

## **Appendix 31**

### **Lokmitra Review and Resource Support visit June 26<sup>th</sup> to July 30<sup>th</sup>, 2007 (5 days)**

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The objective of the visit was twofold – to review the developments over the past one year and to provide resource support in selected activities. The terms of reference provide for two separate visits for review and resource support but as a visit could not be made earlier, it is proposed (after discussion with the Program Manager) that both the visits (this one and the next) will encompass both review and resource support.

#### **The Schedule of the visit was as follows:**

1. 27<sup>th</sup> June, 2007– 10.30 a.m to 6 p.m. – Interaction with Lokmitra team – a review of the last 10 months
2. 28<sup>th</sup> June, 2007 –8.30 a.m. to 2.p.m. -- Visit to Tekari , Pure Kunjal activity centres and preschools; Pure Raghunath Kishori Kendra  
--3 p.m. to 5 p.m. Training of Shiksha Karmis and Sankul Samarthaks
3. 29<sup>th</sup> July, 2007 – 9 a.m. to 12.30 p.m.-- Training on Maths for Shiksha Karmis;12.30 onwards-- first a meeting with teachers' forum and later with the editorial team of the teachers' magazine
4. 30<sup>th</sup> July, 2007 – 9.30 a.m. to 10.30 a.m.-- Discussion on MLA's magazine;11 a.m.-- Parents' forum; Afternoon-- Discussion on Kishori Kendra curriculum.

#### **Overview of work done in the last one year**

- A. *With Community & elected representative forums;*
- B. *With Teachers;*
- C. *Pedagogical;*
- D. *With the government structures.*

#### **Report of Visits in the Field**

- A. *Visit to Tekari Activity Centre and Balwadi.*
- B. *Visit to Pure Kunjal Activity Centre.*
- C. *Visit to Pure Raghunath Kishori Kendra.*
- D. *Visit to Block Parents' Forum meeting*

#### **Resource Support**

- A. *Two sessions on Maths (Place Value & Fractions) for LM Shiksha Karmi training.*
- B. *Discussion on Shikshak Manch and newsletter for teachers.*
- C. *Discussion on Newsletter for MLAs.*
- D. *Discussion on curriculum for Kishori Kendra.*

## **Overview of work done in the last one year:**

### **A. With parents' forums and other community structures:**

1. This is the strongest aspect of Lokmitra's work. Work with the parents' forums at the cluster and Block levels has been going on regularly and has formed the base for taking up issues at the wider level and for spreading this initiative geographically.
2. There is a School Management Committee in each school with 10-12 parents in it. Then there is a cluster level committee having 4 representatives from each school and then a block level committee with 4 parent representatives from each cluster.
3. The strategy here seems to be twofold. On the one hand it is to have gram sabha meetings to discuss educational issues and to form the school committees which ensure participation of the active parents in their children's education. On the other hand, it also seeks to widen the reach of the parents' forums through networking with other NGOs at the District and State level and also by advocacy efforts for such forums at the National level as well as at the World Social Forum. There is some noticeable improvement in infrastructural provisions but the problem of teachers' availability remains more or less the same. This is a major and crucial policy issue which will require sustained networking among various strategic partners – politicians, teachers, Civil Society groups and parents. The present work of Lokmitra is in the right direction in this regard, but we should not expect quick results.
4. A large meeting on Child Rights was also held in November.
5. A unique initiative was taken up in the context of the 2007 State Assembly Elections. This was an attempt to make the Right to Basic Education an election issue. The leaders of the parents' forums played an active role in bringing up this issue.
6. The parents' forums along with NGOs of Raebareli and 9 other districts held largely attended meetings at the district and state level to deliberate on educational issues and to press for demands regarding supply of teachers to schools and provision of infrastructure and other facilities.
7. There is a plan to bring out a newsletter for MLAs which was discussed – details will be given in the resource support section.

### **B. Teachers' forums:**

- Lokmitra has taken an initiative to start a teachers' forum with a view to enhancing the professional status of the teaching community. This forum will concentrate on academic and pedagogical issues through discussions and reading etc. A few interested teachers have been identified and a few meetings held with them. There is a plan to bring out a newsletter which was discussed – the discussions are included in the resource support section. This is a nascent programme and a lot of work has to be done on it.

