

**Kislay Kishor Mirgank**

**R.M.College, sahrsa**

**Faculty of education**

**PSS 6: Teaching of mathematics**

### **Lev Semionovich Vygotsky's Views**

Vygotsky argued that as a result of the social interaction between the growing child and other members of the society that the child acquires the tools of thinking and learning. His theory is primarily based on the concept of 'Zone of Proximal Development'.

Let us consider the following example: Teacher gives the following problem to the 10th class students as a class work.

'A kite is flying at a height of 40m above the ground. The string attached to the kite is temporarily tied to a point on the ground. The inclination of the string with the ground is  $60^\circ$ . Find the length of the string, assuming that there is no slack in the string'.

One can assume the following possibility as far as the problem solving activity is concerned.

### **Understanding the Discipline of Mathematics**

- All students can solve and complete it individually without any external support.
- Some students can solve it individually, but some need external support to solve it.
- All need external support in order to solve the problem.

As teachers, we have to expect these three groups in our classrooms depending on the situation or problems.

Let us consider the first case; here all students can solve it individually without taking any help from outside. Suppose the problem is very simple or teacher has provided a very simple activity to perform, all students from the class may be accomplishing it individually. According to Vygotsky, every learner at one stage **has the capacity or ability to construct knowledge by himself/ herself when confronted with an experience without any other external support. He** called this level of knowledge construction as 'Level of Actual Development'. We can say that students of the first case are in their Level of actual development. If the difficulty level of the problem or task increases, we can see that some of our students may not be in a position to solve it independently, but if we guide them in a proper way, they may be in a position to solve it. This indicates that a student can even reach beyond his or her Level of Actual Development, with the help of some support from teacher or any knowledgeable person. The level up to which a student can reach in this way, is called 'Level of Potential Development'.

One can see a zone between these two levels which Vygotsky called 'Zone of Proximal Development (ZPD)'. **ZPD is nothing but the difference between the Level of Potential Development and the Level of Actual Development.**

As a teacher, how you will use the concept of ZPD while planning classroom process?

**Vygotsky was of the opinion that development is more dynamic and effective if children are exposed to new learning, specifically, in their proximal zone of development.** In this zone, with assistance from the teacher or other knowledgeable persons, and peers; children would be able to

assimilate more easily what they would be incapable of assimilating if left to themselves. The assistance may in the form of demonstration, giving more examples, monitoring and providing feedback, shared activities, etc.