

Site Visit – Prakruti Badi at Timbaktu Collective

- Sanjeev Ranganathan, Asha-Bangalore

I visited Prakruti Badi at Timbaktu from 11th – 14th Dec. Asha Bangalore has been supporting a SAC (Support-a-child) program since last May and I wanted to spend some time with the kids as well as understand the functioning and challenges of the school and residential home.

I spent the first day going over admin aspects of the school with Vaneeta (coordinator at PB) including the finances of the school as a whole. There are 55 residential and 28 day scholars at PB. Last year, the SAC program raised 12 lakhs for the residential kids, Timbaktu also raised almost 10 lakhs for the day scholars, however, they had a deficit of 4 lakhs last year. This deficit coupled with the rising food costs has made the finances this year very difficult. More details at the end of the report...

Day 2: Interacting with the kids. I spent the next day interacting with the kids during school.



I attended the assembly which was quite interesting. It is different from assemblies in school where there is some poetry/slokas, a pledge, news, etc. It's time for a discussion among everyone (students and teachers) of anything they may consider important. A week back, in an assembly a child had brought forward a question of what falls under rules, personal responsibility, etc. This led to a more involved discussion about various activities that children and teachers undertake at PB and what each of them classify as. In addition, they also came up with things they would like to see improved at the school and the discussion led to how such ideas can be implemented. The two days I attended the assembly the discussion was wrapping up. Committees of children were formed towards some of the issues identified. There were announcements at the end of the assembly e.g. Anna an intern wanted the children attending the arts classes to patiently clean the brushes as the paint was drying up on them. When the children were participating e.g. in the discussions they were quite engaged and serious.

The broad idea of the assembly is to involve the children in critical thinking and also involving the children in the decision making as it seems impossible to run a child centric school without the children taking up some responsibility in taking care of the small things.

After the assembly I went with Vaneeta to her classes. This gave me an opportunity to interact with the children in different grades from 5th to 8th. Vaneeta was gracious and let me take over her classes. I had brought a game, quarto, for the kids. It's a game that can be explained and learnt

quickly and played by a very wide age group of children. At the same time the multiple characteristics require thinking in unconventional ways.

Vaneeta and I played the first demo game to help gather the rules and then let the children take over.



I find it interesting to see how the games develop (and the rules 😊) when things are left in open loop. The elder children stuck to the format initially explained at the end of the class and it a few of them were also latching on to strategies.

I also modified the end game rules so the game could be played till the last piece was placed on the board rather than ending as soon as someone makes the first match, this helped keep the interest in the game till the end. One nice thing was that children didn't care much about winning or losing and were happy that they got some matches in color, shape, size or structure.

Since the game can only be played by two people I also took along a bunch of metal disentanglement puzzles. I find puzzles and games a great ice-breaker with kids allowing me to interact with them skirting the language issues, but at the same time allowing me to learn about them.



It was nice to see that the children were eager to try out something different and take up the puzzles. I too had not worked on these puzzles for a while and had a fun time solving them. It was nice to see when it 'clicked' and they finally figured out how to solve the puzzles. It was also nice that Vaneeta and Anna were also trying to solve the puzzles along with the kids and were persistent on trying to solve it.

However, a fair number of children were giving up a little too early and were eager to master the solving technique by asking me to repeatedly solve the puzzles.



There is a break after the first two classes. There is a children's playground where the children were playing during the break.



The children are cheerful and easy to engage with activities. You cannot differentiate between the residential children and the day scholars. Many of the residential children come from very difficult backgrounds, but the children seem happy and not carrying any emotional baggage.

