



MATHEMATICAL ERRORS COMMITTED BY PRIMARY SCHOOL STUDENTS

S. K. Panda, Ph.D.

Asst. Prof. in Education, Army Institute of Education, Greater Noida, UP.

Abstract

The present study was conducted to see the mathematical errors committed by primary school students. The major objective of the study was to find out the errors in addition, subtraction, multiple, division, decimal, fraction, percentage, profit and loss and rate of interest committed by the primary school students on mathematics. The sample of the present study has been selected simple randomly from the primary school students of Gautam Budh Nagar of UP. The finding of the present study revealed that more than twenty five percentage of primary school students committed mathematical errors in addition, subtraction, multiple, division, decimal, fraction, profit and loss and rate of interest.

Key Words: *Mathematical Errors, Primary Schools Students*



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Mathematics has played a decisive role in building up every civilization. In recent years there has been a growing recognition that pupils should learn mathematics in such a way that they can see its relevance to the world in which they live and be able to use it to gain a better appreciation of the world. Mathematics plays a predominant role in our everyday life and has become an indispensable factor for the progress of our present day world.

Abstraction is one quality that permeates all mathematics. The first intimations of mathematics are no doubt to be found in counting. Counting starts from day one of the birth of a person. The act of counting is almost involuntary,

but what underlies is profoundly abstract. The human mind recognizes that there is an attribute that it can ascribe to a collection or set of entities. This attribute is what we call 'the number of entities in collection of numbers. Abstract may be at the root of counting but counting owes its discovery to down-to-earth, mundane compulsions: exchange of goods and barter where one has to set values on different commodities. The market place is undoubtedly the principal driving force for all the arithmetic we learn at school. Totaling stock led to addition and multiplication, balancing accounts to the invention of subtraction, sharing assets to division and so on.

Many engineering disciplines interact with mathematics; the level of sophistication of mathematics used in dealing in engineering problems has grown by leaps and bounds and with it the ability to handle and more and more and complex. A great deal of the mathematics used in engineering is in the area of differential equation off-shoot of the calculus. Probability theory is another area with profound application in engineering problems.

Biology and medicines which seemed to have practically no use for advanced mathematics at the beginning of the last century are now immensely using sophisticated mathematical tools. Mathematics has made its advent into social sciences as well in the recent decade. The work of the Noble Laureates is dependent on the mathematics.

The revolution in Information technology has its roots in mathematics. In sum, mathematics has been a major contributor to human progress in diverse directions in the recent era. It has also contributed in some major to the business of military development and war itself. It is said that The First World War was of the chemist, the second that of physicist and if there is going to be (God forbid) it will be the mathematicians. There is also a somewhat indirect impact that mathematics has had on human affairs. Training in mathematics enables a person to develop his capabilities in logical analysis of situation and helps think objectively one issue in general. Western society seems to have had good appreciation of the importance of science in large, and mathematics in particular. 'Mathematics is the queen of sciences'. These are the words of Carl Frederick Gauss. This sentiment has been expressed in the ancient Vedic mathematics. It is my hope that what I had to say here will help us understand the importance of that mathematics claims in the present era of globalizations, computerization and cut throat competition. Hence the

investigator found a scope to undertake a study on mathematical errors committed by primary school students.

Objectives Of The Study

1. To find out the errors in addition committed by the primary school students on mathematics.
2. To find out the errors in subtraction committed by the primary school students on mathematics.
3. To find out the errors in multiple committed by the primary school students on mathematics.
4. To find out the errors in division committed by the primary school students on mathematics.
5. To find out the errors in decimal committed by the primary school students on mathematics.
6. To find out the errors in fraction committed by the primary school students on mathematics.
7. To find out the errors in percentage committed by the primary school students on mathematics.
8. To find out the errors in profit and loss committed by the primary school students on mathematics.
9. To find out the errors in rate of interest committed by the primary school students on mathematics.

Hypotheses

- 1 There exist no errors in addition committed by the primary school students on mathematics.
- 2 There exist no errors in subtraction committed by the primary school students on mathematics.
- 3 There exist no errors in multiple committed by the primary school students on mathematics.
- 4 There exist no errors in division committed by the primary school students on mathematics.
- 5 There exist no errors in decimal committed by the primary school students on mathematics.
- 6 There exist no errors in fraction committed by the primary school students on mathematics.

- 7 There exist no errors in percentage committed by the primary school students on mathematics.
- 8 There exist no errors in profit and loss committed by the primary school students on mathematics.
- 9 There exist no errors in rate of interest committed by the primary school students on mathematics.

Research Methodology

To pursue the purpose of the study the Descriptive Survey Method of research was employed.

