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SELF-CONFIDENCE OF 10th CLASS STUDENTS IN RELATION TO THEIR PROBLEM SOLVING ABILITY

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ABSTRACT

The concept of self-confidence is commonly used as self-assurance in one's personal judgment, ability, power, etc. Problem solving is the highest level of learning in the hierarchy proposed by Gagne which depends on the mastery of next lower types of learning. The task of problem solving requires prediction, analysis of facts and principles to develop cause effect relationship in physical phenomena of the environment. Students should be confident about solving these problems to solve any problem it must be sense of self-belief. They need to have the self-confidence to solve these problems rather than be afraid of them. The major objective of this study is investigatedself-confidence and problem solving ability of 10th class students in relation to gender and locality of the school.

Keywords- *Self-confidence, Problem solving ability, School students*

Students face many problems in their life like study and exam anxiety or stress. Problem solving style refers to the activities and skills that one attempted in order to understand the problem and identify effective solutions. It is a complex cognitive skill that characterizes one of the most intelligent human activities. It includes a complex set of cognitive behavioral and attitudinal components. So a student must be self- confident to solve any problem. The self-confidence for students is more important, as they have developed good decision making power. They need the knowledge and skill to solve the problems that arises in their daily life activities. The Schools teach through different subjects, how to handle the problems. In schools, students are taught concepts, rules and principles. They help the all the people in the society, from infancy to old age are affected with one or the other problem. Self-confidence opens doors and encourages students to take risks, express their creativity in classroom assignments and invest in the work they produce at school. When a child begins school they be able to use these problem solving skills in new social situations as well as apply them to their academic learning. A child with good problem solving skills will be able to use their initiative and be able to weigh up actions and consequences to guide their decisions throughout the school day.

The concept of self-confidence is commonly used as self-assurance in one's personal judgment, ability, power, etc. It is a positive belief that in the future one can generally accomplish what one wishes to do. Self-confidence is not the same as self-esteem, which is an evaluation of one's own worth, whereas self-confidence is more specifically trust in one's ability to achieve some goal, which one meta analysis suggested is similar to generalization of self-efficacy. Self-confidence typically refers to general self-confidence. This is different from self-efficacy, which psychologist (Bandura, 1986) has defined as a "belief in one's ability to succeed in specific situations or accomplish a task" and therefore is the term that more accurately refers to specific self-confidence. One of the most cited sources about self-confidence refers to it as simply believing in oneself (Benabou and Tirole, 2002). Another popular article defines self-confidence as an individual's expectations of performance and self-evaluations of abilities and prior performance (Lenney, 1977). Basavanna (1975) qouted self-confidence refers to act effectively in a situation to overcome obstacles and to get things go all right. Self-confidence means faith in one's own ability. According to Bandura (1986) self-confidence considered as one of the motivators and regulators of behavior in an

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individual's everyday life.

Problem solving is the highest level of learning in the hierarchy proposed by Gagne which depends on the mastery of next lower types of learning. The task of problem solving requires prediction, analysis of facts and principles to develop cause effect relationship in physical phenomena of the environment. Generally, our daily life activities are followed in routine and we do not face any problem to perform our routine duties Anice and Marice (2005). But it is not always so, sometimes we are confronted with a problem situation where we have to think and find out solution to reach the goal. Problem situation occurs when there is an obstacle to reach the goal. The obstacle may be physical, social or economical which may hinder the progress of the individual towards the goal. The greatest expenditure of intellectual energy in teaching is that it must be effective and is to make, a significant difference in the lives of boys and girls, is probably allocated to preparation for the task of teaching itself. Problem solving behaviour occur in novel or difficult situation in which a solution is not obtainable the habitual methods of applying concept and principles derived for past experience in very similar situation. 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 a mental process of raising a problem in the minds of students in such a way as to stimulate purposeful, reflective thinking for arriving at a rational solution.

