempt was to include schools which had high, and low performances along with high and low adherence to ABL processes as per stage 2 data, so that classrooms of different types could be investigated in further detail. The top 15% and the bottom 15% schools, as per the learning assessment score from each state were taken from the stage 2 **Achievement Survey sample**. These scores for schools were taken separately for Classes 2 and 3 and the combined set of schools was then shortlisted to 35. The stage 3 sub-sample included non-ABL schools only from the top band, in order to focus on the better performing non-ABL schools, and to understand the processes and methods of learning adopted in these schools.

Table 4: Sampled districts

State	District
Gujarat	Mehsana
	Rajkot
	Valsad
Tamil Nadu	Cuddalore
	Salem
	Chennai
Rajasthan	Udaipur
	Alwar
	Tonk
Madhya Pradesh	Bhopal
	Seoni
	Shivpuri
Karnataka	Tumkur
	Bagalkot
	Udupi
Andhra Pradesh	Chittoor
	Mahabubnagar
	East Godavari
Jharkhand	Gumla
	East Singhbhum
	Ranchi

Qualitative Research sample involved the selection of 20 schools from the Achievement survey sample of 35 schools from each state. The selection of schools was on the basis of their process score, an additive index of non-ABL and ABL specific classroom processes questions from the Stage 2 Classroom observation, as applicable to each school. Within the top and bottom 15% band of schools, schools with high and low values for process index were selected, after checking for internal consistency. A few exceptions to the stage 3 sub-selection of schools were made - for Rajasthan instead of 20 only 18 schools met the selection criteria for qualitative research. Since the state of Andhra Pradesh saw a division during the evaluation, the schools from Mahabubnagar could not be included due to the delay in administrative appointments. For Jharkhand, only 5 schools were selected for a dipstick review, as MGML was no longer practiced in the state.

The sampled and actual numbers of schools did vary marginally due to various administration issues. A summary of these is presented in tables 5 and 6 below.

Table 5: Coverage of schools in Stage 2

STATE	ABL/non-ABL	No. of Schools Sampled	No. of Schools Surveyed	No. of Class 2 children tested	No. of Class 3 children tested
Gujarat	ABL	80	81	2,396	2,454
	Non-ABL	40	39	1,201	1,267
	Total	120	120	3,597	3,721
Jharkhand	ABL	80	80	1,614	1,840

STATE	ABL/non-ABL	No. of Schools Sampled	No. of Schools Surveyed	No. of Class 2 children tested	No. of Class 3 children tested
	Non-ABL	40	40	440	467
	Total	120	120	2,054	2,307
Madhya Pradesh	ABL	80	80	1,638	1,675
	Non-ABL	40	40	773	754
	Total	120	120	2,411	2,429
Rajasthan	ABL	80	80	1,346	1,531
	Non-ABL	40	40	520	643
	Total	120	120	1,866	2,174
Tamil Nadu	Total (all ABL)	120	94*	1,780	1,883
Karnataka	Total (all ABL)	120	120	2,490	2,450
Andhra Pradesh	Total (all ABL)	120	120	2,039	2,351

*In Tamil Nadu, the total number of schools surveyed is 136. Forty-two government-aided schools were surveyed too.

Table 6: Coverage of schools in Stage 3

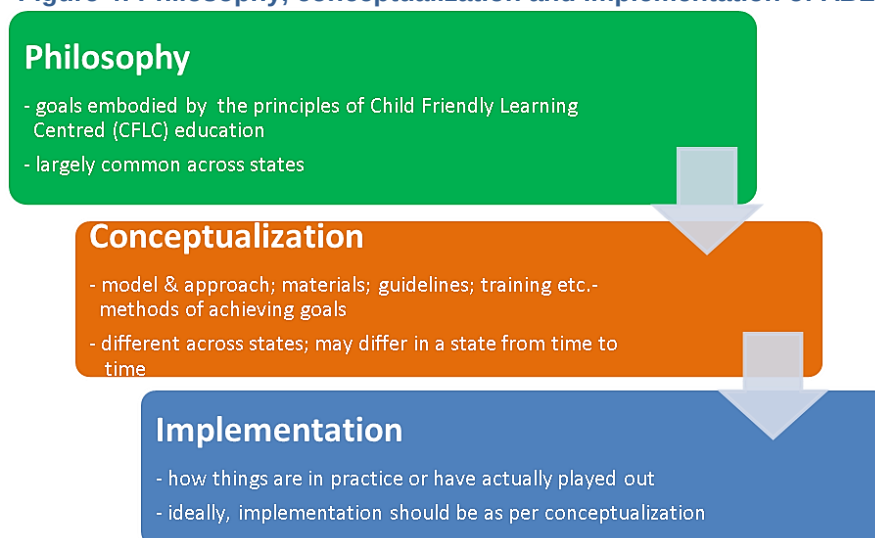
State	District	Achievement Survey-Sampled	Qualitative Research-Sampled	Achievement Survey-Actual	Qualitative Research-Actual
Gujarat	Mehsana	8	4	7	4
	Rajkot	17	9	16	9
	Valsad	10	7	10	7
Jharkhand	Gumla	7	3	7	0
	East Singhbhum	20	13	20	3
	Ranchi	8	4	8	2
Madhya Pradesh	Bhopal	13	7	11	7
	Seoni	13	7	13	7
	Shivpuri	9	6	9	6
Karnataka	Bagalkot	11	6	11	6
	Tumkur	15	9	15	9
	Udupi	9	5	9	5
Rajasthan	Alwar	13	7	13	6
	Tonk	11	7	11	3
	Udaipur	11	6	11	9
Tamil Nadu	Chennai	13	9	13	9
	Cuddalore	13	7	13	7
	Salem	9	4	9	4
Andhra Pradesh	Chittoor	13	7	13	7
	East Godavari	12	7	12	7
	Mahbubnagar	12	6	0	0
Total*		247	140	231	117

4.3. APPROACH TO ANALYSIS AND FRAMEWORK

TERMINOLOGY USED

In common usage, the term ABL is used to refer to both the method (which includes a certain classroom structure or the kind of materials used) and the philosophy (which embodies child-centred ideals). Some of the state programmes are also simply called 'ABL'. For the purpose of this evaluation a distinction is made at three levels Philosophy, Conceptualization and Implementation to ensure consistency and clarity of different meanings of ABL (see Figure 4).

Figure 4: Philosophy, conceptualization and implementation of ABL



Philosophy: As far as the philosophy of ABL in terms of underlying principles goes, these are referred as principles of “Child-Friendly Learning Centred” (CFLC) education in this evaluation. The themes that emerged through Stage 1 state visits were finalized through a discussion with experts to constitute the definition of CFLC education, which forms the lens of evaluation and offers a common ground for comparison. These principles are listed and explained below:

- i. Meaningful, learning-oriented activities: Children are involved in activities/tasks that focus on learning - the focus is on understanding and sense making, with scope for exploration, expression, application, and deep cognitive engagement. The teacher understands the purpose of the learning activities and does not simply carry out activities without a clear sense of their purpose or learning goal.
- ii. Variety of learning materials in use: Besides the supplied printed and wooden kits different kinds of learning materials such as teacher-made learning aids, books and other enrichment material are accessible and handled by children themselves. The teacher uses these resourcefully based on the learning goals, going beyond the textbook and blackboard.
- iii. Provision for self-paced and individualized learning: The teaching-learning processes are built upon understanding, tracking and supporting every individual child's learning progress. Children's prior knowledge and diversity of learning styles are also factored in. The child is allowed to learn at her/his own pace.
- iv. Opportunities to learn through different modes: The teaching-learning activities are designed to support different learning modes including Peer learning (offering scope for discussing and constructing knowledge together) and Self-learning (offering scope for independent problem solving).
- v. Scope for higher order thinking and critical questioning: Children are provided opportunities to apply learnt concepts and knowledge in new situations or problems. Original thinking and critical questioning (related to both social issues and academic content areas) is encouraged. Learning focuses on deeper understanding and not just on rote-learning of content or mechanical understanding of procedures.

- vi. Every child engaged or Child Engagement: All children are interested and engaged for the majority of the class-time in meaningful learning tasks.
- vii. Continuous assessment integrated with the learning process: The teacher continuously uses assessment as a part of the teaching-learning process, to provide feedback on and improve understanding of children. In particular, the teacher views children's mistakes as opportunities for furthering learning, and responds accordingly.
- viii. Democratic processes/ relationships in the classroom: Children are in a fear-free environment where they can express themselves honestly and question things freely. The teacher uses positive classroom management strategies to ensure a non-threatening environment where children are given freedom and choice.
- ix. Equitable and inclusive learning environment: The teacher actively provides an environment that is inclusive and is supportive of diversity (diversity based on social groups, caste, religion, gender, special needs). All children's voices and experiences are affirmed, and no child is discriminated against.
- x. Contextualization to children's everyday world and community: The teacher enables children to connect learning to everyday lives and experiences, and draws upon the community's resources and expertise.
- xi. Physical environment conducive to learning: The classroom setting is healthy, comfortable, child-friendly and conducive to learning. The classroom setting presents ample space and opportunity for creative expression of children and display of child work.
- xii. Attention to holistic, all-round development: The teacher encourages different aspects of children's development (e.g. physical, social, creative, ethical in addition to cognitive), and makes linkages across different subjects. The teacher values effort and positive processes, rather than just achievements.

Conceptualization: refers to a specific model or programme used to implement the philosophy. This could include the pedagogy, curriculum, specific learning materials, or a recommended classroom structure. For instance, RIVER model is a conceptualization of CFLC.

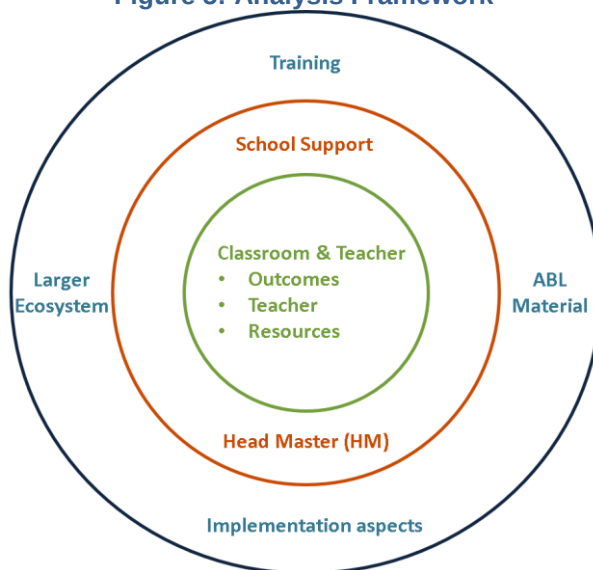
It is worth noting that different states have different programmes or different conceptualizations of the philosophy of child-friendly learning centred education. For instance, Gujarat and Rajasthan have conceptualized CFLC education differently. Gujarat's conceptualization of CFLC is called Pragna, which recommends grouping children on the basis of card and ladder, while Rajasthan has a different conceptualization, which recommends grouping children based on their abilities. It is also important to note that states have changed their programmes/ conceptualizations over a period of time. For instance, in Tamil Nadu, though the programme has always been called ABL – the elements of conceptualization, particularly around the learning materials available to children (in terms of cards/ text books) has varied over time.

Implementation: refers to ground practices as observed during the evaluation. Ideally, these should match the conceptualization in each state. However, there may be some obvious variations in the ground practices. For instance, though Madhya Pradesh mandates grouping of children on the basis of card-ladder, this was not always observed in the classrooms.

ANALYSIS FRAMEWORK

Guided by the philosophy of CFLC education, the framework for analysis assumes Classroom and Teacher central to the study. The data from various stages has been explored through these two strands to begin with. Classroom and Teachers are understood within the context of School, the support received from the School as well as the Head Master/Mistress (HM) to appreciate the school environment and its influences on the classrooms. Schools are considered a part of larger ecosystem comprising of various Implementation aspects, State mandates, Training and Support as well as Learning Materials provided. Figure 5 depicts this analysis framework graphically.

Figure 5: Analysis Framework



KEY FACTORS AND PARAMETERS

Key factors were identified through a detailed mind map of variables necessary to answer the evaluation questions. Some of parameters also emerged through iterative analysis of the qualitative data. Broad factors considered are:

- Classroom and Teacher
 - Outcomes
 - Teacher
 - Resources
- Training and Support
- Curriculum and Pedagogy (ABL Material)
- Implementation (Administrative)

Each of these factors is further broken down into parameters on which data has been collated and organized from various stages, as depicted in Figure 6.

Figure 6: Factors and Parameters for analysis

Classroom & Teacher			Training & Support	Curriculum	Implementation (administrative)	Vision & Buy-In		
Outcomes	Teacher	Resources				Leadership	Functionaries	Communi
Academic outcomes - Stage 2 Scores - Stage 3 scores	Buy-In	Avaliability	Quality	Alignment to CFLC principles	Training on time	Understanding of top level	Understanding of principles	Buy-in into ABL
	Attentiveness to all students		Quantity & recency		Material on time	Coherent vision for primary education	Views on desirability and challenges	
Classroom environment - Student Engagement - Fear Free Environment - Self-paced learning - Peer learning - Inclusive Environment	ABL understanding	Usage (teacher/ student)	Support quality	Coherence	Planning for ABL introduction/ scaling	Consistency in direction across leadership changes	Perception of support from top	What they want from schools
	Effort put by the Teacher				Consistency over the years			
	Teaching method		Support quantity		Funding			

Most classroom and teacher parameters from the qualitative research were coded through a well-defined rubric and key comments / quotes from the transcripts related to each parameter were also recorded. The rubric for this coding assigns a High, Medium or Low category to each parameter. For instance, for the parameter 'Opportunities for Peer-Learning' the rubric reads like the following:

High – Teacher provides and plans for opportunities of peer learning; children are seen explaining to and discussing with each other, openly approach each other for doubts.

Medium – Children talk to each other, ask doubts intermittently, copy from each other; teacher allows for but limits peer-interaction in class.

Low – No instances of peer interactions observed; children not encouraged to talk to each other, no group activity planned by teacher; low or minimal child interaction

A detailed rubric of all the parameters coded is included in the Appendix 4.2.

4.4. DATA COLLECTION, SOURCES AND QUALITY

DATA COLLECTION

Data collection was done by the research team at Educational Initiatives (EI), Research Assistants (RAS) hired and trained by EI, as well as state personnel trained by EI. As a way to develop research capacity in the government system, evaluators appointed by the respective state/district government bodies primarily conducted the survey work in Stage 2 and learning assessments in Stage 2 and Stage 3. Help from NGO's was also taken in some states. In Stage 2, about 30 evaluators were engaged per district for the survey duration of 10-12 days. The evaluators were trained on the survey conduction processes through a two-day training conducted in the local language. A total of 16 such trainings were conducted across the 7 states, training close to 600 evaluators.

In stage 3 a total of 20 Research assistants were selected and trained in 2 batches, one for the Northern states and another for the Southern States, in a residential setting for 5 days. Core members of the evaluation team and experts involved in the project conducted the training.

DATA SOURCES

A diverse set of perspectives was captured through various data sources. The following table 7 provides a list of all the data sources for the evaluation.

Table 7: Data sources

Data Sources	Stage of the project	Data Type
Interviews with State officials in SSA, SCERT, DIET	Stage 1, 2, 3	Qualitative
Interviews with support personnel (CRC, BRC etc.)	Stage 1, 2, 3	Qualitative
Interviews with key resource personnel involved in ABL programme of the state	Stage 1, 2, 3	Qualitative
Consultation with key stakeholders, Advisory Committee, experts on the evaluations, UNICEF, eminent educationists in India	Stage 1, 2, 3	Qualitative
Teacher interview and questionnaires	Stage 2, 3	Qualitative + Quantitative
HM Interview and questionnaires	Stage 2, 3	Qualitative + Quantitative
Brief interaction with children and community	Stage 3	Qualitative
Classroom Observations	Stage 2, 3	Qualitative + Quantitative
School observations	Stage 2, 3	Qualitative + Quantitative
Learning Achievement surveys of the children	Stage 2, 3	Quantitative
Dipstick review of material in the light of ABL philosophy	Stage 2	Qualitative
Teacher trainings attended in some states by EI team	Stage 1, 2, 3	Qualitative
Expert visits to the schools	Stage 3	Qualitative

TOOL DEVELOPMENT AND PILOTING

The tools for Stage 2 and Stage 3 were finalised by the evaluation team after multiple rounds of internal review and expert review. The list of experts who were consulted for feedback on tools is shared in Appendix 4.3. These were shared with the concerned UNICEF Education Programme Officers (EPOs) and state officials and feedback was sought. The tools were piloted in 3 states, the data analysed and necessary changes incorporated in the tools. All the tools used for the study in Stage 2 and 3 have been shared separately.

STAKEHOLDER CONSULTATIONS

In stage 1, the evaluation team with support from the UNICEF Education Specialists, of each state drew up a list of people who were involved in the policymaking, administration, curriculum making and implementation aspects of ABL in each state. This list also included non-state personnel who played a key role in the evolution of ABL in a state and experts who were involved in advisory or other roles, and consultations were held with all these groups. Group consultations with people who were involved in curriculum design, support personnel and teachers were also done in some states. These consultations were guided by semi-structured discussion schedules and were conducted by the evaluation team and the experts who visited the states. These schedules and the list of individuals who were consulted are included in Appendix 4.2 and 4.3.

DATA ORGANIZATION AND QUALITY ASSURANCE

The data from various stages was organized at 2 levels – Classroom and Teacher level and State level. At the Classroom level:

- The transcripts from each of the schools was organized on various factors and parameters considered
- The transcripts were read and binned based on defined codes, and comments and verbatim quotes from the data were added by the reader
- Multiple team members coded the transcripts based on the defined rubric and differences discussed and sorted out. This ensured uniformity in coding.

Similarly, state level data was also organized on the identified parameters.

A detailed triangulation plan for all parameters was developed to assure validity of the data collected. For instance, a teacher's perception on the idea of Peer-learning was triangulated with data sources from State 3 Teacher Interview, Stage 3 classroom Observation and Stage 2 Teacher Questionnaire.

In order to stay clear from value judgments, the Classroom Observations and Transcripts were purely data based. RAs were asked to share their opinions separately in a summary. A booklet was prepared with all the tools and sufficient number of blank sheets for the RAs to make notes and write out descriptions and summaries. Thick descriptions of classrooms observations, interview other interactions were recorded.

A rigorous multi-level field audit was conducted covering about 20% of the schools being surveyed. The different levels that audited schools included government agencies, EI Project Core Team, EI State Coordinators, and EI appointed District Field Auditors.

4.5 RESEARCH ETHICS

It was ensured that the research design and methodology adhered to ethical standards. The development of the tools, test conduction and analysis addressed these aspects at every stage. The ethical standards are discussed below.

PERMISSIONS

Permission to conduct the evaluation was sought from MHRD before starting the project and the respective state governments during each stage of the project. The permission letters were provided

to the evaluators and RAs before their visits to the schools, and they conducted a briefing with the teachers and the HMs before commencing their observations and interviews. A copy of the permission letters is shared in Appendix 4.4.

DISCLOSURE

All the research participants, HMs, Teachers, BRCs, children were informed about the purpose and procedures involved in the evaluation. The teacher questionnaire in stage 2 contained a note to this effect and the evaluators and RAs were advised to inform all participants about the purpose of evaluation, how and for what purposes the data would be used and clarified any questions that they had.

The achievement survey test papers also carried the message that the test was for research purposes alone and the evaluators were advised to conduct the test in a non-threatening manner that did not create any stress for the children. Extra time as required was given to children with special needs. The sampling for the learning achievement was done in such a way that there was a roughly equal representation of boys and girls.

CONFIDENTIALITY

Strict confidentiality was guaranteed to the participants. The names of the participants or the schools or any other details that may lead to identification have been kept confidential. These have not been used in the report or shared with anyone so as not to put the participants in a situation where they are at a risk of physical or psychological harm.

REDUCING BIAS

The training for evaluators and RAs included a session on ‘research ethos’ where they were advised on respecting the rights of the teachers whose classrooms they observed or interviewed and on appropriate behaviour with children. They were instructed to merely observe and not interact with the situation in any way nor demand that anything special be done for the sake of the evaluation. The RAs in Stage 3 were also trained rigorously on writing the description of their observations to ensure that their opinions and judgments do not influence the classroom observations. Their opinions about the classroom were recorded separately. The interview schedules for the teachers, HMs and children also ensured that the questions were not leading and did not influence the teacher to give a specific response. All the tools are shared separately as an annexure.

4.6. LIMITATIONS OF THE EVALUATION

Gains in learning achievement over a period of time

The evaluation as conceptualized in the ToR was designed to measure the impact of ABL by measuring the learning gains over the span of one academic year in the ‘ABL’ and ‘non-ABL’ schools where the implementation is not statewide.

