

Insights from within Activity Based Learning (ABL) classrooms in Tamil Nadu, India: Teachers perspectives and practices

Nidhi Singala^a, David Pedder^b, D. Malathy^c, M. Shanmugam^c, Shakthi Manickavasagam^d, M. Govindarasan^c

1. Introduction

Quality has been an Education for All (EFA) goal since the 2000 Dakar framework positioned it ‘at the heart of education’ as a fundamental determinant of student enrolment, retention and achievement. Over the years, classroom pedagogy has been consistently regarded as ‘the crucial variable for improving learning outcomes’ (e.g., Hattie, 2008) and is thus seen as critical to reforms aimed at improving educational quality (UNESCO, 2005, p.152). The quality of teacher–pupil classroom interaction remains of central importance, rather research evidence (e.g., Borich, 1996) suggests that it is the single most important factor accounting for wide variation in the learning attainments of students who have used the same curriculum materials and purportedly experienced similar teaching methods. Other more recent studies (e.g., Aslam and Kingdon, 2011) have also reported that teacher ‘process’ variables have a more significant impact on student achievement than standard background characteristics. In the current era of the ‘global learning crisis’ (UNESCO, 2014) many developing economies have embarked on major pedagogical reforms. In India, the notion of energising schools and transforming classrooms has received unprecedented attention in the last 15 years. A number of programmes have been introduced in various states to provide meaningful access (Jandhyala and Ramachandaran, 2007). The Activity Based Learning (ABL) Programme is one such effort to change the nature of teaching and learning in mainstream classrooms. In a national context, where there are innumerable on-going efforts aimed at pedagogical reform, ABL is hailed as a success story in terms of replication of a small model to a grand scale. From modest beginnings in 2003 in 13 Chennai (the capital city of Tamil Nadu) schools, ABL was rolled out in a phased manner across the entire state of Tamil Nadu for all children in classes 1-4, in all government and aided schools. The last few years have witnessed its adaptation under various guises in several other Indian states, such as *Ekalavya* in Madhya Pradesh, *Digantar* in Rajasthan and *Nali Kali* in Karnataka. Efforts to promote it internationally in other parts of the developing world, such as Ghana, Bangladesh, Ethiopia and Mozambique

(Fennell, Duraisamy and Shanmugam, 2016) have also been made. Though as Nudzor, Dare, Oduro, Bosu and Addy (2015) note it has been met with mixed success in the case of Ghana. Nonetheless, ABL is an interesting programme to examine given its rapid growth and international outreach.

A central aim of this paper is to understand how teachers perceive and practice ABL. The research presented here was part of a much bigger evaluation of ABL undertaken in 2015. This paper addresses two specific research questions, namely:

- 1) What do teachers and head teachers perceive as the central characteristics of teaching and learning in ABL classrooms?
- 2) What were the main observed features in teachers' enactment of ABL pedagogy in their classrooms?

2. Underpinning vision and central principles of ABL

ABL is regarded as a home-grown and home-owned programme in Tamil Nadu. Providing a detailed analysis of the genesis of ABL, Bedi and Kingdon (2016) note that the central principles underpinning ABL can be traced back to the 1930s-40s, when there was a strong Gandhian philosophy in the public sphere, which prompted public dialogue. Primarily driven by the vision and leadership of one government bureaucrat in Tamil Nadu, who wanted to address high student drop-out rates in primary education, he began to seek local solutions to prevent this. Drawing on the RISHI valley model, a school based in Andhra Pradesh, he started working with a small group of 20 teachers, experimenting with resources and materials, resulting in the genesis of ABL.

Commonly described as a child-centric and activity-based pedagogy, ABL aims to provide engaging and challenging learning materials and a flexible learning space for all children. The ABL methodology is based on the 'pedagogic principle of learning through activities' (NCERT, 2011: 25). Teaching and assessment is constructed through carefully graded and planned sequences of activities for children and their teachers. In each subject, the competencies are split into different parts or units called milestones that are developed into different activities, arranged from simple to complex. Clusters of milestones are linked together into 'learning ladders'. Children work with corresponding 'self-learning cards' on the ladder. Each milestone has different steps of the learning process represented by logos having six types of activities viz., introduction, practice,

reinforcement, self-assessment or evaluation, remedial and enrichment activities. Consequently ABL classrooms look markedly different from the majority of classrooms in government schools across India, as teachers sit at the level of the students, either on the floor or a low stool. Children sit together according to their learning levels, rather than their caste, gender or ability, in 6 groups (or 'mats'). A child moves from one group to another frequently as and when s/he completes an activity on the learning ladder. Children recognize their position on the learning ladder and work with corresponding 'self-learning cards' which are colourful and arranged in trays at the back of the room <Insert pictures here> Each child has a dedicated space on the blackboard which runs across the room at the child's eye level. Classrooms are visually stimulating, with student work being displayed prominently on binding wires across the room. Other locally sourced materials adapted for teaching and learning purposes are also commonly noted.