Selection Of The Sample

The researcher used simple random sampling for the purpose of the present study. The researcher collect data from the six primary schools, 120 students were taken on the sample of the study.

Tools Used

The researcher was used self developed questionnaire for collection of data.

Analysis And Interpretation

The data gathered so far has been analyzed through proper statistical techniques and results have been interpreted. Analysis was done in the following way.

Table-1 Students Responses On Addition

Well Understand	Problem Suffers	Not Clear	Total
86(71.67)	14(11.67)	20(16.66)	120

It is revealed from the Table-1 that the 71.67% of student were well understood on the topic addition, whereas 11.67% were categorized as problem sufferers. The remaining 16.66% of students did not attempt to questions. It indicates that more than twenty five percentage of students responded were not clear about the addition.

Table -2Students Responses On Subtraction

Well Understand	Problem Suffers	Not Clear	Total
88(73.33)	15(12.50)	17(14.17)	120

It is observed from the Table-2 that the 73.33% of students were well understood on the topic subtraction, whereas 12.5% fall under the problem

suffers category. The remaining 14.17% of students did not attempt to questions. It indicates that more than twenty five percentage of students responded were not clear about the subtraction.

Table-3 Students Responses On Multiplication

Well Understand	Problem Suffers	Not Clear	Total
90(75.00)	12(10.00)	18(15.00)	120

Table-3 indicates that the 75% of students have clearly understood the topic multiplication, whereas 10% of students committed error in solving the multiplication. The 15% students have not attempted the question. It indicates that twenty five percentage of students responded were not clear about the multiplication.

Table-4 Students Responses On Division

Well Understand	Problem Suffers	Not Clear	Total
88(73.33)	21(17.5)	12(10.00)	120

It is observed from the Table-4 that the 73.33% of students were well understood on the topic division, whereas 17.5% fall under the problem suffers category. The remaining 10% of students did not attempt to questions. It indicates that more than twenty five percentage of students responded were not clear about the division.

Table-5 Students Responses On Decimal

Well Understand	Problem Suffers	Not Clear	Total
77(64.17)	23(19.17)	20(16.66)	120

It is observed from the Table-5 that the 64.17% of students were well understood on the topic decimal, whereas 19.17% fall under the problem suffers category. The remaining 16.66% of students did not attempt to questions. It indicates that more than thirty five percentage of students responded were not clear about the decimal.

Table-6 Students Responses On Fraction

Well Understand	Problem Suffers	Not Clear	Total
74(61.67)	25(20.83)	21(17.5)	120

It is observed from the Table-6 that the 61.67% of students were well

understood on the topic fraction, whereas 20.83% fall under the problem suffers category. The remaining 17.5% of students did not attempt to questions. It indicates that more than thirty five percentage of students responded were not clear about the fraction.

Table-7 Students Responses On Percentage

Well Understand	Problem Suffers	Not Clear	Total
99 (82.5)	11(9.2)	10 (8.3)	120

It is observed from the Table-7 that the 82.5% of students were well understood on the topic percentage, whereas 9.2% fall under the problem suffers category. The remaining 8.3% of students did not attempt to questions. It indicates that more than fifteen percentage of students responded were not clear about the percentage.

Table-8 Students Responses On Profit And Loss

Well Understand	Problem Suffers	Not Clear	Total
77(64.16)	23(19.16)	20(16.66)	120

It is observed from the Table-8 that the 64.16% of students were well understood on the topic profit and loss, whereas 19.16% fall under the problem suffers category. The remaining 16.66% of students did not attempt to questions. It indicates that more than thirty five percentage of students responded were not clear about the profit and loss.

Table-9 Students Responses On Rate Of Interest

Well Understand	Problem Suffers	Not Clear	Total
84(70.00)	16(13.33)	20(16.67)	120

It is observed from the Table-9 that the 70% of students were well understood on the topic rate of interest, whereas 13.33% fall under the problem suffers category. The remaining 16.67% of students did not attempt to questions. It indicates that thirty percentage of students responded were not clear about the rate of interest.

Educational Implication

This study aims at determining the errors committed by the 7th class students on subject mathematics. The results of this study have significant contribution for

the principal, head master, administrator and parents for better achievement in mathematics.

Teacher should help the students to read and write the numerical correctly. Teacher should make them clear the adjustments of carrying in case of addition, subtraction, multiplication and division. While adding or subtracting decimal numbers, the decimal of the next digit should be placed under the decimal at previous digit. The students should be help in solving money problems including profit, loss, preparing simple interest. The examples can be taken from daily life. The students should be made familiar with square. The students should have ample practice of drawing, these geometrical figures with the help of ruler. Teacher should follow play way method to teach mathematics. Teacher should allow the students to ask question in the class. Students must get enough practice in mathematics.

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