However, due to a delay in the award of the project, the learning assessments could not be conducted at the beginning and end of one academic year. The first achievement survey was conducted in February 2014, towards the end of the academic year. The second achievement survey was conducted in the period December 2015 – January 2015, towards the end of the next academic year. The differences in the timing of these surveys relative to the span of an academic year made it difficult to do a simple comparison of scores (this limitation has been highlighted earlier in the inception report). The issue was further exacerbated due to the incidence of copying in the achievement surveys, which is discussed next. *This limitation has been mitigated by the comparison in learning achievement between classrooms that adhere more closely to the RIVER ABL method and other classrooms that do not.*

Incidence of Copying in Achievement Surveys

A number of cases of possible copying in the achievement tests in both Stage 2 and Stage 3 were observed. In this light, while the broad state trends can be determined, the actual scores may be

inflated⁵. Additionally, with respect to the associations, the trends are only indicative of the associated factors to learning levels, and the magnitude of differences reported may have some degree of inaccuracy due to the irregularities in scores. Six classrooms where the copying or assistance was clearly traceable, and its impact appeared significantly stark, were removed from the analysis. It should be noted that other classrooms are also likely to have copied to some extent. For the purpose of this analysis, however, it was found that the extent of copying is likely to have been similar across classrooms and states in both ABL and non-ABL schools, and would not affect an examination of associations of learning levels with classroom types or teaching methods.

The evaluation team's investigation of similarity in response patterns revealed that Stage 3 scores were more reliable. Details of these checks are provided in Appendix 4.5. *The limitations posed by copying have been mitigated by using the S3 scores for analysis.*

All Non-academic outcomes of ABL could not be assessed

It was decided in the Advisory Committee meeting in October 2013 that some of the non-academic outcomes stated in the ToR such as sanitation, hygiene etc. should be excluded from the scope given the practical challenges. On the assessment of confidence levels and creativity of children, past tools from other studies were analysed and approaches to the measurement of these attributes had limitations as pointed out by experts. It was therefore decided that it was not possible to make a robust determination of such outcomes within the scope of the evaluation. *It was decided to mitigate this limitation by assessing the autonomy of the learner as observed through the classroom transactions, as a proxy for learner confidence.* Also the inclusion parameter could not be captured in detail during classroom observations as that may require more time to observe or be a separate study in itself. Instances of explicit exclusion were noted, however.

Limited data on Funds Release and Usage for ABL programmes

The ToR specified an investigation of funding amounts and its timeliness for the ABL programmes to determine efficiency. The funds for ABL were drawn from different sources – like SSA funds for Learning Enhancement Programmes and state innovation funds over different periods of time. Also many fund allocations at the state level are for primary education as whole and not for ABL in particular (e.g. BRP/ CRP visits, cluster level meetings, teacher training etc.). Further, the differing models of states would make it difficult to do a comparison of funds requirements and availability. Given the complexities involved tracking of fund release and use was not possible and hence a rigorous analysis was not undertaken. *However, interviews with states, especially in Tamil Nadu and Gujarat, indicate that on a running basis, there aren't significant differences in the cost per child in an ABL vs. Non-ABL scenario. Therefore additional funds have not been a major factor in the success of ABL implementations. Significant investments in teacher development and support are needed to achieve child-friendly classrooms and better learning outcomes, but these again are independent of an ABL or Non-ABL strategy being adopted.*

Other Potential Biases

The design of stage 2 survey was such that it was conducted by a mix of government evaluators and non-government personnel. As the government evaluators had a stake in the implementation of the model in their state, this could have led to some bias in the survey results.

This bias was mitigated through the following steps:

- 1) Including 30% of non-governmental evaluators in 4 out of 7 states and 100% student evaluators in one state
- 2) Conducting field audits in 20% of the stage 2 schools
- 3) Triangulation of data on stage 2 classroom processes with stage 3 where the evaluation was conducted by independent RAs recruited by EI
- 4) Expert visits to about 20% of schools in the study in stage 3 and field audit in 18% of schools during achievement survey

⁵ State trends are broadly in line with other past assessments. Details are given in Appendix 4.6

- 5) Longer duration of classroom observations: 6-8 hours spread across 3 days to avoid any effects of a staged classroom. The RAs were trained on strategies to identify classrooms that are staged e.g. checking if the learning material showed signs of usage, asking for the progress charts of previous term etc.

In the process of triangulating data from various tools of stage 3, it was seen that there were a few inconsistencies – for example from the classroom observation it appeared that the teacher was teaching in a particular way because the evaluation was in progress, or teachers practices in the classroom did not corroborate with her/his stated beliefs in the interview. In such cases these transcripts were not considered.

CHAPTER 5: FINDINGS

This chapter discusses the detailed findings from the evaluation, organized as per the evaluation criteria of Relevance, Effectiveness, Impact, Efficiency and Sustainability. A summary of key findings is included at the beginning of each of these sub-sections. Findings under the Relevance section pertain to the ABL programme design, while those under Effectiveness, Impact, Efficiency, and Sustainability are concerned with programme implementation. Since the design elements are inherent to the implementation of the programme in different states, the findings relating to the programme implementation also reflect on the programme design of the state.

5.1 RELEVANCE

This section:

- Examines how far the key features of the original state models, are aligned to CFLC principles, and goals as outlined in the National Curriculum Framework (NCF) and Right of Children to Free and Compulsory Education (RTE.)
- Examines how aligned the processes and the learning materials of the current state models are, to CFLC principles and the deviations, if any, from the CFLC principles.

Table 8: Relevance: Summary of main findings

1. The structural aspects of the original state models (adapted from RIVER model) facilitate classroom processes aligned to CFLC principles.
2. Over the years, some state models have moved away from grouping based on card-ladder, weakening alignment to CFLC principles.
3. The learning materials, such as card-ladder and text books across states, are focused more on mechanical and fun aspects of learning, with few opportunities for critical thinking, collaborative learning and contextualization to the learner's situation.

5.1.1 STATE ABL MODELS, CFLC PRINCIPLES AND GOALS OF NCF/RTE

The wide differences in the conceptualizations of the ABL models across states described in section 2.3 make it necessary to define a common ground for comparison. Considering these variations, the evaluation team, along with experts in education, developed a set of principles that form the basis for any child-friendly learning-centred education. These also draw upon the objectives of introducing ABL as articulated by the state functionaries in the stage 1 visits. These principles, which have been detailed out in section 4.3 capture the essence of RTE and NCF 2005. Analysis reveals that the CFLC principles largely represent the goals of NCF. The details are included in Appendix 5.1.

The RTE Act also mandates that elementary education must involve child-friendly and activity-based learning processes, must ensure equity and inclusion of every child, and promote an environment that is free from fear, anxiety, discrimination, corporal punishment or mental harassment to any child. All these aspects are covered under the CFLC principles.

As a report on Indian primary schools shows, children dropping out of schools or attending school irregularly is still very common. Also, school environment remains iniquitous and discriminatory vis-a-vis both the socially marginal communities and girls (Bhattacharjea, Wadhwa, & Banerji, 2011). All teachers are not adequately equipped to facilitate child-friendly learning through activities, discovery and exploration as mandated by the Act, and to ensure positive learning outcomes for all children. In this context, ABL has emerged as one potential model that can help us achieve these goals.

The adherence to CFLC principles is influenced by both the state mandated processes and the learning materials supplied by the state, apart from the teacher practices inside the classroom. Some of the principles, like the presence of an equitable and inclusive learning environment, or continuous assessment being integrated with learning, are largely influenced by the processes

mandated by the state. Some others like presence of opportunities to learn through different modes, or provision for self-paced and individualized learning depend on the classroom processes, as well as the nature of materials provided by the state. The materials should provide scope for these and the processes followed in the classroom must enable these. Other parameters like scope for higher order thinking or contextualization to the child's everyday world are largely dependent on the material. Different models of ABL involve different sets of processes to be followed and each state has also prescribed a set of materials. In the following sections the alignment of the state mandated processes and material to CFLC principles is examined in detail.

5.1.2 ALIGNMENT OF ORIGINAL STATE MODELS TO CFLC PRINCIPLES

It is observed that the key features of RIVER that are also part of the original state models do facilitate processes aligned to CFLC principles and therefore to NCF/RTE. This is discussed further along different parameters involved.

Democratic Processes/ relationships in the classroom

The seating arrangement and the classroom processes in a classroom that follows grouping based on card-ladder is very different from a conventional classroom. Unlike a conventional classroom where children sit in rows and there is restricted movement in the class, here the children sit in groups depending on the extent of support (from the teacher or peers) they require to complete the activity they are engaged in. The teacher sits amidst the children at the same level, instead of being at a fixed position in front of the class. This bridges the physical distance between the teacher and the children and the teacher and facilitates a more relaxed and fear-free interaction between the teacher and the child.

Children use activity cards, along with a variety of other learning materials, and work through cards at their own pace. Once they complete an activity card, they find the next card in the pre-determined sequence (ladder) pick it up, move to another group as required and work on it. There is a lot of physical movement in the classroom – be it to access cards and learning materials or to move from group to group. The *freedom to move and speak* in the class forms an important part of a healthy atmosphere, a sign of 'life' in the classroom.

The classroom is structured to be child-friendly. There is a provision for colourful teaching learning materials and these are arranged in such a way that the child can access these without any assistance from a grown-up. Also, there are low-level black boards on which the child can practice writing. The work of the child, written work, drawing or other craft work, is displayed either on soft boards or hung up on wires at the eye level of the child. Having a space of their own to practice, and having their work displayed gives children a sense of confidence and reaffirms their worth.

Equitable and inclusive learning environment

The way the children are expected to be seated in an ABL classroom, in groups that change in composition, with children moving from one group to another, based on the nature of the activity that they are engaged in, gives sufficient opportunities to interact with each other. This ensures that different children have to interact with each other through the learning process. The increased peer interaction reduces the possibility of potential discrimination and exclusion of some children based on gender, caste or any other criterion.

Also, the ladder ensures that a child, if she/he is absent for a long period of time, is still able to continue from wherever she/he left off and does not have the burden of missed lessons. So children who cannot attend school regularly due to external circumstances are not penalized and are instead included.

However, the model does not have efficient ways of handling a child who has never been to school and is in a higher class such as 3 or 4 on account of RTE mandates. The same holds for Children with Special Needs (CWSN) and slow learners.

Variety of learning material in use

The initial state models adapted from RIVER provided opportunities for children to learn from multiple sources, doing a number of activities using a variety of learning materials. The activity cards envisage the use of a rich variety of resources including materials like beads, sticks, abacus charts, game boards, dice, flash cards, extra readers, audio-video material etc. that children can handle and play with, to understand concepts of Maths, Science and Language. These materials formed a part of the 'ABL kit' of most states and were usually state supplied. This model enables the use of a variety of materials more effectively, as compared to a conventional classroom where neither the curriculum explicitly necessitates the use of a variety of learning materials, nor does the state supplies these.

Every child engaged

In a classroom following grouping with card-ladder, a child chooses his own activity in accordance with the ladder and completes it at her/his pace. Unlike in a conventional classroom where many children remain passive and are not a part of the classroom transactions, here, *every child* works through every activity. Also, this model gives an opportunity for the child to complete an activity in her/his own time and there is no sense of humiliation or shame at taking more time to complete an activity. The child moves to the next activity as and when she/he finishes the previous one and is not forced to move on before completing the activity just because many others in the classroom have moved on. There is no comparison with another child and each one works at her/his own pace. The variety of activities and learning material in use increases the likelihood that the child does not experience boredom or disinterest.

Continuous assessment integrated with the learning process:

Assessment is built in to the card-ladder model and completion of a milestone is indicative of the competency being attained. The assessment card is not visibly different from a regular practice card and the child works through it just as she/he would do with any other card. There are no marks and grades assigned to completion of a card. In fact the completion of each card in itself indicates the level of understanding of the child and gives the teacher pointers to what the child needs to do next. Thus the original state models ensured that assessment is continuous and integrated with the learning process.

Provision for self-paced and individualized learning

The original state models also allowed the child to largely progress through the ladder at her/his own pace, similar to the RIVER model. As the 'Rationale for MGML' document notes, "The programme makes room for teacher innovation by allotting almost 40% of the spaces on the ladder to the teacher's discretion" (Herzerberger, n.d.). The document also discusses different configuration of ladders incorporating loops, detours spirals and straight lines.

Opportunities to learn through different modes

The model itself does offer the scope to learn through multiple modes, individual learning, learning through interactions with peers, through experimentation, making and doing things etc. However, for this to happen, the materials have to be designed carefully. Details of the initial models were not available to permit a detailed investigation. The current state models restrict opportunities to learn through different modes, and this is covered in more detail in the next section.

5.1.3 ALIGNMENT OF CURRENT STATE MODELS TO CFLC PRINCIPLES

Some states have deviated significantly from the original ABL model over a period of time and in many cases this makes their models less aligned to CFLC principles. Over the years, many states moved away from the underlying principles of the original model by reverting to textbooks, conventional whole-class instruction and traditional assessments. One example of this is the return to textbooks in Andhra Pradesh and Rajasthan.

Reversal to text books

Rajasthan and Andhra Pradesh have collated the cards into the textbook and have created 'activity based textbooks'. These textbooks are intended to remain true to the spirit of their original state models. Tamil Nadu has also introduced textbooks, which are to be used along with the card-ladder. However, many stakeholders in Tamil Nadu see the textbook as being the primary source of learning instead of cards.

The possibility of textbooks facilitating child-friendly learning needs to be reviewed. With a carefully designed textbook and adequate training to change mind-sets and provide necessary skillsets, it may be possible to do so. However, the evaluation team found that states which follow the textbook, deviate more from the CFLC principles. Given a textbook, there is a tendency to fall back to conventional teaching rather than trying out newer methods; perhaps because the textbook is seen as a symbol of a particular pedagogy. Further, aspects like provision for self-paced learning, opportunities for collaborative learning, integration of assessment into learning, were found to be lacking in textbook based models.

Differentiated and Self-Paced Learning

Most of the states have placed some restrictions on the extent of self-paced learning possible, even when following a card-ladder based model. This could be in the form of prescribing the number of milestones to be covered in a certain period of time, or in the form of periodic assessments for which specific content has to be covered.

Karnataka and Gujarat prescribe the number of cards that need to be covered in a given interval of time, or the average time expected to complete a milestone. These are however not enforced rigorously and the teachers still have the flexibility of allowing a child to take more time than that prescribed. So the presence of guidelines by themselves does not restrict self-paced learning unless the time limits are enforced.

Tamil Nadu has divided the ladder for a given year into 3 parts, (of roughly 3 to 4 milestones) each to be covered within a trimester. At the end of the trimester is a summative assessment, which covers the content of these 3 milestones. This makes it necessary for every child to cover the content allotted for a trimester within the trimester. Madhya Pradesh also follows a similar approach wherein there are monthly assessments associated with prescribed cards. The child has to cover the content for the test in the allotted time. This leaves very little scope for self-paced learning when compared to the original state models in these states.

Another point is that the implementations in different states were all based on linear ladders. Each child is expected to go through the same set of cards in the same sequence. There is limited scope to vary the sequence of tasks that a child does in a given milestone or accommodate different styles of learning. As an educationist notes, "for [ABL] to be truly 'differential' education (i.e. to each according to her need), there needs to be scope to adjust the sequence, repeat/reiterate or bypass certain things, use learning methods with some children that are not being used with others (because the others do not work with particular children) and so on" (Shukla, 2009). The differentiation is largely in terms of pace and differentiation on other fronts is not possible.

Assessment being integrated into learning

The way the ladder is structured, the progress of the child along the ladder can itself be considered an assessment because it clearly tells the teacher what the child knows and what he does not know. The ladder definitely serves this purpose of an assessment.

However, in response to the CCE mandates, some states (particularly, Madhya Pradesh, Andhra Pradesh, Tamil Nadu and Rajasthan) have planned for separate assessments, even in the ABL class levels. Karnataka has desisted from this practice so far. Gujarat has instituted end of the year assessments since 2014. Madhya Pradesh and Tamil Nadu have periodic assessments. In Madhya

Pradesh though, specific logos of cups and medals, denoting monthly or half-yearly assessments are placed in the ladder. This makes the periodic assessments take precedence over the informal assessment mechanism inherent in the ABL card-ladder. The same is true of Tamil Nadu where marks are assigned to specific cards as part of the CCE requirements. The end-of-term examination is conducted using separate question papers in some districts, thus diluting the principle of assessments being integrated into learning. Though the very purpose of CCE is to integrate assessment into learning, the widespread focus now seems to be on the nominal aspect of meeting the 'reporting' requirements.

5.1.4 ALIGNMENT OF STATE LEARNING MATERIALS TO CFLC PRINCIPLES

As noted earlier, the focus of learning materials such as card, ladder, and textbooks across states was either on procedural learning or on 'fun' activities like dance or games. It was rare to find activities that support NCF goals like collaborative learning, critical thinking, and contextualization to the learner's situation. Details of this for the states of evaluation have been shared below.

Opportunities to learn through different modes

There are a few activities that call for collaboration between peers in the materials of all states. However, the material does not provide much scope for peer learning. Most of the activities intended as 'peer-supported' or 'peer-led' activities were such that they could be carried out by a child on her/ his own, or needed a good amount of teacher support. This leads to a situation where children are working individually even when sitting in groups.

Further, for an ABL classroom to function effectively there should be a good mix of teacher-supported, peer-supported and individual activities and whole-class activities. This is essential to ensure an optimal use of teacher time. This aspect has not been given sufficient thought in the design of the materials. This limitation places greater demands on the teacher's time, which she/he may not be able to manage, and thus impacts the way ABL functions in a classroom.

Meaningful, learning-oriented activities

Activities that seek to generate experiential learning, that is, set interesting challenges that lead to reflective engagement and enable the child to construct her/his own understanding would require:

- An appropriate / "worthwhile/ substantial" challenge
- Opportunity to reflect on the process (occasionally articulate it as well) and carry it further, often through application or "horizontal elaboration and/or correlation"
- Scope for "consolidation" of learning, either at the end of activity or periodically (Shukla, 2009)

However, most of the activities in the ABL material across states lack the aspects of challenge and opportunities for reflection. A large proportion of activities are no more than textbook-like exercises, which aim to reinforce a concept at best or a fun activity that involves physical movement and provides a break from the monotony of a classroom. Such activities do have their value in an elementary classroom. But too many activities of this type and fewer learning-oriented activities curtail opportunities to think, reflect and construct knowledge. To quote from the NCF, "the term 'activity' is now a part of the register of most elementary school teachers, but in many cases this has just been grafted onto the 'Herbartian' lesson plan, still driven by 'outcomes' at the end of each lesson. There is now more talk of competencies, but these competencies are still pegged onto lessons much in the manner of 'outcomes'" (NCF, 2005). This is true of the activities that are part of ABL material across states and the material falls short of NCF expectations on this aspect.

Scope for higher order thinking and critical questioning

Overall the material implemented across states, does not take into account the development of higher order skills. It focuses on the basics in a mechanical way. This was evident from the classroom transactions observed and reported by the experts as mentioned in section 5.3. Also, the activities were mostly mechanical and repetitive, aimed more at drilling a concept into the child,

rather than providing opportunities for exploration and deeper understanding. Thus learning remains largely procedural and rote-based. It is left to the individual teacher to create opportunities for critical thinking and questioning.

Contextualization to children's everyday world and community

NCF, 2005 regards the local environment and the child's own experiences as the best 'entry points, into the study of disciplines of knowledge'. Also, an aim of knowledge is to connect with the world. All the states in the evaluation have attempted to guide themselves by this principle and succeeded at this in varying degrees. Drawing from the review of materials it is observed, in a state like Tamil Nadu, the attempt at drawing examples from the child's context has not always resulted in suitable material that the child could connect to. Rajasthan on the other hand, has well-chosen situations; however, the attempt to tie these together to create actual learning is weak. Andhra Pradesh has managed to strike a balance by having a good number of activities that are drawn from the child's context and deriving learning from them.

Most states have tried to use local dialects and many locally used words find a place in the material. Jharkhand has done this effectively. However, this sensitivity to the home language of the child stops short of including rural dialects/contexts. There were contexts in the material, which a rural/tribal child would not connect to, and there is no provision or effort seen to bridge the gap.

Also, there is a disconnect between words that a child uses at home and the ones that he hears at school. Many words in Hindi like '*Nabh*', '*gaj*', '*khag*', have found a place as the first few words that a child learns at school, because they do not have *matras*. The choice of words that a child is introduced to seems to be driven by the order in which the letters are introduced and not by how familiar these would be to the child. This creates situations where the child has to learn unfamiliar names for familiar objects, which she/he may know, by another name. A researcher shares an example of a child having to learn the rarely used word '*salaga*' for elephant, which is commonly called '*aane*' in Kannada (Menon, 2013).

In conclusion, ABL does answer the need for a multi-grade multilevel pedagogy that provides a child friendly learning atmosphere. However, some aspects like the TLM need to be looked into and modified to ensure that learning happens as envisaged. Also some of the changes made in the state implementations like the move back to textbooks, encourage a tendency to revert to one-way transactions in the classroom.

5.2 EFFECTIVENESS

This section lays out how the idea of ABL, as defined through CFLC principles, translates on the ground. Important gaps between intended goals and practice on the field are identified and consolidated at the end of this section.

A summary of important findings under 'Effectiveness' is included in the box below:

Table 9: Effectiveness: Summary of main findings

Wherever numbers are shared below, these pertain to the sample of 110 classrooms observed in Stage 3

1. Practices in 75% of classrooms are largely fear-free, though this also includes classrooms where the atmosphere is casual and not oriented towards learning. High child engagement is seen in 27% of classrooms.
2. Overall 30 (27%) classrooms are aligned to CFLC principles. Children are seen to take charge of their learning in only 13% classrooms.
3. The effort taken by the teacher was observed to be high for 23% of teachers. Only 23 of 110 teachers (21%) observed were able to keep all children engaged.

