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CREATIVE PROBLEM SOLVING ABILITY AMONG SECONDARY SCHOOL STUDENTS

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ABSTRACT

"Creative problem solving is looking at the same thing as everyone else and thinking something different."
-Albert Szent-Gyorgi

Creativity as a concept has different meanings and interpretations for different people. It is a construct not easy to define because it is a multi-faceted phenomenon. At one place Guilford observed, 'Creativity' like love is a many splendored things. Agreeing substantially with Guilford, Mackinnon (1970) explains, many are the meanings of creativity, for most it demotes the ability to bring something new into existence while novel and valuable products are fashioned. For still others, creativity is not the process but the product. Definitions of creativity range all the way from the notion that creativity is simple problem solving to conceiving it as the full realization and expression of an individual's unique potentialities. Such creativity properly carries all these meanings and many more besides. It is indeed a multi-faceted phenomenon. However, despite the fact that concept of creativity is so amorphous it is also highly useful.

KEYWORDS :*multi-faceted phenomenon,novel and valuable products .*

INTRODUCTION

Traditionally, creativity was considered a rare mysterious phenomenon blessed with divine inspiration, occurring mainly in a few outstanding geniuses, occurring mainly in a few outstanding geniuses like Davince, Mozarat, Einstein or Helmhdtz, although it was realized that many other generally more mediocre artists or scientists produced occasional or minor creative work. The current trend, however is to see creativity as spread through the entire population.

"Problem solving develops open mindedness and open mind communicates better than closed minds". According to de Bono "Problem solving is an important part of applied thinking". He observes that problem solving is by no means the whole of thinking but the processor is not essentially different from other thinking process, and it is a convenient way of demonstrating these processes. The basic idea of the Passi-Usha Test of Creative problem solving is derived from the definition given by de Bono. He

claims that if the name of problem solving is changed to dealing with a situation, overcoming an obstacle, bringing about a desired effect, making something happen, then it can be seen that the thinking involved is very much the thinking involved in everyday life even though the actual problem may appear exotic.

Medwick defined creative problem solving process "as the forming of associate elements into new combinations which either meet the specified requirements or are in some way useful''. Looking at H from the point of view the relationship between man and environment, Raju defined creative problem solving process as" the emergence in action of a novel relational product. Growing out of the uniqueness of the individual on the one hand, and the materials, events, people or circumstance of his life in the other.

SIGNIFICANCE OF THE STUDY:

Do individual differ in their creative problem solving ability. The present research reveals on how rural and urban students possess the creative problem solving ability, whether they are having the same creative problem solving ability or do they differ in this aspect.

At present days every child must be good creative problem solved, so that the child should face the problems in his future life time creatively. Either individual may be from rural or urban background. It is the duty of quality researcher to find out the facts related to this, and help in this regard by giving valuable suggestions for improvement.

Problem solving ability of students is influenced by many factors such as locality of individual, exposure to external affairs, thinking styles, parents' educational qualification, socio-economic status, etc.

By above means the investigator has selected the research topic entitled "Creative Problem Solving Ability among Secondary School Students: A Comparative Study".

OBJECTIVES:

1.To measure the creative problem solving ability among Secondary School Students.
2.To study the mean differences in creative problem solving ability among Secondary School Students with respect to their Gender, Locality and Type of School.

HYPOTHESES:

1.There is no significant difference in the means of creative problem solving ability between rural and urban Secondary School students.
2.There would be significant difference in the means of creative problem solving ability between male and female students.
3.There would be significant difference in the means of creative problem solving ability between Government and Private School Students.

METHODOLOGY:

The investigator selected Normative Survey as the method keeping in view the nature of the problem for the present study. The methodology of the present investigation can be described under three heads; viz. population and sample, tools and statistical techniques.

SAMPLING:

Systematic sampling technique was applied for the present study. Keeping the view of

population for the present study researcher selected locality as a factor for selection of sample. Here IX standard students were considered for the study are selected from ten different schools, five from urban locality and another five from rural locality from Shivamogga Taluk. The specified schools are classified based on type of management, i.e. Government and Private high schools. Again from each school only 10 male and 10 female students, i.e. 20 students from each school were considered.

TOOLS USED:

For the present study to measure the Creative Problem Solving ability of students Passi-Usha Test of Creative Problem Solving (PUTCPS) a standardized scale developed by B.K. Passi and Usha Kumar was used. The responses were nonverbal or in drawings form. The responses were scored for Originality and Elaboration. The scores on the dimensions of Originality and Elaboration were added so as to represent a measure of creative problem solving ability.

Originality was assessed know the bases of commonness of responses for which a three-point scale from Zero to Two was developed. Wrong responses were scored Zero, the right and more common responses were scored one, and exceptionality good and original responses were scored two.

STATISTICAL TECHNIQUES:

Research hypotheses were framed in accordance with objectives 2 and 3. To test the scored hypothesis explorative statistics was performed. The measures of central tendency mean and S.D. are calculated. Again to test the significance difference between the variable 't' test was conducted. To conduct the all above mentioned statistics, Statistical package of Social Science (SPSS) version 20 was used.

DATA ANALYSIS AND INTERPRETATION:

Hypotheses-1: There is no significant difference in the means of creative problem solving ability between male and female secondary school students.

