



#### THE IMPORTANCE OF THE EARLY YEARS

In *The Absorbent Mind*, Dr. Montessori wrote, "The most important period of life is not the age of university studies, but the first one, the period from birth to the age of six. For that is the time when man's intelligence itself, his greatest implement is being formed. But not only his intelligence; the full totality of his psychic powers . . . At no other age has the child greater need of an intelligent help, and any obstacle that impedes his creative work will lessen the chance he has of achieving perfection."

Recent psychological studies based on controlled research have confirmed these theories of Dr. Montessori. After analyzing thousands of such studies, Dr. Benjamin S. Bloom of the University of Chicago, wrote in *Stability and Change in Human Characteristics*, "From conception to age 4, the individual develops 50% of his mature intelligence; from ages 4 to 8 he develops another 30% . . . This would suggest the very rapid growth of intelligence in the early years and the possible great influence of the early environment on this development."

Like Dr. Montessori, Dr. Bloom believes "that the environment will have maximum impact on a specific trait during that trait's period of most rapid growth." As an extreme example, a starvation diet would not affect the height of an eighteen year-old, but could severely retard the growth of a one year-old baby. Since eighty percent of the child's mental development takes place before he is eight years old, the importance of favorable conditions during these years can hardly be over emphasized.

## BEHAVIOR OF THE CHILDREN

There is always a busy hum of activity in a Montessori classroom because the use of the materials involves many motions—walking, carrying, pouring, speaking and particularly the constant using of the hands. All activity, however, is guided by a respect for the teacher, a respect for the work of others, and a respect for the materials themselves. Dr. Montessori never equated goodness with silence and immobility. Self-discipline, she felt, should be acquired gradually through absorption in meaningful work. When a child becomes vitally interested in a particular classroom activity, his behavior almost always matures. If a child misbehaves in a Montessori classroom, the teacher usually helps him to select work which will more fully absorb his attention.

### WHY MIXED AGE GROUPS?

If classroom equipment is to be challenging enough to provoke a learning response, it must be properly matched to the standard which an individual child has already developed in his past experience. This experience is so varied that the most satisfying choice can usually be made only by the child himself. The Montessori classroom offers him the opportunity to choose from a wide variety of graded materials. The child can grow as his interests lead him from one level of complexity to another. Having children ages three through six together permits the younger children a graded series of models for imitation, and the older ones an opportunity to reinforce their own knowledge by helping the younger ones.

### NON-COMPETITIVE ATMOSPHERE

Because the children work individually with the materials, there is no competition in the Montessori classroom. Each child relates only to his own previous work, and his progress is not compared to the achievements of other youngsters. Dr. Montessori believed that competition in education should be introduced only after the child has gained confidence in the use of the basic skills. "Never let a child risk failure," she wrote, "until he has a reasonable chance of success."



### THE BANK GAME

Any exercise involving the exchange of the Golden Beads (or duplications of them) is usually called the Bank Game. The large quantity of material, which the children use as a source for the game, is referred to as The Bank. The children use The Bank whenever they want to change Units to Tens, Tens to Hundreds, Hundreds to Thousands, or vice versa. Adding, subtracting, multiplying and dividing four place numbers can all be done with the Golden Beads.

If two children wish to add, each one puts a quantity of bead material on a tray and selects the corresponding cards to represent the quantity. They then combine the two quantities on a larger tray and select large cards to represent their total.

For subtraction, the teacher places a large quantity of bead material with the corresponding large cards on a large tray. She then gives the child a smaller tray with a number written on a small card. The child "takes away" this quantity of bead material from the large tray and puts it with the small cards. The quantity remaining on the large tray is the answer. The child then finds the numeral cards to represent the answer. With this game the children gain a real impression that subtraction is the breaking up of one large number into smaller ones.

When learning division, the child is taught that division means sharing and that the answer is always what one person receives. If he has the problem 1294 divided by 3, he asks three other children to get empty trays while he gets material to represent the quantity 1294. He wants to share this amount equally among them, beginning with the 1 Thousand Cube.

Since he obviously cannot divide the single cube, he changes it at The Bank for 10 Hundred Squares. He now has 12 Hundred Squares—these 10 plus the original 2 in the number 1294—and he begins to share them among the 3 children. Each child receives 4 Hundred Squares. Next he divides the 9 Ten Bars; each child receives 3. Then he divides the 4 Units; each child receives 1. One unit remains which he cannot divide. The answer is what one person receives, 431, with a remainder of 1.