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A Study On Problem-Solving Ability Of Class XI Students In Aizawl City In Relation To Their Stream Of Study

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Abstract

This study was conducted to study the problem-solving abilities among higher secondary school students in Aizawl city. The sample consists of 160 students from six different Higher Secondary Schools in Aizawl city in which three schools are Government schools and the other three are Private schools. Problem-solving ability test (PSAT) developed by L.N.Dubey was used as a tool for data collection. The findings of the study revealed that both the science and commerce stream students have very low problem-solving ability and there is no significant difference between science and commerce higher secondary school students in their problem-solving ability.

Keywords: Problem-solving ability, higher secondary students, Aizawl city, stream of study.

INTRODUCTION

Applying principles and facts to explain and resolve novel phenomena or forecast outcomes from existing circumstances is the process of problem solving. Finding answers to challenging or complicated problems requires problem-solving skills. According to Bala and Shaafiu (2016), students can strengthen their problem-solving skills to assist them successfully handle the difficulties they encounter on a regular basis. The ability requires students to apply their critical thinking, analytical, creative, and logical reasoning skills to a challenge that is presented in the present or in their daily lives. When students are faced with challenges in the classroom, it is critical that they are able to characterize the issue, ascertain its root cause,

choose potential solutions, and put those solutions into practice. Problem-solving skills are used outside of the classroom in both personal and professional contexts. The students' confidence in their capacity for mathematical thought is bolstered by their ability to solve problems. The child's ability to prioritize, plan, and carry out solutions that are beneficial for issue resolution is encouraged. It helps kids become more socially and situationally aware.

OBJECTIVES OF THE STUDY

1. To find out the level of problem-solving ability of science stream students in Aizawl city.

2. To find out the level of problem-solving ability of commerce stream students in Aizawl city.

3. To compare the difference between science stream and commerce stream students of higher secondary school on the level of problem-solving ability.

NULL HYPOTHESIS

There is no significant difference between the Problem-solving ability of science stream and commerce stream students of higher secondary school in Aizawl city.

RESEARCH METHODOLOGY

Method of Study: Descriptive survey method was adopted to study the level of Problem- Solving ability of higher secondary school students in Aizawl city.

Population and Sample: The population of the study comprise of all the class XI students from higher secondary schools in Aizawl city. The sample of the study consisted of 160 students of Class XI from six higher secondary schools in Aizawl city.

Tools: The investigator used the Problem-Solving Ability Test (PSAT) designed by L.N. Dubey.

Data Analysis: The collected data were analysed using statistical techniques like mean, percentage and standard deviation. For the comparison of the variables, t-test was used.

Delimitation: The present study is delimited to Science and Commerce students only.

ANALYSIS AND INTERPRETATION

1. The level of problem-solving ability of science stream students in Aizawl city.

In order to find out the level of problem-solving ability of science stream students in Aizawl city the scores obtained from the scale are analyzed and interpreted in accordance with the norms provided in the manual of the scale and the finding are presented in the following table:

Table 1. The level of problem-solving ability of science stream students

Sl No.	Level of Problem-solving Ability	No. of Students	Percentage	Average Score
1	Very High Ability	0	0	**8.03**
2	High Ability	2	2	
3	Average Ability	10	10	
4	Low Ability	18	18	
5	Very Low Ability	70	70	
6	**TOTAL**	**100**	**100**	

Analysis of the table shows that there are no students who scored very high Problem-solving ability and there are only two students who scored high on Problem Solving ability. Among 100 students, 70 students scored very low Problem-solving ability and the average score of science stream students is 8.03 which lies under the level of very low ability. It means that almost all the science stream students have very low problem-solving ability.

2. The level of problem-solving ability of commerce stream students in Aizawl city.

In order to find out the level of problem-solving ability of commerce stream students in Aizawl city the scores obtained from the scale are analyzed and interpreted in accordance with the norms provided in the manual of the scale and the finding are presented in the following table:

Table 2. The level of problem-solving ability of commerce stream students

Sl No.	Level of Problem-solving Ability	No. of Students	Percentage	Average Score
1	Very High Ability	0	0	**7.44**
2	High Ability	0	0	
3	Average Ability	5	8.34	
4	Low Ability	5	8.34	
5	Very Low Ability	50	83.33	
6	**TOTAL**	**60**	**100**	

Analysis of the table shows that there are no students who scored very high and high Problem-solving ability and there are five students who scored average on Problem Solving ability. Also, five students scored low problem-solving ability. Among 60 students, 50 students i.e., 83.33% scored very low Problem-solving ability and the average score of commerce stream students is 7.44 which lies under the level of very low ability. It means that commerce students have a bad performance in problem-solving ability.

3. Comparison between science and commerce students of higher secondary school on the level of problem-solving ability.

To compare the Problem-Solving ability of science and commerce students, the mean and standard deviation were calculated and the mean differences were tested by using the t test. The details are given in the table below:

Table 3. Comparison of Problem-Solving ability of science and commerce students

School	N	Mean	SD	t-value	Level of Significant
Science	100	8.03	2.92	1.51	Not Significant
Commerce	60	7.44	2.49		

The above table shows the result for the comparison between science and commerce students of higher secondary schools in their level of Problem-Solving ability. The table reveals the t-value for the mean scores of science and commerce students towards Problem Solving ability level and is found to be 1.51, which is not significant.

Therefore, the null hypothesis “there is no significant difference between the Problem-solving ability of science and commerce students in Aizawl city” is accepted. This finding shows that Problem Solving ability level of science and commerce higher secondary school students are not significantly different. Science and commerce students are not differed significantly in their ability of Problem Solving.

FINDINGS

1. The average score of science stream students is 8.03 which lies under the level of very low ability. It means that almost all the science stream students have very low problem-solving ability.

2. The average score of commerce stream students is 7.44 which lies under the level of very low ability. It means that commerce students have a bad performance in problem-solving ability.

3. There is no significant difference between the Problem-Solving ability of science and commerce students in Aizawl city. Thus, science and commerce stream students do not differ significantly in their Problem-solving ability.

CONCLUSION

From the study conducted, it can be concluded that the science and commerce students of Class XI in Aizawl city have a very low ability in problem-solving ability. It is found that there is no significant difference between the students of science and commerce streams of Aizawl city, they do not differ significantly in their problem-solving abilities. For students to succeed in their studies and in life, problem-solving skills are crucial. As a result, we might need to improve our teaching strategies to raise student level of understanding and improve their capacity for problem-solving.

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