ISSN- 2349-7076

EduInspire-An International E-Journal
An International Peer Reviewed and Referred Journal
Council for Teacher Education
(CTE, Gujarat Chapter)
www.ctegujarat.orgEmail. jig_har@yahoo.com

A STUDY OF MATHEMATICAL SKILL OF HIGHER PRIMARY SCHOOL STUDENTS

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Abstract

In this study Researcher tried to study the Mathematical skill of Higher Primary School Students of standard 6. Random sampling technique was used for selecting the school as well the students from the selected school. The total sample was 214 students of higher secondary school from Lunawada Taluka. Researcher used Survey Research method in this study. Achievement test was prepared by researcher and established a content validity by the various the experts after that achievement test were used as a tool for the data collection. The collected data were analyzed by using the statistical technique of t-test for comparison of groups. Results Shows those girls and boys students have equal Mathematical skill, students of rural and urban area are equally expert in Mathematics and granted schools students and private schools student also have same Mathematical skill.

Keywords: Mathematical skill, area, achievement

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Introduction

Education is very important part of human life. Education is helps to develop personality of the person like; moral personality, mental personality and emotional personality. Education helps to develop formal and informal abilities of children. Education is the continuous learning process, which helps to develop knowledge, skills, values and beliefs of students. Education helps to make easy learning process of any age, caste or any region.

Education helps to develop personality, thinking, skills, character, attitude, knowledge, experience, etc. School is very important institute of education which helps to develop formal and informal education of children. In that formal education is mostly develop in primary school, upper primary school, secondary school and higher secondary schools. In schools there are many subjects, like; Mathematics, science, social science, English, Hindi, Gujarati, etc. In that Mathematics is very important subject. But every student/person thinks that mathematics is very hard subject. They prepare this subject for only purpose of exams. Mathematics is very important in day to day life. It is helpful in counting of money, counting of anything; it is helpful in business, etc. Mathematics used in various fields, like; engineering, banking, biology, physics, chemistry. Mathematics is the basic of every subject or every field.

Every student does not like mathematics. They think that the mathematics is very difficult subject to study. But a good teacher has power to change this negative thought of students. If teacher use various skills in the classroom to teach mathematics so teacher can change the mind of students. Skills are also important part of education. A skill helps to teach easily the subjects which are boring in studying.

Skill is the ability or capacity of person to do something new. There are so many basic skills which are requiring to all people. There are communication skills, problem – solving skills, teaching skills, etc. basic skills which are required for all people. Mathematics is the difficult subject for many children but in mathematics there are many skills are present which helps to improve interest in mathematics. There are many skills like; numeric skill, problem-solving skill, algebra, repetition, math games, etc. In mathematics majorly four basic skills are present. Addition, substation, multiplication, division these four skills are the base of mathematics. With the help of these four skills any children or person solve every problem of mathematics.

RATIONALE OF STUDY

In present scenario Education is most important in everyone's life. Without Education person not survive with good life. Mathematics is one of the important subjects in all subjects. With the help of mathematical skills students can easily solve any mathematical term. Mathematics is most important subject. Because it is very helpful in daily life, regular calculation, etc., Mathematical skills are also important because every student does not like mathematics, so with the help of the various skills teacher should help to students to learn mathematics and increase the interest in mathematics.

Many researchers are been carried out research under the topic on Mathematical skills. The previous researcher has discussed about the Vedic mathematics, reasoning skills, mathematical thinking skills, and many more.

Rahman, A., Sukinnah, E., Shahrill, M., Abbas, N. A., & Tan, A. (2017) studied on "developing Students Mathematical Skills Involving Order of Operations". In this study, the "hierarchy-of-operators triangle" by Ameis (2011) was introduced as an alternative BODMAS approach to help students in gaining a better understanding behind the concept of the order of operations. The study involved 21 students from Year 9 in one of the government secondary schools in Brunei Darussalam. Mixed method research design was adopted for this study.

Blaylock, B. K., & Kopf, J. M. (2012) studied on, "The Impact of Arithmetic Skills on Mastery of Quantitative Analysis". This study was done by the quantitative analysis method. Eighty-seven students were tested for their ability to do simple arithmetic and algebra by hand. The study revealed a significant relationship between the ability to accurately do arithmetic calculations and the ability to recognize the appropriate tool and creating a model. It found no significant relationship between results interpretation and arithmetic skills.

