



Relation of problem solving ability with respect to self concept of secondary school students

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Abstract

In today's world, life is full of problems and to solve them is a herculean task which requires a certain degree of thinking and reasoning of students. More complex the problem, higher the level of the thinking required. Problem solving and self concept have become the measures of intelligent behavior, as this requires thinking, imagination, observation, self image etc. In this research paper, an attempt has been made by the researcher to find the relation of problem solving ability with respect to self concept of secondary school students. Objectives and hypotheses were framed. Standardized scales were used to collect data of Jalalabad (west) tehsil of Fazilka District in Punjab state of India. Data was analysed systematically to verify hypotheses and hence to draw conclusions.

Keywords: self-concept, intelligent behavior, thinking, imagination, observation, self-image

Introduction

Education in real sense is to humanize humanity and to make life progressive, cultured and civilized. It is through education that man develops his thinking and reasoning, problem solving ability and creativity, attitude and intelligence, positive sentiments and skills and good values etc. The process of education is concerned with the ever growing society. Man learns every day and from every moment. With the passage of time, the aims of educations have undergone tremendous change but the basic aims of education have remained the same i.e. to modify the behaviour of the individual. It refers to all round development of personality *viz.* physical, intellectual social and emotional. This type of personality development is required so that person of all age groups can perform their duties and live peacefully in the society as a useful member. In today's world, life is full of problems and to solve them is a herculean task which requires a certain degree of thinking and reasoning. More complex the problem, higher the level of the thinking required. Problem solving has become a measure of intelligent behavior, as this requires thinking, imagination, observation etc. Problem solving is the framework or pattern within which creative thinking and reasoning takes place. It is the ability to think and reason on given level of complexity. People who have learnt effective problem solving techniques are able to solve problem at higher level of complexity than more intelligent people who have not received such training.

In recent years, an idea that has received importance in modern psychology is the self concept. The self concept may be best considered as a person's ideas, feelings and attitude about one self. Self-concept refers to global understanding a sentient being has of him or herself. Its purpose but can be distinguished from self consciousness is simply an awareness of oneself. It is also more general than self-esteem is purely which is evaluate element of self concept. Self-concept is composed of relatively permanent self assessments such as personality, attributes, knowledge of one's skills and abilities, one's occupation, habits,

awareness of one's physical attributes. Self-concept is not restricted to the present but includes past as well as future relives. The later or "possible selves" represent individual's ideas of what they might become, what they would like to become, what they are afraid of becoming. They correspond to hopes, fears, standards, goals and threats.

Huitt (2004) ^[13] "Self concept consists of various components or dimensions, most commonly (a) physical, (b) academic, (c) social. Physical self concept refers to our physical attributes (What we look like) and physical abilities, academic self concept refers how well perform in school and social self concept refers to how we relate our peers and others.

Thus self concept is made up of how we assess ourselves, how we see our personality and how we rate our skills and abilities. When we have self esteem is more positive, something falsely as we give ourselves more credit than is due.

Justification of the Study

The present study is dealing with students who may have so many problems, which they solve in their day to day life though their problem solving ability and skills. All the parents need their children to be bright and intelligent. Since, the adolescent age is the age of stress and storm. They need a lot of guidance and awareness. They develop their own self-concept regarding each and everything. The present study is dealing with the problem solving ability of the students to solve their day by day problems. Their self-concept ability helps them a lot in their problem solving. So, the aim of study is to find students problem solving ability in relation to their self-concept.

Objectives of the Study

- To study the relation of self-concept with problem solving ability of secondary school students.
- To study the relation of self-concept with problem solving ability of govt. Secondary school students.

- To study the relation of self-concept with problem solving ability of public secondary school students.

Hypotheses of the study

- There is no significant relation of self-concept with problem solving ability of secondary school students.
- There is no significant relation of self-concept with problem solving ability of govt. secondary school students.
- There is no significant relation self-concept with problem solving ability of public secondary school students.

Operational Definition

Self concept

Self Concept is operational defined as a system of attitudes towards oneself. Just as a person, as a results of experiences, forms an attitude which he organize into a self consistent system and defends against threats and attacks, so the person also forms attitudes towards himself Self concept consists of all the perceptions, feelings attitudes aspirations and values of one concerning self.

Problem solving ability

Problem solving ability is a mental process that includes problem finding and problem shaping. It is considered the most complex of all intellectual functions. Problem solving has been defined as higher order cognitive process that requires modulation and control of more routine in fundamental skills.

Method and Procedure

In this investigation, the investigator employed the survey method in order to collect the necessary data for present study. The survey method to education is one of the most commonly used approaches. Survey method, in its simple form is concerned with those techniques and procedures which are used ascertain and establish the present status of hinges, situations, communities, individuals, groups, systems, attitudes, objectives, tends conditions or any other phenomena. The primary concern of this type of research is ‘present’ and not past or future. As far as the present study was concerned, it was an opining survey of students to know about their self concept towards problem solving ability. In this survey, generally the researcher makes use of questionnaires interviews to gather data from the selected groups by following stratifies random sampling techniques.