Whole group activities are conducted by teachers for half an hour in the morning and another half an hour in the evening, and can include songs, rhymes, arts and crafts etc. They also undertake activities such as talking through the health wheel chart, which focuses on daily hygiene activities - like washing oneself, brushing teeth, combing hair; and also filling in the weather calendar, by the children, every morning and afternoon.

The central feature that distinguishes ABL from other approaches is that learning is self-initiated, independent and at an individual pace but all within a formalised and prescribed structure of progression. The aim is to improve the quality of education through a reconceptualization of the teacher's role to that of a facilitator. NCERT (2011) signifies this shift as one where the teacher provides children more freedom to express, ask questions, and learn through peer groups. In such a scenario, the learning process is seen as less burdensome for the teacher, as children's learning is not solely dependent on her/him. A review of various ABL documents highlight some very clear do's and don'ts for teachers, wherein an ABL teacher is seen as someone who does not lecture, does not direct the learning of the whole class in a uniform pattern and is not in the pursuit of finishing portions in a limited time. Rather the focus is on teachers engaging with children in a friendly manner, making learning joyful, whilst ensuring that learning is self-initiated and independent according to each child's pace.

An evaluation of ABL conducted by Mohapatra, Baker and Sahoo (2008) noted that since its implementation, there had been dramatic improvements in attendance, achievement test scores, and gender parity in Tamil Nadu schools. In contrast, such positive outcomes are not seen in relation to assessments focusing on children's literacy and numeracy. For example, the Programme for International Student Assessment (OECD, 2010) survey which showed India ranking second last among the 73 countries, Tamil Nadu was one of two states which took part, based on the rationale that it was a showpiece of India's educational success. Similar results were reached in an analysis of ASER (Tamil Nadu) data undertaken by Aslam, Rawal, Vignoles, Duraisamy & Shanmugam (2016).

In principle, ABL represents a fairly radical repositioning of the roles of teachers and pupils. Teachers act as facilitators of learning aiming to support pupils take increasing responsibility for their own and one another's learning, especially the pace and progression of that learning. Despite the potential for radical change in classroom teaching and learning reflected in the ABL reform there has been very little research on how teachers and pupils achieve this in practice. A few studies such as Kumar *et. al.*, (2009) examined teachers time on task across schools, while Anandlakshmy (2007) examined teaching and learning methodology in relation to clarity of lessons, classroom environment, child's involvement in process, teacher's role and scope of creativity. However neither brings together teachers' perceptions and observed practices. Therefore our research focused on understanding how teachers make sense of ABL, its underlying principles, and most crucially how they implement it with their pupils. In discussing the findings from this research, we wish to add to the growing body of literature that calls for a critical re-examination of child-centred pedagogical approaches. The objective is to develop a critical and in-depth engagement with the challenges, opportunities and inherent dilemmas involved when undertaking large scale pedagogical reform efforts, and the need to acknowledge the centrality of variables, such as culture and human capacity (Schweisfurth, 2011).

3. Research approach

Data presented in this paper were gathered from 10 randomly selected schools located in both rural and urban settings in Tamil Nadu. The focus was specifically on Grades 1 to 4, which have been the main focus of the Government's ABL reform efforts and resourcing. Table 1 provides an overview of the characteristics of schools that participated with us in the research.

Table 1: School characteristics

	Chennai (urban)	Kanchipuram (rural)
Type of schools (year in which ABL was started)	3 government (2002 and 2003); 2 government aided ¹ (2006)	3 government (2004 and 2007); 2 aided (2006 and 2007)
Total number of teachers in the school	2 to 10	4 each in 4 schools, 11 in one
Total student population	40 to over 350	Between 80 to around 400
Number of schools with children with special needs (CWSN)	In all schools, except one	All schools had at least one child with special needs
Physical Infrastructure	All schools had toilets and 'pucca' (permanent) boundary wall	All schools had toilets and 'pucca' (permanent) boundary wall
Watchman	Only in the 3 government schools	No watchman in any of the schools

One-to-one semi-structured interviews were conducted with 45 teachers and 10 head teachers. The interview schedule was developed using a thematic approach and covered broad themes such as teachers' experiences and understandings of ABL, teaching-learning practices, use of classroom space and design, assessment, teacher learning support, effectiveness of ABL, personal and professional reflections. The schedule was piloted before and after translation into Tamil for accuracy of meaning and also to incorporate the distinctive features of ABL. All interviews were conducted by one researcher, based in Chennai and fluent in both Tamil and English. Following due consent, interviews were audio-recorded, and transcribed verbatim by an independent person. The translation was checked for

¹ These are schools which are owned by private management but the rules and regulations, including curriculum, examinations etc are the same as government schools.

reliability based on a random selection of excerpts in each interview by researchers in the team who were fluent in both languages.