Engin (2016) aimed to determine the relationship between self-confidence, test anxiety and musical skill levels of candidates attending music teacher tests. The study group of the correlation research pattern is formed of 233 candidates entered music teacher special skills test in Ynonu University. Before taking the test two data collection tool namely Self-Confidence Form and Test Anxiety Inventory were applied to candidates. Musical skills scores formed ofcombination of musical audition, musical playing and singing solo successes were taken from the university database. As a result of research it was determined that self-confidence of the candidates were high and musical skills and test anxiety scores were found to be moderate. It was found that there were significant relation in negative direction at low level between test anxiety and self-confidence and between self-confidence and musical skills there was moderate relationship in the positive direction. Solo singing was the dimension having the highest level of relationship in self-confidence and music skills areas. It has been determined that there was significant relationship between music skills and test anxiety at negative direction at low level: the highest level of relationship between musical skill dimensions was in musical audition scores. Vanaja and Geetha (2017) conducted of study to investigate self-confidence and locus of control in a cross-cultural context. Selected high school students from Government School, Private School and Government Aided School in Coimbatore District were compared on self-confidence and locus of control. In addition, relationships of these psychological aspects to each other were also examined. An examination of sex differences, as an independent variable, was also investigated on the sample of 300 high school students. It was inferred from the study that there is no significant difference among the students in their locus of control and self confidence with respect to medium of instruction, on the basis of gender and type of school.

Wismath (2014) investigated the perceptions of students of taking a university liberal education course designed to develop problem-solving skills. Based on both quantitative and qualitative data collected before, during and after the course, students reported increased communication skills, increased awareness of the importance of problem-solving skills in their major, and significantly increased confidence in their problem-solving abilities. They also demonstrated a strong awareness of how the skills they acquired transfer to both academic and real-world environments. Seyhan (2015) studied to determine the levels of perception of problem-solving ability, science process skills and logical thinking skills of prospective teachers. The second aim was to compare the effects of problem-solving applications (PSASL) and a more researcher-oriented teaching

method in the science laboratory on the perceptions of problem-solving ability, science process skills and logical thinking skills of prospective teachers. A pre-test– post-test control group design was used. Five prospective teachers were selected among the experimental group and were interviewed using the fully structured interview form about the "PSASL" and the process it involves. Interviews were used to augment the quantitative data. According to the results obtained within the scope of the study, it can be said that the effect of PSASL on the perception levels of problem solving skills, scientific process skills and logical thinking skills of prospective teachers is more effective than the more researcher-oriented teaching method application. Mary and Parrot (2018) investigated the impact of graphing calculator on students' problem solving success in solving linear equation problems and their attitude toward problem solving in mathematics. A quasi-experimental non-equivalent control and treatment group using the pre-test post-test design was employed in this study to test the hypotheses. The sample of the study involved two Form Four classes from one public secondary school in Sarawak, Malaysia. Students in the experimental group received problem solving based instruction using graphing calculator while the control group students underwent the traditional chalk and talk method without the graphing technology. Two instruments were used in this study, namely the Linear Equation Problem Solving Test and the Mathematical Problem Solving Questionnaire. Findings of this study show existence of a significant difference in the mean scores between the two groups; students who used graphing calculator performed better in problem solving tasks compared to students without access to graphing calculator. Results from the survey revealed that students who use graphing calculator have a better attitude toward problem solving in mathematics.

Alias and Hafir (2009) conducted a study to determine the relationship between type of confidence inducing stimulus, academic self-confidence and cognitive performance among engineering students. The results indicate that the positive group has statistically significantly higher ASC level (3.08) compared to the negative group (2.67) and the positive group also demonstrates a statistically significantly higher cognitive performance compared to the negative group; 71% and 54% respectively. It is concluded that boosting the ASC of engineering students can enhance their cognitive performance.

Students who studying in 10^{th} class are adolescents. Students at this stage are exposed to various at this stage are exposed to various problems related to their study. Self Confidence is the key to success, or we can say the first step to success. Those people who have self-confidence at work, school, and in their daily life always appear on top of world. Everything seems to go right for these people and they always seem to present themselves as calm, collected and successful in everything they do. Everybody can benefit from having good problem solving skills as we all encounter problems on a daily basis; some of these problems are obviously more severe or complex than others. It would be wonderful to have the ability to solve all problems efficiently and in a timely fashion without difficulty, unfortunately there is no one way in which all problems can be solved. Students should be confident about solving these problems to solve any problem it must be sense of self-belief. Students have to solve a variety of problems in the fields of their education. They need to have the self-confidence to solve these problems rather than be afraid of them. Therefore, we will be prove by this study that student need to have self-confidence to solve any kind of problem in their study. The student who has confidence in can solve any problem in his study without any interruption. So there is a need for conducting a study to find out the self-confidence of 10th class student in relation to problem solving ability.

Objectives of the study

1. To study the self-confidence of boys and girls studying in 10^{th}class.
2. To study the problem solving ability of boys and girls studying in 10^{th} class.
3. To study self-confidence of 10^{th}class students studying in rural and urban schools.
4. To study the problem solving ability of 10^{th}class

student studying in rural and urban schools.