Selection of the sample

The sample for present study was selected from secondary school students of urban and rural areas of Jalalabad & adjoining areas. The stratified random sampling technique was used for the selection of the sample. Two schools from rural area and two from urban area randomly selected for collection of data. A sample of 100 students was taken for the study. Out of 100 student's 50 boys (25 from urban area and 25 from rural area) and 50 girls (25 from urban area & 25 from rural area) were taken for study.

Sample

- The present study is conducted on a sample of 100 secondary school students.
- Sample is selected from 50 govt. and 50 public secondary school students.

Design

The present study is conducted on 100 secondary school students. (50 govt. and 50 public) of Jalalabad (w).

Delimitations of the study

- The study is delimited to schools in Jalalabad (west) only.
- The study is conducted on 100 secondary school students (50 govt. and 50 public each).
- The study is confined to the two variables; study of problem solving ability and self-concept only.

Tools

The data was collected by the following tools

- Problem Solving Ability Test by Dr. Roop Rekha Garg.
- Self-concept Scale by Dr. Miss Mukta Rani Rastogi.

Statistical techniques to be used

For analysis and interpretation of the data, mean standard deviation and correlation method is used.

Table 1: Showing School wise and Sex wise division of Sample

Sr. No.	School	Boys	Girls	Total
1.	Govt. Girls Sen. Sec. School, Jalalabad	-	25	25
2.	Acme Public Sen. Sec. School, Jalalabad	12	13	25
3.	Panacea Public School, Jalalabad	13	12	25
4.	Govt. Sr. Sec. School (Boys), Jalalabad	25	-	25
	Total			100

Testing of hypotheses

The results have been discussed in the light of the study on one hand and previous research finding on the other.

H1: Hypothesis 1

There is no significant relation of self-concept with problem solving ability of secondary school students.

Table H1: Coefficient of co-relation for self-concept with problem solving ability of Secondary school students.

Sr. no.	Groups	No. of students	Mean	R _{cal}	R _{0.05}	R _{0.01}	Level of significance
1.	Self Concept	100	166.44	0.13	0.195	0.254	Not significant
2.	Problem Solving Ability	100	15.46				

df = N-2 = 100-2 = 98

The table H1 shows the calculated value of coefficient of correlation for main effect of self-concept on problem solving ability is. 13 which is less than the table value. 254 against 98 df at. 01 level and. 195 against 98 df at. 05 level. It shows that there is no significant relation of self-concept with problem solving ability of secondary school students. So, the hypothesis is accepted.

H2: Hypothesis 2

There is no significant relation of self-concept with problem solving ability of govt. secondary school students.

Table H2: Coefficient of co-relation for self-concept with problem solving ability of govt. secondary school students.

Sr. no.	Groups	No. of govt. second. school students	Mean	R _{cal}	R _{0.05}	R _{0.01}	Level of significance
1.	Self Concept	50	167.92	0.10	0.273	0.354	Not significant
2.	Problem Solving Ability	50	14.92				

df = N-2 = 50-2 = 48

Table H2 shows the calculated value of coefficient of correlation for main effect of self-concept on problem solving ability is .10 which is less than the table value .273 against 48 df at .01 level and .354 against 48 df at .05 level. It shows that there is no significant relation of self-concept with problem solving ability of secondary school students. So, the hypothesis is accepted.

H3: Hypothesis 3

There is no significant relation of self-concept with problem solving ability of public secondary school students.

Table H3: Coefficient of co-relation for self-concept with problem solving ability of public secondary school students.

Sr. no.	Groups	No. of public. Second. school students	Mean	R _{cal}	R _{0.05}	R _{0.01}	Level of significance
1.	Self Concept	50	164.96	0.03	0.273	0.354	Not significant
2.	Problem Solving Ability	50	16				

df = N-2 = 50-2 = 48

Table H3 shows the calculated value of coefficient of correlation for main effect of self-concept on problem solving ability is .03 which is less than the table value .273 against 48 df at .01 level and .354 against 48 df at .05 level. It shows that there is no significant relation of self-concept with problem solving ability of public secondary school students. So, the hypothesis is accepted.

Conclusions

- There is no significant relation between self-concept and problem solving ability of secondary school students. Thus, hypothesis No. 1 that there is no significant relation of self-concept with problem solving ability of secondary school students is accepted.
- There is no significant relation between self-concept and problem solving ability of govt. secondary school students. Thus, hypothesis No.2 that there is no significant relation of self-concept with problem solving ability of govt. public school students is accepted.
- There is no significant relation between self-concept and problem solving ability of public secondary school students. Thus, hypothesis No.3 that there is no significant relation of self-concept with problem solving ability of public secondary school students is accepted.

Suggestions for further study

- This study has been confined to Jalalabad (Tehsil) only. It can be conducted on other Districts and States also.
- In the present study a sample of 100 adolescents was taken. The Study may be conducted on large population.
- The study may be conducted on students of Aided Schools, Colleges and University.
- The present study is exclusively related to problem solving ability of school students in relation to self-concept. More studies can be conducted by taking other variables.
- The present study may be extended to study of problem solving ability in relation to other demographic variables.

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