### **C. Pedagogical Inputs:**

1. Activity Centres have been set up in 3 out of the 4 cluster schools. The fourth (Deeh 1) did not have enough place for a separate activity centre so an activity corner has been set up in one of the classrooms.

2. Children identified for remedial inputs in classes 3, 4 and 5 attend the activity in turns according to a routine. The Lokmitra Shiksha Karmis have been trained on certain 'hard spots'.
3. Inputs to class 1 and 2 – The Shiksha Mitras have been assigned for classes 1 and 2. Lokmitra resource persons participated in the trainings for the Shiksha Mitras and gave inputs for this, particularly on reading.
4. There is a six-month preprimary preparatory input for the 5 year olds just before school opens. Lokmitra has reviewed its earlier modules to adapt to a six-month programme and made a manual for this which was distributed to 300 centres. There are balwadis for the 3 to 6 year olds in the cluster schools and these act as models for the ICDS coordinators and balwadi teachers.
5. In Deeh block Lokmitra has appointed shiksha karmis for each of the cluster activity centres.
6. Kishori Kendras: There are 4 Kishori Kendras in which about 60 girls are enrolled out of which about 36 are regular. The perspective for the Kishori Kendra at present is to get the girls adjusted into the mainstream government schools. Most of the girls are between 15 and 18 years of age. But the Kishori Kendra curriculum equips them only up to the primary stage –for which they are too old, even for class 5. No doubt, coming to the Kendra and to the trainings boosts their self-confidence, whereas sitting in a class of much younger children doesn't do that. This whole aspect of the perspective and objectives of the kendras was discussed with the Kishori Kendra team in the context of the curriculum – this is reported in the resource-support section.

***D. Work with Government Structures:***

Over the last two years, Lokmitra has been working with the cluster, block and DIET level government personnel from the education department in introducing the remedial teaching materials and holding workshops and trainings. During the last six months Lokmitra personnel have helped in the campaign to improve teaching-learning in classes 1 and 2. They have taken training sessions of cluster coordinators and have also helped improve the atmosphere in the classrooms of the chosen cluster schools by introducing new activities through demonstrations. Some of the materials developed by Lokmitra have been included in the materials put together by DIET.

While these piecemeal efforts are good as a start, Lokmitra needs to equip itself much better for academic work. The team needs to develop a deeper understanding of the whole primary curriculum and how it can be improved if it is to play the role of a resource group. This had been pointed out in an earlier review as well. It might be a good idea to include a B.El. Ed. graduate with some experience, or even a person graduating from the new M.A. El. Ed. batch, in the Lokmitra team.

**Report of Visits in the Field**

***A. Visit to Tekari Activity centre and balwadi 28.06.07***

As these were the summer holidays, only a few children were coming to the activity centre. There were 6 boys and 5 girls from classes 2, 3 and 4 present. I observed an

addition board game being played. All the children except one could read. There is a need for more early reading books.

The balwadi had 31 children present – 12 girls and 19 boys – as part of the 6-month programme to prepare the 5 year olds for class 1. The activities observed were: children putting pebbles in letter shapes, sorting grains and small pebbles from a mixture, sorting leaves and making patterns with them, reciting poetry and drawing. Children were quite engrossed in both small group activities and those meant for the whole class. One could see the rising confidence of the little ones.

#### ***B. Visit to Pure Kunjal Activity centre***

There were 12 children present in the centre. The shiksha karmis had organized the centre very well. Apart from the books and games they had also collected puzzles and activities from newspapers and stuck them on card sheet for better use. Some math kit material was being well used by a patient shiksha karmi for teaching multiplication to a young student. Children were also quite engrossed in their work.

There was a balwadi too at Pure Kunjal. It was running in a thatched shed in the school compound. The shed had been built by the community. 24 children were present. Children were doing the usual balwadi activities as observed in the previous balwadi.

#### ***C. Visit to Pure Raghunath Kishori Kendra.***

There were 15 girls present at the Kendra. Most of them had never been to school; some younger girls were attending class 2, 3 and 4. The girls are given learning tasks on the basis of their learning levels, which is periodically assessed. The school textbooks for language and maths are used as a base. These are supplemented by other materials of interest to girls. The girls are being motivated to join the Kasturba Gandhi Balika Vidyalayas (KGBVs) which are residential schools for girls, so that they can concentrate better on their studies. The parents have said they will decide only after they visit the schools and are assured of the safety of their daughters.

