

## CHAPTER-IV

### THE SETTING

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#### 4.0 Setting the Stage

The research focused a PBL phenomenon (the event, situation and activity). The phenomenon was researched in its natural context bounded by space and time. The investigations of group as well as activities and other situation of interest were important.

PBL was identified as valuable component of class room learning. It was organized in small group. A small class environment was set to study the social skill behavior of the teacher trainees. The participants were teacher trainees of Dr. H.R. Gajwani College of Education, Gandhidham, and Gujarat.

#### 4.1 Geographical Location

Gandhidham is one of the main towns of Kachch district. Other towns are Adipur, Anjar, Mundra, Madhapar, Mandvi, Rapar, and Nakhatrana. Kachch district is a district of Gujarat state in western India, covering an area of 45,652 km<sup>2</sup>; it is the largest district of India.

Kachch is virtually an island, as it is surrounded by the Arabian Sea, in the west, the Gulf of Kachch in south and southeast, Rann of Kachch in north and northeast. The border with Pakistan lies along the northern edge of the Rann of Kachch.

Kachch literally means something which intermittently becomes wet and dry; a large part of this district is known as Rann of kachch which is shallow wetland, which submerges in water during the rainy season and becomes dry during other seasons.

The geographical location of kutchch district is 78.89° to 71.45° East (longitude) and 22.44° to 24.41° north (latitude). The maximum temperature is 45° c and minimum is 4°c. The rainfall is reordereed as 587mm.

As per 2011 census kutchch has a population of 2, 090, 313, literacy rate of 71.58%, sex-ratio of 907 females for every 1000 males. The language is kachchi and to lesser extent Gujarati, Sindhi and Hindi.

In kutchch district, there were 1512 primary schools, 21 secondary schools. It has many education and training institutes. Three teacher education institutions are located in this district. **Dr. H.R.Gajwani College of Education** is one of among 3-teacher education institutions. English is the medium of instruction in this college. Others are of Hindi and Gujarati medium colleges.

Dr. H.R.Gajwani College of education is now situated at Adipur. It is in the sector 6A, nearby to Sindhu Resettlement Corporation (SRC) of Adipur. It is on DC-3, Gajwani road, Adipur. It was first started at Gandhidham and then shifted to its own building at Adipur. Virtually, Gandhidham and Adipur are known as twin cities.

The teacher trainees of mathematics and science education were the participants of this inquiry process. They belonged to different states of India like Gujarat, Kerala, Bihar, West Bengal, Odisha, Uttarpradesh, Maharastra and Haryana. The diversity of states was seen due to their parents' employment in Kutchch region. There were ten women trainees and only one trainee was male. It was understood that eleven trainees were Hindus and only one was from Sindhu community. Three were post Graduates and the rest eight were simply science graduates. Seven trainees had educational degrees from the universities located at Gujarat and others had degrees from other state universities. Both Hindi and English were used as the communication language among the teacher trainees. But for the purpose of B.Ed course, the medium of language was English only.

The geographical situation of Kachch is described through a map which is given below.

Figure 4.1:

Map of Kachch



## **4.2 The Setting: Organizing Group of Students**

PBL offered problem-solving context in small group learning. On a combination of participants' interests, prior knowledge and achievement, creation of smaller unit was made. Mathematics and Science benefited more from small-group work than language and social study due to problem-solving component. The belief was that smaller class environment could create a more controllable and nurturing setting for learning. Closer relationships with the group members, more frequent and closer interactions among student teachers and a shared and individual culture were possible reasons for the success of smaller classes. Sharing the smaller group had greater ability to communicate with teacher trainees and to create co-ordinate plans and activities for them.

It was concluded that problem based learning in a small group fashion could structure inter-dependence between the group members. In order to understand interactive dialogue, body movements, time management, adjustments and peer affinity during problem based learning, it was easier to control the learning process in small group setting. The group members had advantage of sharing, receiving reminders and correctives from their peers as the group was approaching towards solving of the problems. Small group had both individual accountability and interdependence.

## **4.3 The Setting: Allocations of Time**

In respect to time as a resource for learning: Allocated time was itself subject to the actual engagement of the teacher trainees to the task that was designed to help construct knowledge.

There was no doubt that spending more uninterrupted and engaged time on peer mediated learning activities would increase the rate of construction of the knowledge. The enactment activities recognized the variations in taking time to make new constructions. Adequate, engaged, un-interrupted and high energy time were provided. Teacher trainees needed some flexibility in the time.

#### **4.4 The Setting: Allocation of Space and Place**

A computer laboratory with spacious and shared spaces provided teacher trainees with greater flexibility and freedom in their learning place. It changed into a more learner-centered learning environment. Flexible arrangements of space were provided to nurture trainees' needs for autonomy and support their learning styles.

Internet facilities were provided to stimulate the teacher trainees to work in team, to assume greater responsibility for their own learning. They were provided ample space for group work with face to face interaction. An enabling standard for creating learning environment towards learning goal was nurtured.

#### **4.5 The Setting: The Materials and Technology**

Within the class room space, materials and technology created new perceptions. These were vital component of enabling standards and needed to be carefully chosen. New manipulative for mathematics and Science learning was motivating. It created new kinesthetic and spatial perceptions, simulated realistic problems, facilitated reasoning and promoted for construction of conceptual knowledge. Activities in combining the reading of texts with writing were more effective. Using dialogue in learning was proven effective. The process included opportunities for teacher trainees to learn how to choose and use learning materials like texts, packaged curriculum guides, manipulative and technology. Materials were carefully articulated with the content. Performance was demonstrated with varying teacher trainees' interests and abilities.

The computer room equipped with internet facility, circular seating arrangement, proper lightening and ventilation, calm and quiet working place was set for PBL process. An enabling standard towards creating positive learning environment both physically and psychologically was thus maintained.