4. In the states which mandate grouping with card-ladder (Karnataka, Tamil Nadu, Gujarat, Madhya Pradesh), only 23% classrooms actually practiced it.
5. Few teachers (21%) have a high buy-in into the state ABL programme.
6. 15% of classrooms show high usage of learning materials, despite the availability of a variety of learning materials in approximately 40% classrooms;
7. Teacher understanding of the model is weak, and is generally restricted to an understanding of procedural aspects.
8. Teachers face challenges in classroom management, managing different paces of learning, and record keeping.

5.2.1 ABL CLASSROOMS: PRACTICES ON THE GROUND

As discussed in the previous sections, ABL programme in different states has been conceptualized differently, though the stated philosophy is similar. Given this, classroom practices have been evaluated through their alignment to CFLC principles. While observing classrooms the following child-friendly learning centred parameters (table 10) were considered:

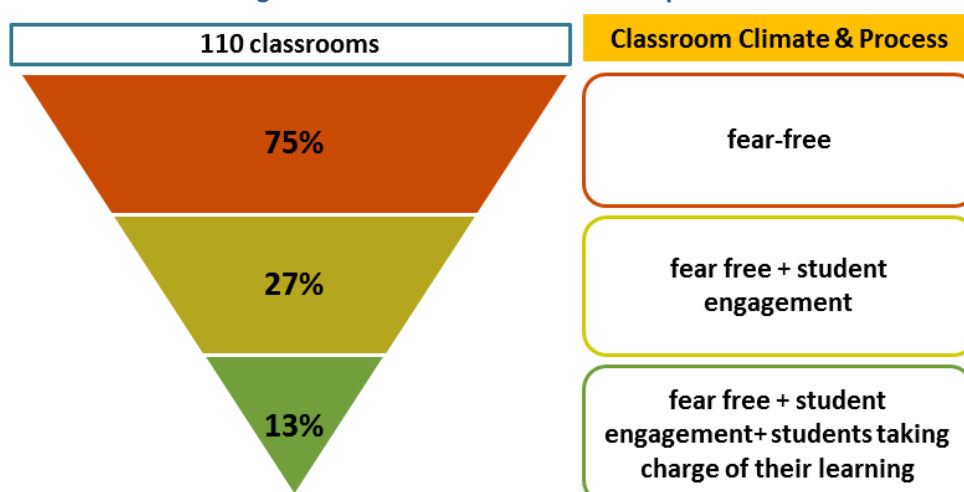
Table 10: Parameters for analyzing classrooms

#	Classroom Parameters
1	Child Engagement
2	Fear Free environment in the classroom
3	Opportunities for Self-paced learning for children
4	Opportunities for Peer Learning for children
5	Inclusive environment in the classroom

Each classroom was rated on the above parameters with the degree of alignment rated as High, Medium or Low. For a detailed definition and excerpts from classroom observations corresponding to these, please refer to Appendix 5.1. At a broad level the following trends were observed on these parameters in the 110 classrooms from Stage 3.

Around 75% of classrooms had reasonably fear-free environment. This was indicated by children's physical movement in the classroom, voluntary and active participation in classroom activities, children assuming responsibility for their learning (e.g. taking card and/or teaching learning material on their own) and absence of physical punishment.

Figure 7: Classrooms climate and process



Only in 27% classrooms of 110 classrooms, children were engaged in learning activities, in addition to the classroom being fear-free. Child engagement in a classroom was noted through signs such as children asking questions or responding to teacher's questions, children interacting with peers or teacher about a task/ learning activity, and interest shown by child while doing class work. Further children taking charge of their own learning was observed only in 13% of the 110 classrooms. This was observed through signs of student independence- whether they went about doing their activities even in the absence of a teacher or volunteered to help their peers. High to medium levels of peer interaction and self-paced learning were observed in these classrooms in contrast to low levels on these parameters in all the other classrooms.

Further, these classrooms were classified based on the rating on the above-mentioned parameters and divided into *classroom types*. While classifying a classroom, child engagement and fear-free environment in the classroom were given more importance than parameters like opportunities for self-paced and peer learning as well as inclusion. This was guided by the fact that one of the key differentiating factors between the top and bottom bands of classrooms as analysed in Stage 2 was child engagement. Fear-free environment is also considered one of the fundamental elements in a child-friendly environment. Various degrees of alignment with CFLC were found and these have been broadly categorized to 5 types of classrooms as summarized in table 11 below⁶.

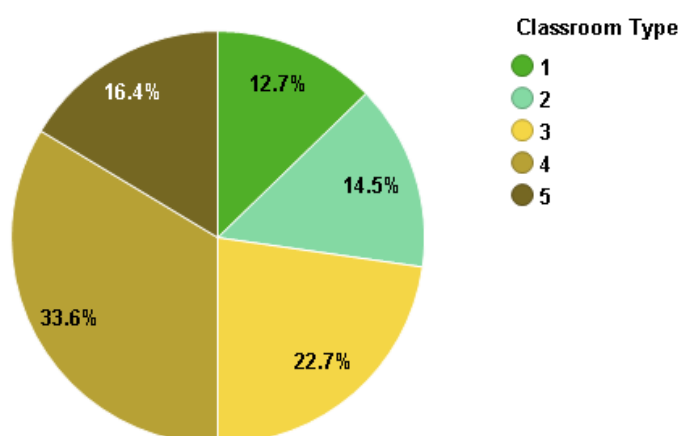
Table 11: Classification of Classrooms based on alignment to CFLC principles

Classroom Type	Child Engagement	Fear-free and inclusive Environment	Opportunities for self-paced and peer learning	Number of classrooms (out of 110)	Percentage of classrooms
Type 1	<i>High</i>	<i>High</i>	<i>High to Medium</i>	14	13%
Type 2	<i>High</i>	<i>High to Medium</i>	<i>Medium to Low</i>	16	14%
Type 3	<i>Medium</i>	<i>Medium</i>	<i>Medium to Low</i>	25	23%
Type 4	<i>Medium to Low</i>	<i>Medium to Low</i>	<i>Low</i>	37	34%
Type 5	<i>Low</i>	<i>Low</i>	<i>Low</i>	18	16%

Only Type 1 and Type 2 classrooms, i.e. **30 out of 110 classrooms observed were aligned to CFLC principles** to a reasonable extent. While the degree of alignment (or the lack of it) varied, a majority of classrooms observed (80/110) were not aligned to CFLC principles. A distribution of Classroom types is presented in figure 8 below.

⁶ A few exceptions were made in this classification based on the qualitative judgments of the researchers, especially where some information appeared contradictory or was incomplete.

Figure 8: Classrooms by alignment to CFLC



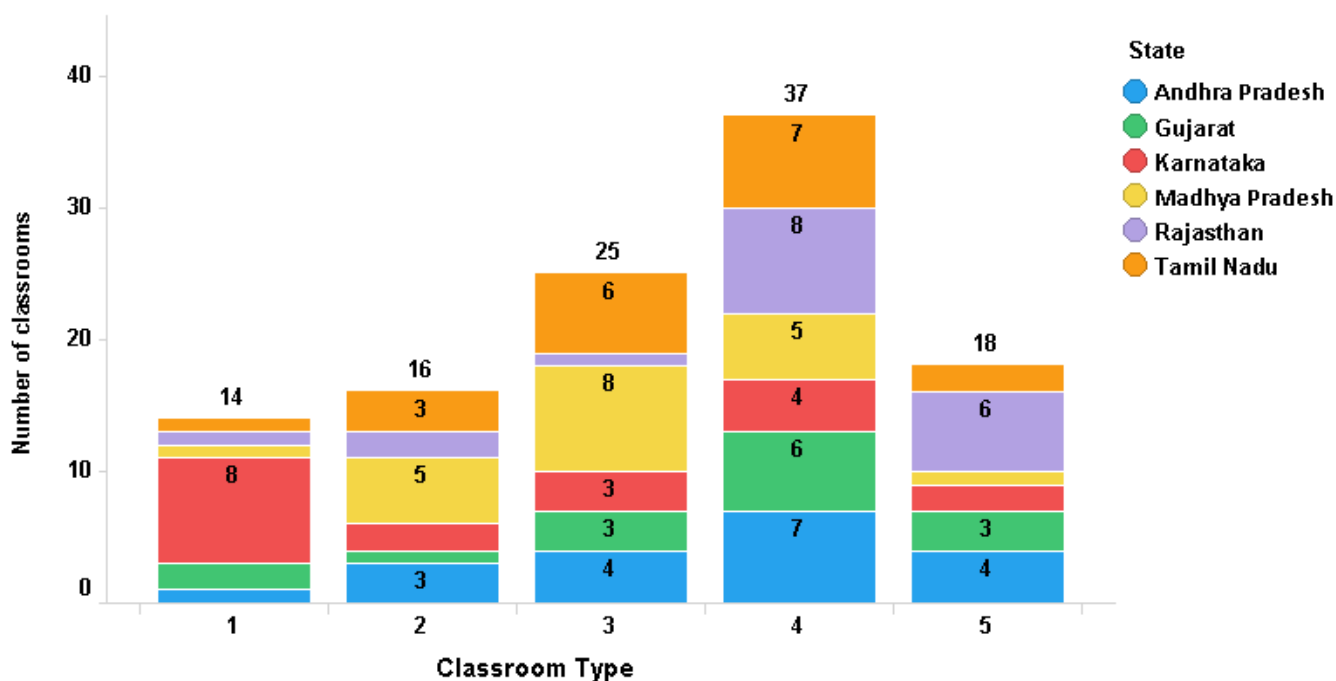
To read a detailed description of each Classroom type as well as excerpts from the data pertaining to a particular classroom type, please refer to Appendix 5.2.

Classroom Types by States

Classrooms from all states are observed in each classified type. However, as shown in figure 9 below, the proportions contributing to each classroom type do vary.

- 8 out of 14 classrooms in Type 1 group are from Karnataka.
- Majority of Andhra Pradesh and Rajasthan classrooms are in Type 4, while majority of Madhya Pradesh classrooms are in Type 3.
- Classrooms from Tamil Nadu are largely split between Type 3 and 4, and Gujarat between Type 3, 4, and 5.
-

Figure 9: CFLC Classrooms by state



Teacher and Teaching Parameters⁷

Apart from the CFLC parameters mentioned above, several other teacher and teaching parameters were considered in order to understand what influences classroom processes (Table 12). Some of these parameters also emerged during the qualitative data analysis of classroom observations.

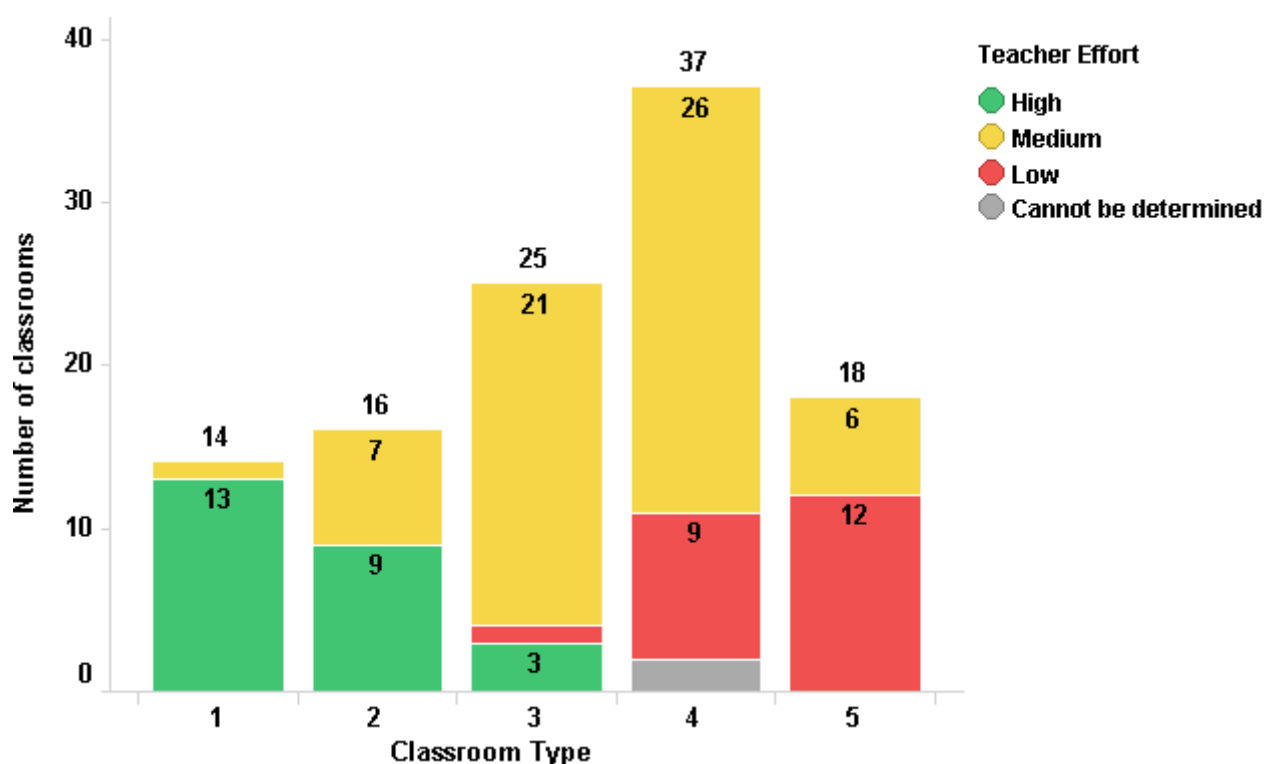
Table 12: Teacher and teaching parameters

#	Teacher and teaching parameters
1	The effort taken by the teacher
2	Teacher's ability to keep all children engaged
3	Teacher buy-in of the ABL method
4	Classroom organization
5	Availability and usage of materials in the class

The qualitative data on each of these parameters was coded as High, Medium, and Low. For a detailed definition and classroom excerpts of each of these parameters please refer to Appendix 5.3. The relationship of these parameters with different classroom types discussed earlier, were studied both qualitatively and quantitatively. The broad trends and insights from this analysis are summarized below.

1. **The effort taken by the teacher was observed to be high for only 23% of teachers (25/110).** These teachers were seen taking a learning process to completion with each child, making their own materials or giving different homework to different children. Looking at the teacher effort by classroom type also revealed a strong trend towards CFLC alignment. Large proportion of teachers putting in high effort were in Type 1 and Type 2 classrooms and higher proportion of teachers putting low effort in Classroom type 5 as seen in figure 10.

Figure 10: Teacher effort and Classroom type

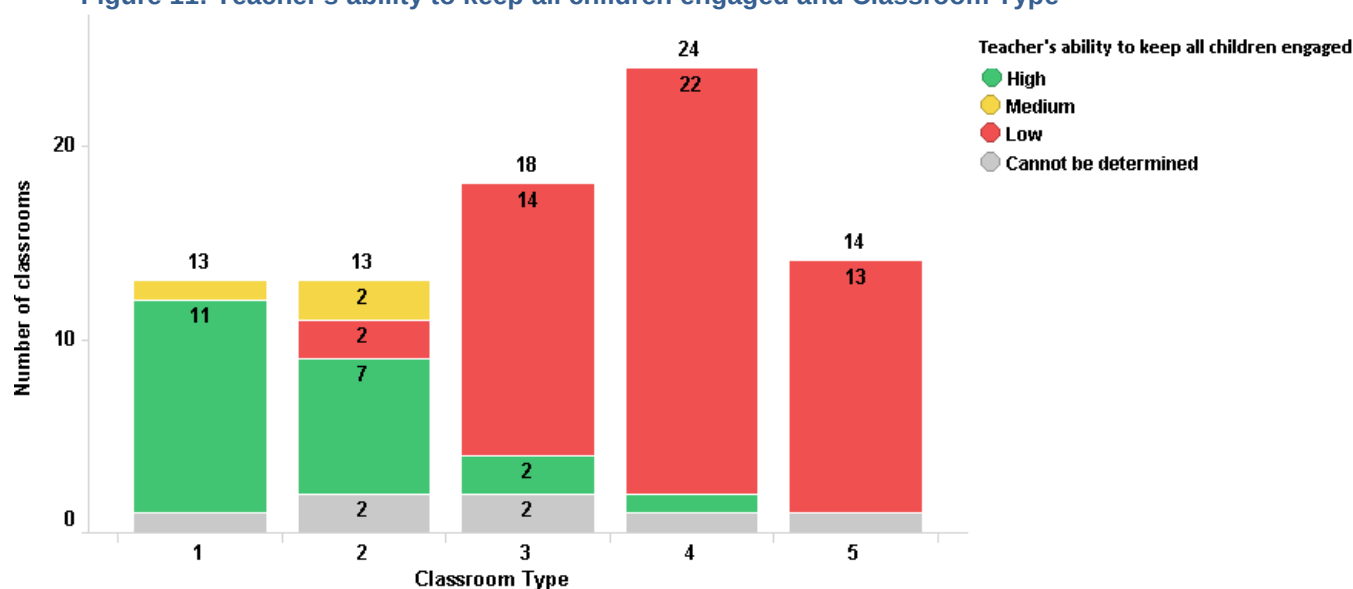


2. It was observed that one of the distinguishing factors that contribute to making a CFLC classroom is the ability of the teacher to keep all children engaged in the class. **Overall only 23**

⁷ Further discussion on these parameters is included under the Impact section 5.3

of 110 teachers observed were able to keep all children engaged. A majority of the classrooms of these teachers fall in types 1 or 2. (figure 11) These teachers used strategies like asking children about their work completion, frequently taking rounds of the class, altering the seating arrangement in the class and bringing children back to their tasks. For instance, one teacher asked the mats to be arranged in a rectangular shape around her, with all the children sitting side-by-side facing the teacher. The teacher shared that this arrangement was to ensure that all the children were visible and under her observation. A few (6) of these teachers could do this to a small extent and were rated as medium. However, 78 out of 110 teachers were seen to be struggling to do this in varying degrees. Most of the classrooms of these teachers are classrooms type 3, 4, and 5. In these classrooms, many children were not on task- they were idle, engaged in banter with other children, or waiting for the attention of the teacher.

Figure 11: Teacher's ability to keep all children engaged and Classroom Type



Adjusted for Pupil Teacher ratio, classrooms with less than 11 students and more than 35 students have been excluded.

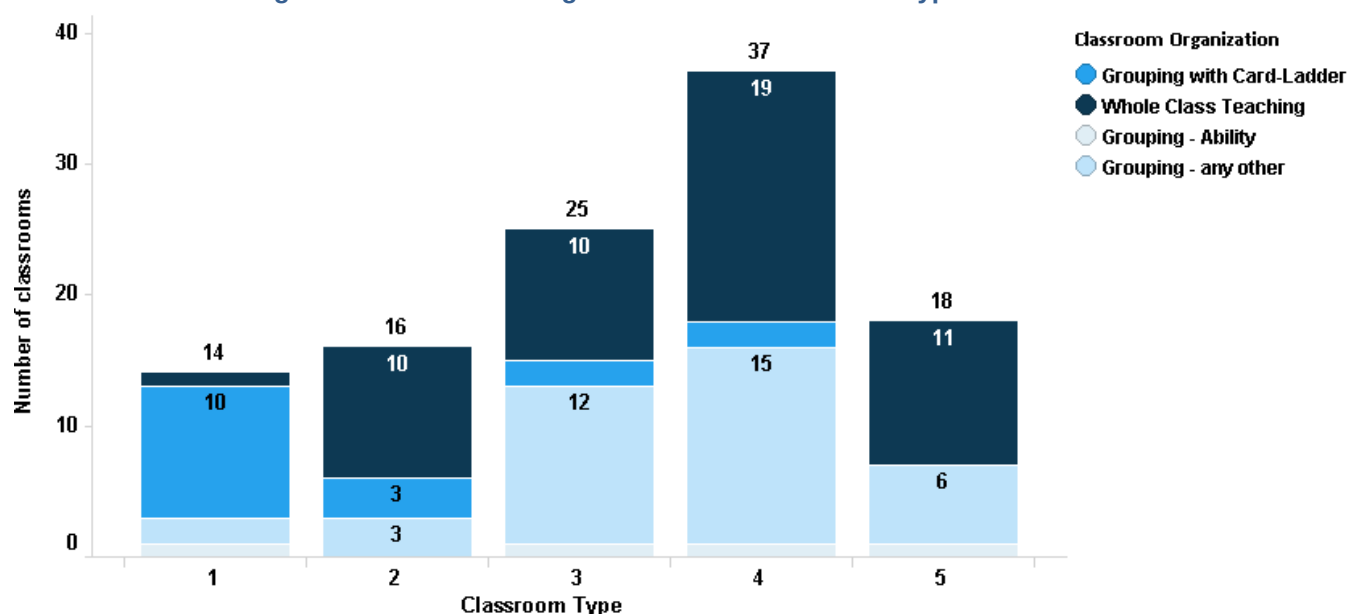
3. Primarily, four different types of classroom organizations were observed in the sample classrooms:
 - **Grouping with card-ladder:** These were the classrooms where cards, ladders and the grouping charts were being used as intended. In these classrooms children could find out the next card that they needed to work on by themselves, and sat in a group largely without any teacher assistance. Children were largely sitting in the group appropriate for the logo on the card that they had and moving from group to group as they moved ahead on the ladder.
 - **Grouping based on ability:** In these classrooms, the teacher had divided the class into 3 groups based on their abilities. All the high ability children sat in one group, the average and low ability children sat in two separate groups. This was observed in a few classes in Rajasthan.
 - **Grouping - any other:** There were a number of classrooms where grouping was observed but the basis of grouping was neither card-ladder nor children's ability. Children were not sitting in the group as per the logo on their card, even if the card ladder system was being followed. In these classrooms, children either came back to their original place after taking a fresh card, or sat with their friends irrespective of the card. There were also classrooms where the teacher decided who should sit in which group. In some cases the basis was "children sitting near each other" and in other cases the basis of grouping was not apparent. In many of these classrooms, the composition of the groups remained the same over the 3 days of observation i.e. children sat in the same group on all three

days. These forms of grouping which are other than those based on the grouping charts, or based on ability, have been classified as “Grouping -any other”.