Table No. 1: Mean, SD, 't' values of Creative Problem Solving Ability scores of male and female students

Gender	N	Mean	S.D	't'	Remarks
Male	100	3.81	1.24	2.5439	Significant at 0.05 level
Female	100	3.22	1.96		

The table-1 provides the mean, SD and 't' scores of male and female students. calculated 't' value which equals to 2.5439 confirms that there is a significant difference in the two means. As the obtained '' value is higher than tabled 't' value at 0.05 level of significance, hence statistically significant Hence, this concludes that "There is a significant difference in the means of creative problem solving ability between male and female secondary school students". male students possess higher creative problem solving ability compare to female students.

Hypotheses-2: There is no significant difference in the means of creative problem solving ability between urban and rural secondary school students.

Table No. 2: Mean, SD, 't' values of Creative Problem Solving Ability scores of male and female students

Locality	N	Mean	S.D	't'	Remarks
Urban	100	4.22	1.28	4.6161	Significant at 0.05 level
Rural	100	3.12	2.01		

The table-1 provides the mean, SD and 't' scores of male and female students. calculated 't' value which equals to 4.6161 confirms that there is a significant difference in the two means. As the obtained '' value is higher than tabled 't' value at 0.05 level of significance, hence statistically significant Hence, this concludes that "There is a significant difference in the means of creative problem solving ability between Urban and rural secondary school students". Urban students possess higher creative problem solving ability compare to Rural students.

Hypotheses-3: There is no significant difference in the means of creative problem solving ability between Government and Private secondary school students.

Table No. 3: Mean, SD, 't' values of Creative Problem Solving Ability scores of male and female students

Locality	N	Mean	S.D	't'	Remarks
Government	100	3.09	1.12	0.1438	Significant at 0.05 level
Private	100	3.12	1.76		

The table-1 provides the mean, SD and 't' scores of male and female students. calculated 't' value which equals to 0.1438 confirms that there is no significant difference in the two means. As the obtained '' value is less than tabled 't' value at 0.05 level of significance, hence statistically insignificant Hence, this concludes that "There is no significant difference in the means of creative problem solving ability between Government and Private secondary school students".

FINDINGS:

- There is a significant difference in the means of creative problem solving ability between male and female secondary school students. male students possess higher creative problem solving ability compare to female students.
- There is a significant difference in the means of creative problem solving ability between Urban and rural secondary school students. Urban students possess higher creative problem solving ability compare to Rural students.
- There is no significant difference in the means of creative problem solving ability between Government and Private secondary school students

DISCUSSIONS:

The gap existing between the rural and urban students can only be filled by conducting training in thinking skills which may help the students to develop broader outlook about life and inspite of non-

ability facilities and as that of urban students, development of Creative thinking skills may be a big resource for rural students. For this no need to hiring external trainers' services, but simply teachers can be trained and they can provide training to their students.

The classroom teacher can develop a scientific approach to solve problems that the students are expected to face in social life. The implication of this study is that all pupils can be provided with an environment, which is suitable according to their behaviour so that their creativity may be flourished. Moreover, home & school can play important roles in developing a positive attitude for the development of creativity among students.

Teacher can use pedagogical strategy for foster problem solving ability. The low level of problem solving ability is a pointer towards "learning deficiency syndrome" and needs attention of school authorities. Therefore, school authorities need to take steps to diagnose the crucial difficulty areas in basic education. For this purpose, the high school teachers are required to be trained for use of diagnostic and criterion based evaluation procedures to make teaching-learning process more effective as well as child centred to enhance level of problem solving ability.

Teachers must encourage students to adopt a reasonable risk-taking attitude while solving problems. Risk-taking attitude leads the students to overcome mental fixation while solving problems in skill tests, such as, reasoning skills test, problem solving ability test, personality test, and so on.

Awareness is to be brought about creativity and problem solving ability among the secondary school students by the Administrators. The teachers too have a great responsible in creative and problem solving ability. Parents should motivate and encourage their children in developing such creativity and problem solving ability Programmers should be conducted in such a manner in order to give more importance to creative skills and problem solving ability too. Curriculum should be constructed in such a way which gives importance only for the syllabus, but also for improvement of creativity and problem solving ability.

The study would provide relevant information to help in formulating various intervention programs for adolescents.

• Discussions, seminars, debates, brain storming sessions etc... can be included to increase the creative problem solving potentialities of the learners.

• The assistance received from classrooms are essential in the social and personal improvement of the students.

• Teachers can be creative to provide structured programmes for student's goal setting and problem solving.

• Life skill training programme modules can be prepared for each classroom students to prepare them for future work and life.

Looking at the literature, findings and discussions one can conclude that creative problem solving ability is a measure component of individual's personality growth. It is worth to conclude here the factors such as individual's socio-economic status, culture, social beliefs, exposure to new technologies are the general influenced factors on their way of thinking. Thinking in turn responsible for individual's outlook and approach towards any problem personal, social educational or any other related one.

Students studying in high school who are in the process of development towards adolescence are major concern for educationists, school psychologists and parent as well. As the adolescence is the stage of storm and stress students in this stage may phase number of personal and social problems, majority will be related to personal development. Hence, it is needful to provide the right type training

in the thinking process, so as to consider the problem more creatively and solve it in more enjoyable manner.

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