Additionally, systematic classroom observational data were collected from sixty lessons. Two observers, one using the Teacher Record and the other using the Student Record, conducted these observations. Without reliable extant observation schedules designed with specific reference to ABL, the design of the Teacher Record was influenced by Galton, Simon, and Croll (1980) and Pedder (2006) and focused entirely on what the teacher was saying or doing. The teacher's and students' behaviours were coded at regular twenty-five second intervals signalled by a bleep recorded on a MP3 player connected to an earpiece worn by the observer. Coding for both Teacher and Student Records followed a method of 'instantaneous time sampling' which allows coding of multiple categories of each observed activity at the bleep and valid comparisons to be made of the proportion of classroom time spent doing different things. Design of the Student Record was also influenced by Galton et al (1980) and focused on the nature and frequency of students' classroom activities when working alone or interacting with adults or with other students. One student at a time was the focus of observation. To distinguish her/him from the rest of the class s/he was described as the target student. 6 target students from each observed class – three girls and three boys – were included. Each target student was observed by rotation for 24 twenty five second time intervals (equivalent to 10 minutes elapsed time).

A total of 8,614 twenty-five second time intervals were observed from the Student Record involving almost 360 target students and amounting to almost 60 hours' detailed observation of students. The Teacher Record was used to observe 41 teachers over 11,273 twenty five second time intervals, amounting to a little over 78 hours detailed observation of teachers. Observers also recorded additional class details including the grade level, observed class size and number of students in the register, the number of boys and girls present during the observed lesson, and the age range of students in the class.

Lastly, the three main field researchers kept daily field notes which captured unplanned conversations, spontaneous observations, and additional reflections and notes. All the qualitative data were uploaded into NVivo, and guided by Newman's (2012) three-step framework for undertaking thematic analysis. The observational data was uploaded into SPSS allowing us to identify broad and

detailed trends in the data and to find out if there were systematic patterns of difference by district, school, subject, teacher and student characteristics.

In the next section we begin by presenting data which provides insights into what teachers regarded as their role as ABL teachers; their perceptions around the central principles of ABL; and their perceptions of differences between ABL and non-ABL classrooms. We then focus on data gathered through observations, turning attention to teacher practices, how they interacted with students, interactions between students in the classrooms, and the use of classroom space and resources.

4. Teaching and learning in ABL classrooms

During interviews, teachers' reflections on the underpinning principles of ABL highlighted many common threads. They all agreed that ABL was about **promoting self-directed learning** and ensuring that learning was accessible for all children and connected to their lives beyond school. As one of the teachers mentioned:

Self-learning is the main principle. ABL makes students use all their five senses to learn. The student identifies his logo from the ladder and picks up his card from the tray and works in his group....ABL is student-centered approach, which has helped students engage in active learning. (RS6_4st²)

The need to appeal to children's preferred learning styles in order to **make learning accessible for all** was also highlighted:

All students should learn the concepts – even if it is in a slow pace, they should learn. Some children will learn by games, some students learn through stories, some students learn by role-playing. There is a card for drawing and painting – that card brings children's creativity. (US2_4st)

The central principle (of ABL) is (to) help students bring out their innate skills and talents. In book based method it was always about one lesson and there were limited opportunities for students to show their talents. But ABL method enables us to provide individual attentions to students. For example one student might be very good

² RS stands for Rural school and US stands for Urban school, alongside the number of the school, among our 10 sample schools. Followed by the class for which the teacher is in-charge of.

in drawing, the other one might be good in project work, some student will be very good in studies. ABL helps us to identify each student's skills. Some students are very skilled in stories, puppets. (US4_1st&2st)

This focus on individual needs was also reflected when teachers discussed their efforts at teaching children with disabilities. Given that 9 of the 10 sample schools did have at least one child with disabilities (the highest being 6 in one school), teachers provided descriptive accounts of how they were accommodating the perceived learning needs of these students. Teacher at US2_4st noted that *'Differently abled students are motivated by game cards, drawing and painting cards'*, which she uses in her class. The diverse variety of learning materials in ABL was identified as a key strength, as teachers felt that these helped sustain children's interest.

If we are teaching maths numbers, we bring in some small stones and start counting with students. Then we ask them to pick up one or two stones. This is how we teach in ABL. It is mostly practical learning. This is also engaging for the child (RS6_1st&2st)

Finally, **connecting classroom-based learning to the wider world** was seen as crucial. A teacher for Class 3rd stated, *'when I teach I want to give my students some general knowledge information also. Teaching should not be just about the lesson'* (RS6_3st). Another grade 3rd teacher (in US4) stressed that children should learn *'how to implement classroom learning in their lives, help take care of their health and hygiene, and develop environmental knowledge'*. When asked to give an example of how she promoted this, the teacher elaborated:

(We teach students) how to live a civilized life. Every morning we do health wheel, we look in to their health and hygiene, like nails, hair. If we find any students who are not hygienic, we talk to them. We do it in private; our intention is not to insult students. We talk about health and hygiene - nails can spread germs. Then students do self-attendance register. Then we do weather chart. Then there is time for meditation to strengthen their involvement. Then they get into groups for studying (US4_3st).