- **Whole class teaching:** These were conventional classrooms where the teacher addresses the class as a whole. In most of these classrooms the children were sitting in rows. In some cases the children were sitting in groups, but not using cards. The teacher would be addressing them in whole class mode using either the textbook, or a card.

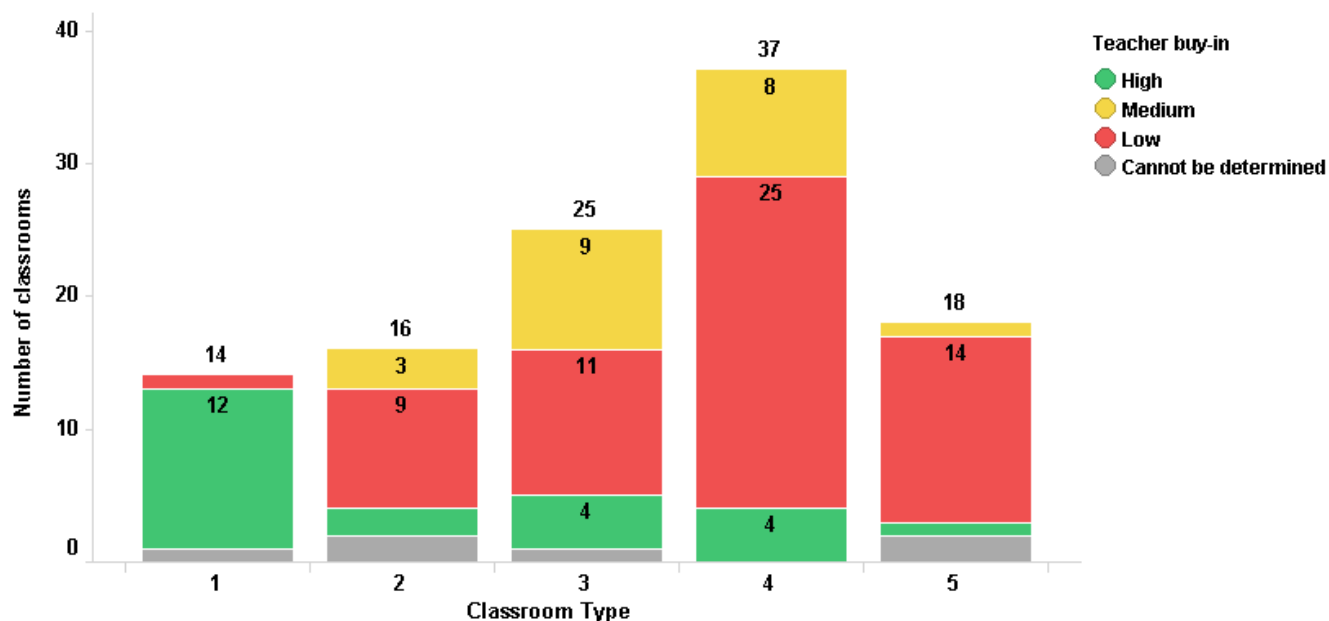
Methods of classroom organization adopted by the teacher varied in the different Classroom Types as well as by State mandates.(figure 12) **In the states which mandate grouping with card and ladder (Karnataka, Tamil Nadu, Gujarat, Madhya Pradesh) only 23% (17/73) classrooms actually practiced it.** In Rajasthan where the state mandates grading with ability, 4 out 18 classrooms observed actually practiced grouping based on it. Distribution of teaching method by classroom type revealed that as we move from Classroom Type 1 to 5 the proportion of whole class teaching for that group increases, indicating that whole class teaching gives lesser opportunities for a CFLC classroom. At the same time, there was a high proportion of classrooms practicing Grouping with card-ladder in Type 1 group.

Figure 12: Classroom Organization and Classroom Type



4. Teacher buy-in into the state ABL models emerged as another important factor. Analysis revealed that **only 21% teachers had a high buy-in into the ABL model of their state.** When observed by classroom types, there were a high proportion of teachers with high buy-in in type 1 as compared to others. (figure 13) It is important to note here that many teachers in classroom type 1 followed grouping with card-ladder for children. The buy-in of teachers whose classrooms fall in type 2 is largely low (9/13), and whole-class teaching is dominant in these classrooms. It can also be seen that the proportion of teachers with low buy-in is large in Types 4 and 5. There are a few teachers with high buy-in in classroom type 3, 4, and 5. The causes of teacher buy-in are analysed in the sustainability section.

Figure 13: Buy-in of teachers for ABL and Classroom Type



5. Usage of a variety of resources is considered an integral part of child friendly pedagogy, more so in the case of primary classes. Variety of materials, especially the ones that children can handle by themselves, goes a long way in aiding understanding of concepts. States like Tamil Nadu and MP provide schools with such resources, and others like Gujarat gave a grant to purchase these as needed till recently. Many states also encourage teachers to use locally available materials and make resources. It was observed that there are several classrooms with high material availability. (figure 14) However, **material usage was seen to be high only for classroom Type 1**. In classroom types 2, 3, and 4 even in classes where high material availability is high, *the usage of these materials remained medium to low*, indicating that high resource usage aids a CFLC environment.(figure 15)

Figure 14: Classroom Type by Availability of learning materials

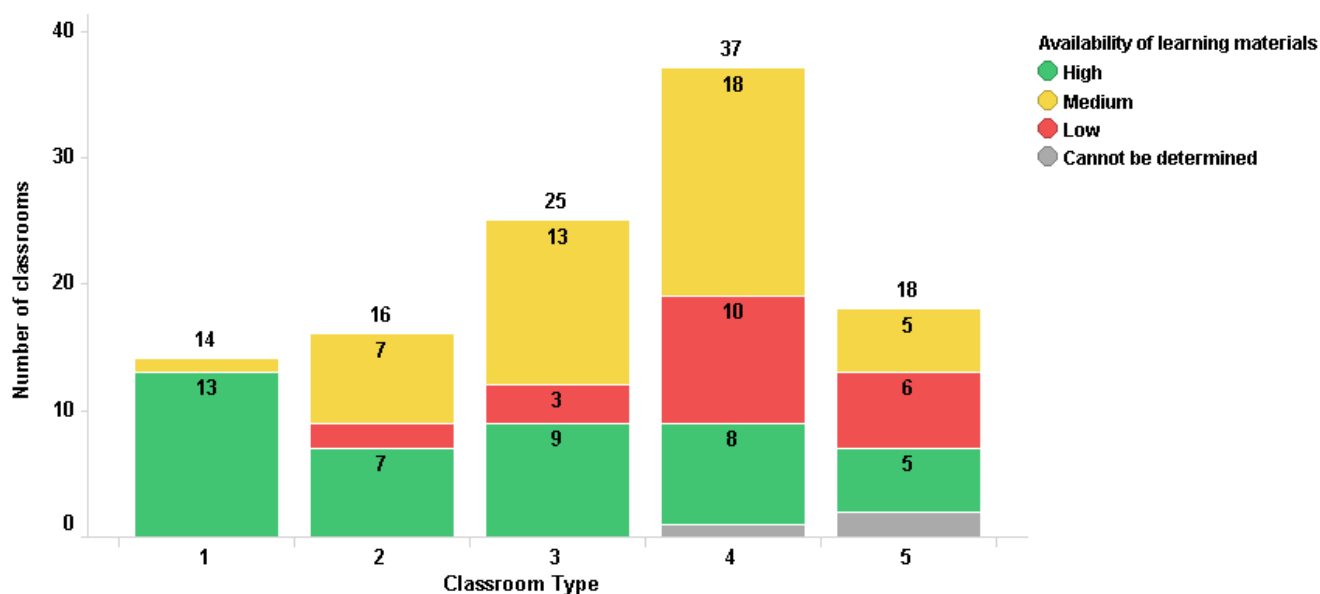
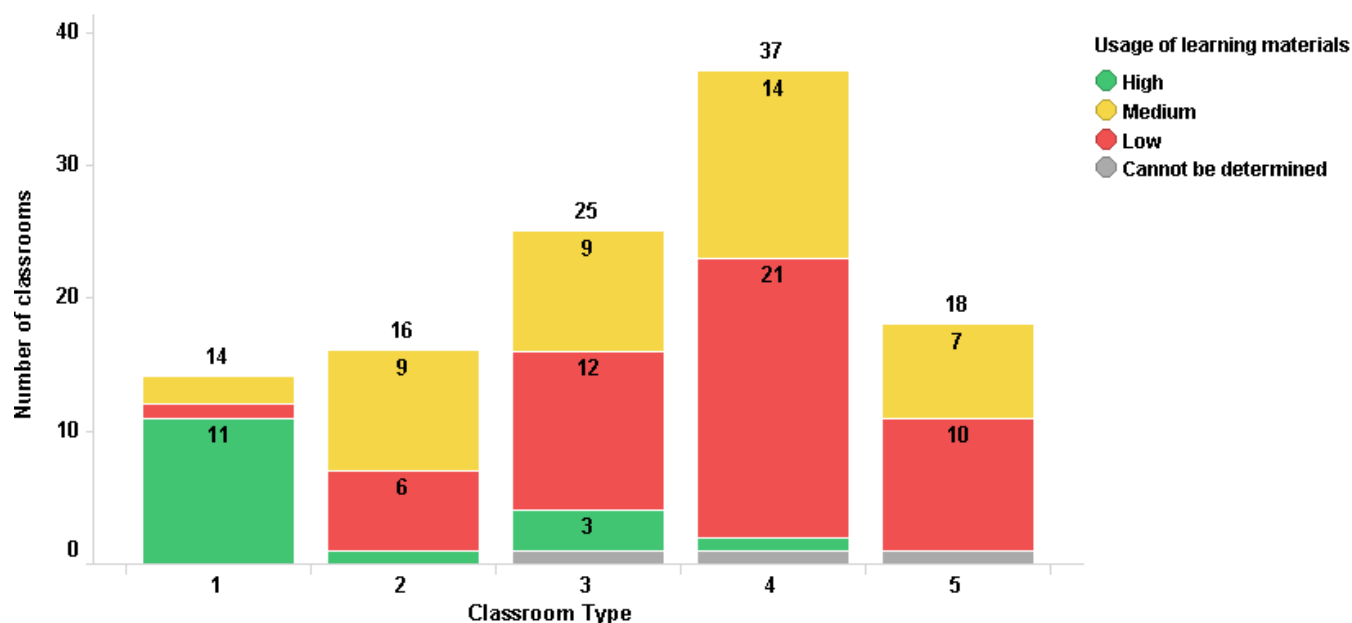


Figure 15: Classroom type by Usage of learning materials



5.2.2 ABL UNDERSTANDING

Different stakeholders on the ground developed an understanding of ABL based on their encounters with the programme through trainings and classroom practices. The evaluation team looked at this specifically for teachers, headmasters, support personnel and the community.

Teachers

How teachers understood the ABL method was constructed through various data points from teacher interviews and classroom observations. Overall, **teacher understanding of the model was found to be weak, covering largely procedural understanding** (which included knowledge of grouping children, ladder, built-in assessment etc.). Very few teachers understood the underlying principles of the programme. Procedural understanding of the model was also limited, but differed from state to state. The main observations are as follows:

- In Karnataka and Gujarat, teachers by and large did have at least a procedural understanding of the state model. Most of the teachers interviewed in Stage 3 in these states (19 in Karnataka and 13 in Gujarat) were able to explain the procedural aspects. This is also supported by the observation that some kind of teaching in groups was observed in 74% of the 240 classrooms observed in Karnataka in Stage 2, and the corresponding figure for Gujarat is 84% of the 240 classrooms observed.
- In Andhra Pradesh also, teachers by and large did have a procedural understanding of the state model. It is to be noted though that the current model in AP is a simplified version and does not involve card-ladder or grouping.
- In Madhya Pradesh, well over 50% of the teachers interviewed in Stage 3 (20 by RAs and 7 by an expert) were not clear about the state mandated methodology and only 1 of these classrooms was observed to be practicing grouping and processes as per the state model. This is in line with the observation in Stage 2 that 73% of the 250 classrooms surveyed were observed to be practicing whole class teaching most of the time. It is to be noted that the Stage 2 survey was conducted in early 2014 when Simplified Activity Based Learning (SABL) was not yet implemented in MP, and there had also been a lull in the training for 2 years. Since then, SABL has been rolled out in July-August 2014, and the impact of this will need to be observed over the coming months.
- In Rajasthan, more than half of the 18 teachers who were interviewed in Stage 3 only had a broad or superficial knowledge of the state run CCE programme, the formation of groups, if any and the processes of maintaining the teacher diaries. They mentioned that the resources have not reached for them to practice the model (this is particularly noted in Tonk). The CCE

programme was introduced in 2013-14 and appears to still be in a phase of transition in Rajasthan with information and materials still not reaching all the teachers on the field.

- Tamil Nadu has had a statewide implementation since 2007. The state is a special case, where the model has seen significant change since 2011 after the introduction of *Samacheer (common syllabus across boards)* textbooks. Voices from the field (teachers, trainers and BRTes) indicated a low degree of confidence in the current state model. Only 1 out of 16 classrooms observed in Stage 3 was practicing grouping with card-ladder as per the state model, and various officials and support personnel have shared that ABL is not being practiced as intended in the state.

Head Mistress/Master (HM)

For the level of HMs, the evaluation team considered a number of factors keeping in mind what understanding would be needed at the leadership level to run a programme like ABL. This included broad understanding of the method, its underlying principles and desirability rather than the “nitty-gritties” of classroom management such as, how to form groups. In schools where HM was also a primary grade teacher, her understanding of the method was considered as a teacher.

HM understanding and desirability varied across states and is covered in the points below:

- For Gujarat and Madhya Pradesh, most HMs in the schools visited had a very basic understanding of the model. Additionally, only 3 HMs, out of 15 in Gujarat and out of 19 in Madhya Pradesh had positive views about the model. A large majority wanted traditional/ conventional methods to be used for teaching. When asked for any problems faced in implementing ABL programme, HMs in MP spoke about general issues like child absenteeism, teacher shortage or delay in materials. In Gujarat, however, HMs did raise concerns like that of PTR, lack of flexibility for teachers and their increased workload.
- In Karnataka, HMs were aware of how the model functions and had some understanding of the underlying principles and history. For instance, one HM while describing the programme mentioned that - “*this method is introduced to see improvement in enrolment and increase interest in children*”. Though they were generally positive about the *Nali Kali* model and its benefits, 10 out of 19 of them called for revisions to the model - including monograde classrooms and restricting *Nali Kali* till class 3. A few HMs also reported negative views on *Nali Kali* expressing that conventional method is better, as the current method involves too much work.
- While most HMs in Andhra Pradesh were aware of the model, they were not very positive about the current model in the state. Five out of 19 HMs stated their preference in the traditional method of teaching.
- In Rajasthan, the understanding of the current model, which involves ability-based grading, was found to be extremely low among the HMs. Almost all HMs reported only superficial or no knowledge about CCE and its processes. Eleven out of 17 HMs interviewed had extremely low desirability to continue the programme also. They mentioned recurring issues of material delivery, incomplete understanding and infrastructure.
- Almost all HMs interviewed in Tamil Nadu understood the ABL model mandated by the state. However, many of them had negative opinions of the programme. Various reasons cited for negative opinions towards ABL included - fewer perceived benefits of the approach, low visible improvement from the model, or additional administrative duties. One HM mentioned that while he does not like the method, the school strictly adheres to it, while some others (3 out of 19) have told their teachers to follow whatever method they prefer in class.

5.2.3 GAPS BETWEEN INTENDED MODEL AND PRACTICE

A broad summary of gaps in implementation are described in two parts below - Teacher’s understanding of ABL and classroom management as well as some state mandates which are detailed in 5.5 - Sustainability section. Challenges with basic factors like high PTR materials reaching late are covered in Efficiency section (5.4).

There were several challenges for a teacher to implement state mandated models across the states. Some of the challenges were common across the states while some were more dominant in a particular state. These are discussed in the points below.

1. Teacher' basic understanding of ABL: As discussed in the previous section, across the states teachers displayed very low understanding of the ABL methodology. Even where the procedural understanding was present, many teachers failed to exhibit an understanding of the ideological underpinnings or the philosophy of the method. This was not only visible in the way classrooms were being managed but also how the teachers described their understanding and benefits and challenges from the methodology. Only 22 out of 110 teachers were able to articulate a clear understanding of ABL.
The way groupings should be made was particularly unclear for teachers in MP. With very limited knowledge of how groups should be formed, these teachers went ahead and practiced groupings based on other parameters like grades, ability, or sometimes group of friends sitting together.
2. Perception of ABL
 - a. Among teachers various perceptions of ABL are common which create challenges or hindrances in a smooth implementation. The most common of these especially in states other than Karnataka, Tamil Nadu and Gujarat is that the method is '**not serious enough**' or '**not proper**'. This is seen in light of the fact that many games, songs, creative work, etc. are involved in the method. Several teachers also see the lack of formal assessment as a negative aspect. Mentioning this as a problem, one of the teachers in MP expressed his discomfort by saying "*Children do not take this method seriously because of satat moolyankan (continuous evaluation)*". He went on to say that he will not choose this method because of this issue and prefers traditional methods with 'proper examination'.
 - b. Some male teacher perceived that **primary grades should only be assigned to female teachers** as the nature of work for an ABL teacher involves deeply engaging with the children. A couple of teachers also mentioned that younger teachers are better suited for primary grades as this involves sitting on the floor with children and always remaining active. One of the teachers in Rajasthan mentioned: "*There should be female staff for Grades 1 and 2 and male staff should be given higher grades to teach.*" Another teacher, in the same vein, said "*Female teachers and youngsters are suitable for ABL. For old people, it is not suitable.*"
 - c. **Teacher's perception of their own role** is also something, which is perceived like a possible implementation challenge for the teachers. There was a divide between teachers considering their role as something more than what they would do earlier and their role reduced to a passive facilitator. Some teachers mentioned that their role in ABL methodology is only to facilitate, to help only if children are unable to do something, otherwise children are supposed to drive their own learning. They also feel a loss of their agency, as they do not understand their new role. This was more prominent in classrooms observed in Gujarat and Tamil Nadu. An equally strong view was shared regarding how teachers feel that they have to take care of each and every child and how their workload in the classroom, has increased as a result of ABL. A teacher from Karnataka articulated this as "*Lot of work for teachers, making lesson plans, marking in the diary, tracking children' progress, giving attention to individual children.*"
3. Classroom Management and other responsibilities
 - a. **Record Keeping**: One of the most common challenges faced by almost every teacher across the states was that of workload increase, particularly in light of CCE. Besides keeping records of all the children individually (which varies by states but was perceived to be a lot of work in all the states), teachers are expected to keep records of several other areas in the school, including Mid-day meals, child health

records etc. One teacher in Tamil Nadu listed out all the records she has to keep on a regular basis as “*cumulative record, children individual attendance chart, kalvi enai seyal padu (assembly/ pledge records), achievement chart, weather chart, Arokhyia chakra, tables after the break, exercise and yoga before the breaks*”. Even if teachers see value in record keeping (which is rare) it was a source of stress for them.