The Kishori Kendra programme needs to be reviewed and a future plan decided in consonance with the rest of the programme – this as been elaborated later in the resource support section.

#### ***D. Parents' Forum Deeh Block:***

The meeting took place under a tree in the compound of the block office. There were about 50 parents from different clusters – 18 women and 32 men. Their attendance and participation was quite remarkable – they had left their day's work and come from varying distances and participated till the end – vocally raising pertinent issues of their schools – lack of boundary wall, drainage to be repaired before the rains, toilets etc., shortage of teachers or other problems with them. These issues were systematically raised clusterwise and were noted down in order to be taken up with the District Magistrate (DM). The meeting was facilitated by a Lokmitra volunteer. It seems that the district and State level campaigns need to be strengthened.

### **Resource Support**

Resource support was given in the following areas of work during this visit:

1. Two sessions on Maths (Place Value & Fractions) for LM Shiksha Karmi training

2. Discussion on Shikshak Manch and newsletter for teachers
3. Discussion on Newsletter for MLAs
4. Discussion on curriculum for Kishori Kendra

### **1. Sessions on Maths with Shiksha Karmis: 28<sup>th</sup> and 29<sup>th</sup> June 2007**

On the 28<sup>th</sup> I observed one class of the training. A paper on mathematics learning at the primary school level had been read in the earlier session and was being discussed. It was a paper translated from the English and the translation was extremely bad. It was almost impossible to understand some of the sections. Enough homework had not been done on the piece before the session. There are very few pieces available in Hindi on Maths. This is a major problem in taking up discussions based on writings which are otherwise a very useful way of building understanding. This gap will have to be addressed at a higher level. There were questions like why do we do division from the left but other operations from the right, why do we write 0 below when we're multiplying with a two digit number etc. One of the LM resource persons, Alimuddin attempted to address the question but could not answer it satisfactorily. It would have been good if this could have been related to a concrete activity with kadi and bundle.

Place Value and Fractions are two main topics which cause problems at the primary school level. So I decided to take up one session on each.

For the session on Place Value – I began with giving them a five minute test to do some addition, subtraction and multiplication questions and to estimate the closest answer to some multiplication and division questions. (Questions in Appendix A) The idea was to see if the pressure of time would get them back to thinking in more natural non-algorithmic ways.

Many people, particularly those who solved the questions fast – did use non-algorithmic oral ways and were also able to explain how they did it.

We then discussed the mistakes young children make in questions associated with the operations – it was clear that most of these related to place value – carry over, borrowing, not writing a zero in division where the number is not divisible even once.

Subsequently we discussed the place value and non-place value number systems, and built up a base-two-system and then a base-four-system. This was done by facilitating the participants to build the number system – giving them a few of the rules, like if there were only 2 symbols 0 and 1 – how you would write 2, 3, 4 and so on. Most participants got stuck when the next digit was to be added. By the end of this exercise it was clear to them why children made the kinds of mistakes they did – it was particularly at the juncture of a new digit and where 0 was a place holder. These were the places that the participants were also getting stuck. It took them some time to catch the concept – after that they wanted to do more of it and also do operations in a different base.

The importance of the pedagogy of allowing the children to solve problems and not telling them how to do it in the first place but facilitating and supporting them was also discussed.

### **29<sup>th</sup> June 2007**

I took a session on fractions. Began with discussing what they felt were the problems that children had in understanding fractions at the primary level. The kinds of problems that came up were : children often think of  $\frac{1}{2}$  as  $< \frac{1}{4}$  or when they add  $\frac{1}{4}$  and  $\frac{1}{4}$  they make it  $\frac{2}{8}$  i.e they

just add the numerators and the denominators and write the addends in the relevant places. They are often at a loss to solve something like  $3 +$  or  $- \frac{1}{4}$  as they think these are two different things not related to each other. We then discussed the nature of these fractions – the fact that even a five or six year old knows that half is more than a quarter ( a child of this age will never take a quarter instead of a half thinking it is more) but when written in the fraction form it becomes confusing. One of the reasons could be that the concrete form and the number form are not effectively related to each other in the language. In the classroom we go straight away to  $\frac{1}{2}$  and  $\frac{1}{3}$  etc.

