

## **Teacher Education Institute (TEI)**

**Director: Dr. David L. Mollet, 6656 Reservoir Lane, San Diego, CA 92115**

**Tel: 619-463-1270 Email: [tei@cox.net](mailto:tei@cox.net) URL: <http://members.cox.net/tei>**

### **Arithmetic**

Teachers who use our approach appreciate that the child's first contact with arithmetic is crucial and that the teaching should involve a twofold process. It involves the teaching of basic number work so that the child becomes numerate. However, it also involves the delicate and important task of seeing that the material that is presented is taught in such a way that the child wants to learn about numbers, the four processes and so on. In other words the material is presented so that it is in harmony with the child's global, pictorial view of the world.

If this does not occur the child will naturally and spontaneously set up barriers to the learning process. What should have turned out to be a journey of discovery for a happy and curious child becomes, in many cases, a chore and sometimes sheer drudgery with the child learning only through formal methods which can be clinical and insensitive in approach.

If formal methods are used to the exclusion of material which will appeal to the pictorial, imaginative side of the child's nature then we should not be surprised if the result is a child who views the world and relationships in purely clinical, quantitative terms; who has behavioral problems, and who has set up a number of barriers to the learning process; in essence, a child who is gradually losing his humanity.

It is important to appreciate that young primary school children think globally i.e. they perceive themselves and feel themselves as part of the world. As adults, we look upon the world critically and analytically; young children do not.

They see the world as a unity - it is important therefore that the teacher's approach should be from the whole to the parts. To understand the parts our minds need a concept of the whole. The first lessons should be devised to convey the idea of a totality, a wholeness which has various parts. After this the teacher can deal with the qualitative aspects of numbers before turning to the quantitative side.

Many of the concepts in arithmetic can be learned easily if, initially, an appeal is made to children's imagination. The four processes, odd and even numbers, units tens and hundreds should all be learned in a pictorial, imaginative way introduced, for example, through stories and drama. If this type of approach is used it is simple to teach the fundamentals of square numbers in grade 2 and many other concepts which children would probably have difficulty in learning if taught by other methods.

The teaching process is therefore, not to emphasize the theoretical but to enable children to learn through the affective as well as the cognitive; through the heart as well as the head; through the right hand side of the brain as well as the left. In doing so children become numerate but will do so in a way that develops creative as well as intellectual faculties.

There is a danger that children taught with a heavy cognitive emphasis will become narrow subject specialists unable to relate specialized knowledge to other subject areas. Children taught by our approach should relate such specialist knowledge to a wider and deeper perspective and to be creative as well as logical in approach.