

A Comparative Study of Mathematics Achievement of Government and Private School Students of Secondary Level

Moinul Hassan Ahmed

Research Scholar, Department of Education,
RKDF University, Bhopal (MP)

Prof. (Dr.) M.S. Pawar

HOD, Department of Education,
RKDF University, Bhopal (MP)

ABSTRACT

The present study has been designed to investigate the difference in the mathematics achievement of government and private school students of secondary level. The study was conducted over the sample of 200 students (100 of government schools and 100 of private schools) of class 10th of different schools of Bhopal (MP). Annual high school examination marks of maths subject were used to measure students' mathematics achievement. Results indicate that no significant difference has been found in the mathematics achievement between the government and private school boys/students of secondary level while a significant difference found in the mathematics achievement between the government and private school girls of secondary level.

Key Words: Mathematics Achievement, Government and Private School, Secondary Level.

Education is the most important medium used for human development. It is the only medium with the help of which all-round development of all aspects of the child can be done. Education is not confined to the four walls of the school, but the knowledge imparted during the period from the time the child enters the school to the completion of schooling is accepted as education in a narrow sense. It is a dynamic process and its main objective is the physical, intellectual, social and emotional development of the individual.

The entire nation can progress on the path of progress only through the complete education of the student, which includes the education of mathematics. Today the development of the country depends on these students. The country's prestige, economic development, national unity, preservation and upliftment of cultural development, sense of public welfare, international goodwill and the responsibility of security of the country rest on the shoulders of these future leaders. But for this we have to do all round development of these future leaders students, which also include physical, social intellectual development. Mathematics has a major role in the overall personality and educational development of the child. Therefore, for the fulfillment of this objective, the researcher has made an attempt to do a comparative study of the achievement of the students of secondary level government and non-government schools in the subject of mathematics through this study.

Due to the important role of mathematics achievement of students in determining their future life, comparative study of mathematics achievement of government and private school students seems to be very necessary and timely. Some researchers have also been done in the past related to the research presented like- **Anjum, Mohasina; Ansari, A; Patel, Mushtaq Ahmed I. (2010)** conducted a study on 'A study of the causes for under-achievement in mathematics among seventh standard girls in primary schools of Bijapur'. The finding of the study revealed that girls studying in aided schools face more problems in learning mathematics than the girls studying in unaided schools. This may be due to the personal care extended by the teachers and management in the unaided schools. **Khair, Tarig Mohamed Ali Mohamed; Khairani, Ahmad Zamri and Erofai, Tahra Aisa (2012)** conducted a study on 'Level of Students' Achievement in Mathematics at the End of Elementary Education in Yemen'. The result showed that 35% of the students answered correctly 50% or more items of the test, while 80% of the students made errors in the arithmetic problems, inequalities, equations solutions, division and addition of decimal fractions and Pythagorean Theorem applications. Result also showed that females tend to achieve better results in mathematics than males do. **Sharma, Brinda B. (2014)** studied and found that significant positive correlation between 5 dimensions of home environment and high academic achievement motivation. **Bhowmik, Manoranjan (2017)** conducted a study on 'Correlation Study on Xth Grade Students in Mathematics Achievement with Motivation and Mathematics Anxiety'. The results of the study showed that the mean achievement scores and

motivation scores of low, moderate and high anxiety groups were significantly different. Findings also revealed a low ($r = -0.29$) but significant ($p < 0.05$) negative correlation between mathematics anxiety and achievement and also a strong ($r = -0.69$) significant ($p < 0.05$) negative correlation between mathematics anxiety and motivation. The study also revealed a significant low positive correlation ($r = 0.31$) between motivation and achievement. **Arora, Anupreet Kaur (2017)** conducted a study on 'Study of Self-esteem, perceived stress and academic performance among adolescents.' The findings of the study revealed that the correlation coefficient stress and academic performance is significant thus the study reveal that stressors can motivate or humiliate a person in his or her educational journey. Correlation coefficient for the positive relation between self-esteem and academic performance is significant. **Joseph, P.P. (2017)** conducted a study on Comparative study of mental health and academic achievement of adolescent girls of Co-Educational School Girl and Girls Schools of Rural Area. The finding of the study revealed that there is no significant difference found between rural co-ed school girl and rural girls school students in academic achievement. **Kalsia, Priti (2017)** conducted a study on 'Mathematical Achievement of Senior Secondary School Students in Relation to Academic Anxiety'. The results of the study revealed that an inverse relationship was found between the mathematical achievement and academic anxiety of senior secondary school students. More specifically, as the level of academic anxiety increases, mathematical achievement decreases and vice-versa. **Pandey, Bhairab Datt and Nayl, G.S. (2018)** conducted a study on 'A study of Mathematical Achievement of Secondary School students'. The results of the study showed that there exists a significant difference between mathematical achievement of male and female students of class X from government and private Secondary Schools of Bageshwar district.