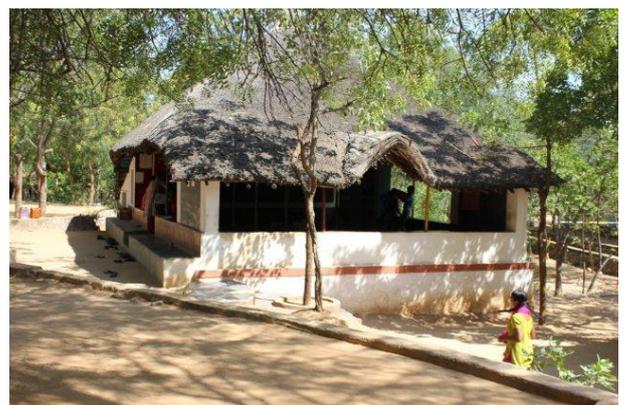
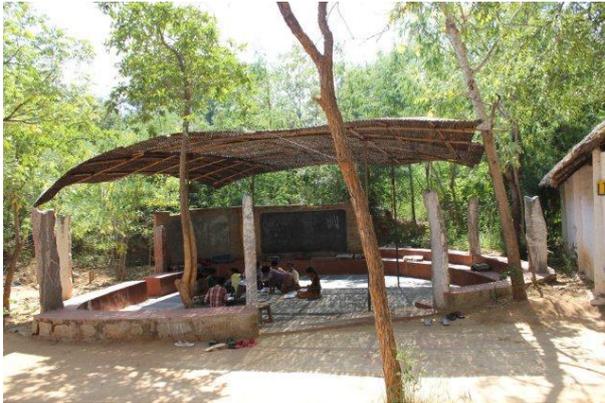
The children had recently built an obstacle course using waste materials from the school. Anna had worked with the kids on this. It was really cool (see below). The idea is to enter from one end and



exit at the other without touching the ground involving balancing on tyres, and bamboo poles,

swinging from ropes and jumping into nets, etc. The structures were not too high so it was safe and what was built could take my weight (no I didn't finish the course).

Structurally, most classrooms are open and roomy. A couple of the structures have a solid/tiled roof, others have thatch roof. The school will need to put in some investment to meet RTE regulations of 'permanent' buildings of tiled roofing. There is ample space for the school strength and ample space in the classrooms. I really liked the fifth grade open classroom which was cool during the day, but something they will officially not be able to use as classroom in time.



The main hall (last pic above) where they meet for assembly also has a store room for the school. It held the sports material, arts and crafts materials, as well as unused lab material. There is tile on the roof of the store room to keep dampness out during rains.



The dorms are simple with segregated sections for boys and girls there is a lot of space around the rooms outside and this is used for grades 1-3 as classrooms.

The artwork on the walls all across Timbaktu has been done by the kids as part of arts and crafts.

In the afternoon the children have gardening, games/sports, music classes.

Day 3...Dwelling deeper...

Having interacted with the children the previous day it seemed plausible that they would now be comfortable enough to allow me to attend classes without wondering who I was. I decided to sit in the Math classes as language is not as much of a barrier.

I attended the VIII class math class where they were solving linear equations in two variables by getting the corresponding lines in graph paper and finding the intersection of the two.

It is interesting that though the girl:boy ratio in the school as a whole is 1:1 there are some grades with predominantly boys and some with girls. The VIII grade for example only has girls and the Vth has only one girl and 7 boys. The strength of the classes is small and easily manageable, with an average of 8 children per grade, though the younger grades (I-III) having a few more kids.

The theory behind what they were doing had apparently already been covered in earlier classes and the girls were trying to solve a few problems in this class. There were a couple of girls who had

joined only a couple of weeks back and were trying to figure their way around. There were a couple of girls who seemed to be clear of the technique they were following. They were writing y in terms of x and substituting values of x to get the value of y writing it as a set (x,y) and then plotting these for the two equations. The process was taking quite some time, they were trying to get six points for a line and after 10 mins one of the girls has got four points correctly, but a couple of points and was quite confused. She attempted to draw two lines for the same curve.



At this point, I asked the teacher if the girls understood what a linear equation was and how a straight line represented it. I asked the girls (with translation from teacher) what a straight line was. The girls answered, well, a line is a line 😊. Ok, fair enough I wasn't looking for a bookish definition. I asked them how many points they actually required to draw a straight line. One girl promptly declared 6 and others agreed.

I drew three houses A, B, C and asked the shortest way of getting from A to C, a girl drew a straight line not going through B. Then they enquired about B. I asked for the shortest way from A2B and B2C, they drew two more lines. I erased the houses and replaced them with points and they were still ok with these lines. I asked how they were able to draw the line with only two points if 6 were required...they pondered.

Unfortunately, with math it is easy for a student to interpret a technique for understanding, but this makes life difficult when you make a mistake with using the technique as you are not aware of the thought behind the technique.

Actually, the entire purpose of the graphical method of solving an equation is to allow a mental picture of a linear equation e.g. what would $x-y=2$ look like on a graph and further what it means to have a solution of two linear equations.