- b. **Issues of discipline and authority:** Particularly dominant in MP and Rajasthan and to some extent in Gujarat, teachers felt this method leads to a lot of ‘chaos’ and ‘noise’ in the classroom. That it becomes difficult to manage children with grouping and their movement was also expressed. Some teachers shared strong views on ‘loss of authority’ and that ‘teacher is losing respect’ in this method. A teacher in MP expressed his discomfort with the problems of discipline as “*Pehle bacche anushasan mein rehte the, ab nahi. Ab bacche teacher se kuch poochte nahi hain; teacher ke izzat he nahi rahi.* (Earlier children used to be under discipline. Now children don’t ask anything from the teacher; a teacher is not respected anymore).”
- c. **Multi-grade grouping:** Out of the 51 classrooms with observed multi-grade setting only 28 are seen practicing multi-grade grouping within the class. The remaining classrooms were seen practicing grouping based on grades. Teachers, across the states expressed that it is very difficult to manage children with multiple grades together.
However, particularly in Karnataka this sentiment was very strong among the teachers. All the teachers interviewed in Karnataka expressed that Grade 3 should not be combined with Grades 1 and 2. Teachers gave mixed response to whether grades 1 and 2 should be combined. The reason for grade 3 to be separate seems to stem from various implementation challenges that the teachers face in terms of relatively higher ‘syllabus to be completed’ for grade 3 and much lower levels of grade 1 and 2 children as many of them do not go to *aanganwadis* (pre-school/ kindergarten).
- d. **Self-paced learning:** Across the states, teachers seem to be struggling to some extent with the idea of self-paced learning. While many teachers consider this as one of the strongest benefits of ABL, those practicing, unanimously felt self-paced learning is difficult to implement in a real classroom situation. On the one hand teachers felt that absenteeism can be taken care of using this method, but at the same time they felt that if there are too many children ‘left behind’ in the classroom then it becomes hard to manage. This challenge is exacerbated by the fact that all the states propose some sort of pace for syllabus completion. While some states are more lenient than the others, this seems to be the case across the board.
- e. **‘Slow’ learner vs. ‘fast’ learner:** Related to the previous point, teachers also seem to be divided on the method benefitting slow learners more than the fast learners or vice versa and mention this as one of the perceived challenges of the method. Since self-paced learning is encouraged, several teachers felt that the child who is already ‘fast’ in learning benefits more than other children, as she/he keeps moving ahead (and has to be stopped sometimes). A teacher in MP articulated this as: “*hoshiyaar ko zyada fayda hai, gadha bacha progress nahi karta, uske liye abhyas nahi hai* (Smart [child] benefits more, and the weaker child doesn’t progress as there isn’t much drill/ practice for them)”. At the same time several other teachers felt that weaker children benefit more as they receive more attention from the teachers, and therefore have more opportunities to learn as compared to the conventional method.

4. **Content and Material:** Several teachers across the states mentioned difficulties related to content as highlighted below.
 - a. One teacher described specific difficulties in content such as lack of continuity - “*Last milestone of class 2 has only small 2-3 line long paragraphs. First milestone of class 3, there is a sudden leap to a 4 page long chapter.*”
 - b. Other teachers, especially in MP and Karnataka, also expressed that the content is ‘too much’ and the workbook is ‘very thick’.

- c. A few teachers from Gujarat (largely those from a tribal district) expressed problems of content not being suitable for their children's contexts- *"Content is not contextualized to rural set up - many unfamiliar words."*
5. Several challenges pertaining to the state mandated models were also pointed out by the teachers. These included things such as conflicting messages from the state, and frequent changes in the model (specifically in TN). Teachers complained of too many changes in the model and called it 'counterproductive'. Some even felt that children are made as 'experimental subjects' in this process. A detailed discussion of these is included in the section on Sustainability (5.5).

5.3 IMPACT

The comparison of learning outcomes and classroom processes & relationships across ABL and non-ABL classrooms has been attempted along the following lines:

- Comparison of parameters with a comparable "non-ABL" group in states which do not have a full-scale implementation
- Comparison of parameters between different types of classrooms based on the degree of their adherence to key elements of the RIVER model – card-ladder based grouping, and extent of usage of learning materials.

A summary of key findings from this section is included in the table below:

Table 13: Summary of key findings - Impact

1. The differences in learning outcomes and classroom parameters between ABL and Non-ABL schools are significant in Gujarat, with ABL schools in Gujarat showing more positive indicators, but not significant in the states of Rajasthan, Madhya Pradesh and Jharkhand.
2. Classrooms that adhere more closely to RIVER adapted models, where grouping based on card-ladder is followed, are 0.5 standard deviations ahead on learning outcomes, of classrooms where whole class teaching is practiced. Similarly, classrooms where high usage of learning materials is observed are 0.3 standard deviations ahead on learning outcomes, of classrooms where usage of materials is low.
3. The extent of effort taken by the teacher, her/his ability to keep all children engaged and his/her buy-in into the ABL programme contributes to alignment to CFLC principles.
4. In classrooms where grouping with card-ladder was being followed, a greater autonomy of learners was observed, which was absent in other classrooms. Grouping based on card-ladder and high usage of materials correlate with better alignment to CFLC principles.
5. The conceptual understanding and higher order thinking of children in ABL classrooms are below expectations. The focus of teaching-learning is on rote and procedural methods.

5.3.1 DIFFERENCES BETWEEN ABL AND NON-ABL CLASSROOMS

No significant differences were observed in terms of learning outcomes or classroom parameters between ABL and non-ABL classrooms in the states of Rajasthan and MP, but significant differences were seen in the state of Gujarat.

The Stage 2 observations in the states of Madhya Pradesh and Rajasthan showed that the classroom processes in ABL classrooms were not markedly different from those in a non-ABL classroom. The only distinguishing factor in Madhya Pradesh was the presence of a running black board, some charts and children's work displayed and the presence of the ladder and cards in some classrooms. This difference in the physical environment of the class was also not visible in Rajasthan, and there was no other factor to differentiate an ABL classroom from a non-ABL

classroom. This may be because the state does not mandate card-ladder usage. The classroom parameters studied in stage 2 in 80 ABL and 40 non-ABL classrooms in each of these states also did not show any marked difference.

However, in Gujarat, as mandated, practice of ABL was seen with card-ladder. Such practices as multi-grade grouping, extent of whole class teaching being done, display of child work in the class, availability and usage of Teaching Learning Materials, children talking to each other about learning activities came out as differentiating factors between ABL and non-ABL classrooms in Stage 2 as well as Stage 3.

Similar results were noted with respect to learning outcomes.

- ABL schools in Gujarat have substantially higher performance levels than Non-ABL Schools in all classes and subjects. Class 2 ABL schools were ahead of non-ABL schools by 0.9 SD which is a meaningfully large difference and Class 3 ABL schools were ahead by 0.7 SD which is meaningfully medium difference.
- In Rajasthan, ABL schools performed better than non-ABL by about 0.3 SD, which is a meaningfully small difference.
- Performance levels of ABL and Non-ABL schools in Jharkhand and Madhya Pradesh were similar.

This can be attributed to some extent to the quality of implementations in these states, which is discussed in section 5.4 on efficiency. The parameters between different types of classrooms based on their adherence to the key features of the original state models (many of which were adapted from the RIVER model), are now compared.

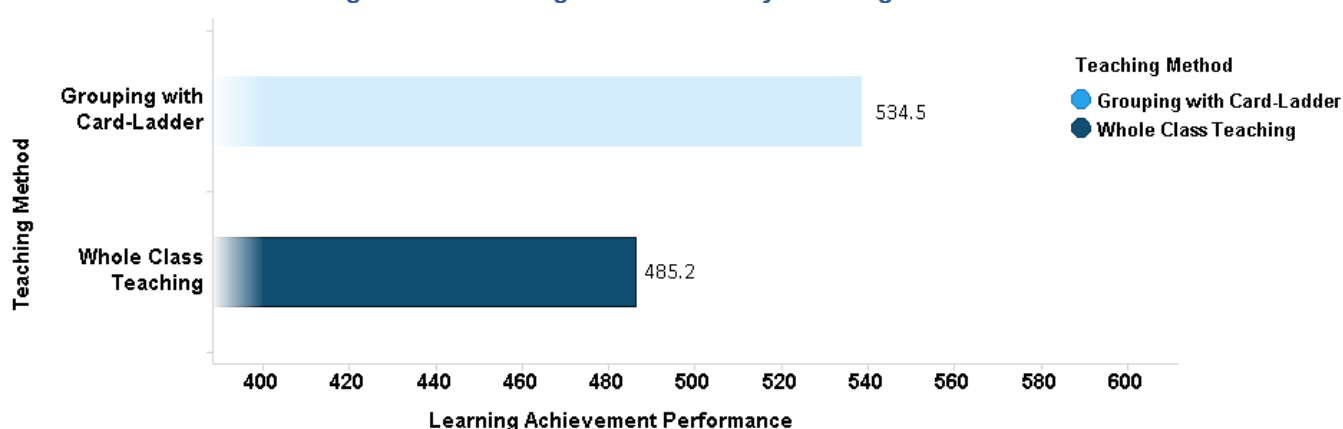
5.3.2 INFLUENCE OF CARD-LADDER BASED GROUPING AND HIGH USAGE OF TEACHING LEARNING MATERIALS ON LEARNING OUTCOMES

Card-ladder grouping and high usage of TLM is associated with better learning outcomes

The achievement scores of classrooms following grouping based on card-ladder and whole class teaching were compared. The classrooms, which followed grouping based on factors other than card-ladder, showed wide variations in grouping strategies and were therefore kept out of this comparison.

Classrooms where grouping based on card-ladder was followed were 0.5 standard deviations ahead on learning outcomes; of classrooms where whole class teaching is practiced. (Figure 16) The difference is a meaningfully medium difference.

Figure 16: Learning achievement by teaching method



**All raw scores have been scaled to a mean of 500 and SD of 100*

***Grouping - Any other' and 'Grouping- Ability' not considered for analysis due to heterogeneity, low N, respectively*

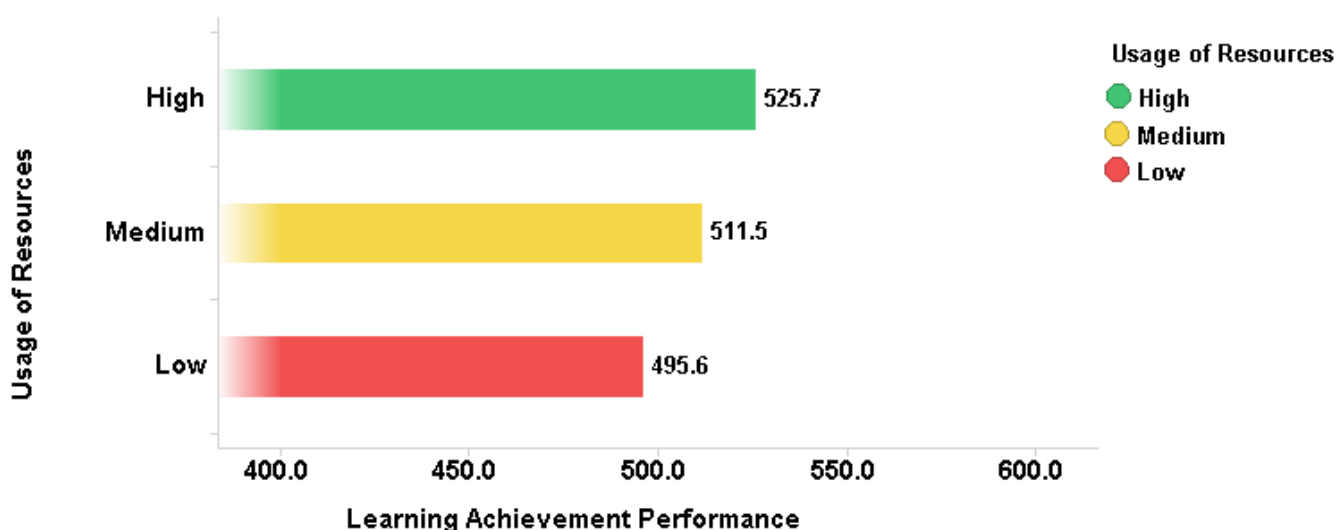
Data presented here is at student level; Grouping with card ladder: 401 students; Whole Class Teaching: 1032 students

Difference between 0.2 SD-0.5 SD-Small effect size; 0.5 SD - 0.8 SD- Medium effect size; Value greater than 0.8 SD-Large effect size.

This allows us to understand the magnitude of difference between two sets of data.

Usage of a variety of teaching learning material was also found to be associated with better learning outcomes. In Stage 2, the regression analysis was done to find out the factors that influence learning achievement. Also an analysis of the top and bottom 15% of schools was done to identify the differentiating factors. Both these had revealed that usage of TLM such as reading materials, math kits and such other TLMs in the classroom positively influence achievement scores. In Stage 3 as well, classrooms showing high usage of TLM, performed 0.3 SD better than classrooms where low or minimal use of resources is seen. (Figure 17) This difference is meaningful, and indicates that usage of TLM in classrooms can influence the learning achievement of the children.

Figure 17: Achievement scores by use of resources in class



**All raw scores have been scaled to a mean of 500 and SD of 100*

Data presented here is at student level; Number of students in classrooms with 'High' usage of resources: 564,

Number of students in classrooms with 'Medium' usage of resources: 1064,

Number of students in classrooms with 'Low' usage of resources: 1415,

Difference between 0.2 SD-0.5 SD-Small effect sizes; 0.5 SD - 0.8 SD- Medium Effect size; Value greater than 0.8 SD-Large effect size.

This allows us to understand the magnitude of difference between two sets of data.

5.3.3 INFLUENCE ON CONCEPTUAL UNDERSTANDING AND HIGHER ORDER THINKING.

ABL programmes did not show any significant impact on children's conceptual understanding and higher order thinking.

Classroom observations and interactions with teachers by experts in 30 schools across the states of Tamil Nadu, Karnataka, Andhra Pradesh, Madhya Pradesh, Gujarat and Rajasthan and a review of materials indicate that ABL programmes focus more on the procedural and mechanical aspects and less on higher order thinking and conceptual understanding. A few examples observed by the experts are listed below.

- A child who could recite a story in English, but could not do the same in the local language. The medium of instruction being the mother-tongue of the child, and the child being unable to share the story in her/his mother tongue indicating a rote memorization of the English story.
- Children who could solve an addition/subtraction problem when the numbers were written one below the other, but struggled to do it when they were written horizontally e.g. $147 - 23$. This was especially an issue when the number of digits in the problems given was different.
- Children were unable to point out their location on a map, but were able to say that "Gujarat is on the West and Assam is on the East of India" (places they had never visited or had no idea of).

In some instances observed, teachers did not show a sufficient appreciation of 'learning with understanding' and encouraged mechanical copying of content from card to notebook or to a low level black board. Discussions with teachers showed that majority of them had a minimal understanding of the notion of 'activity'. There was a focus on physical movement and using TLMs/ concrete items (stones, thermocol etc.) for teaching, having the right facial expressions and physical gestures while conducting activities. In one of the schools visits, a teacher used a human figure made of different shapes like circles and triangle to make the understanding of shapes fun for children. However, no discussion on shapes was done after the activity to consolidate learning, nor were the obvious mistakes children made in identifying shapes pointed out and corrected. The operative word in "Activity Based Learning" was more *activity* and less *learning*. The focus was on physical activity. Not many teachers recognized mental activity as activity contributing to learning too.

5.3.4 FACTORS INFLUENCING CFLC ALIGNMENT

High teacher effort is critical for a CFLC classroom, and card-ladder based grouping further helps in achieving greater child autonomy and higher learning levels.

Section 5.2 classifies the different classrooms into 5 types based on their alignment to the CFLC. Considering type 1 and type 2 classrooms aligned to CFLC principles and types 3, 4 and 5 as not aligned to CFLC principles, learner autonomy is seen in type 1 classrooms whereas type 2 classrooms are somewhat teacher-centric.

As mentioned in Section 5.2, teacher parameters like the effort taken by the teacher, the ability of the teacher to keep all children engaged, teacher buy in of ABL method are associated with alignment to CFLC principles. Alignment to key features of the RIVER model such as grouping based on card-ladder and high usage of learning materials was also found to be an influencing factor.

Classrooms where the teacher puts in high efforts were more likely to be aligned to CFLC principles than classrooms where this was not seen.

Table 14: Teacher effort and classroom types

Teacher Effort	Grouping with card ladder	Aligned to CFLC Principles		Not Aligned to CFLC Principles	Total
		Type 1	Type 2	Type 3, 4, 5	
High	Y	10	3	0	13
High	N	3	6	3	12
Medium	Y	0	0	4	4
Medium	N	1	7	49	57
Low	N	0	0	22	22
Total		14	16	78	108

From table 14 it can be seen that out of 25 teachers who put in a high level of effort, the classrooms of 22 were aligned to CFLC principles. Some of the practices seen in these classrooms were:

- The teachers used multiple strategies to teach a concept to ensure that children understood
- The teachers made materials on their own, in addition to the state provided ones to help children understand
- The teacher noticed the errors that children make in their written work, marked it and gave appropriate feedback
- The teacher maintained a diary to keep track of the progress of each child

Out of 61 teachers who put in medium effort in the class – that is teachers who taught at least some groups in the class, as against engaging in administrative or personal work in or restricting her role to clearing the doubts of those children who approach her – the classrooms of 8 teachers were

aligned to CFLC principles. None of the classrooms of the teachers who put in low efforts in the class were aligned to CFLC principles.

Thus the effort taken by the teacher turned out to be a critical factor influencing alignment to CFLC principles. Also, it can be seen from the table that:

- Of the classrooms of 12 teachers who put in high efforts, but do *not* follow grouping based on card-ladder only 3 are in Type 1 where a large extent of learner autonomy is seen. 6 are in type 2 and 3 are not aligned to CFLC Principles.
- Of the 14 classrooms in Type 1, 10 of them follow grouping based on card-ladder

This indicates that without the adoption of a structural mechanism like the card-ladder based grouping, a classroom could display high levels of child engagement, (i.e. belong to Type 2) *provided the teacher put in high effort. However, in spite of this high effort, such classrooms still remained somewhat teacher-centric and learner autonomy in terms of taking greater charge of their learning was not observed.* Even when cards were used, the teacher decided which card should be worked on by the children and distributed the cards herself. The children waited for the teacher to give instructions on what needed to be done next.

On the other hand, when the card-ladder based grouping was adopted, a teacher putting in high effort, was able to get children to take greater charge of their learning. These children were found to be taking the card that they needed to work on, by themselves as against the teacher having to give it to them. Similarly, they were found to be engaging with the task and taking it to completion, and getting back to task if they went off task for some time, without requiring any persuasion from the teacher. They were also found to be approaching the teacher or peers in case of difficulties and helping each other to complete the task on hand.

A closer examination of the classrooms revealed that in addition to putting in high effort, the teacher needed to have:

- A buy-in into the model – characterized by the belief that it will lead to better learning and be beneficial to children and a willingness to follow the model.
- An ability to keep all children engaged.

The teachers who put in high efforts but were not following grouping based on card ladder did not have a buy-in into the model. Many of them saw the model as not contributing to serious learning and felt the assessment method was not rigorous enough. They felt that the textbooks were better sources of learning. Out of the 12 teachers who were putting in high efforts, but not following grouping based on card ladder, only 1 teacher had a high buy-in to the state model. This teacher was from Rajasthan and followed grouping based on ability. The others either followed whole class teaching or devised their own criteria for grouping based on learning levels or the topic being covered by the child.

In a classroom that follows grouping with card-ladder, or any grouping for that matter, the ability of the teacher to keep all children engaged also turned out to be a critical factor to manage the classroom effectively. The fact that each child is progressing through the ladder at her/his own pace entailed that the teacher explains a concept to different children at different times unlike in whole class teaching method. At the same time he/she also had to attend to the other groups in the class as and when they have difficulties and ensure that they stay on task. These created multiple demands on the teacher's time, which many teachers were unable to handle. In such situations, even though the teacher was attempting to follow grouping based on card-ladder, she/he could not implement it effectively. With the children being unable to form groups as per the logo on their card, the criteria for grouping was observed to be children sitting in proximity to each other or a group of friends doing a card together etc. In such a situation, the processes as defined in the RIVER model broke down and children were seen crowding around the teacher vying for her/his attention in many classrooms. Even in the 4 classrooms where the teacher was taking medium effort the grouping

was happening based on card-ladder, the teacher did not have the ability to keep all children engaged, resulting in type 3 and type 4 classrooms which were not aligned to the CFLC principles. These classrooms underlined the need for the ability of the teacher to keep all children engaged. A detailed discussion on teacher's buy-in is included in section 5.5.

5.3.5 IMPACT ON NON- ACADEMIC OUTCOMES

- **The autonomy of the learner, which has been used as an indicator of non-academic outcomes, is seen to be higher in classrooms following card-ladder based grouping when compared to classrooms that are organized differently.**
- **There was no evidence to conclude that enrolment in a school was influenced by the presence or absence of ABL model.**

As discussed in the Methodology chapter, learner autonomy in the classroom was considered as a measure for non-academic outcomes. It was observed that autonomy of the learner was much more visible in classrooms following card-ladder grouping than in other methods of classroom organization. This was detailed out in the previous section 5.3.4.

Data collected on the enrolment for the last 5 years was analysed and no clear patterns emerged to draw a conclusion as to whether or not ABL has impacted enrolment. Interviews with HMs revealed that other factors like whether or not the school extended into middle and high schools, presence of a low cost private school in the vicinity, proximity to the place of residence of children affected enrolment much more than the implementation of ABL. In some states, the medium of instruction in the school, and the presence of a kindergarten section were also mentioned as influencing factors.

5.3.6. IMPACT ON EQUITY FOCUS

As mentioned in Section 5.1.2, the features of the ABL model are such that they enable an equitable environment by design. The fact that the students are expected to be seated in groups that change in composition through the period of a class supports the inclusion of children belonging to different groups. The model provides sufficient opportunities for students to interact with each other, thus supporting the creation of an inclusive learning environment.

Aspects of gender, including equity, were considered in the data collection and analysis. The achievement score data were analysed by gender and community; the details of which are shared in Appendix 5.6. No significant differences were observed between ABL and non-ABL schools when the achievement scores were segregated by gender. This is also in line with other large studies conducted by EI in the past.⁸ Hence, there isn't sufficient ground to attribute the similar achievement scores between genders to ABL.