During school visits, the use of health chart, weather chart and filling in the self-attendance register was a regularly observed practice. This idea of learning about things that are relevant to their lives was also supported by the teacher in

RS10_class 2st, *'they should learn everything that's happening around them, not just restricted to the syllabus. They should also learn all the physics and extra-curricular activities necessary for their life'*. Interestingly, the class 4th teacher in RS10 made a direct association between ABL and how it *'helps in nurturing self-reliance and self-confidence among the students'*. While this statement was not elaborated upon by the teacher, it raises interesting issues around the assumptions teachers were making about the nature of classrooms and impact on children's learning and wellbeing.

Another powerful narrative emerging from the teachers' accounts was that ABL classrooms are spaces where **learning is not a burden**, and the relationship between teachers and students is friendly and nurturing. Teacher for class 3st_RS10 simply stated, *'(ABL) is about learning without any fear, and their (student) own involvement is the main principle of ABL'*. Another Grade 3 teacher in RS9 described that learning in her ABL classroom is *'taking place in a happy environment, there is no punishment'*. The use of 'learning without fear' in its many variants was noted in all the interviews.

Interestingly, 42 of the 45 teachers interviewed had previously taught in non-ABL classrooms, hence there was a heightened tendency to compare and contrast between the two settings. More traditional/non-ABL classrooms were described as spaces where the distance between teachers and students was dominating, both in terms of the physical space (*'teacher stands in the front'*) and in terms of relationships between students and teachers (*'teachers are unapproachable', 'there is not much interaction', 'teacher relies solely on the textbook'*). Non-ABL classes were described as monotonous and unsupportive of individualised learning, with an overwhelming emphasis on memorisation and curriculum completion. These settings were seen as distant, unfriendly places, where teachers *'relied on using textbooks and asking standard questions and answers and do not promote much interaction'* (RS10). In stark contrast ABL classrooms were seen as more positive and nurturing.

I think studies should not be a burden for students. Students should enjoy and learn. We should not give them a lot of homework or a lot of writing to do. Through ABL they learn according to their interest. They either finish one or two cards or a milestone. There is no compulsion that they have to finish so much work in a day. I think they enjoy learning. (RS10_2st)

This focus on **enjoying learning and the lack of fear** were central to teachers. It is also interesting that teachers were very conscious of how the layout of the classroom space had an impact on pedagogic on-goings. *'we sit with them...earlier, we used to sit up and students sit down. Now, we sit with them together and teach them'* (RS10_3st); *'...in ABL we get more close to the children, sit along with them in-between their groups and mingle with them'* (RS7_1st). This reconfiguration of physical space where the teacher was no longer standing in front of a blackboard or sitting at a desk in front of the children, but was sitting *with* the children, according to all teachers, had resulted in the fostering of much more positive relations between teachers and students. A Grade 4th teacher in US3 stated, *'in non-ABL schools students will have fear towards teachers. Sometimes students get beaten by their teachers. In this (ABL) method teachers sit on the mat along with students, they, they talk etc. there are more opportunities for students and teachers to get involved well'*. Most of the teachers talked about how students in their classes were more willing to engage on a personal basis, such as sharing personal problems or enquiring about their teacher's health, if the teacher has been absent from school. As a teacher noted, *'...We are able to show love and affection to the children and they feel better this way. We are considered next to their mother'* (RS7_4st).

These teachers noted that the fostering of a positive climate had significant implications for learning in ABL settings, as students felt less inhibited to take initiative and ask teachers if they had difficulty in understanding something. They felt that students were more willing to clarify their doubts when struggling with a task *'...they do not fear the teachers; they come to us to clear their doubts'* (RS7_4st) *'...students feel free to come and talk to the teacher and clear their doubts'* (US2_1st); *'Now there is no distance among teachers and students. When we sit along with student teach them, there is no fear in them. There is good relationship with students...they get all their doubts clarified'* (RS8_3st); *'students relate to us like friends, they do not fear us. They approach us for doubts and they are open about their feelings. There is no fear of the teacher now, which is good'* (US2_2st).

Here we suggest that lack of fear was significant in developing an open learning environment and fostered what we term **'pedagogic bonding'**. For teachers, a key feature in successfully supporting student learning in ABL classrooms was their own reconfigured role and position. Two teachers, for example, positioned

themselves as, *'just another student sitting with them'*. Nine other teachers spoke of their relationships with their students in familial terms, such *'mother'*, *'like their sister'*. Thus, such pedagogic bonding was fostered through a reconfiguration of physical space, supported by personal disclosures, wherein students felt able to communicate personal issues to their teacher, and these in turn enabled students to disclose instances where they were not learning, and were willing to *'clarify their doubts'*. Teachers unequivocally expressed a view that this dismantling of traditional boundaries of power and space between teachers and students was central to ABL.