The present study focuses on the basic mathematical skills of students standard six. Here, basic skills consider addition, subtraction, multiplication and division. These four skills are basic for all mathematic concepts. These are helpful to student to solve the entire sum. This study will helpful to teacher as well as students. Research is carried out with a questionnaire which carries the questions about addition, subtraction, multiplication, division and all four together which is been studied by the till 5th standard. The comparison of different variable as locality, gender and type of school will provide the data that will be helping their searcher to analyze the level of students and its implication by the students in mathematics. This comparison will helpful for the improvement of the students' performance.

DEFINITION OF KEY TERM

MATHEMATICAL SKILL

According to international dictionary of Education, "Mathematics is the process of defining ideas, words, which we have to use to describe the world, understanding, the simple universal rules which have been discovered by those before us, connecting facts and events and learning logical methods of combining the simple rules to understand and predict complex phenomena."

According to Wikipedia (2020), "skill is the ability to perform an action with determined results often within a given amount of time, energy, or both. Skills can often be divided into general and domain-specific skills.

In this study. Mathematical skill means the ability to solve the problem in mathematics with the help of various way. There are so many skills used in mathematics. It is helpful to develop the confidence and interest in the mathematics.

Here, researcher uses addition, subtraction, multiplication, division as a mathematical skill. It is the very basic process of the mathematics.

OBJECTIVE OF THE STUDY

1. To study Mathematical skill of Higher Primary School Students.
2. To study the Mathematical skill of Higher Primary School Students with reference to gender.
3. To study the Mathematical skill of Higher Primary School Students with reference to area.
4. To study the Mathematical skill of Higher Primary School Students with reference to types of school.

HYPOTHESIS OF THE STUDY

1. There will be no significance difference between the mean score of the Mathematical skill of boys and girls' students of Higher Primary School.
2. There will be no significance difference between the mean score of the Mathematical skill of Urban Area and Rural area students of Higher Primary School.
3. There will be no significance difference between the mean of the Mathematical skill of Granted schools and private school students of Higher Primary School.

SIGNIFICANCE OF THE STUDY

We all know that Mathematics is the very important subject in Education. All students are not like Mathematics. Students are not interested to learn the mathematics. They are considered Mathematics is as a boring subject. There are some skills are useful in the mathematics to increase the confidence and interest of the students.

There are many skills in the mathematics but here researcher consider four main and basic skills of mathematics which are: Addition, Subtraction, Multiplication, Division. These skills are very basic skills which is regularly used by every human being. All the concept of mathematics solves with the help of these basic four skills or operations.

It is important to check these skills in standard-6 students because if the basic is not clear, students have many difficulties to learn new concept. So, if teacher know the knowledge of student's mathematical skills, they teach easily and student also learn easily.

DELIMITATION OF THE STUDY

The present study is delimited with reference to below mention points:

1. This study delimit to the Primary school students only.
2. This study was confined to the six standard students only.
3. This study was conducted on only Gujarati medium students of standard 6.
4. This study was conducted in Lunawada taluka of Mahisagar District.

VARIABLE OF THE STUDY

Researcher considered various variables for the study which is mention here.

1. Independent variable

- Gender (Boys and Girls)
- Area (Urban and Rural)

- Type of school (Granted and Private)

2. Dependent variable

- Score of Achievement Test

POPULATION

For present study, the population consisted of the students of standard-6 in gujarati medium School of Mahisagar District.

SAMPLE SELECTION

In Mahisagar District, there are total six talukas but here, researcher consider only one Taluka from six talukas, which was Lunawada taluka selected by Random Sampling technique. From the Lunavada taluka researcher take total five granted schools and two private schools from whole Lunawada taluka. These sample also selected by Random Sampling Technique.

There were 214 students selected as a sample, in which 70 boys and 63 girls taken from Grant in Aid schools and 47 boys and 34 girls taken from Non-Grant in Aid schools. In which four schools (total 103 students) were selected from Rural area and three schools (total 111 students) were selected from Urban Area.

TOOLS FOR DATA COLLECTION

In this study researcher used the achievement test as a tool for the data collection for measuring the Mathematical skill of the students. This tool was developed by researcher and established the content validity through the validation by the various expert of Mathematics.