An analysis of differences in achievement scores by social groups was also attempted; however, no significant findings emerged from this analysis.

The detailed classroom observations of stage 3 did not show any explicit practices of exclusion, except for a few rare instances. It should also be noted that such instances of exclusion may not be obvious in an observation that lasted for 4 to 6 hours spread across 3 days. The evidence is therefore inconclusive to draw any meaningful conclusion. However, in Rajasthan gender segregated seating arrangements were observed in many classrooms. This was observed rarely in classrooms in other states as well.

Regarding Children with Special Needs (CWSN), though no practices excluding such students were seen, positive efforts to integrate them into the classroom were also rarely seen. Some supportive

⁸ Student Learning Study(2009), Quality Education Study (2010), Bihar Diagnostic Assessment (2014)

action was seen with respect to physical disabilities, but students with learning disabilities were not seen to receive any additional support. For the most part these students were not engaged in activities like their peers. This may partly be because the ABL model itself does not have specifically formulated methods to handle such children. Teachers in some states did appreciate the training they had received in integrating the CWSN into the classroom; however many teachers observed did not have the necessary skills to handle these children.

5.4. EFFICIENCY

Efficiency refers to how well resources have been managed to ensure implementation as per the goals of the state's ABL programme. Resources refer to both manpower (including their staffing, management, training and support), and learning materials provided by the state. This section will cover key trends highlighted from an examination of:

- Quantity and quality of teacher training
- Quality of support mechanisms in the states
- Basic factors such as Pupil Teacher Ratio, and material deliveries

These three areas have been examined based on qualitative interviews with teachers and support personnel, classroom observations, trainings observed across states and data collected from the schools and state education officials across the three stages of the study. The key findings are summarized below.

Table 15: Summary of key findings - Efficiency

1. The management of training and support showed low efficiency in Rajasthan and Madhya Pradesh. 39% of personnel in these states perceived the usefulness of training to be low, compared to 8% in the other states of Karnataka, Gujarat, Tamil Nadu, Andhra Pradesh and Jharkhand.
2. In the states of Gujarat, Tamil Nadu and Karnataka, while management of training and support was perceived to be better, the teachers had gained only a procedural understanding of ABL. Many teachers reported gaps in training on underlying principles of ABL and how to manage an ABL classroom. Observations of trainings revealed inadequate percolation of trainings to the district and block level.
3. Support activities primarily focused on record keeping and data collection, and teachers did not cite support personnel as the primary source for resolution of academic issues. The profile of support personnel, their lack of teaching experience and their lack of focus owing to the variety of tasks they do, made it difficult for them to provide the support teachers needed in implementing ABL successfully in classrooms.
4. Basic factors such as availability of teachers, support personnel and learning materials was itself inadequate in many cases. This was indicated by Pupil-Teacher Ratio of above 35 in 24% of the schools. A high BRP to school ratio was also observed in several pockets, which was reported to be as high as 60 in some pockets in Gujarat. Delay in the delivery of learning materials was observed in 37% of the classrooms. Many schools of Karnataka and Tamil Nadu did not have the complete set of current cards, ladder and grouping charts.

5.4.1 TEACHER TRAININGS

Observations of trainings and interviews of teachers and trainers on their perceptions of trainings showed that:

- 1) **Issues in management of teacher trainings including batch size, proficiency of master trainers, and method of delivery were observed in Rajasthan and Madhya Pradesh.** Many of these teachers were unclear about basic aspects of ABL, and were not seen practicing it.

In Stage 2, in Rajasthan, 60% of teachers reported that the training that they received was inadequate and 40% had not received training at all. In Madhya Pradesh, though the proportion of teachers trained is higher, 80% reported that the training is inadequate. In Stage 3 teacher interviews, 10 out of 18 in Rajasthan and 6 out of 20 in Madhya Pradesh shared that they do not consider themselves proficient in the method. Teachers in both states shared that they feel the trainings are futile. One teacher expressed trainings as a leisurely activity where *“teachers meet, have tea/water and say hello to each other and leave.”* Another teacher shared that he had received only one training so far, which was about changes in the method. But he had not received any training on the original method, and had to ask other teachers on how to teach.

Issue of large batch sizes (up to 250) for trainings was reported by about 20% of teachers interviewed in Madhya Pradesh. Trainer proficiency and lack of clarity in delivery was mentioned by 45% of teachers interviewed in Rajasthan. As a teacher in Rajasthan shares, *“the trainer is unable to address the queries of the participating teachers. He should himself understand the new tools and materials well.”* In Madhya Pradesh, one teacher shared that she was told, *“Aap ko group mein padhana hai”* (You have to teach in groups.), but she was not clear about what the groups were to be, or how they are to be formed. In other states like Karnataka, Gujarat and Tamil Nadu, most teachers spoken to had an understanding of how to conduct an ABL class, including grouping process. There were hardly any comments on trainer quality or batch-size in these states. It is also to be noted that Karnataka and Tamil Nadu have longer continuous history of ABL implementation.

- 2) In the states of Karnataka, Tamil Nadu, Andhra Pradesh and Gujarat, teachers were generally able to share a procedural understanding of the model in terms of the learning materials to be used, and the grouping to be followed. The teacher reports on the trainings, however, revealed two issues. First, **most teachers had gained only a procedural understanding of ABL, without understanding the underlying principles.** Out of 1,300 teachers in stage 2, across these 4 states, 85% of teachers reported that they had received training on the use of ABL materials, in contrast to only 63% reporting that they received training on the underlying principles and less than 20% of the teachers reporting that they received training on the integration of ABL with other programmes. A discussion with an ABL trainer from Tamil Nadu underscored the point that trainings rarely cover underlying principles of ABL with sufficient depth. He mentioned *“Teachers undergo some ABL training which is at the level of answering exam questions; then they learn how to do it when they have their 45 days teaching practice, and this is just the operational part of it. They never understand the why of it and hence are not able to follow it in class”.*

Teachers in these states also reported gaps in training on how to manage an ABL classroom and handle multiple demands simultaneously. The fact that each child progresses through the ladder at his own pace entails that the teacher has to teach each concept to each child individually. While doing this she has to ensure that the other children are fruitfully engaged and help them with difficulties if any. This places demands on the teacher that are not there in whole class teaching. The teachers feel the need for training to handle the multiple demands on their attention. *A teacher in Gujarat reported” further training on how to group and such other general aspects are not needed and trainings should focus on problematic individuals and children not following grouping etc.”*

- 3) Observation of trainings highlighted the issue of the dilution of trainings from the state to the block level. The teachers, who implement ABL in the classrooms, therefore receive a weak version of the training formulated at the state level. A detailed examination of the case of Tamil Nadu is shared as an example below, (table 16) which illustrates the challenges with effective percolation across all states. The issue of percolation applied to other states as well.

Table 16: Notes from a training observed in Tamil Nadu

Training- State Level	Training- District Level (by resource person from same state level training)
List of common errors in arithmetic operations elicited by questioning participants	The resource person mentioned some common errors which were discussed there. None were elicited from the participants.
How to help children to make a transition from the concrete representations in the kit to abstract? Ways suggested to address this for every activity.	The idea of concrete and abstract was not covered at all.
Discussion on the use of sand paper numbers- emphasis on the sensory touch experience of the shape of the number	The purpose of the sand paper numerals was described as getting the direction of writing and no mention was made of the importance of the sensory experience
Various meaningful methods discussed for the introduction of zero e.g. taking away one by one and pointing out to nothing left	Participants were told to write the numeral 0 on the board, and to ask children to trace it with tamarind seeds etc.

Percolation is expected to be a challenge in a cascaded approach. However, the quality of percolation can be improved through greater attention to content structuring, developing trainer modules, and selection of trainers. These points are covered in more detail in Chapter 6.

5.4.2 SUPPORT MECHANISMS

The primary mechanism of support is the visit of Block Resource Persons (BRPs) and Cluster Resource Persons (CRPs), or equivalent personnel in each state to schools under them. In addition to school visits, the BRPs and CRPs are expected to plan meetings of teachers and other support personnel at the cluster level and the block level. The interviews with the teachers and BRPs/CRPs revealed that:

Across states, the visits were reported to primarily focus on record keeping. As highlighted by a teacher in Tamil Nadu, *"Whenever they come, they sit in HM room and ask us to bring all the records. That is not the way a visit should be. Even if they visit the classroom they only ask, why these Kambi pandhal (Wire frame display) has not been updated, where is FA record and all. Instead they can check the children and find out their levels."* Because of the nature of these visits, some teachers from Madhya Pradesh and Tamil Nadu report that they are fearful of the 'monitoring' aspect of these visits. As shared by a teacher in Madhya Pradesh, *"I believe that most of these visits are aimed to just find flaws in teachers because most of these visitors (supervisory staff) don't give us any helpful suggestions"*.

At the same time, **support personnel may not have the required skills or experience to provide the necessary academic support.** The support personnel across states generally had teaching qualifications that equip them for secondary school teaching. Most of them were directly recruited with limited or no teaching experience. Their qualification and experience did not give them sufficient exposure to developmental stages of primary school children nor did they have sufficient experience of themselves handling an ABL classroom for a long enough duration. In some states the support personnel had less stringent entry criteria than the teachers. For example, In Gujarat, the support personnel and the teachers are recruited based on the same eligibility test, where higher ranked candidates are offered teaching positions while the lower ranked candidates are recruited as support personnel. This limits the extent of academic support that they can provide to teachers, more so because the primary expectation from them appears to be data collection/record maintenance than support. Very few teachers said that they approached the support personnel when they had any doubts. Fellow teachers or the HM were the people who were approached in case of doubts. As shared by a teacher in Rajasthan, *"We discuss problems among ourselves and resolve; however it would be good that at least for material and other arrangements, there is a*

number we could call for help.” The support personnel were seen more as monitoring authorities who check records than as people who could solve academic/pedagogical problems.

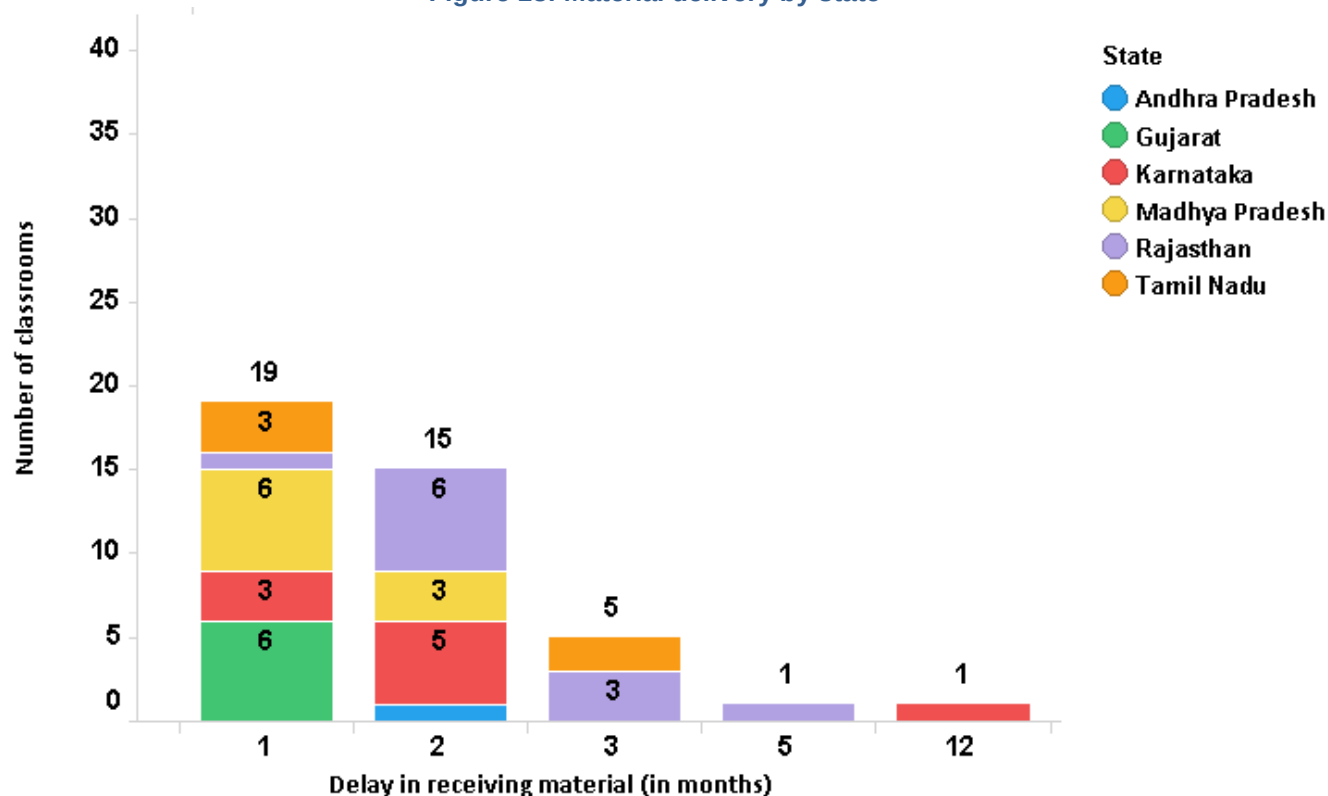
Cluster-level meetings, as a support mechanism for teachers, were not reported in any state except Karnataka. Teachers in Karnataka reported that cluster-level teacher meetings and consultations happening every 1-2 months were useful in resolving academic issues and implementing ABL better. As shared by a teacher, *“I was shy and not so confident and would not speak in meetings. Because of the encouragement provided to me, I now share my teaching and TLM ideas with other teachers’ actively in meetings with other teachers at cluster and block levels. Now my confidence has increased.”* Such cluster-level meetings were conducted earlier in Gujarat, but have not continued beyond 2013. Teachers found these meetings useful. However, teachers of other states did not report such issues being discussed at cluster-level meetings. Teacher comments and comments by experts who visited schools clearly highlight the value of teacher-driven consultations. One of the experts identified ‘the presence of one inspirational teacher’ and ‘a high degree of unity, understanding and cooperation between teachers’ as unifying factors among schools that were most aligned to CFLC principles. The cluster-level meetings enable understanding and cooperation between teachers of multiple schools and provide opportunities for the ‘inspirational teachers’ to influence others.

5.4.3 BASIC FACTORS

The key challenges of teacher training and quality of support personnel could be exacerbated by the lack of basic administrative factors such as adequate workforce and learning materials. Inadequate number of teachers and support personnel and lack of ABL learning materials in the classrooms adversely impact the practice of ABL in classrooms. Issues related to the provision of some of these basic factors are discussed below:

- 1) **Pupil-Teacher Ratio in 24% of the observed ABL schools was above 35, which led to difficulty in classroom management.** Teachers across the states mentioned that the method is almost impossible to implement if the class size is too high. In a school in Karnataka where class strength was around 50, a teacher who saw many benefits from the ABL programme showed little enthusiasm to follow the method because he found large class strengths unmanageable. He said *“ABL is a happy method; children are able to learn at their own pace, but I would like to continue teaching with this method only if the PTR is less than 30, otherwise it is a waste of time.”* Many teachers simply resorted to whole class teaching in case of high PTR as it becomes difficult to manage larger groups. High PTR could be a function of inadequate workforce in the state. The existing number of teachers is also not allocated efficiently in the state. Additionally, in Madhya Pradesh and Gujarat, where ABL is a pilot implementation (not state-wide), cases of transfers of trained ABL teachers to Non-ABL schools and untrained teachers to ABL schools were reported.
- 2) **The number of schools under BRPs was high.** In Tamil Nadu, in the initial years of ABL, each BRP had 7-8 schools to support. This number today is 11- 13 and almost all the BRPs spoken to remarked that this increase in number leads to their spending less time in each school. In Madhya Pradesh and Rajasthan more than 60% of teachers who took the survey in stage 2 said that these support visits do not happen.
- 3) **Delivery of learning materials for ABL was reported to be delayed by 1-2 months in 37% of the schools visited.** The problem of material delay is seen across states for the available data. (figure 18) In Andhra Pradesh such delays were reported to be less.

Figure 18: Material delivery by state



Delays in delivery of learning materials can impact the effectiveness of ABL in the classrooms at the beginning of the school year. This is more so when the state model and/or the learning materials change frequently as has been the case in Madhya Pradesh and Tamil Nadu. This makes it difficult for the teachers to manage with old materials or photocopies thereof. It was also observed that **all classrooms did not have the learning materials at the time of observations, especially in Madhya Pradesh and Rajasthan** where less than 70% of the classrooms reported availability of learning materials. In Stage 2, ABL materials (cards, workbooks), were reported available in 90% of the classrooms in Karnataka, Tamil Nadu and Gujarat but detailed observations in stage 3 indicated that the complete set of cards were not available in many of classrooms of Karnataka and Tamil Nadu. Few teachers were observed to be using photocopies of cards they had borrowed from neighbouring schools.

5.5 SUSTAINABILITY

The evaluation questions suggest that the sustainability of ABL depends upon the following:

1. the views of important stakeholders regarding the desirability of ABL
2. the degree of ownership across stakeholders and the level of consensus between them
3. the degree to which CFLC principles have been internalized by teachers
4. the degree to which CFLC principles have been imbibed in mainstream educational programmes, curricula and teacher education

The evaluation questions also ask what factors help or hinder sustainability, as seen from the experience of different states, and whether there are any serious threats to the continuity of ABL in specific states. These questions are addressed through the following 3 sub-sections:

- Stakeholder views on the desirability of ABL
- The state of teacher buy-in and factors influencing it
- Threats to continuity of ABL

Table 17: Summary of key findings - Sustainability

1. Teachers with high buy-in were strongly associated with classrooms that were highly fear-free, had high child engagement, and displayed a high degree of learner autonomy (children taking charge of their learning).
2. In the evaluation sample, excluding teachers from Karnataka, the percentage of teachers with high buy-in was 10%. 78% of teachers in Karnataka had high buy-in.
3. The following reasons have emerged as the strongest factors for low buy-in, and are also the major threats for continuity of ABL programmes:
 - Inadequate continued involvement of teachers in decisions related to ABL implementation and the detailed modalities of implementation.
 - Lack of continuity in approach to ABL implementation, with major changes happening within a span of 2-3 years.
 - Different programmes of the state not being aligned with each other, making it difficult for the programme to be adopted in practice.e.g. textbooks and card-ladder
4. The lack of evidence-based decision making and the absence of ‘institutional memory’ are seen in most states and could threaten the continuity of ABL programmes. In the absence of rigorous and systematic programmatic reviews, changes to ABL models may end up being made on notions and impressions. This could lead to weaker programmes and further erosion of teacher buy-in.

5.5.1 STAKEHOLDER VIEWS ON THE DESIRABILITY OF ABL

Teachers

Many of the teachers whom the state has involved and supported in implementing ABL felt that the method is suitable for primary school children, especially those in classes 1 and 2. Some teachers felt that the method is less suitable for classes 3 or 4. A large number of teachers felt that class 3 and above should not be combined with classes 1 and 2. These views are largely similar across all states where a card-ladder based grouping model is followed. The views of teachers on benefits and challenges of ABL are covered in detail under the section on *Effectiveness*. Teachers’ perception of desirability varies across states, and the details of this are covered under the next sub-section ‘*The state of teacher buy-in and factors influencing it*’.

Head Mistress/ Masters (HMs)

In general, HMs were less connected to ABL than teachers. Many HMs share that they are positive towards ABL as a philosophy, while a large number believes that a method like ABL is not needed as traditional methods have stood the test of time (in their opinion). By and large, HMs’ views of ABL seem to be driven by their teachers’ views of ABL. The evaluation team did not find HMs who were instrumental in the implementation of ABL in their schools.

A summary of the views of HMs from 2 states is shared below. Further details have been shared in Effectiveness section.

Gujarat: Only 3 HMs out of 15 had strong positive views of the model. HMs had mixed feelings on desirability ranging from high praise, to severe criticism. Most shared their preference to use the traditional mode of teaching. There was no clear association between the opinions of the HM and her/his teachers though the 3 HMs who had the most positive beliefs have teachers with low buy-in.

Karnataka: HMs have been generally positive about the model, and its benefits, though 10 out of 19 felt the need for revisions to the model, including monograde classrooms and restricting it till class 3. There was no clear association between the opinions of the HM and her/his teachers. 5 out of 19 HMs had negative views on the desirability of ABL, sharing that they prefer the traditional mode of teaching. However, their teachers practice ABL and report positive opinions about the model.

Trainers and Support Personnel

Teachers and support personnel who are master trainers or content developers at the state level are often enthusiastic about the ABL pedagogy. Many of these people have been involved intensively in pilot stages. However, many support personnel at district and block levels have significantly lower levels of enthusiasm towards ABL, as compared to master trainers, content developers or practicing teachers. This is because many support personnel are not teachers (or have not taught for a long period of time), and are primarily expected to collect various types of data on different programmes (their focus is neither on ABL nor on academic aspects). This has been described in more details in the section 5.4.2 on Efficiency.

State Leadership

During the initial years of ABL implementation in a state, state leaders (SCERT, SSA typically) were highly involved in both technical (pedagogic) and governance aspects. They understood the ABL model deeply, were involved in designing aspects of the model, and believed that ABL could be both a child-friendly pedagogy as well as one that resulted in improved learning outcomes.