5. To study the relationship between self-confidence and problem solving ability of 10thclass students.

Hypotheses of the study

1. There exists no significant difference between self-confidence of boys and girls studying in 10th class.
2. There exists no significant difference between problem solving ability of boys and girls studying in 10th class.
3. There exists no significant difference between self-confidence of 10thclass students studying in rural and urban schools.
4. There exists no significant difference between problem solving ability of 10th class students studying in rural and urban schools.
5. There exists significant relationship between self-confidence and problem solving ability of 10th class students.

Method

Descriptive research method was used for the research study.

Sample

The sample of 200 students (100 boys, 100 girls) will be selected of Ludhiana district. Data also categorized into 100 urbanschool and 100 rural schoolstudents 10th class.

Measures

The selection of suitable instrument or tools is of vital importance for the collection of data in any search study. Different tools are suitable for certain type of data, yield information of the kind and in the form that would be most effectively used. In the present study the following tools were students to collect the data

1. Self-confidence inventory (Gupta, 1987).
2. Problem solving ability scale (Dubey, 2015).

Results and Discussions

In total random sample of 100 boys value of mean is 30.18, SD is 7.55. The Value of mean of 100 girls is 30.74, SD is 6.99, mean difference is 0.56 standard error is 1.024 and t-value is 0.54. The calculated value (t-ratio) is greater than tabulated value at 0.05 level. The result shows that there is no significant difference between boys and girls in respect of self-confidence. So, hypothesis 1 that there exists no significant difference between self-confidence of boys and girls studying in 10th class is accepted.

In total random sample of 100 boys value of mean is 7.61, SD is 5.51. The Value of mean of 100 girls is 9.16, SD is 6.07, mean difference is 1.55 standard error is 0.818 and t-value is 1.89. The calculated value (t-ratio) is less than tabulated value at 0.05 level. The result shows that there is no significant difference between boys and girls in respect of problem solving ability. So, hypothesis 2 that there exists no significant difference between problem solving ability of boys and girls studying in 10thclass is accepted.

In total random sample of 100 rural school students value of mean is 30.67, SD is 7.28. The Value of mean of 100 urban school students is 30.25, SD is 7.27, mean difference is 0.42 standard error is 1.02 and t-value is 0.41. The calculated value (t-ratio) is greater than tabulated value at 0.05 level. The result shows that there is no significant difference between Rural and Urban in respect of Self-Confidence. So, hypothesis 3 that there exists no significant difference between Self-Confidence of boys and girls studying in 10thclass is accepted.

In total random sample of 100 rural school students value of mean is 9.36, SD is 5.98. The Value of mean of 100 urban school students is 7.41, SD is 5.53, mean difference is 1.95 standard error is 0.80 and t-value is 2.43. The calculated value (t-ratio) is less than tabulated value at 0.05 level. The result shows that there is significant difference between Rural and Urban in respect of Problem solving ability. So, hypothesis 4 that there exists significant difference between problem solving ability of 10thclass students studying in rural and urban schools is rejected.

The value of correlation is 0.119754 which is not significant at both 0.05 and 0.01 level of significance. The value shows that there is significant relationship between self-confidence problem

solving ability. So the hypothesis 5 is that there exists significant relationship between self-confidence and problem solving ability of 10th class students is accepted.

Conclusions

The result shows there is no significant difference in the level of self-confidence of boys and girls studying in 10thclass. There is no significant difference in the level of problem solving ability of boys and girls studying in 10thclass. There is no significant difference between the self-confidence pattern of boys and girls studying rural and urban schools but significant difference between the problem solving ability pattern of boys and girls studying in rural and urban schools is showed in the study. It is also revealed that there is significant relationship between self-confidence and problem solving ability pattern of 10thclass students.

Educational Implications

In the present study investigator found that self-confidence of 10thclass students in relation to their problem solving ability. Both variables positively correlated with each other it means one variable affects other. Both are directly proportional each other. If the student has high self-confidence, then their problem solving ability will be high. These results will give immense help to researches, Guidance Workers. Teacher and school Counsellor to develop suitable methods of teaching of mathematics. These results will help the teacher to develop logical thinking and reasoning among the students. These results could help the teachers and parents to know about the importance of self-confidence in the problem solving abilityand will be very helpful for the parents to develop healthy self-confidence among their wards. These results will give immense help to Teacher, Parents, Guidance Worker and School Counsellors to enhance Self-confidence and Problem solving ability among students. These results have practical utility in the field of mathematics. These results will help the parents to improve Family Environment and Parent-child relationship and very beneficial in the harmonious development of personality of 10th class students.

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