RESEARCH METHOD

The aim of this study was to Study the Mathematical skill of standard-6students. The present study was descriptive in nature. In this study survey method was used as research method.

DATA COLLECTION PROCEDURE

In this study data were collected by the survey method from students of standard 6. With the prior permission of School Principal data were collected by the researcher. To take permission from the school Principal, researcher has explained research objectives to the principal of all schools. After permission from the principal, researcher give the instruction to the students regarding the test. After that researcher took the test of the students in his presence and collect the data.

DATA ANALYSIS

According to the Objectives and Hypothesis researcher calculate the t-value for the data analysis and then do the interpretation for the same.

1. **Analysis and interpretation of mean score of Boys and Girls of Lunawada taluka.**

Table - 1

Calculation of t-value of Boys and Girls of Lunawada taluka

Gender	Number	Mean	Standard deviation	SE_D	t-value	Significance level
Boys	117	29.111	12.382	1.6974	1.5987	Not significant at 0.05
Girls	97	31.825	12.344			

Here in the table -1, the calculated t-value is 1.5987 is lower than the table value 1.96 which is not significant at 0.05 level. So, hypothesis, "There will be no significant difference between mean score of boys and girls of Lunawada taluka" is not rejected at 0.05 level. Therefore, we can say that there is no significant difference in mean score of boys and girls of Lunawada taluka. It means that girls and boys have same Mathematical skill in Lunawada taluka.

2. **Analysis and interpretation of the mean score of Urban and Rural area of the Lunawada taluka.**

Table-2

Calculation of t-value of Urban and Rural Area of Lunawada taluka

Area	Number	Mean	Standard deviation	SE_D	t-value	Significance
Urban	111	29.86	10.53	1.719	0.587	Not significant at 0.05
Rural	103	30.864	14.191			

Here in the table-2, the calculated t-value is 0.587 is lower than the table value 1.96 which is not significant at 0.05 level. So, hypothesis, "There will be no significant difference between mean score of urban and rural area Lunawada taluka" is not rejected at 0.05 level. Therefore, we can say that there is no significant difference in mean score of urban and rural area of Lunawada taluka. It means that rural area students and urban area students have same mathematical skill in Lunawada taluka.

3. **Analysis and interpretation of the mean score of Type of Granted and Private Schools of the Lunawada taluka.**

Table-3

Calculation of t-value of Granted and Private schools of Lunawada taluka

Type of school	Number	Mean	Standard deviation	SE_D	t-value	Significance
Granted	133	31.22	12.98	1.69	1.371	Not significant at 0.05
Private	81	28.901	11.346			

Here in the table-3, the calculated t-value is 1.371 is lower than the table value 1.96 which is not significant at 0.05 level. So, hypothesis, "There will be no significant difference between mean score of granted and private schools of Lunawada taluka" is not rejected at 0.05 level. Therefore, we can say that there is no significant difference in mean score of granted and private schools of Lunawada taluka. It means that students of granted schools and private schools have same mathematical skill in Lunawada taluka.

MAJOR FINDINGS OF THE STUDY

1. In Lunawada taluka, girls and boys have same Mathematical skill that means they both are equally good Mathematics.

2. In Lunawada taluka, rural area students and urban area students have same Mathematical skill. So, we can say that students of rural and urban area are equally expert in Mathematics.

3. In Lunawada taluka, granted schools students and private schools' students have same Mathematical skill. Which means that both types of school students are so good in Mathematics.

EDUCATIONAL IMPLICATIONS

1. This study is helpful to know about the Mathematical skill of the students of standard-6.
2. Researcher using four basic Mathematical skill which are helpful to know the basic knowledge of the students.
3. This study will helpful to the teacher to know the basic knowledge of students

mathematics.

4. This study will helpful to the parents of the students to know the progress of child.
5. This study includes the concept to f basic mathematics up to 5th standard which is useful all the concept of mathematics.

CONCLUSION

For the all-round development of the child, all the subjects are very useful. Mathematics is playing an important role for attitude development towards science as well as Mathematics also. So, this study is helpful to the students as well as teachers to know about the mathematical skill of their students. Students can easily develop interest and the confidence. We can try to provide free environment to them for removing the fear of Maths learning. It is also helpful to teachers for the knowing basic knowledge of students.

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Paper Received : 06th April, 2021
Paper Reviewed : 30th May, 2021
Paper Published : 1st June, 2022