The reconfiguration of space afforded by the mat system brought something of a collapse of the physical distance between teacher and students typical of traditional classroom arrangements. This, according to the teachers, facilitated a deepening and a personalising of relationships with students. As students and teachers developed trust and greater willingness to engage on a more personal basis, students became less inhibited in sharing problems related to their learning and this led not only to fruitful pedagogic relationships but also to fruitful pedagogic exchanges. This was clearly an important benefit of ABL from teachers' perspectives.

4.1 Observed practices: learning, a missing dimension?

While teachers articulated strong belief in ABL as being supportive of individualised self-directed learning, it is useful to contrast this perspectival data with directly observed practices. Records of classroom observations show that teachers spent 36% of classroom time engaged individually with students and a further 20% engaged privately with groups. However, while almost all of their interactions tended to be private with individual students or small groups, teachers were understandably *'spread thin'*, interacting with different individuals and different groups as a lesson progressed. In contrast, our Student Record data showed that an individual student experienced less than 5% of their classroom time interacting individually with the teacher. Therefore, at any one time during a lesson only a small number of students benefitted from the individual attention of their teacher and from the relationship-building and pedagogic bonding that teachers narrated as central to such interactions in their interviews.

Interestingly, over half the time (54%) teachers were observed talking with students was not directly related to learning. The main focus of teachers' interactions with students tended to be concerned with class management and task

supervision, such as making sure students had the right activity cards, arranging materials etc. This pattern was corroborated with observations noted in the Teacher Record wherein low proportions of observations were devoted to teacher questioning (2.5%) and reacting to student contributions (4%), rather there was a predominance of task supervision or class management (54%). Clearly the amount of time teachers spent managing, was the time not available for interactions more directly related to learning, such as ‘questioning’ (2.5% of all teachers’ classroom interactions) and ‘reacting to students contributions or ideas’ during discussions and question-answer phases of lessons’ (4% of all teachers’ classroom interactions), all of which support the development of critical thinking. Such interactions were negligible in the ABL classrooms we observed. This observation resonates with the findings of the work by Pathmarajh (2014) exploring perceptions and practices in relation to learner-centred pedagogy among teacher educators. She noted that a common misconception about ABL among teachers and student teachers was the equation of ABL with self-learning, or a form of primarily supervising children to work and learn.

Interestingly, the observational data highlighted that students in these classrooms were well-attuned to working alone on task and did so mainly without, and in some cases despite distraction. So even though students spent 54% of class time not interacting with teachers/ peers, it was still time spent on academic- and curriculum-related tasks. Students spent 18% of their time distracted from their task or waiting to interact with their teacher (10%). Nonetheless, these patterns of activity and engagement are reflective of the reasonably ordered, task-oriented classroom lessons generally observed. However, it was not clear if students were learning or simply involved in task completion.

It would therefore be legitimate to conclude that while these were busy, interactive lessons with varying levels of participation and with students engaged in task completion, it is unclear if the crucial link with learning was being adequately nurtured. This is a pertinent question when one takes into account the fact that state level assessment scores have not been wholly positive over the last few years. ASER data shows that current levels of learning in ABL classrooms, measured in terms of simple numeracy and literacy tasks remain below the national average for primary school going children (Aslam et. al., 2016).

Based on her work in Namibia assessing the extent to which teachers were implementing learner-centred approaches as outlined in various reform

documents, O'Sullivan (2004) noted that while teachers were aware of terminology, they were not implementing these approaches in conformity with the policy documents. She emphasised that 'classroom change processes should generate not only participation of children, but participation that is linked to a focus on learning'. Thus, O'Sullivan argued that it would be worthwhile to reconceptualise '*learner-centered*' approaches as '*learning centered*', where there is a dual focus on individual learners and the learning process. In doing so, the assertion is that it is not enough to merely engage students, but to engage them in processes that strengthen their conceptual understanding of subject knowledge. These inferences resonate strongly with our findings in ABL classrooms, where teachers have made efforts at deepening and personalising relationships with students, without necessarily strengthening fruitful pedagogic exchanges which facilitate student learning.

It is fair to note that ABL classrooms look very different from traditional classrooms in India. They are colourful with lots of paper, visual resources hanging from the walls, colour pencils, children's art work, learning cards, plastic trays to place them in, learning ladders for different subject areas, audio-visual equipment for different activities, display charts etc. Hence they are **resource intensive**. Additionally, ABL makes certain assumptions about space - the availability of rooms which are big enough to accommodate a large number of children working in small groups and moving around freely to access the required resources.

