



## A STUDY ON ARITHMETIC DIFFICULTIES OF CHILDREN IN PRIMARY SCHOOLS

Dr. S. Rajaguru

Principal Sri Ramakrishna Mission Vidyalyaya College of Education  
Coimbatore – 641 020

### ABSTRACT

Arithmetic ability is an essential academic trait exists in various degrees among different individuals. It is considered as a base for higher order academic entity necessary for succeeding in the all types of tasks in the learning environment. As such the present study is on the identification of children with arithmetic difficulties in primary schools. The study was conducted with an objective to identify and analyse arithmetic difficulties in the primary education. It was conducted on a sample of 528 children (276 boys and 252 girls) from stds IV and V. The findings of the study shows significant difference in the arithmetic difficulties between Government Aided school children and unaided school children but no significant difference exist in the arithmetic difficulties between boys and girls. The children in Government aided schools committed more errors in arithmetic Tasks than unaided schools.

**KEYWORDS :** Arithmetic difficulties, arithmetic tasks, Government aided and unaided school

### INTRODUCTION

Arithmetic difficulties are common in both children and adults, and they can have a great impact on people's lives. The studies to measure arithmetic difficulty in India are scanty and its importance is under recognized. The true prevalence of the problem remains disputable among the scholars due to various diagnosis criteria and measurement tools. To fill the knowledge gap, the investigator studied arithmetic difficulties of the children in the primary education. The aim of the current study was to develop Diagnosis Test for Arithmetic Difficulties (DTAD), any gender differences in arithmetic difficulties among the children in the primary education and any difference in the type of school management in arithmetic difficulties among the children. The present study geographically represents the children studying in fourth and fifth standard in select primary schools of Madurai, Salem and Coimbatore, Tamilnadu.

### TITLE OF THE PROBLEM

A study on Arithmetic Difficulties of Children in Primary schools

### OBJECTIVES

The following are the important objectives of the study

1. To identify the arithmetic difficulties in the Primary school children.
2. To study the arithmetic difficulties of the children.
3. To study the significant difference if any in the arithmetic difficulties among the children with regard to gender difference.
4. To study the significant difference if any in the arithmetic difficulties among the children of government aided schools and unaided schools.

### METHODOLOGY

The investigator followed the survey method for the present study. Diagnosis Test of Arithmetic Difficulties (DTAD) developed by the investigator was administered to the select elementary school children of Coimbatore, Madurai and Salem Districts of Tamilnadu. The elementary school children have responded to the DTAD. The data thus collected were put into differential analysis.

### TOOL USED IN THE STUDY

The investigator developed Diagnosis Test of Arithmetic Difficulties (DTAD) consisted of 20 domains related to basic arithmetic tasks. Identifying numbers, Counting objects, ascending order, descending order, simple addition, simple subtraction, simple multiplication, simple division, filling the missing numbers, statement problem related to identifying number of objects, statement problem related to simple

division, statement problem explain maths, statement problem related to simple subtraction, abstract subtraction, subtraction task -nonverbal form, time concept, numerical ability, set concept, reasoning ability and creativity are the domains included in the DTAD.

### SAMPLE FOR THE STUDY

The purposive Sampling technique was applied to select the 5 Government Schools, 2 aided schools and 5 unaided schools from the Coimbatore, Madurai and Salem district of Tamilnadu. Diagnosis test scores of 528 children (276 Boys and 252 Girls) from Std IV and V were collected from 12 (5 government, 2 aided and 5 unaided) different schools.

### DATA GATHERING PROCEDURE

The investigator met the teachers, children in their classroom and explained them about the DTAD. After clearing their doubts of the teachers as well as the children about the test, the investigator distributed DTAD the children. Utmost care was taken by the investigator for collecting data and scoring of the test papers.

### RESULT AND DISCUSSION

The data collected from the sample were analysed by using appropriate statistics statistical technique. The t-test was applied to find out if any difference is found in the arithmetic difficulties faced among the children with regard to gender difference and type of schools where they studied. The following table is the self-explanatory of the analysis of this study.

Categories	N	Mean	SD	t-value
Boys	276	55.76	7.79	0.77
Girls	252	56.31	8.39	(NS)
Aided School	66	53.51	7.85	3.71**
Unaided School	341	57.41	7.60	
Aided School	66	53.51	7.85	0.24
Govt. School	121	53.48	7.60	(NS)
Govt. School	121	53.48	8.62	4.47**
Unaided School	341	57.41	7.60	

Note: 1. N.S means not significant at 0.05 level

2. \*\* means significant at 0.01 level

From the table it is observed that both boys and girls committed similar type of errors in arithmetic tasks. The children of unaided schools committed less number of errors in arithmetic tasks than children of the aided and Government schools. It was found that 12.68% of the children in the primary education are committing errors in basic arithmetic tasks. Arithmetic skills taught in early childhood education have to be designed to provide the foundation to the children need to

succeed in elementary school and beyond.

### **SUGGESTION AND RECOMENDATIONS**

The following are the feasible suggestion to enhance the arithmetic skills among children:

- Early childhood education should introduce simple mathematical concepts.
- Schools should give remedial classes in arithmetic difficulties.
- Teachers may be given training in diagnosis of arithmetic difficulties.
- The primary school curriculum should be enriched with movement education and concrete experiences.

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