We then discussed what were the usual fractions used in the area and what they were called. They came up with Aadha (half), Paav which is also called khaanda (quarter), dedh (one and a half), Paun (three fourths), Sava (one and a quarter) and aadha paav (a half of a quarter or an eighth). After further eliciting responses they came up with tihayi (third), Chhathhaiyan (a sixth), and Baraukha (a twelveth). A good nine fractions for daily use! These could well be used for various activities and purposes to clarify the concepts. I deliberately avoided writing them in number form.

I chose a few fractions and asked them to order them. After some discussions on these fractions, we worked with three different kinds of materials to get a concrete idea of the concepts related to fractions – viz. sets of sticks, pieces of paper and a measure tape.

We first worked with sets of sticks. I asked them to take different fractions (half, one fourth, a third etc.) from a set of 3, 4 and 12 sticks and to observe when it was possible to take in wholes without breaking any stick. On hind sight we should perhaps have kept the sticks of the same size in each set. We also constantly talked of which fraction was bigger and how we could see that.

We did some exercises with bits of a page – divide it in halves – how many halves make up a whole? Divide into fourths – how many fourths in a whole and so on. Then we worked on the small  $\frac{1}{4}$ <sup>th</sup> piece as a whole and asked them to mark out  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{6}$  and  $\frac{1}{12}$  of it. Also I asked them what fraction of the bigger whole would be  $\frac{1}{6}$ <sup>th</sup> or  $\frac{1}{12}$ <sup>th</sup> of the  $\frac{1}{4}$ <sup>th</sup> smaller piece. Many participants were able to answer it – viz.  $\frac{1}{12}$ <sup>th</sup> of this would be actually  $\frac{1}{48}$ <sup>th</sup> of the larger whole.

Then we worked with a measure tape. Each group was given a measure tape and asked to mark out  $\frac{1}{4}$ <sup>th</sup> of 30 inches or 15 inches or 12 inches. Then they tried other fractions with other lengths. At the end of these exercises the relationship of each of the fractions with the notation in numbers was introduced. – First only halves and fourths, then thirds,  $\frac{3}{4}$ ths and so on. As the known and used fractions also included dedh –  $1\text{and}\frac{1}{2}$ , and sava  $1\text{and}\frac{1}{4}$ <sup>th</sup>, it was suggested that these mixed fractions also be introduced at appropriate opportunities.

At the end of these exercises the main points that emerged were:

- Each region has its known and used fractions – these are usually known to children of the region and should be the starting point of the introduction to fractions.
- There should be no hurry to formalise the presentation and operations on fractions – introduction of halves and fourths can begin as early as class 1 and the formal representation of frequently used fractions can happen in class 3 and 4 along with discussing their size with respect to each other. Tenths should be introduced by class 4 as these form the basis of the decimal system.
- A lot of work needs to be done on addition and subtraction of known fractions in terms of concrete objects before these operations are introduced in the formal sense. Some of the debates regarding introduction of operations on fractions in the

primary school were touched upon with the participants in the session.

- Various different contexts for the development and use of concepts related to fractions need to be taken into account as this would help generalization and abstraction of the ideas ; here 3 different contexts – sets of objects, a whole area and length– had been used. Measurement (of length, area, mass, capacity, money) which is a separate topic in primary schools, can be well utilized for introducing and developing ideas of fractions to the better development of both sets of concepts.

The participants were given a few questions at the end of the day (Appendix A).

Most of the teachers did them algorithmically using the LCM method, equalizing the denominator. Some of them attempted to explain them through pictures.

The two sessions were quite invigorating. All the participants were quite involved in the tasks and questions.

#### ***Discussion on Teachers' Forum and newsletter for teachers:***

The teachers' forum was activated in February this year. There have been a few meetings with the involvement of about 80 to 90 teachers. A small core group that will work as the editorial team for the newsletter is also getting formed. The members of this core group generally are dynamic teachers who have been active in different fields including students' and teachers' unions.

While the aim is to make it a 'non-political' professional body, it seems difficult (almost impossible) to do so. This is particularly difficult as not much pedagogical change can be brought about with the kind of Teacher Pupil Ratios that are there. This will require a demand for new teachers and formulation of a transfer policy so that existing teacher strengths are rationalized, both of which are political actions though they serve professional needs.

As Lokmitra is already working on this issue with parents' forums, other NGOs and now with MLAs, it will be good if teachers themselves join this struggle for more teachers – it is in their long term interests also. But this would perhaps require very different strategies.