For many teachers we interviewed issues related to poor infrastructure in terms of classroom space and the lack of ABL resources were important constraints. RS9, a government aided school was occupying the premises of a community building, which had no permanent walls. At the start of the school day teachers pulled out make-shift dividers to demarcate boundaries for temporary classrooms. These dividers were not sound proof and the noise levels in the hall were extremely high throughout the day. All six teachers interviewed in this school were deeply concerned about the inappropriateness of their current space.

Having appropriate levels of resourcing of crucial materials, such as learning cards, was another particular concern for some teachers and was raised by all teachers in school RS8. Teachers noted how not having enough learning cards resulted in occasional fights among children who complained about not having

their own card to work with. Teachers in both rural and urban settings (RS10, RS9, US2, US3) noted insufficient number of cards in their classrooms, or the fact that the cards were torn, old and needed to be replaced. The insufficiency of ABL materials was also identified as the most challenging feature by the head teachers we interviewed, who felt that they were not in a position to remedy these issues. The head teacher at US1 stated:

We did not receive enough cards. Cards are not sufficient...we have English medium in our school. But we do not have cards for English medium (the few cards they have are in Tamil). We have cards only for 1st and 2st standard. It's been so many years, still we have not received cards. On what basis can we teach children?

While having some teaching and learning resources is central, it is useful to note that in relation to ABL, teachers and head teachers seemed completely reliant on these for their teaching. In many instances, it was clear that teachers felt that the **pedagogy was embodied in the materials**, that is, the materials were not there to facilitate their interactions with the students and scaffold learning; rather the materials in themselves embodied the pedagogy. In her study of ABL schools in Tamil Nadu, Pathmarajah (2014) drew somewhat similar inferences. She noted how in her discussions with teachers and student teachers it became clear that they had a very naïve understanding of the central notion of self-learning, wherein they perceived their own role as supervising children to work and learn. Based on reflections gathered from our data, it was also clear that teachers seemed to assume that by using the ABL materials children are able to engage in 'self-learning'. Prawat (1992) refers to such interpretations, as 'naïve constructivism' or the 'tendency to equate activity with learning' (p. 357). Further strength to this argument is offered from the classrooms observations where it was noted that teachers spent a disproportionate part of their time in task supervision, with little time for probing and interacting. Even though there is growing evidence to suggest that it is only through the incorporation of skilful questions, and exploring that teachers are capable of successfully supporting learning in their classrooms (Hardman, 2015), but these aspects of teaching were negligible in the ABL classrooms observed.

A number of teachers reported that children in grades 1 and 2 found it difficult to comprehend the ladder system and needed a lot of support to help identify which group they should be in or the activity they should be engaged in.

To help them understand the ladder system is challenging...for example, if we ask them to take a card and go to their ladder, they don't understand. By the time they are in 3rd or 4th grade, they understand the concept and it becomes easy for them. Grades 1 and 2 will need my help throughout.

(RS6_1st&2st)

For my students I am still helping them with picking their cards, as there is not much practice for them. (RS8_1st)

Another interesting contradiction that emerged in our data was that while during interviews, all teachers reported encouraging children to work at their pace, learn in small groups etc., our observational data illustrated that teachers spent nearly half their time in class at locations away from the mats. In particular, teachers in larger classes spent nearly all their time at the front or by the blackboard as one would expect in a more traditional, non-ABL classroom. These observations are consistent with concerns teachers highlighted in relation to discipline problems during interviews. Teachers working in large classrooms, more often, noted that they spent a considerable time disciplining children, which required them to leave their mats in order to re-establish desired standards of behaviour. Many teachers also noted how they faced difficulties in managing the behaviour of students located at mats designated for individual or peer-supported task work. They felt they needed to leave their mats in order to deal with behavioural issues arising with students at other mats.

During group activities they keep talking among themselves. We have to control that. I don't know if they are discussing about cards or talking something else. I have to keep rotating between groups. It would be good if the noise level is reduced in group activities....
Because they keep talking. (RS8_4st)

Student discipline emerged as a concern for teachers not just in relation to class size and mat configuration, but interestingly in relation to the repositioning of the teacher's role. While all teachers reported how they valued the cultivation of less formal, more personal relationships with students, few debated how this had

become a source of tension. Even though teachers extended support to underlying principles such as learning without fear, two teachers, in particular, reflected on how they felt that their traditional authority base had been significantly weakened in the new more fluid spatial configurations introduced by the ABL reform. This, one of the teacher's argued, led to a loss of classroom control. The teacher from RS7_1st stated, *'Teacher-students relationship is very easy. They do not fear. But then they do not have respect for teacher either, but then that is a different story'*. Interestingly, this teacher began the interview by highlighting the principles of ABL as supporting learner independence and creativity, and how ABL is very good as *'students do not fear teachers, they come to us to clear their doubts'*. When invited to reflect on things that she would like to change in an ABL classroom, after much thought she noted the following, *'...Grouping students is a barrier...there is no class control...they do not have fear of teachers...It would be good if we do not group students...we are satisfied to teach students. But there is no control in class.....'*

While student indiscipline was raised as an issue in relation to grouping, some more fundamental concerns around the use and effectiveness of grouping, which is central to ABL pedagogy, were also raised by teachers. Evident in the teachers' interviews were not only issues around student indiscipline, as noted above, but also student's inability to comprehend the ladder system. Teachers, especially those teaching classes 1 and 2 were particularly mindful of the amount of time they had to devote to make sure that their students knew what level/group of cards they should be working with.

