



22

Innovative teaching of some Concepts in Geography

Tapasya Saha

The meaning of 'innovative teaching' to me

What do I understand by 'innovative teaching'? Innovation is not invention or discovery; it's a way of looking at the subject or concept that I want to teach, focusing on two things. First, **what** is it that I am trying to communicate to the children and secondly, **how** am I going to do so. This 'how' part should have **a qualitative element of awe, a surprise of the concept dawning upon the student.** The teaching must necessarily be contextual to the child and a little challenging. The teacher should give enough space to the child.

The unique situation

The Azim Premji School, at Mandwa, has a small courtyard not more than 30 ft. by 15 ft. It is the only place in school where all the forty children can be together; this place is not big enough for all of them to run around as much as they want without going out of another's reach. Without being conscious of it, they were quite close to each other. I wanted to use this space for multilevel, multi-grade and peer-learning.

The children have been given admission according to their age (as per the Right to Education Act norms). Children in class 1 have never gone to school, some children in classes 2 and 3 have gone to school, some are drop outs and some have come to school for the first time; so the academic levels of the children were not very different, though their ages varied.

I wanted to take this opportunity to enable all the forty children to learn something together.

Topic No. 1

How are seasons caused?

Objectives

1. Students will see for themselves that the sun is moving towards the south, away from the courtyard and this is connected to the chillness in the air.
2. The movement of the earth round the sun (revolution) causes summer and winter seasons.

Activity

The activity was spread over a period of 29 days between 10th September and 8th October. Children made 8 observations on September 10th, 14th, 17th, 20th, 26th, 28th and October 3rd & 8th.

Children marked the sun rays entering the courtyard at a particular time on those days when it was bright and sunny.

Steps

- A mixed group of children from all the three classes marked the rays of the sun entering the courtyard at 8.12 a.m. with white oil paint.
- All children saw the marking of the rays. The mark being in the courtyard, the children could always see it without effort.
- A teacher would record the date and the time of observation in a chart which is stuck on the wall of the courtyard.
- Teachers and children measured the distance on the last day of the observation.

The final transaction

- The teacher asked the children if mornings were

a little colder these days and asked for the reason. They agreed on the coldness but could not come up with reasons.

- As we observed together, children found the marks on the ground becoming more and more slanting by every passing day and a big difference of 28 cm. between the first and the last mark.
- Teachers and students went to the door to see the position of the sun, and comparing it with the direction of the rays of the sun, children realized that the sun was moving towards the south.
- All agreed that the slanting rays are caused by the sun's southerly transit.
- All could visualize that in a few days' time there would be no sunrays entering the courtyard.
- All observed and understood that when the sun moves towards the south, the season is winter and when it moves towards the north it is summer.
- All accepted that the movement of the sun causes seasons.



Seasons - Showing the movement of the shadows

Topic No.2

“Why are the Lines of Longitude and Latitude drawn?”

This activity was designed for students of classes VI and above.

Prior to the activity, I asked children about latitude and longitude and found that they had some prior knowledge of latitude and longitude, but they were confused about:

- i) Why these lines are needed?
- ii) How are these lines of latitude and longitude read?

Objectives:

- i. Reading of latitudes and longitudes.
- ii. To understand that these lines are co-ordinates not on a plain sheet of paper (two dimensional) only, but also on a sphere i.e. Globe.
- iii. To understand that latitudes and longitudes help us to find an exact location of a place.

The background

This activity was done with various school children who belonged to class VI, VII, and VIII during a ‘Bal Mela’ in Sheoganj Block in Sirohi District.

Activity 1

“Where am I?”

Materials

1. Two balls of wool of contrasting colours - yellow and maroon.
2. Set A consisting of 8 pairs of cards, of which 4 pairs have the numbers 1-4 written on them

1	2	3	4
2 Cards	2 Cards	2 Cards	2 Cards

The other 4 pairs of cards have A, B, C, & D written on each pair respectively.

A	B	C	D
2 Cards	2 Cards	2 Cards	2 Cards

3. Set B consists of 4 cards, each with pictures of a cloud, a tree, a flower and a bird.

Cloud	Tree	Flower	Bird
-------	------	--------	------

Steps

1. The students were divided into 4 groups.
2. Clear instructions were given to each group.
3. Group A had 16 students each holding the cards of Set A and positioned them as in Fig 1. The students with the same number/alphabet stood

facing each other and also held a woolen thread of a particular color, so that all alphabets are in yellow and all numbers are in maroon. Thus the field looked like as in the Figure 1.

