

A STUDY OF PROBLEM SOLVING ABILITY OF IX STD. STUDENTS

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ABSTRACT

The present research has been done on the problem solving ability of IX Std. students. The problem solving ability of a child develops a harmonious relationship between the child's environment and himself. The two main objectives of the study are to observe the problem solving ability of students of IX std. of govt. & private schools to observe the difference between the problem solving ability of girls and boys. For the present study, a sample of 60 students has been taken and standardized test of Problem Solving Ability developed by Dr. Smt. Rooprekha Garg has been used. By using the various statistical techniques the result is drawn that there is significant difference between problem solving ability of boys and girls of IX std.

INTRODUCTION

The problem solving is the highest operation of cognitive process which is also termed as most thoughtful teaching learning. The highest objective learning is related to the problem solving operation. John Dewey has emphasized the social problems for developing social efficiency among the students. Kurt Lewin's theory is also related to problem solving. Every person has some goals to attain. There are some obstacles or barrier is between the person and goal. This type of situation creates problems for him. He has to overcome this barrier to reach the goal. Thus, theoretical basis is given by Kurt Lewin and John Dewey. This operation of cognition is considered productive work.

MEANING AND DEFINITION OF PROBLEM SOLVING

There are needs and motives that are to be satisfied. For this purpose, definite goals or aims are set. In an attempt for their realization one experienced obstacles and interferences in one's attempt to achieve them. This creates problems and serious and deliberate efforts have to be made to overcome these impediments.

The productive work involved in the evaluation of the situation and the strategy worked out to reach one's set goals is collectively termed as problem solving. This is an essential exercise for individual advancement as also for the advancement of society. The meaning and

nature of problem solving is further clarified by the following definitions :

"Problem solving occurs when there is obstruction of some sort to the attainment of an objective. If the path to the goal is straight and open, there is no problem"

- Woodworth

"Problem solving is a form of learning in which the appropriate response must be discovered"

- Gates and Others

"Problem Solving behaviour occurs in novel as difficult situations in which a solution is not obtainable by the habitual methods of applying concepts and principles derived from past experience in very similar situations".

- Woodworth and Marquis (1948)

"Problem Solving is a process of overcoming difficulties that appear to interfere with the attainment of a goal. It is a procedure of making adjustment in spite of interference".

"Problem Solving is the framework or pattern within which creative thinking and reasoning takes place".

- B.F. Skinner

SIGNIFICANCE OF THE PROBLEM

The problem solving ability of a person varies his behaviour to produce a more harmonious relationship between his environment and himself. It is also a process by which a person maintains a balance between its needs and the circumstances that influence the satisfaction of

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these needs. A balanced personality of a person is the result of proper adjustment of an individual to his environment.

OBJECTIVES OF THE PROBLEM

The researcher had following objectives in her mind while planning the present study :

1. To study the problem solving ability of students of IX Std. in govt. and private schools.
2. To study the problem solving ability of boys and girls of IX std in government schools.
3. To study the problem solving ability of boys and girls of IX std. in pvt. schools.

HYPOTHESES

The hypotheses framed out by the researcher for her present study are :

1. There is no significant difference between problem solving ability of students of government schools and private schools.
2. There is no significant difference between problem solving ability of boys and girls of govt. schools.
3. There is no significant difference between problem solving ability of boys & girls of private schools.

SAMPLE

For this study a random sampling technique is used for the selection of sample.

1. The sample consisted of 60 students of IX std.
2. There are 30 boys and 30 girls of IX std.
3. 15 boys and 15 girls from govt. school and 15 boys & 15 girls from private school.

METHOD OF STUDY

The researcher has used Survey Method to conduct the present study.

TOOLS

Problem Solving Ability developed by Dr. (Smt.) Rooprekha Garg and published by Agra Psychological Research Cell.

STATISTICAL TECHNIQUES USED IN THE STUDY

In the present study, following statistics is used to give the raw scores a readable form and for the

purpose of interpretation :

1. Mean
2. Standard Deviation :
3. Critical Ratio (C.R.)

ANALYSIS OF HYPOTHESIS

1. There is no significant difference between problem solving ability of students of government schools and private schools :

Students of IX Std.	No. of Students	Mean	S.D.	d.f.	C.R.	Significance
Govt. School	30	15.23	2.03	58	2.76	Sig.
Private School	30	20.73	3.33			

Table value of C.R. = 2.00 at 0.05 level for d.f. = 58

Table value of C.R. = 2.66 at 0.01 level for d.f. = 58

From the above table, it can be seen that mean found for government school is 15.23 and mean found for private school is 20.73. Standard deviation calculated for students of government school and private school are 2.03 and 3.33 respectively. The Critical Ratio obtained from the data is 2.76, which is greater than the table value at 0.05 level, which is 2.00. Thus, the null hypothesis "there is no significant difference between problem solving ability of students of government schools and private schools is rejected".

2. There is no significant difference between problem solving ability of boys and girls of government schools".

Students of Govt. School	No. of Students	Mean	S.D.	d.f.	C.R.	Significance
Girls of IX Std	15	11.53	2.27	28	2.76	Sig.
Boys of IX Std	15	13.33	2.19			

Table value of C.R. = 2.05 at 0.05 level for d.f. = 28

Table value of C.R. = 2.76 at 0.01 level for d.f. = 28

From the above table, it can be seen that mean found for girls of government school is 11.53 and

mean found for boys of government school is 13.33. Standard deviation calculated for girls & boys of government school are 2.27 and 3.19 respectively. The Critical Ratio obtained from the data is 2.08, which is greater than the table value at 0.05 level, which is 2.05. Thus, the null hypothesis "there is no significant difference between problem solving ability of boys & girls of government schools is rejected".

3. There is no significant difference between problem solving ability of boys and girls of private schools".

Students of Pvt. School	No. of Students	Mean	S.D.	d.f.	C.R.	Significance
Girls of IX Std.	15	16.33	3.87	28	2.57	Sig.
Boys of IX Std.	15	18.13	3.98			

Table value of C.R. = 2.05 at 0.05 level for d.f. = 28

Table value of C.R. = 2.76 at 0.01 level for d.f. = 28

From the above table, it can be seen that mean found for girls of private school is 16.33 and mean found for boys of private school is 18.13 Standard deviation calculated for girls & boys of private school are 3.87 and 3.98 respectively. The critical ratio obtained from the data is 2.57, which is

greater than the table value at 0.05 level, which is 2.05. Thus, the null hypothesis "There is no significant difference between problem solving ability of boys & girls of private schools is rejected".

CONCLUSION

1. There is significant difference between students of Government Schools & Private Schools due to the effect of Educational Environment.
2. There is significant difference between Boys & Girls of Government Schools due to the effect of Social Environment.
3. There is significant difference between Boys & Girls of Private Schools due to the effect of Social Environment.

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