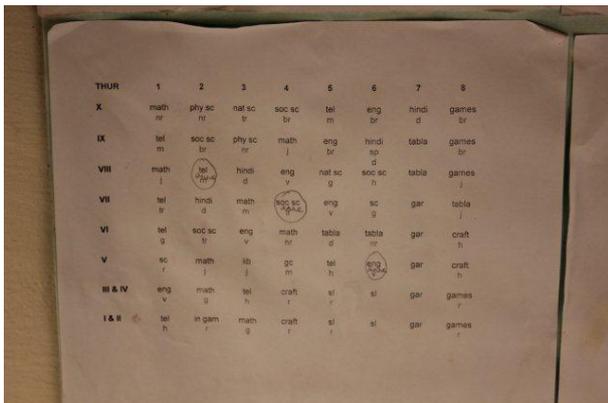
I suggested that if only two points were required and minimal calculation was involved it would reduce errors. I suggested using the x and y intercepts (making x zero and use the value of y and vice versa) as the two points. We tried a problem and they understood the method and were able to solve a problem in the remaining time.

I had a more detailed chat with the teacher in the next class as the Vth graders were allowed to work on whatever they wanted to and they asked for my puzzles and game. I discussed with the teacher that x , y intercept is also only a 'technique' and has its limitations (zero/inf slope). However, at least the process would go faster and they may have a chance to finish a few problems and get the hang of how curves should look given an equation. Of course, it is still possible that children make a mistake, but they could cross check if the solution point fits both equations.

The next class was with the VII graders. Some children were quite keen on playing with the puzzles, but I gently yet firmly indicated that I was planning to sit in the class. In this class the children were solving single variable equations. Some of the children seemed to have already finished the worksheet and were sitting around and the others were really labouring with their problems...given

the large difference in learning capacity of the children the teachers should figure out a way to engage all the children. I gave a verbal problem for the kids sitting around, unknown number of cows gave one to M divided the rest in two and gave one half to K and was left with 4. I wanted the children who were done to give me the equation for the same.

A boy in the class solved it intuitively and since the problem was small this was fine. But, by this time all the children were excited and wanted to participate in what was going on. With the teachers permission I gave an easier problem - unknown oranges, removed 2 left with 5. This the kids latched on to and I asked them to write an equation and tell a story about the same. Again there were some kids who finished quickly and I asked them to continue making more stories on equations while everyone finished.



The kids seemed generally comfortable to come forward and tell their stories and write the equation on the board. There are a couple of children who required consulting their notes for the equation, but most children had enough short term retention to have created a story and problem and retain it till they told these stories. A couple of opportunities to clarify children's understanding of what they were doing - one child started with 'I have 12 apples' and was missing the

concept of a mystery with a variable, one child had some difficulty understanding whether $x+2$ translates into taking or giving up a fruit. We were running out of time, but I wanted to demonstrate the power of writing equations, so I modified my original story – unknown cows, gave one to M, gave half of what was left to K, gave half of what was left to J, gave half of what was left to N and still had one left. Guesswork was not working out and just as the bell rang a girl said she figured it out and wrote $(x-1)*1/2*1/2*1/2=1$ on the board solving x as 9. It was impressive and left me hopeful that it is possible for the children to connect the dots and understand what they were doing.

I then spent some time in the math classes of the young kids 1-3 grades. They were doing worksheets, some with a teacher, some on their own. There were some children who were much older in the group. These children had not encountered any form of schooling before coming to Prakruti Badi and are being helped to master the skills rather than be put in an 'age appropriate' grade where they would be lost. The seemed comfortable with the younger children and were busy with their worksheets.



In math there is a fair bit of emphasis on doing worksheets. Though it is true that rigor is necessary to master math, however, repetition with worksheets is not rigor if it comes without understanding the concepts. Given that the children are quite excited when they are involved in classes with activities and not preparing for a specific examination (where substituting a formula may be enough) these classes should be taken very differently.

The day incorporates many activities including some of games, gardening, music, art; but I felt 40 mins a class does not allow enough progress in a class. I also saw only one child working on a worksheet before the teacher got to class, so if the teacher arrives 5-10 mins late e.g. from back to back classes, the class is even shorter. Perhaps, a creative method in which alternative classes are longer can be used. The longer ones to work on concepts and shorter ones for children to independently solve worksheets. The teachers seem to be doing something in almost all periods of a day. It would help, if the children are able to do independent work and give the teacher time to prepare for his/her class rather than just land up.

Discussions with management at PB

I had many discussions with Vaneeta through the time I was there. I also had a brief discussion with Bablu and Mary.

PB is a good home for the residential children (children at risk) and the children are happy and comfortable with their teachers. The children are in learning appropriate levels rather than age appropriate levels. The number of children in a class is small (avg 8). There are a lot of activities including art, crafts, games, gardening.

