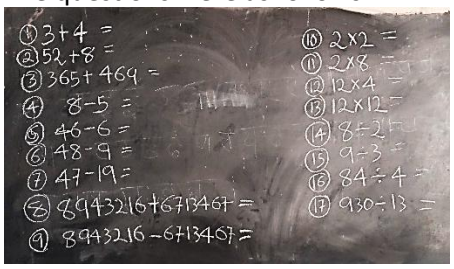
Report on Handholding Support (Mathematics)

Lanjigarh

A two days training was conducted on mathematics for the Education Volunteers of Lanjigarh block as part of the hand holding support by the Resource Team of Sikshasandhan from 3rd May to 4th May 2017 at Panchayat High School, Mushanal, Lanjigarh.

The session started with a pretest to evaluate their knowledge and transaction skill on few basic concepts of mathematics like addition, subtraction, multiplication. 31 Volunteers out of total 40 attended the test.

The questions were as follows:-



Based on the results the participants were divided into three groups which are as follows:
Groups are numbered as per their merit, 1st is the best and group 3 being the weakest.

Group-1

1. Somanath
2. Kasturi
3. Raghunath
4. Debilal
5. Benudhar
6. Rebati

Group -2

1. Daya
2. Radha Mohan
3. Mahendra
4. Santosh
5. Madhuri
6. Kalibabu
7. Kusha
8. Sudhir
9. Joseph
10. Hara
11. Mukunda
12. Ramachandra

Group-3

1. Malay Bibhar
2. Samiran Majhi
3. Danaram Majhi
4. Surendra Majhi
5. Nilambar Mangaraj
6. Kailash Harijan
7. Asha Sahu
8. Bipindra Bibhar
9. Sashmita Nayak
10. Babita Majhi
11. Rohini Niar
12. Kanakalata Dora
13. Naba Kumar Sahu
14. **Tapan**

Each of the groups was handled separately by one of the resource team member in separate rooms. For logistical reasons three volunteers from group two were shifted to group-1 however special attention was given to them by the Resource Person (RP). Similarly Tapan from group -3 was shifted to group-2.

The group wise progress is as follows:

All the resource persons were instructed to follow a Standard Operating Procedure while transacting so that input and the sequence was same across the groups.

The following sequence and methodology was followed:

1. General concept on 'what is mathematics'.
2. Counting
    a. Random counting using any object to make the children conversant with the name of the numbers.
    b. Idea of 'zero' during counting.
    c. Introduction of numbers using number card.
    d. Counting using '*Ganit Mala*' to help the children generate an idea of 'Tens'.
    e. Writing the numbers in expanded form.
3. Addition
    a. What is addition?
    b. Addition of single digit numbers using counting.
    c. Addition using the concept of crossing tens/
    d. Addition of small double digit numbers using the concept of tens using egg tray.
    e. Addition of double digit numbers by the method of expansion.
    f. Addition of three digit numbers using the methods of carry over and expansion.
4. Subtraction
    Similar sequence as that of Addition.
5. Multiplication
    a. Simple multiplication using counting
    b. Simple multiplication using addition.
    c. How the children will make their own multiplication table.
    d. Multiplication using expansion method.
    e. Multiplication using general method.
    f. Multiplication using Latais method.
6. Division
    a. Introduction of division from their day to day life.
    b. Division using counting.
    c. Division using multiplication table.
    d. Introduction of reminders.
    e. Division using expansion method.
    f. Division using general method.
7. Multiples
8. Factors
9. Commons in multiples and factors
10. LCM and HCF.
11. Fractions
    a. Addition and subtraction of factions.
12. Decimal number system.

All the groups did hands on practice them self after each concept. The progress of each group was as proportional to the pace of learning.

Group-1 *(Facilitated by Abinash Padhan)*

Since majority of the group members were having good knowledge of the concepts, this group moved fast and completed up to LCM, HCF. However the issue with the group was that many of the group members had tendency of skipping the steps required to teach the class 1-2 children and were resistant to adopt the new methodologies. However the presence of a Government School teacher who participated voluntarily helped them to be convinced as he was affirmative towards the usefulness of the methods from his vast teaching experience.

Trainer's feedback

At the end it was assessed that only one participant from the group was weak and they needs further orientation to develop conceptual clarity. He will be placed in group 2 for next batch of handholding support.

Names	Performance
Somnath, Debi Lal, Rebati, Kasturi, Benudhar,Nityananda, Mahendra Nag, Daya Nag & Raghunath	Good in learning the methods and the use of TLM
Radha Mohan Nag	Weak in learning the methods and slow to follow the steps. He will be shifted to group -2.

Group-2 *(Facilitated by Shradhanjali Sahoo & Bhrugunandan Rath)*

This group reached up to Multiples & Factors. The competency of this group was close to that of group-3. More time was devoted in each step till each member completes the steps by doing themselves.

Trainer's feedback

Name of the Participants	Remarks
Santosh, Sudhir, Joseph, Mukunda, Ramachandra	Had good clarity on transaction process of counting, addition, subtraction, multiplication, Multiples, factors
Hara, Kusha, Madhuri	Need further Clarity and improvement in Multiples & Factor
Tapan Mangaraj	Lacking basic competency to remain as a Volunteer

Joseph's ability and performance is above the average of this group performance and he will be shifted to group 1 from next training.

Kalibabu Bag left training after few hours so could not be assessed at final stage.

The concepts of Division need to be given further.

Group-3 *(Facilitated by Niharika Kundu)*

This group too reached up to Multiples and Factors. This group members were good leaners and were very receptive mood throughout the training.

Trainer's feedback

Name of the Participants	Remarks
Malay, Samiran, Danaram, Surendra, Kailash, Asha, Sashmita, Babita, Naba	These have understood the concepts and demonstrated the steps well.
Kanakalata, Bipendra, Nilambar	Need further handholding.
Rohini Niar	Lacking basic competency to remain as a Volunteer

The Education Volunteers should be followed up on regular basis on the above inputs so that during next handholding visits focus will be on fraction and decimal system.