Group system is a confusion. We use card system in teaching and when we ask the students to group the cards, they find it difficult to do the grouping. Students always come to us for everything. Only smart children can complete it other students will come to us for help. Until group 6 it is the same. (RS7 _2st)

For 1st standard students I am still helping them with picking their cards, there is not much practice for them. (RS8 _1st)

To help them understand the ladder system is challenging...for example, if we ask them to take a card and go to their ladder, they don't understand. By the time they are in 3st or 4st grade, they understand the concept and it becomes easy for them. Grades 1 and 2 will need my help throughout. (RS6 _1st&2st)

Similar observations were made by Hariharan (2011) who noted that resources in ABL classrooms were in many instances a hindrance to student learning. In particular, during classroom observations it was commonly noted that young children placed the cards in the wrong places and a significant amount of classroom time was wasted looking for the appropriate level cards. In other instances time was also wasted when two children reached out for the same card and one had to wait for the other to complete usage.

Finally, a recurring theme in many interviews was the tension articulated by teachers between whole class teaching and children working in small groups. Eight teachers, primarily in classrooms with high student numbers, expressed apprehensions about the regimented position adopted in ABL discouraging the use of whole class teaching. These teachers pointed out that there were many instances when explaining a key concept to all students as a whole class was a better strategy rather than devoting very little time to all children individually or in small groups on the same concept, but they were unable to do so.

ABL is very good, cards are very good, the content and the ideas are very useful. But the concepts are split up, so the subject seems to be dragged on. Also if the content of the lesson is taught in a collective method it will reach the children at the same time... we can travel to the next lesson together. Otherwise some children have to lag behind. If there is any option like we can ...instruct them together it will be perfect. It would be good if there were a balance between ABL and non-ABL method. (RS7_3st)

Teachers for Class1&2 in RS9 raised issues related to group work and proposed the need to explore alternatives.

Sitting in groups is a challenge. Some groups are overcrowded. Some groups will have only two students. We have to always keep moving for cards. If we were teaching one card for all students, it would reach every one. Now when I attend to one student the other students' learning is interrupted.I suggest first if we take one card and teach the card to all students and then divide them in groups. When a student goes into a group with a new card it is difficult for him. Students from each group will be out 'teacher what is this...', 'teacher how to do this', and I will be sitting down on the floor and each time I have to get up and reach to the student which is difficult. Otherwise it is a very good method (RS9_1&2).

Similar views were expressed by the Class1 teacher of RS7:

When I am with one group, students from other groups will be trying to talk to me. Bright students finish their work fast. There are some students who wait for their friends to finish before they come to the teacher. Whatever content is there in the book is what is there in cards, might as well we can follow the book. It will be easier if there are no groups. Most teachers struggle to sit on the floor. This generation is full of sick people, and teachers do not feel healthy enough to sit on the floor.

Even though tensions such as the ones articulated above were evident in teacher accounts, it cannot be overlooked that teachers also provided overwhelmingly positive accounts around the principles of ABL. This gives rise to questions of authenticity-were teachers primarily saying things that they believed the researchers wished to hear? While there might be an element of this, what is clear is that there were no major differences in teachers' accounts based on the grades they taught, the school they worked in, or differences arising from rural or urban location. It must however be recognised that all teachers were attending regular training sessions and were familiar with the discourse promoted around ABL. This is well captured in one of the interviews. When the teacher was asked, 'what do you think are the central principles of ABL?' she began her response by talking about what she had been told in training:

In training we were told that this will be useful for the students for effective learning, a child can continue in a set pattern of studies. When a child gets absent unfortunately he need not miss out on the portions because even when he returns after 10 days, he will continue from the same level in the ladder in which he had stopped. In this way the students are highly benefitted. Their studies do not get affected. (RS7_3st)

When queried if she had seen this with children in her class, the teacher said she was not sure.

5. Concluding reflections

It is possible that during interviews teacher narratives were overladen with 'official talk', things that they had been told in training programmes and hence were easily reproduced for the benefit of others. However, it is also possible that these teachers did believe in what they were saying – they did truly think that their ABL settings were better places for supporting the learning and nurturing children with different abilities. This was truly the case when they contrasted these settings with the traditional non-ABL classroom settings which they had

participated in previously. Across the board, we found teachers who, even those working in not very conducive environments, were very positive about what they believed ABL could achieve in relation to student learning.