Given these Vaneeta and I still wondered if PB is in fact an 'alternative school'. Even with children in learning appropriate levels there is still a sizeable disparity in learning abilities within a class. The teachers don't seem trained to be able to cope with this disparity even though the strength of the class is only around 8. The textbook is still king and all children are trying to learn at the same level. The children though comfortable with the teachers are not questioning what is being taught. The activities though many are not integrated enough to help children apply bookish knowledge to real life. I spoke of my observations regarding Math and Vaneeta acknowledged that Math was not in isolation and the teachers for most part rely on rote for academics.

Vaneeta spoke about her background of studying and teaching in an alternative school and her idea of an Alt School being one that gets children to participate and think in all activities. She talked about the assembly changes from a presentation style to a discussion based style towards this end. She was initially sitting in the classes of the teachers when she initially joined Timbaktu last Sep. The idea was to observe and provide inputs to the teachers to improve the classroom setting, unfortunately given the 10 grades and 9 teachers she soon started taking classes. She feels it is important for her to interact with the children as it gives her a handle of how things are. She also feels that as a teacher she is able to get the children to open up, think and be creative in her classes. We talked about her dilemma of working with younger and younger children to strengthen their basics when they go to higher classes, but the fact that there are already children in higher classes who need

support. She also mentioned that it helps when volunteers like Ann visit to do something concrete with the kids e.g. the obstacle course.

She felt that there is scope to make PB a good alternative school, but its patient work over time. There are also many challenges they face to change this situation. The limited strength of teachers requires the teachers to take almost 7/8 periods in a day and there is no time for planning/training. If even one of the teachers is on leave it throws the planning off and impacts the classes. If any child falls sick or has an operation the same teachers need to be with the children if they are taken to Ananthapur/Bangalore. A couple of the same teachers are also wardens so they have to spend time with the children in the evenings/night as well. There is absenteeism where day scholars may miss a week or two of classes due to things at home and feel cut off when they come back. In the last two days of every month there is a Timbaktu Panchayat meeting where all the projects under Timbaktu meet and update everyone on the happening of that month. The school is closed at this time and other than the teacher presenting for PB (she has been encouraging the teachers to take initiative and present) the other teachers are off and the residential children visit family. Unfortunately, at times some children don't come back by the first. These children miss out these days and sometimes a teacher needs to go their villages and bring them. Timbaktu has also taken up responsibility of a couple of girls who were at risk and there will be teachers who will need to be with them throughout the summer holidays as well. She felt that any training would need to be in house with someone attending classes and giving inputs. She requested me to come for a week and work with the math teachers.

We discussed the efforts for registration of the school as a residential bridge school. This would still only give the school access to kids for about 11 months with an extension of 11 months by which time they would need to be a formally registered school. 3/9 teachers have a B.Ed as is required for the strength of children they have now. They have the required space on Timbaktu land, they have a fair number of rooms/halls, but the roof has to be converted to a tile in some buildings.

We then discussed the impact of Satish leaving on the admin part of the school. Vaneeta felt that it was a very short transition and he felt the finances were in order at the end of the last financial year. It was only recently that Mani informed her that there was indeed a deficit last year. While I was there Mani was able to prepare the same though he had accounted for funds sent this year as commitments for last year and the deficit looked like Rs.4 lakhs from last year. She was thankful to Thushar for taking care of the SAC program admin this year and was clear that she would not be in a position to provide more than the newsletter for the school and a yearly update. The fundraising is only a little less than last year, but the deficit of last year and equivalent one this year coupled with increased food costs presently put the funds still needed by April to almost 13 lakhs. Vaneeta is writing some grants for the remaining amount and we need to keep our fingers crossed to see what happens in the next 5 months.

The food costs are more than 50% of the expenses of the school. This percentage is even larger if we only look at the expenses for residential children. The children are provided breakfast, a snack at 11:00 a.m., lunch, snack in the evening and dinner through the Timbaktu Maya Sabha at Rs.20*3 meals = Rs.60/day. Maya Sabha has increased this from Rs.15/meal last year due to the increased costs of commodities and their inability to make ends meet. This has an additional impact of 3-4 lakhs this year. Unfortunately, Maya Sabha is not in the purview of the school and though the rate is

reasonable I cannot comment if this is optimized. The only point I would like to mention is that even a saving of Rs.5/day, saves over a lakh in a year and hope Timbaktu looks into this carefully.