Interviews with current state leadership, a study of the changes to the ABL models over the years, and views of stakeholders in the field indicate that ABL is not a focus area for current state leaders across states. At best, state leaders view ABL as a child-friendly pedagogy, but are generally not convinced about its efficacy in improving learning outcomes, which are low currently. This is supported by the importance given to CCE reporting and a move back to textbooks seen in many states. The details of changes to state ABL models over the years have been covered under the section on Relevance. (Sections 5.1.3 and 5.1.4)

The views of many teachers and HMs that assessments should be ‘proper’ and traditional teaching methods and textbooks are better can be seen as a reflection of the beliefs of the system at large, including its leaders. The incorporation of ‘cups’ and ‘medals’ into the MP ladder as markers of tests, or the textbook in Tamil Nadu are indicators of the lack of faith of the system in ABL principles leading to better learning outcomes. State leadership has either not made efforts to collect data on evidence of the impact of ABL on learning outcomes, or it has been difficult to do so for various reasons. This has further made it difficult for the state to be certain about the efficacy of ABL and the importance of pursuing the programme further. This report has been able to provide some evidence on the efficacy of ABL and what aspects of it work. This may be an opportunity for states to create a shared understanding among all stakeholders about the benefits and challenges associated with ABL, and make further course corrections based on collection and review of evidence. This point is discussed further in the section ‘Threats to Continuity of ABL’.

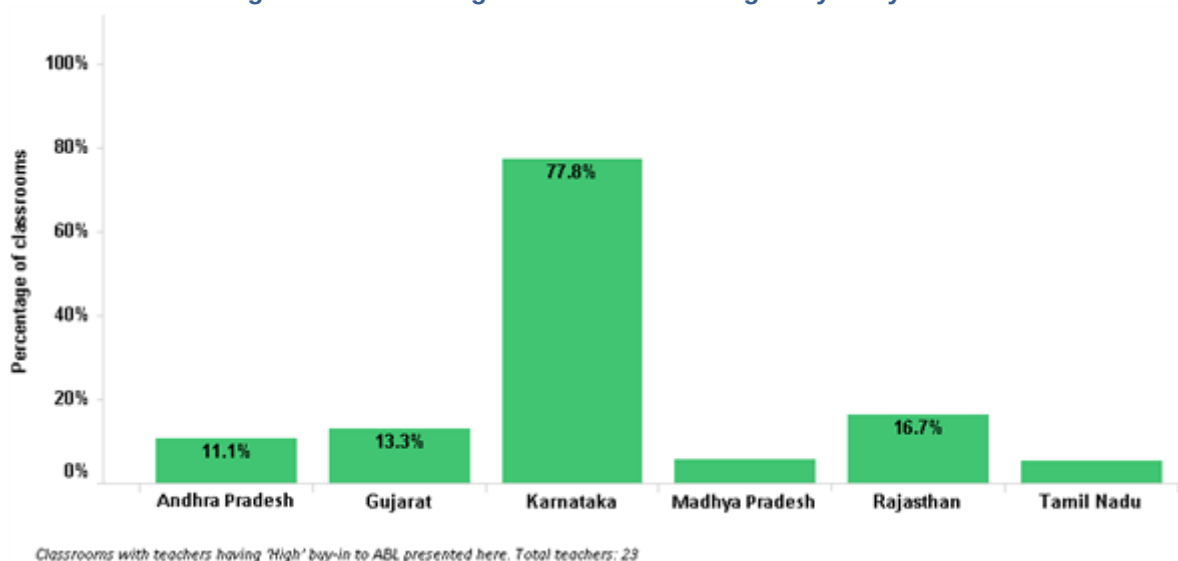
5.5.2 THE STATE OF TEACHER BUY-IN AND FACTORS INFLUENCING IT

The evaluation team found that in the sample of classrooms studied:

1. Teachers with high buy-in were strongly associated with CFLC Type 1 classrooms (highly fear-free, high child engagement, with children taking charge of their learning).
2. The percentage of teachers with high buy-in was well below 20% in all states except Karnataka.

Observing teacher buy-in by class types, it was seen that there was a high proportion of teachers with high buy-in in type 1 classrooms as compared to others. It is important to note here that many teachers in classroom type 1 follow grouping with card and ladder for children. The buy-in of teachers whose classrooms fall in type 2 is largely low (9/13). Again, it is worth noting that the dominant teaching method in type 2 classrooms is whole class teaching. It can also be seen that the proportion of teachers with low buy-in is large in type 4 and type 5. There are a few teachers with high buy-in classroom type 3, 4, and 5. However, these teachers are either unable to put in the necessary effort, or struggle to keep all children engaged. It was observed that overall teachers have a low buy-in in all the states except Karnataka. (Figure 19)

Figure 19: Percentage of teachers with high buy-in by state

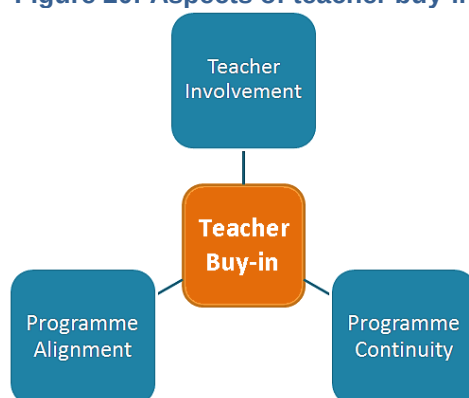


The analysis indicated the following reasons (figure 20) for low buy-in:

1. Insufficient involvement of teachers in decisions related to ABL implementation and the detailed modalities of implementation.
2. Lack of continuity in approach to ABL implementation, with major changes happening within a span of 2-3 years.
3. Programme elements being misaligned, making it difficult for the programme to be adopted in practice.

All the three factors are to be viewed together; if a state does well on all the three factors, it can expect high buy-in, whereas if the state does not do very well on all three factors or fares poorly on one, low buy-in can be expected.

Figure 20: Aspects of teacher buy-in



Additionally, delayed material deliveries and high PTR also affect teacher buy-in, but to a lesser extent. These have been discussed in the section on Efficiency.

Inadequate Involvement of Teachers

While teachers were highly involved in the initial pilot years across states, teacher involvement in key decisions, the design or development of materials, and in understanding the goals and the rationale for implementation have been low across states. Low involvement of support personnel and state master trainers also expectedly affects the extent of teacher involvement. Low teacher involvement leads to the following types of feelings on part of teachers:

System not wanting to listen to concerns

This comment from a Block Resource Teacher Educator (BRTE) in Tamil Nadu represents a widespread feeling of the system not wanting to listen to concerns from the field: *"I have given many feedbacks and told the problem I face in ABL classes, but they expect only positives and they are insisting us to give positive opinion to all and they strictly told us that we are not supposed to talk about the negatives to anyone."*

Teachers perceiving a loss of agency

The following comments are representative of the sense of a loss in agency many teachers feel:

Teacher from Gujarat: *"Iss mein kuch achchi cheezein bhi hain, par hum apne tarah se padhana chahte hain. (There are some good things in this also, but we want to teach in our own way)"*

Teacher from Tamil Nadu: *"We were teaching freely without any issues or anyone interfering; now we don't have that freedom as our privilege."*

Programme Continuity and Model Changes

The comments of teachers from Madhya Pradesh, Tamil Nadu and Rajasthan, where there have been significant changes to the model or gaps in implementation, indicate that such changes affect teacher buy-in. It takes time for teachers and other stakeholders to understand and adopt a new model. In such a situation, major changes within 3-4 years to the basic structure of the model confuses teachers, and the state may be perceived as lacking in seriousness because of frequent changes. Some representative comments are shared below.

A Teacher in Rajasthan shared that he loves LEHAR and he still uses LEHAR workbooks and took them for his son as well. He mentioned: *"Koi bhi programme aaye, safal hone ke liye lambe der tak chale" (Let any programme come, but for it to be successful, let it run for a long time). "CCE is also a good programme except now it has more written work. LEHAR was stopped abruptly and CCE was started, and now I do not have material or full information to do CCE"*.

Tamil Nadu has had a state-wide implementation since 2007. The models have seen a significant change since 2011 after the introduction of Samacheer textbooks. Here is what a teacher, and a resource person say about the changes to the model:

"Initially I felt it is a good decision to have some change. But after making the method so complex, I don't feel like doing this in my class."

"Earlier (around 2006) cards were a lot and difficult to transact and we had complained. But there was a time when people started understanding the method and started seeing benefits in it and at that time they went and changed the logos and the system and people did not understand anymore."

Madhya Pradesh had paused the ABL implementation between 2012 and 2014, and there was little communication with the field in this period. When training for ABL was announced in 2014, a teacher recalled, *"When no trainings happened after 2012, we thought the ABL programme had been stopped. When we were called for trainings in 2014, this came as a shock to us."*

Programme Misalignment

When there are contradictions within a programme, or misalignment between different programmes, results may not be forthcoming in spite of a lot of 'effort'. Both kinds of issues are affecting ABL implementations: 1) design of the model and approach itself sometimes has contradictions; 2) sometimes there is a pull in the opposite direction with other elements of the system.

One example of a 'within programme misalignment' is the use of both textbooks and the card-ladder in Tamil Nadu. There may be nothing wrong with the textbooks as they may be wonderful tools in their own right, but both textbooks and the card-ladder together do not serve a useful purpose. Several BRTEs in Tamil Nadu have said, *"We should be answerable to one – right now we have*

SSA telling card ladder and Elementary Education Director saying textbook". Another example of this type is the 'monthly cups' and the 'half-yearly' medals in the Madhya Pradesh SABL ladder. ABL is built on the philosophy of self-paced learning, which gets severely diluted when children are expected to complete certain goals by the end of every month.

One example of 'across programme misalignment' is between ABL and CCE, which is ironical given that the formative assessment element is quite strong in ABL. Tamil Nadu, for instance, requires teachers to fill in an additional format to comply with 'CCE requirements' while Karnataka and Gujarat do not require teachers to do so.

Despite having a 10-year history of ABL implementation, barely 6% of our sample of teachers in Tamil Nadu had a high buy-in. This is because Tamil Nadu has faced challenges on all 3 fronts: not involving teachers sufficiently after the initial years, making several significant changes to the model since 2010, and having a textbook in addition to the card-ladder. This has resulted in the current situation of low teacher buy-in in the state, and the challenge this poses has been aptly captured by this comment from a senior official:

"ABL is not being practiced properly for the last 4 years. I strongly feel teachers are the tools to make any methodology or activity better. We wanted their involvement but unfortunately we didn't get any involvement from many of them. Without them any methodology will be NO USE. I am right now working on the teachers to make them understand the seriousness of the problem with these external evaluation reports like ASER."

Relative to other states, Karnataka has a significantly higher buy-in among teachers. This could be due to the following reasons:

- A long history of implementation since 1995 to 2008, before large-scale rollout across the state was carried out. During this period, teachers developed their own materials and these were not supplied by the state.
- No major changes to the model since inception, except for some reduction in the number of cards.
- No additional record-keeping requirements based on CCE.

5.5.3 CHALLENGES TO CONTINUITY OF ABL

This section first summarizes the common challenges to continuity of ABL across states, and thereafter highlights some state-specific challenges that may need to be addressed on priority.

Failure to get teacher buy-in on account of various factors has been discussed in the earlier section. This is one of the most important factors that could pose a challenge to the continuity of ABL (or it may result in dilution of ABL), across states.

Further, the lack of evidence-based decision making and failure to create 'institutional memory' could dilute the efficacy of ABL implementations. In the absence of rigorous and systematic programmatic reviews, changes to ABL models may end up being made on notions and impressions. Even when reviews have been conducted and reasons for decisions are documented, these are not easily accessible. It was not easy for the evaluation team to figure out why a certain decision was taken to introduce, alter or remove a programme, or what the learning from a certain pilot or approach was. For example in Madhya Pradesh, SABL was piloted in 2013-14 in 8 blocks and 6 districts, but it was not possible to find a report of the learning from the pilot and what implications for rollout at a larger scale were. There was similar difficulty in tracing the reasons for model changes in Tamil Nadu and Rajasthan; though certain documents were available, these did not clearly specify the reasons for changes. This lack of documented information can make it difficult for planners, administrators and implementers to take the right decisions. Also, the opportunity to build on learning from past successes or failures is lost.

In table 18 below, further state-specific points that need to be addressed to ensure the continuity of ABL are summarized. Andhra Pradesh is not included as the current implementation doesn't seem significantly different from the conventional method, and Jharkhand is not included as the ABL implementation is currently on-hold in the state.

Table 18: Points to be addressed for continuity by state

State	Key Points to be addressed to ensure Continuity of ABL
Gujarat	<ul style="list-style-type: none"> - Many support personnel do not have teaching experience and therefore are less credible in providing support - Involvement of teachers and dialogue with them is not sufficient, leading to a low buy-in
Karnataka	<ul style="list-style-type: none"> - Efforts on ABL have been largely static in the last 5-6 years - No clear stand taken on certain issues e.g. clubbing of class 3 with class 2; taking ABL to higher classes
Madhya Pradesh	<ul style="list-style-type: none"> - Poor quality of training and support and reaching out to all teachers - Material deliveries not happening on time - Low buy-in among teachers because of history of changes and low communication
Rajasthan	<ul style="list-style-type: none"> - Thinking behind the activity based textbooks not appreciated sufficiently in the field - Poor quality of training and support and being able to reach out to all teachers - Material deliveries not happening on time - Low buy-in among teachers because of history of changes and low communication
Tamil Nadu	<ul style="list-style-type: none"> - Teachers not buying in to current model and feeling under compulsion to implement ABL - Duplication of work under different programmes

CHAPTER 6: CONCLUSIONS

The findings discussed in Chapter 5 and relevant secondary research, were synthesized to draw conclusions and arrive at larger lessons, which have been used to arrive at recommendations. The following two chapters discuss the conclusions drawn and the recommendations.

The key conclusions of the evaluation, are summarized below.

1. The ABL Pedagogy is associated with better classroom practices and learning levels.

When classrooms with high teacher effort practice card-ladder based grouping and show greater usage of Teaching Learning Materials (characteristic of original ABL models across states), greater learner autonomy is observed. These classrooms also show relatively higher learning levels when compared to classrooms practicing whole class teaching.

Without the adoption of a structural mechanism like the card-ladder based grouping, a classroom may display high levels of student engagement, provided the teacher puts in high effort. However, in spite of this high effort, such classrooms still remain somewhat teacher-centric. On the other hand, when the card-ladder based grouping is adopted, and a teacher puts in high effort, students take greater charge of their learning.

2. 27% of classrooms are aligned to CFLC principles and 11% practice ABL based on card-ladder grouping. Adoption of ABL as intended in the initial state models is low. 50% of classrooms in the sample offer almost no opportunities for self-paced and peer learning.

3. The following reasons account for the low rate of success of ABL programmes:

- a. Frequent changes to models or lack of continuity in implementation have made adoption of ABL difficult.** It takes time for teachers and other stakeholders to understand and adopt a new model. In such a situation, major changes within 3-4 years to the basic structure of the model confuses teachers, and the state may be perceived as lacking in seriousness because of such frequent changes. Teachers from Rajasthan, Madhya Pradesh and Tamil Nadu have shared their concerns on continuity of the implementation or approach. The case of Karnataka points to the importance of continuity in implementation.
- b. Absence of minimum enabling conditions has also exacerbated the difficulties in adopting the ABL model.** Challenges on many basic factors like the PTR being too high, the quality of training being inadequate, the support personnel lacking teaching experience, and late deliveries of material have also come in the way of successful ABL implementation.
- c. Inadequate efforts on stakeholder education and involvement, leading to a lukewarm implementation of ABL, without sufficient conviction about the value of the method or its underlying principles.** The shift to a child-centred pedagogy requires a major change in terms of both *mindsets* as well as *work methodologies*, at *all levels*. However, there is inadequate change in mindsets at all levels, and many details of the work methodologies have been left to the teacher to handle on her own. Articulation of the theory and reasons behind the new methodology is not given due importance.

Low confidence of leadership in ABL as an effective method for learning: Many teachers and HMs views that assessment should be 'proper' and traditional teaching methods and textbooks are better reflect the beliefs of the larger system. ABL is not a focus area for current state leaders across states. At best, state leaders view ABL as a child-friendly pedagogy, but are generally not convinced about its efficacy in improving learning outcomes, on a large scale. This is evident from the significant changes of state ABL programmes from their original models, over a period of time, without a strong basis for

making these changes. Andhra Pradesh and Rajasthan have discontinued the card-ladder based grouping, and Tamil Nadu has a textbook in addition to the card-ladder based grouping. Also, more importance is being given to the administrative needs of CCE reporting in many states *vis-à-vis* ABL. Such actions give conflicting messages to the teacher and result in different programmes being misaligned with each other.

Underestimating the change management effort and extent of teacher support needed: The challenges faced by teachers and the gaps in training and support make it clear that methodologies required to implement ABL are complex and understood by few stakeholders. Greater teacher support is required- especially in demonstrating how ABL is to be implemented practically in classrooms. This is a phenomenon seen worldwide as supported by researcher Arathi Sriprakash who states that, *“the large class sizes and poorly resourced teaching environments of many rural primary schools create significant demands for teachers working under the complex expectations of a child-centered pedagogy.”*

Inability to maintain continued involvement of teachers: While involvement of teachers was high in the initial pilot years in some states, the system has not been able to involve teachers sufficiently when implementing ABL at a large-scale level. Teacher involvement has been limited to following a set of procedures and maintaining a set of records, probably because of not having enough ‘champions’ of ABL at the local level, who are able to educate teachers. There has been little effort from the system on getting a buy-in on the underlying principles and goals of implementing ABL, and in involving teachers in key decisions related to the design of the model and changes to it. This emphasis on procedures has also led to undermining the role of the teacher, or confusing teachers about their role, in some states. The teacher’s role has been perceived in some pockets as that of a ‘passive facilitator’, or as someone who does not have the agency to take her own decisions on how pedagogical transactions must be conducted. Discouragement of critical feedback and lack of responsiveness to teacher feedback was also observed in some states.

4. High teacher effort is critical for a CFLC classroom, this effort is related to understanding underlying principles of ABL and buy-in into the state’s ABL model.

Classrooms where teachers put in high effort, like making their own material or maintaining individual student diaries, ensuring that students take the assigned task to completion through appropriate follow up, are aligned to CFLC principles.. Teachers are less likely to put in such efforts when they receive insufficient training and support inputs or their ownership is affected due to frequent changes in ABL design.

5. ‘Activity’ as seen in the learning materials that are part of the ABL programmes of different states, ignores the aspect of reflection associated with the activity, which is crucial for learning to happen. Most activities focus on the level of physical movement. Consequently, even the best ABL classrooms are weak on conceptual understanding and higher order thinking. Conceptual understanding and higher order thinking among students are rarely observed in these classrooms. This is expected given the emphasis of the state’s TLM and training programmes on the ‘fun’ and ‘hands-on’ aspect of activities. Few activities are conducted such as to encourage ‘minds-on’ thinking, reasoning and understanding which are essential for learning to happen.

6. There has been a lack of a research-based systematic approach to evaluate and refine educational programmes. This has affected institutionalization of knowledge that is required for evolving the ABL model to meet the needs of different contexts successfully.

There has been a tendency to scale up pilot programmes and implement them on a large scale without sufficient evidence or creating an enabling environment for these programmes. There is also poor documentation on what conditions are required for implementation. This is not

restricted to India, and appears to be a widespread phenomenon worldwide (Slavin R. E., 1989) (Slavin R. , 1999). Most past ABL studies⁹ - though informative, and providing valuable anecdotal perspective do not clearly establish the positive impact of ABL in an evidence-based manner. In spite of this, ABL has been scaled in a large manner in many states. There has been insufficient investment in asking and trying to answer fundamental questions like ‘how do children learn language?’, ‘what kind of grouping facilitates learning?’ Even at a more basic level, factors involved in ABL implementations do not seem to be considered systematically. For example, across states, there does not appear to be a maximum PTR, above which ABL will not be implemented in a school. Rigorous and systematic efforts would have helped in refining the ABL model and implementation strategy to increase the chances of rolling out the programme effectively.

Building and utilizing ‘institutional memory’ has not been given sufficient importance. Even when reviews have been conducted and reasons for decisions are documented, these are not easily accessible, making it difficult for planners, administrators and implementers to take the right decisions. Also, the opportunity to build on learning from past successes or failures is lost.

