

RELATIONSHIP OF CHILDREN'S ABILITY
TO CONSERVE NUMBER AND QUANTITY
TO THEIR ACHIEVEMENT IN ARITHMETIC AND TO AGE AND SEX

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ABSTRACT

The study aimed at finding relationship of children's ability to conserve number and quantity to their achievement in arithmetic and to age and sex. The sample consisted of 189 first and 2nd grade children. The Result showed that the ability to conserve number and quantity was not sex dependent. A significant relationship existed between ability to conserve number and chronological Age. The relationship of ability to conserve number and quantity and achievement in arithmetic although not significant was very near to the significant level.

INTRODUCTION

Piaget (6) has described cognitive development in terms stages. He distinguishes four stages in the development of intelligence: first the sensorimotor period before the appearance of language; Second, from about two to seven years of age, the preoperational period; Third, the period from seven to twelve years of age, the period of concrete operations, and fourth after twelve years of age, the period of formal operations.

According to piaget, one of the most important components of the transition from preoperational to concrete operational thought is the acquisition of various conservations, that is, the cognitive realization that certain quantities (mass, number, length, etc) remain invariant in the face of certain transformations. Piaget has theorised that the development of conservation of number and quantity follows a definite pattern and that the development of this ability results more from maturation than from training. Many piagetians like Flavell (1), Overholt (4), Williams Jr (7)