

# Teacher Training on Critical Thinking Principles and Pedagogy

11<sup>th</sup> and 12<sup>th</sup> of February, 2020

**Venue:** AN Sinha Institute of Social Studies, Patna

**Time:** 10:00am to 5:30pm

**Main Facilitators:** Subir Shukla, Niveditha Menon, Neha Ghatak, Joan Shilpa Kiran and Syed Mazahir Husain

## 1 Day one

### 1.1 Icebreaker

As an ice-breaker Subir asked the teachers to reflect on their experiences and let each other what are the typical activities that they have conducted and the nature of these activities. Teachers spoke about the Saturday activities which are conducted in their schools which include talks, sports, painting competition, practice sessions for events and annual functions, debate etc. These activities make the children play and learn at the same time.

Teachers also spoke about the time investment of these activities. For every story or extra activity that they do, they have to invest time that they do not have. The teachers also mentioned that the children are strong, so they never say no to any activity or work. They also felt that the following values were very critical for children: citizenship, moral values, discipline, teamwork, confidence, leadership, to differentiate between right and wrong or good and bad, to understand the society, to understand the duties of a good leader.

When asked how the teachers would know that the children are participating, the teachers responded by saying that when children give answers enthusiastically and when children are not pushed to answer, then they are actively participating. Usually, they try to ask questions to see how children answer them so that children are able to understand the concepts.

### 1.2 Overview of the educational system

Subir first provided a general overview of the educational system and the persisting problems that are in Bihar. There have been things that have improved. Uniforms for children are provided, quality of education has increased, attendance is high, and the MDMs have been introduced, and children have a chance to improve. When asked what their opinions are on these changes, teachers responded by stating that because of MDMs, children only come to the school for the food and not to study. The teachers are very few and are often posted very far from their native homes. Subir also asked them about the kind of subjects that they teach and many of them said that they teach multiple subjects.

Subir then pointed out that often subjects are designed in a way that only one teacher can teach them, but that doesn't always pertain to reality. Moreover, children know a lot more than we think they do. For example, children of farmers/from farming families know about the land, tailors know how to stitch, girls know how to cook and do household works, painters know to paint well, children of potters know how to make diyas and vessels etc.

So, there is a lot of intuitive knowledge that children already know. To demonstrate this, Subir used a small paper flyer to demonstrate how they would fly. The teachers were able to identify the reasons and were also able to associate the lessons that was directly associated with the activity. Using this activity, Subir was able to explain the primary concepts of the ERAC framework:

- **Experience:** Making the flyer yourself.
- **Reflection:** Thinking why it rotated, which direction, speed etc.
- **Application:** Shortening of the wings to increase speed.
- **Consolidation:** To summate everything learnt.

After a few other activities that emphasized ERAC, Subir emphasized that we often stress on joy or learning, but not together. We need to create activities in such a way that children can think. The idea is not to entertain them, but to get children to think on their own.

### 1.3 Application of ERAC model

Based on activities related to the association of two unrelated words such as dog and moon, we can push children to move beyond the comfortable and start to create things that are much more challenging the engaging. He also emphasized that demonstrating an activity is not enough – it is important to make it interesting and impactful. He elaborated that if we do not let children think, help them think and make it a habit for them to think, their brain will not work, like any other part of the body which would stop functioning if it is not put to use.

Using another example with respect to making mangoes and creating an activity related to eating of mangoes, he demonstrated that curiosity helps with the learning process. A group activity about making friends, and phal phool and sabzi (fruit, flower, and vegetable) was also conducted to provide different ways to teach mathematics, and categorization of things. The level of difficulty for each activity can also be increased in every progressive round so that children are continually challenged.

Subir also emphasized that stuffing information into children is not the primary tasks of teachers, but to enable them to know when and where to use it. He demonstrated the several ways in which activities could be classified so that versions of these can be used in the classrooms: Digital, Teacher Learning Materials (TLM), Reading and Writing (RW) and Oral. All of these activities could also be done using individuals, groups, or the whole class. It is also important to remember that individuals working by themselves in a group cannot be considered a group activity. All of them have to work towards a common goal in order to really engage with the group activity.

Using a series of activities that provided an insight into how any lesson plan can be made, he also emphasized that the underlying values have to be: relationship building, ERAC framework, and equity. He told the teachers that often they are satisfied when a handful of students are doing well in class. But it is important to note that this is not a great approach. Because different students have different capabilities, catering to all of them is necessary. Therefore, equity is

important for maintain quality. o ensure equity all a teacher needs to do is look inside the classroom. Then what the teacher would see is children from different backgrounds, with different strengths. The teacher has the potential to address their difference in capabilities. After a few more activities that emphasized the manner in which different capabilities can be addressed, the session ended for the day.

## 2 Day Two

### 2.1 Consolidating ideas and concepts

In the beginning, a rough overview of the previous day's activities was provided after which some activities which could be used to engage children and initiate thinking processes were also discussed. Asking students, for example, to make lime juice can be used to help children engage with providing explanations for each object, the utility of each object, and the reasons why each object is necessary. Each of these is critical for language development.

Subir also provided various examples wherein children could learn English, such as using a bottle to get children to learn the words full, empty, water etc. Narrating a story (such as an elephant scared of a car) can also be used to write about the features of a car. The idea is that when we have a specific principle to examine, then we can create and make context-specific the procedure. It was also emphasized, through various activities using numbers and boxes how multiplication, division and higher order mathematics can be taught.

The lesson primarily is that concepts are abstract, and therefore, cannot be understood through definitions. Therefore, it is important that all concepts are taught through examples. For example: if an alien is shown a picture of coconut tree and taught that it is a tree, it will not identify a banyan tree as tree because it does not have an existing idea of a tree. This is true for children as well. If they see, observe and do the concepts practically by themselves and learn they will never forget. Information takes a lot of time to study but once you create curiosity children will learn it themselves. It is also important to make children think of activities and values.

### 2.2 Creating lesson plans

Subir then moved to the principles required to create lesson plans, and provided the following guidelines:

- Understand what children really like and that which creates curiosity.
- Take a small part of the lesson and try to see how an activity could be made of it
- Use activities listed in the textbooks
- Ask students where it is used in life
- One can develop activities using objects, pictures, events, stories, situation, condition and circumstances.
- It is important to first link activities to oral and then to RW, TLM and digital because oral is the easiest.

After this, teachers were divided into groups and tried to create lesson plans based on a specific chapter in the book. After the lesson plans were made, they were presented to the entire team, and feedback was provided as to the various different ways in which they could be improved.

After the presentations, teachers provided feedback on their understanding of the workshop and we ended the two-day workshop with group photographs.