7. **The system is placing its hopes for improvement on short-term initiatives and individual programmes, rather than on a long-term vision and continuous, incremental efforts.** This is seen in the number of programmes that are being implemented, and changed, as well as the annual budgeting exercise of the Sarva Shiksha Abhiyaan (there is no provision for a 3 year or 5 year budget). Research on educational reform and even in other sectors indicates that change requires rigorous and systematic efforts over a period of time, and individual innovations rarely bring about positive change on their own in the long-term (Seelos and Mair, 2012).
8. **The focus has been on implementation of the mechanics of ABL, rather than viewing it as a means to an end, and this has led to taking an isolated view of ABL programmes.** The evaluation team did not come across clearly stated and widely understood goals of ABL in terms of outcomes or capacity development metrics. For example, few teachers interviewed were discussing whether ABL was helping to achieve certain learning goals, and there were few observable performance standards and indicators for teachers (e.g. create 1 page lesson plans, or worksheets with clear learning objectives). The JRM 2014 report¹⁰ for Jharkhand emphasizes the importance of such indicators. In the absence of overarching long-term goals and visibility to progress towards that goal, numerical aspects like the rollout of a programme to a number of schools, number of trainings conducted or scale of distribution of TLM etc. have been considered as achievements of ABL programmes. The more important question of whether these lead in any way to overall improvement of the system is sidestepped. When a particular model of ABL is viewed as an end in itself, this becomes problematic because there is no framework within which to critique or discuss improvements to the model- except maybe ‘mechanics’ related issues like how many cards should be there, how they should be numbered, etc. However, if the end goal is clear, and there is a shared understanding of the same, a rich discussion on ABL is possible, which can be productive. For example, discussions might then give more importance to issues like ‘how reading develops’ rather than ABL procedures. Also, linkages between ABL and other state programmes can get discussed and clarified when the focus is on the end goals of ABL.

⁹ See (NCERT, 2012), (Akila, 2009) (SSA, 2008)

¹⁰ Accessed from: http://ssa.nic.in/monitoring-documents_old/jrm/20th%20JRM/Jharkhand%20state%20report%2014102014%20_1_.pdf

CHAPTER 7: RECOMMENDATIONS

7.1 RATIONALE AND PROCESS FOR ARRIVING AT RECOMMENDATIONS

The key lessons learned, which are summarized below, form the basis for recommendations:

1. Activity Based Learning (ABL) (an adaptation of the RIVER model) is associated with positive classroom indicators and better learning outcomes.
2. However, less than a third of classrooms in the study had a child-friendly, learning centred environment and around 11% of classrooms were implementing ABL as intended in the initial state models.
3. Changes in ABL Design and Quality of Implementation have resulted in low adoption of ABL.
 - When changes are frequent, this leads to confusion among teachers and affects their practice. One example of this is the number of changes made in Tamil Nadu over the last few years- including the changes to the cards and the introduction of textbooks. Another example is the shift to textbooks in Rajasthan and Andhra Pradesh, which restrict the possibilities for self-paced learning and activity-based grouping to aid teacher classroom management, which were possible in their initial models.
 - The failure of ABL programmes is also associated with lower quality of implementation (adequate training & support, material supply timelines etc.). This is particularly true for the states of Rajasthan and Madhya Pradesh.
4. Teacher Effort and Buy-in are critical for successful practice of ABL. This effort is related to understanding underlying principles of ABL and buy-in into the state's ABL model. As described in point 3, these get affected due to insufficient training and support inputs or due to frequent changes in ABL design.
5. The sustainability of ABL programmes has been affected by focusing more on the procedural aspects of ABL rather than the underlying principles. A research-based systematic approach to evolving the programme to meet stakeholder needs has also been lacking.

The above findings, based on the three stages of evaluation as well as relevant secondary research, are elaborated in more detail below. Findings under the Relevance section pertain to the ABL programme design, while those under Effectiveness, Impact, Efficiency, and Sustainability are concerned with programme implementation. Needless to say, the design elements are inherent to the implementation of the programme in different states. Through the report, the attempt has been to clarify this along with the findings presented.

The process for formulating these recommendations involved:

- Identifying practices of states or districts that were clearly effective or ineffective- pointing to practices that should be adopted or avoided. E.g. the practice of teacher meetings at cluster level has been effective in resolving academic issues
- Identifying practices that past research has identified as effective. E.g. best organizations have simultaneous loose-tight properties
- Brainstorming with experts and stakeholders on possible strategies to address challenges. E.g. choice of trainers for cascaded trainings
- Ratifying the relevance and practicability of strategies through consultations with implementing agencies. E.g. greater integration of teacher and support workforce

Between February 2015 and June 2015, the following meetings and consultations have helped in formulating the recommendations:

- Meeting with UNICEF Education Specialists of 7 states and UNICEF National office
- Meeting with Advisory Committee, comprising of ABL experts, educational experts and Ministry of Human Resources and Development (MHRD)
- Individual consultations with UNICEF Education Specialists of the different states
- Consultations with state leadership and state resource groups in Gujarat and Tamil Nadu

The overall framework for recommendations is presented first, followed by specific stakeholder-wise recommendations. Recommendations specific to particular states will be covered separately in the dissemination reports shared with individual states.

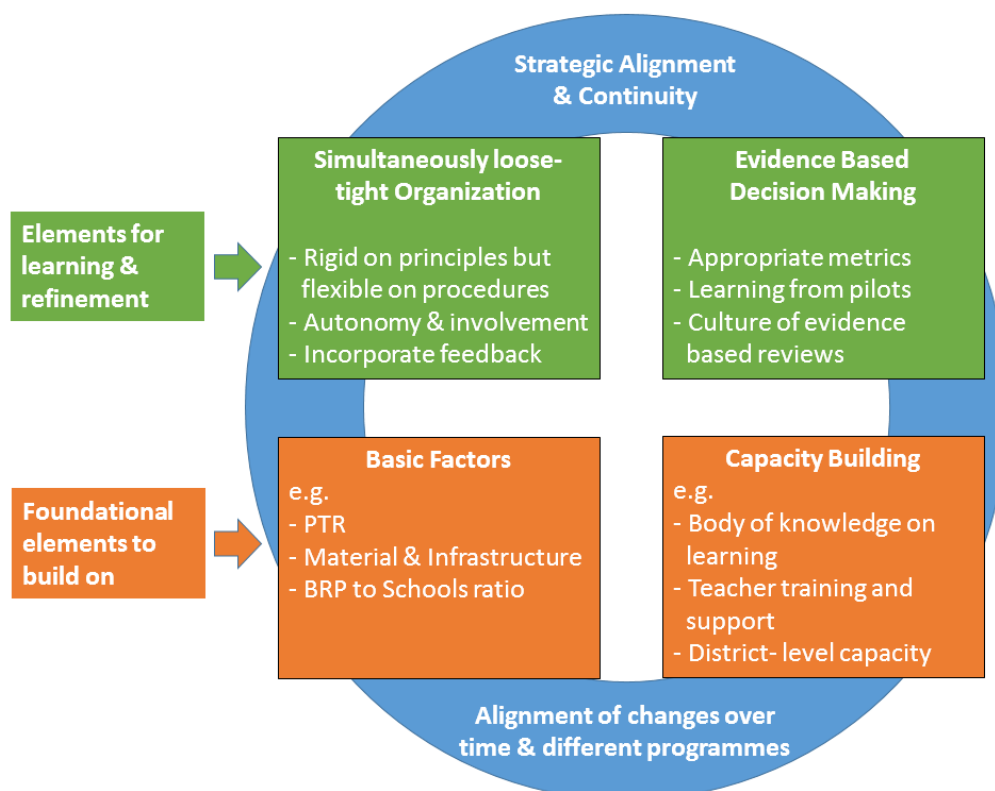
7.2 OVERALL FRAMEWORK FOR RECOMMENDATIONS

Two elements are foundational for a successful implementation of ABL-

1. **Basic factors** like ensuring PTR, material availability, training reaching all concerned personnel etc. lay a strong foundation and builds confidence among stakeholders.
2. **Capacity building**- (technical, administrative, leadership) will allow the stakeholders to approach issues rigorously and systematically- teachers on how to teach, administrators on how to conduct programmatic reviews, allow discussion on principles of learning between stakeholders, and the system to preserve institutional memory by creating a body of knowledge for improvement of models.

Building on these foundational elements, two 'structural' or 'cultural' elements are also required for the system to be a 'learning organization' that can evolve workable solutions, as well as leverage the 'professional capital' that is available through the members of its workforce.

Figure 21 : Structural and cultural elements for a successful system



1. **Simultaneously loose-tight Organization**- This term comes from Peters and Waterman (1982) and suggests that the best organizations are both 'centralized' and 'decentralized'. The firm central direction sets the key values and parameters that guide activity, but the sphere of activity has an openness that encourages individual initiative and creativity. In ABL implementations, the

state has to set a firm central direction by articulating core principles, but allow teacher and other local stakeholders some freedom in choosing specific practices that meet the state goal.

2. **Evidence Based Decision Making-** A system or organization has the capability to learn only when it collects and shares and discusses evidence. Such a culture allows for balanced views on issues and the creation of institutional memory through an understanding of both successes and failures.

All the above elements are aligned towards achieving the desired goals through strategic alignment and continuity.

Strategic Alignment and Continuity- Improving education systems takes aligned efforts on multiple fronts as well as time. Strategic alignment and continuity ensures that efforts at a given point in time, or over a period of time are aligned to the overall strategy, which does not change in the medium-term at least (say 10 years).

Based on this framework the stakeholder specific recommendations are described next.

7.3 STAKEHOLDER-WISE SPECIFIC RECOMMENDATIONS

Through the two-year long evaluation, the team gathered significant exposure to the workings of SSA, and state education departments in the context of primary education. Recommendations are made keeping in mind the working context of SSA and education departments. Four important stakeholders are recognized:

1. National Institutions- such as the MHRD, SSA, NCERT, NUEPA or any other bodies that may be set up for supporting educational practice in the country
2. State leadership- Secretaries of Education, State Project Directors of SSA, Directors of Education Departments, Directors of SCERT who are responsible for vision, strategies and capacity building of state educational systems
3. State Implementation personnel- These include administrative personnel, subject experts, and resource persons handling material development and training, support personnel and others belonging to SSA, SCERT or Departments of Education who are responsible for actual implementation of the state's educational programmes.
4. UNICEF: Both the national team as well as state offices involved in supporting ABL programmes. International offices with interest in large scale programme implementations.

A maximum of 5 high priority recommendations are listed for each of these stakeholders.

7.3.1 National Bodies

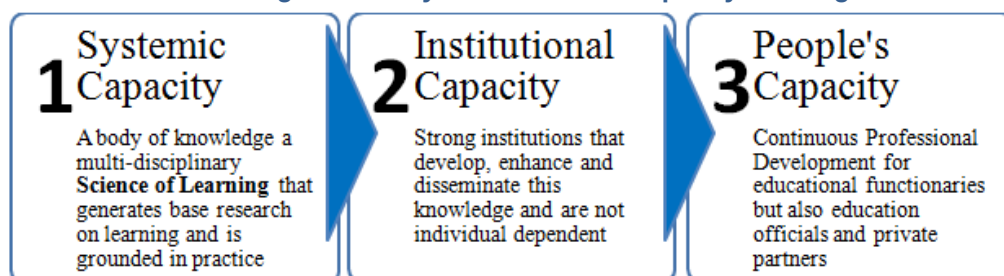
1. Build systemic and institutional capacity on both technical and governance aspects.

The current study has revealed that most states, in implementing ABL programmes, have sought knowledge on its pedagogic structures and other practices from subject experts and teachers from the government system, NGOs or Experts. Most decisions- whether technical or administrative have not been based on systematic research or evidence; concerns of researchers about the model have generally not been responded to satisfactorily. Both technical and governance aspects can be quite complex and often answers have to be obtained through years of careful and dedicated research. Given the complexity and the investments involved, this gap is best filled by national bodies by building institutional and systemic capacity.

Systemic capacity means a body of knowledge that people can refer to as needed to develop the required expertise. Research and information for training programmes to be conducted in the field like 'pre-reading skills' or 'misconceptions in learning subtraction' should be available. This is not available today partly because the little research available is not related to Indian ground realities, say, for instance, in learning language. For example, many of the ABL models in language lay

stress on writing and have very little emphasis on oral interactions, which many language-learning researchers believe should precede reading and writing. Experts and researchers would need to study such questions and come up with answers that Resource Persons can use and translate into effective curriculum. Specific actions could include initiatives like setting up a “Centre for Language Learning” or “Centre for Classroom Management Methods” under existing institutions or setting up new institutions for such purposes.

Figure 22: Key dimensions of capacity building



Key dimensions of capacity are as shown in figure 22. Normally the focus is on aspect 3 and sometimes aspect 2. Aspect 1 rarely gets discussed.

Capacity building does not pertain to creating a body of knowledge and disseminating it in the technical (pedagogical) sphere alone. Capacity building is needed on administrative and managerial aspects too- especially given the large scale at which the implementation needs to work- say 40-50,000 primary schools in a state. Examples of administrative capacity could include:

- Identifying factors needed for successful implementation of a programme, and strategies for aligning implementation to readiness
- Setting up systems and processes for collecting programme feedback and refining programmes

2. Facilitate the development of institutional memory and access to this knowledge.

During the evaluation, the research team faced several difficulties in tracing the historical data, sequence of events and conditions faced with, especially while making decisions in the states. Frequent transfers of the leadership team and key personnel at all the levels, further exacerbated these difficulties. While some states had a record of these things; for some other states this documentation was entirely missing. Developing institutional capacity as described above would involve several efforts on the front of building institutional memory. At the most basic level this would involve efficiently documenting key events for a programme, particularly around changes introduced, rationale for those changes, key options considered and decisions made. This would also include collating lessons learned from different educational programmes, and aid the development of institutional memory. Relevant parts of this knowledge then need to be disseminated effectively through the system so that stakeholders act and take decisions with the awareness of this knowledge. Examples of specific actions for development of institutional memory could include:

- Inclusion of learning from evaluations such as this one into pre-service teacher training courses
- Databases of ‘what has worked’ and ‘what has not’- collated with the assistance of state bodies, and made available in an easily accessible manner to all stakeholders

3. Provide orientations, training and learning visits on educational improvement to state leadership.

As highlighted in conclusions state leadership has shown low confidence in ABL as an effective method to learning. State leaders may be generalists with limited exposure to systemic improvement in education; this may lead to their underestimating the work needed on the ‘technical’ (or pedagogical) front. They may also underestimate their own role in bringing about change. By equipping state leaders with a better understanding of what is involved in system-wide educational improvement, and providing a platform for cross-learning across states, national bodies can build their capacity as educational administrators.

4. Support states to build, execute and monitor long-term plans for improvement.

As discussed earlier, change requires rigorous and systematic efforts over a period of time. Long-term plans (minimum 5 year horizon) are needed to make a visible impact in educational systems. National bodies can support states on building such plans, as well as on how these can be monitored on a short-term basis. E.g. what kind of metrics are required to monitor whether ABL is on track? How much time is required for changes to happen? Many of the current metrics focus on mechanical adherence to the method and do not recognize the time required for adoption of ABL practices. Systematic efforts coordinated by a national body can help in establishing benchmarks of how much learning improvement is possible over a period of time. If funding support is provided, such support should be aligned to a longer-term plan, and should not be limited to an annual budgeting exercise.

7.3.2 State Leadership

1. Articulate where ABL stands within vision strategies and guiding principles of the state's educational programmes.

This will provide a clear direction for the state, and lead to addressing any contradictions between different programmes. Issues such as implementation of both ABL and CCE for primary grades can be avoided with this.

2. The highest levels of leadership need to spend significant time in communicating the vision and goals of ABL and requirements from different stakeholders.

This was the practice in early years of ABL in many states and this needs to be continued to stress the seriousness of the state and help stakeholders change their mindsets. Lack of sufficient communication from the state was noticed as one of the important shortcomings of the state programmes; some states did not even have regular reviews of the programme. Leaders set the tone for what is important, and change management experts indicate that the amount of communication required to bring about change is often underestimated by a factor of 3 to 10 (Kotter, 2007) (Sirkin, Keenan and Jackson, 2005). Leaders need to share what is working and not working with stakeholders and work on getting the buy-in of all stakeholders, especially teachers continuously even as new people and institutions join in.

3. Integrate support personnel closely with teacher workforce.

Only high quality support can lead to demonstration of results and required buy-in. This results in the creation of a 'community of practice' which is required to implement ABL. Several teachers from Gujarat interviewed in the evaluation mentioned the benefits of having a dedicated and focused support personnel (BRP Pragna). As various studies have pointed out support personnel are more effective when they have teaching experience. The ideal strategy might be to have a single cadre of teachers and support personnel, with some teachers selected to play the role of support personnel on a rotational basis. When this is not possible due to constraints, state leaders should explore other options to integrate them more closely with teacher workforce. Focusing the role of support personnel towards academic support (instead of the current diffused focus), would also help.

4. Set up responsibility and processes for rigorous programmatic reviews and have evidence-based yearly reviews as well as shorter reviews 2-3 times in a year.

As the evaluation notes, rationales for many decisions taken by various states were either missing or not available easily. In some of the states, the evaluation team observed that no regular reviews of ABL were happening at the level of principal secretary or even State Project Director, SSA Initiatives on systematic programmatic review will help in building institutional memory and improving the quality of decisions taken by leaders and other stakeholders.

5. Set up a mechanism for teacher feedback and addressing and responding to teacher feedback.

Many teachers interviewed in the evaluation felt unheard and did not perceive that they have any say in the larger programmes or changes made to them. Teachers are the end-users of the state's

programmes and their perceptions about a programme provide the most reliable indicator of the quality or understanding of the programme. Direct communication of senior state leaders with teachers periodically, cutting through in-between levels, would be very useful for leaders. This recommendation is not to be interpreted as trying to please all teachers- but as an effort at balancing inquiry with advocacy in working with teachers.

7.3.3 State Implementation Personnel

1. Align roll-out plans with readiness of field conditions

ABL should be rolled out in a block or a district only once it is ensured that certain basic metrics can be sustained over a period of time- like a PTR of less than 25, a certain BRP/CRP to schools ratio, confidence that materials can be delivered on time, and after teachers have received adequate training and exposure. If there isn't sufficient discipline to ensure this, it could be dangerous to scale as it erodes the credibility of the entire system.

2. Strengthen the learning-centred aspects of the ABL model based on a detailed material review

Refine activities that are not meaningful from a learning perspective, and emphasize the learning aspects of material through manuals and training.

3. Move towards providing greater flexibility to teachers in classrooms and district/ block level resource persons, while focusing on desired end-results (positive classroom climate, and learning outcomes).

This could ultimately involve leaving decisions like basis for grouping and multi-grade clubbing to schools. Instead metrics related to positive classroom climate, teacher efficacy and learning would be observed, and significantly more support would be provided to teachers in this journey.

4. Train BRPs/ CRPs on learner-centred pedagogies and develop their capability to observe classrooms and provide meaningful actionable feedback to teachers.

This is challenging and ambitious, but a necessary prerequisite if teachers are expected to develop the needed skills. The role of support personnel has to become 'supporting successes' and move away from 'monitoring compliance to mechanical aspects'.

5. Strengthen teacher training

Teacher trainings can be strengthened on the following aspects:

- a. Emphasize underlying principles of ABL a lot more and reinforce these periodically.
- b. Provide more subject-specific training. The focus of this should be for teachers to understand subject content at a deeper level and common difficulties children may face, and learn how to use the ABL material *to make learning happen*.
- c. Include more practical content on classroom management- It is seen that classroom management is more of a challenge in the ABL pedagogy- teachers need to understand how to handle children, how to pay attention to all children, and also how to implement differentiated instruction. Teachers need to be equipped with strategies to handle specific practical problems.
- d. Include content on purposes and Methods of Assessment- Many teachers are still not convinced that ABL is a 'serious' method of learning that can result in tangible learning. They don't find the assessment in ABL to be 'proper'. Teachers will need to understand what formative assessment is about and strategies for the same. The teacher's capability for better assessment directly influences her capability to offer differentiated instruction.
- e. Provide full-fledged training on ABL every 3-4 years even for older teachers- For states that have had ABL implementations for a long time, there may be a tendency to assume that all teachers have received sufficient training, and they may only need to receive short refreshers. However, full-fledged training may be needed for reinforcement, based on our findings.
- f. District and block level trainers should have additional training and guidelines beyond the training and manuals teachers get. Training on facilitation skills should be included and areas where trainees may have problems in understanding could be anticipated and emphasized.

- g. Use video clips of master trainers in cascaded trainings appropriately to ensure the quality of training.
- h. Subject knowledge of the teacher also needs to be considered in assigning training roles (e.g. a biology graduate may find it difficult to conduct Maths training) - so people who have majored in that subject could be assigned to conducting trainings related to that subject. It would be ideal if they also have experience in teaching that subject.
- i. Closer integration between State Resource Group, which has created training material and field trainings, can be ensured. The module developers could go beyond module development and observe the cascaded trainings at district and cluster level and- this would give them an idea as to what kind of difficulties teacher face in understanding and what is getting missed out in the training content. This would help them to adjust the trainings at state-level accordingly.

7.3.4 UNICEF

UNICEF is well positioned to support national bodies and state leadership in building systemic capacity to bring about change and should consider supporting them on the recommendations laid out for them above. Specifically, it is suggested that UNICEF-

1. Disseminate the findings of this study and recommendations widely through a communication kit, and initiate a larger dialogue through conducting a national workshop including representatives from states.
2. Organize a round table of senior state functionaries as well as national functionaries on the study findings and larger lessons related to education and bringing about systemic change.
3. Support the building of systemic capacity in national and state institutions, especially related to creating a 'body of knowledge' or 'science of learning'. This could be done, by providing technical assistance and handholding.
4. Support the improvement of pre-service teacher education programmes like B.Ed., and D.Ed. as well as in-service programmes, based on the recommendations from this study.
5. Assist states in weaving in recommended actions from this study into state educational plans, by organizing consultations for this purpose.

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