Clearly evident in teacher narratives were various concerns and dilemmas. This was most visible when during interviews teachers were invited to reflect on things that they might wish to change in their ABL classroom. Here teachers overwhelmingly noted the many dilemmas, trade-offs and constraints in complying with the ABL principles of tailored one-to-one or small group support in large and under-resourced classrooms. However, it was also in the face of such dilemmas and constraints that teachers articulated insightful and constructive ideas for refining and enhancing the ABL method. During discussions, teachers suggested building in whole class teaching phases to ABL lessons in order to teach one card at a time to all students before dividing students into groups. This way they could avoid time-consuming repetition of guidance and task instructions and free up time for more productive guidance and support. Teachers were aware of the significant amount of time they spent on task management that is, helping students find the right cards, brief instructions to a number of students and making sure that children were doing things properly. Other teachers reported that incorporating whole class teaching phases would support students to move more closely together through the different stages of a syllabus and avoid some students lagging too far behind. Encouragingly, these recommendations can be seen as a sophisticated and constructive response to a common and enduring pedagogic dilemma about what balance is optimal between collective and individualised teaching approaches.

Our findings suggest that this balance remains a problematic aspect of the ABL method and it would be useful to review the need for, and introduce, whole class phases of teaching for particular purposes. This might suggest the need for developing focused professional development support exploring with teachers what patterns of interaction might be optimal for supporting learning in different class sizes and in relation to different curriculum purposes. There is a need to understand and identify how teachers might harness opportunities for whole class interactions with students in classes of different size. Also there is a need to explore what kinds of sustained one-to-one interactions will provide most useful formative learning support for students.

As noted previously, in the initial phases of the ABL reform teachers were central in shaping the programme, however current mechanisms do not seem to support such dialogue. The irony of this scenario is that even though teacher agency is highly restricted, the ABL programme intends to increase children's ownership of their learning. The teachers we interviewed did not feel that there existed any

system of feedback loop or a system of dialogue with programme developers. It is worth noting that in a scenario where teachers had interesting reflections on ABL, anchored in the realities of their classrooms, their own agency was being undermined. This is in complete contradiction to how the ABL programme in its genesis was shaped by teachers themselves.

The many problems and dilemmas highlighted in this paper are not new in the literature on child-centred approaches or learner centred pedagogy. Smail (2013) discussing how teachers have been positioned within the child-centred pedagogy discourse in India notes a similar lack of teacher ownership. She argues that a range of different child-centred approaches have been blanketed over the current education system as a prescription with a promise, but teachers have been kept away from influencing and feeding back into these processes. While we agree with this analysis, what makes it particularly interesting in relation to ABL is that the programme per se holds much promise in terms of the central tenets of culture, being perceived as a home grown intervention; however where it falters is in its inability to respond to the realities that surround the functioning of human capacity.

Also noteworthy is the fact that Aslam, *et. al.*, (2016) based on analysis of the Annual Survey of Education report (ASER) data which tests students on reading and mathematics note that there were no observable gains in children's scores attending ABL schools in Tamil Nadu, when compared to those of students in non-ABL schools in the neighbouring state of Karnataka. This does not seem surprising taking into account the challenges noted by teachers in practising ABL when they were overwhelmed with student numbers, lack of critical resources such as cards and the absence of sustained meaningful interactions to support children's learning, as discussed earlier in this paper.

However, while a clear demonstrable improvement in student performance on literacy and numeracy is not evident, the impact on various non-cognitive variables presents a different picture. Based on data gathered through questionnaires from 500+ children in ABL schools in Tamil Nadu and non-ABL schools in Puducherry, Aslam *et al.*, (2016) found children in ABL schools to be less reliant on their teachers, more likely to seek help from peers and had more faith in their abilities to solve difficult questions themselves as compared to children in non-ABL settings. Also children in ABL schools were more confident

learners, with more positive inclination in their abilities to cope with exams and schoolwork. These findings resonate strongly with teachers perceptions as voiced in the interviews. As noted earlier in this paper, teachers were convinced about the benefits of ABL in creating an atmosphere of emotional and pedagogic bonding wherein children were seen to be more engaged in their learning and did so without fear. Also during classroom observation it was evident that children were most of the time on task in these busy classrooms.

Therefore what emerges is a complex and multifaceted picture of the impact of ABL. While on one level its success may seem limited given the lack of learning gains in literacy and numeracy for children, on the other hand the significant positive impact on classroom environment and students perceptions of themselves as learners are worth noting. Majority of teachers, even those working in challenging circumstances, were deeply engaged in making learning a positive and enabling experience for their children. Educational reforms, especially those aimed at making fundamental changes in pedagogical practices require time, continuous critical reflection and adaptations. Making classrooms learner and learning friendly are both valued goals and ABL has the potential to deliver such reforms.

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