Objectives of the Study: -To compare the mathematics achievement between the government and private school boys/girls/students of secondary level.

Hypothesis of the Study: - There will be no significant difference in the mathematics achievement between the government and private school boys/girls/students of secondary level.

Tools of the study: - in order to know the mathematics achievement of student's annual high school marks award list (session 2019-20) has been used to collect the data.

Sample of the study- In the selection of sample by the researcher, full care was taken that with the saving of time, more accurate knowledge is obtained about the macro and it should be appropriate and above all in practical study. For this, a total of 200 students 100 of government schools (50 boys + 50 girls) and 100 of private schools (50 boys + 50 girls) of class 10th were selected.

Research Methodology - In present research, the researcher has done comparative study of academic achievement between class 10th students of government and private schools of secondary level. The researcher has used the survey method to achieve the objectives set for this study. A total of 200 students 100 of government schools (50 boys + 50 girls) and 100 of private schools (50 boys + 50 girls) of class 10th were selected by simple random sampling method. These selected students' mathematics achievement measured by annual high school marks award list (session 2019-20) has been used to collect the data. A master sheet was prepared based on the score. Those data were analyzed through various statistical methods based on the scores entered in the master sheet.

Analysis of the Results: -

Table No. – 01

Comparative results of the mathematics achievement between the government and private school boys of secondary level

Group	Strength	Mean	S.D.	'CR' value	'p' value
Government School Boys	50	61.18	24.65	0.23	> 0.05
Private School Boys	50	60.12	20.27		

df = 98

Table value at 0.05 level of significant = 1.98

From the results Shown in the above table it is clear that the mathematics achievement mean score of government school boys of secondary level is 61.18 and private school boys of secondary level is 60.12, table shows that the computed mean difference is 1.06 and it is not significant because its 'CR' value obtained is 0.23, which is less than the table value 1.98 at 0.05 level of significance on degree of freedom 98, so from the statistical point of view this value is not significant.

Therefore, based on above result, it can be concluded that no significant difference is found in the mathematics achievement between the government and private school boys of secondary level.

Table No. – 02

Comparative results of the mathematics achievement between the government and private school girls of secondary level

Group	Strength	Mean	S.D.	'CR' value	'p' value
Government School Girls	50	68.92	16.53	2.03	< 0.05
Private School Girls	50	61.10	21.56		

df = 98

Table value at 0.05 level of significant = 1.98

From the results Shown in the above table it is clear that the mathematics achievement mean score of government school girls of secondary level is 68.92 and private school girls of secondary level is 61.10, table shows that the computed mean difference is 7.82 and it is significant because its 'CR' value obtained is 2.03, which is more than the table value 1.98 at 0.05 level of significance on degree of freedom 98, so from the statistical point of view this value is significant.

Therefore, based on above result, it can be concluded that a significant difference has been found in the mathematics achievement between the government and private school girls of secondary level and the mathematics achievement of government school girls is found to be better than the private school girls.

Table No. – 03

Comparative results of the mathematics achievement between the government and private school students of secondary level

Group	Strength	Mean	S.D.	'CR' value	'p' value
Government School Students	100	65.05	21.34	1.49	> 0.05
Private School Students	100	60.61	20.93		

df = 198

Table value at 0.05 level of significant = 1.97

From the results Shown in the above table it is clear that the mathematics achievement mean score of government school students of secondary level is 65.05 and private school students of secondary level is 60.61, table shows that the computed mean difference is 4.44 and it is not significant because its 'CR' value obtained is 1.49, which is less than the table value 1.97 at 0.05 level of significance on degree of freedom 198, so from the statistical point of view this value is not significant.

Therefore, based on above result, it can be concluded that no significant difference found in the mathematics achievement between the government and private school students of secondary level.

Conclusion: - No significant difference has been found in the mathematics achievement between the government and private school boys/students of secondary level while a significant difference is found in the mathematics achievement between the government and private school girls of secondary level and the mathematics achievement of government school girls is better than the private school girls.

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