Though the core group of teachers is made up of teachers with varying interests , they do not seem to be taking much initiative and ownership in this venture. The work of the newsletter is mostly being done by Lokmitra resource persons. It might be a good idea to have some reflection on the Teachers' Forums idea with a view to reassess its strategic goals. At the moment it seems a sound strategy to bring the teacher community on board for drawing attention to the issue of teachers' shortage and getting it redressed. Discussions on pedagogy may form a part of the strategy for doing it is a question that needs some reflection. I don't think that forming sanchalan samiti etc. is of much value until the goals are made clear so as to determine the kind of teachers who may lead this initiative. Some discussion took place on what could go into the first newsletter for which some excerpts from different books were suggested.

#### **• *Discussion on Newsletter for MLAs:***

The purpose behind the idea of a newsletter for MLAs is to inform them of the current issues in education as well as updates on various problems concerning primary education in the district. This was tied in with the recent efforts of making school education an election issue. It was suggested that the needs and possible solutions could be presented in the form of a newsletter for all elected representatives with sections on what they could

do to address the issues.

- ***Discussion on curriculum for the Kishori Kendras for adolescent girls:***

The objectives of the Adolescent Girls programme need to be reviewed. While the participation of the girls in the Kendra and in the camps organized by Lokmitra does boost their confidence, the fact is that very few girls are attending the kendras. The primary school going girls and the older ones of 15-18 years are learning together in one group. One of the objectives has been to get the girls into the mainstream government schools. But given that the course content of the kendras is only up to class 5 and the age of the adolescents is well above that level, their mainstreaming will tend to have a high dropout rate. Also formal schooling may not be the best way of fulfilling their learning needs.

It was suggested that the NIOS be looked at as a way of getting these young girls some kind of certificate for their learning and the curriculum for the NIOS exam form one part of the Kishori Kendra curriculum. Apart from this a broader curriculum needs to be developed to incorporate issues related to health, personality development, child psychology and learning (they could even be given a short training for Balwadi sahayikas), legal issues etc.. It depends on how the objectives and goals of this programme are articulated. The Nirantar curriculum could be looked at for this.

Lokmitra will explore the NIOS possibility and also look at the Nirantar curriculum more carefully.

### **Conclusions and Recommendations.**

1. Lokmitra's community and parent mobilization has been further strengthened and a good initiative to involve MLAs has begun which can be extended to other elected representatives. The proposed newsletter will help in this.
2. Lokmitra's efforts for consolidating its inputs into the activity centres, balwadis and Kishori Kendras are already having an impact and it is gaining the confidence of the system.
3. However, the Kishori Kendra input needs to be reviewed so as to have a more integral link with the rest of the programme. A new curriculum would be the next logical step after this review.
4. While Lokmitra has been undertaking various capacity building exercises for its staff – this has been done mostly internally. This shows up in its improved documentation skills. These require a little more honing in terms of organization and analysis. (The content page of the Six-Monthly report for example could be better organized and it could have an analytical section as well.) Lokmitra also needs external expertise particularly on the subject and pedagogic front. The induction of an M.A. El. Ed. or B. El. Ed. with some experience would be an asset.
5. No exposure visits of the team to educational institutions have been undertaken yet – these would be useful.
6. The process of their pedagogical literature being reviewed by their peers (and maybe also by the community) needs to start too.



## Appendix A

### Maths Questions on Operations

A 5- minute test

1.  $135-97 = ?$
2.  $2007-1857 = ?$
3.  $35 \times 8 = ?$
4.  $383+79 = ?$
5.  $5096+251 = ?$

Tick the closest answer:

1.  $127 \times 19 =$  a) 2,450, b) 2,500 c) 2,550
2.  $535 \div 4 =$  a) 150, b) 125, c) 115

### Questions on fractions and explaining them

1. How will you solve  $-\frac{1}{2} + \frac{1}{3}$  ? Also explain why?
2. How will you find out which of the two fractions is bigger –  $\frac{2}{3}$  or  $\frac{5}{6}$ ?
3. Order the following fractions and explain how you did it and why.
  - a)  $\frac{1}{3}, \frac{1}{2}, \frac{1}{4}, \frac{1}{6}, \frac{1}{5},$
  - b)  $\frac{2}{3}, \frac{5}{8}, \frac{3}{4}, \frac{5}{6}$