- The students of Group B held cards with the picture of “cloud”, “tree”, “flower” and “bird”, and stood at any intersection of woolen-lines, of their choice.

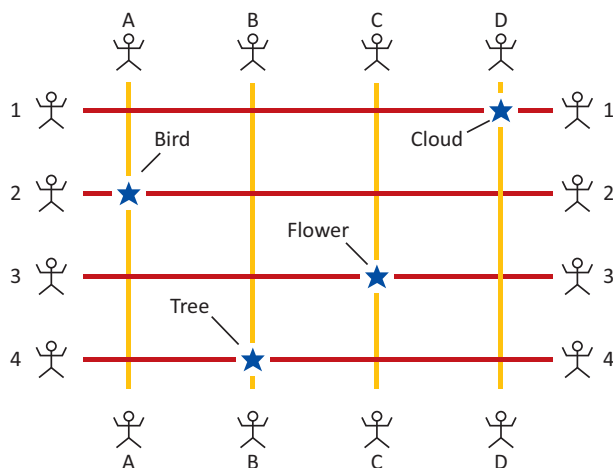


Figure 1

- Students of Group C asked where each of these “cloud”, “tree”, “flower” and “bird” is located.
- Students of Group D answered the questions after looking at the co-ordinates carefully and consulting with each other.

With the help of a volunteer I explained how to find the location and which coordinate to be mentioned first.

Activity 2

“Destination”

Materials

- Two balls of woolen thread of contrasting colours green and blue.
- Set A of 10 pairs of cards consists of 10 cards, out of which:
 - 2 pairs of cards representing 0°

- 8 pairs of cards representing 1°N , 2°N , 1°S , 2°S , 1°E , 2°E , 1°W and 2°W (2 cards representing each)

- Set B cards consist of 4 cards with pictures of “Mountains”, “City X”, “City Y”, and “Desert”.

Steps

- Students were asked to arrange themselves in the field using the Set A cards, with latitudes and longitudes just the way they did with number cards and alphabet cards. Some atlases were kept for use, if the need arose.

Here the students of Group B replaced the number and alphabet cards with the latitude and longitude cards. The positions of students are now as shown in Figure 2.

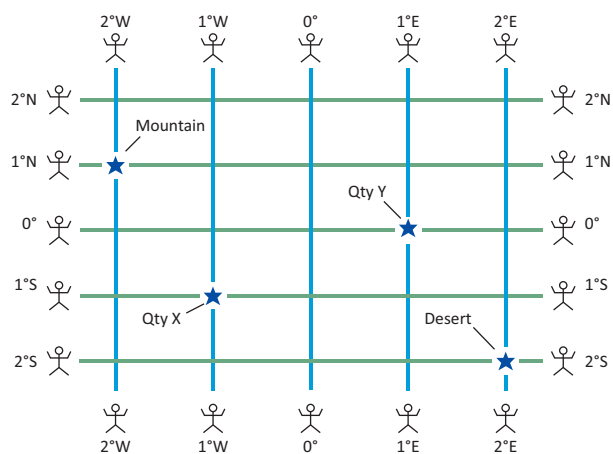


Figure 2

- Students of Group C stood at any position of their choice with the picture cards of “Mountain”, “City X”, and “City Y”, and “Desert”.
- Students of Group D asked the locations of each items and students of group A consulted amongst themselves and answered the questions.

With the help of a volunteer I explained:

- How the latitude and longitudes are numbered
- Which coordinate (latitude and longitude) is to be mentioned first while giving the location of a place



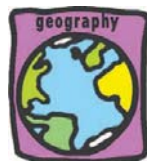
Understanding latitude and longitude

[Though I am mentioning this in the end, actually once the grid (network of vertical and horizontal lines) was formed I explained the whole thing with an example]

Observations

- As it was a mixed group of boys and girls from different schools and of different grades (Classes VI, VII, VIII), ‘learning from each other’ was happening organically.
- As it was not a common classroom transaction, children were free from any burden. They were happy and curious to find out ‘What kind of game it was, with the latitude and longitude lesson, in the open ground?’

- Children in higher grades understood the instructions clearly and this in turn helped the younger ones to understand as well. This is because instruction was accompanied with actual demonstration.
- Though not explicitly expressed, there was an underlying competition amongst the students of different schools. The good thing that I observed was that it helped each other in understanding the problem/question.
- They wanted to continue with the game after all the cards were exhausted.
- Students could understand the instructions completely and could play the game on their own.



TAPASYA is presently associated with the School Core Team at the Azim Premji Foundation. She has a Geography teaching experience, for high-school grades, of about 14 years. She can be contacted at tapasya@azimpremjifoundation.org