



# A study of Effectiveness of the Problem-Solving Ability of B.Ed. College Trainees

DR. MAHESHBHAI A. VAGHELA

Assistant Professor,

Swami Vivekanand Sarvodaya Bank Education College, Mehsana

## 1. Introduction

Is a special creation of human nature? It is superior to other animals because it has higher powers. It is believed that human intelligence is superior to other animals but the concept of intelligence has become unacceptable today. Instead, different types of powers are considered important. Such various powers include numeracy, language power, reasoning power, arithmetic power, creative power, musical power, finger flexibility, hand flexibility, etc. In his three-dimensional model, a psychologist named Gilford imagined 150 different kinds of powers in humans.

Thus the present situation needs to be changed to become the best goal oriented and productive education according to the needs of the future. Thus, education is an ongoing process of putting the right energy in the right place. Today's education is child-centered education. Education gives children the opportunity to reach out to creative abilities, competencies, aptitudes and serious depths. The different courses and activities of the colleges have given the child knowledge as well as ingenuity and thoughtful intellect. And that is why children can develop special abilities within themselves.

Every child is a mass of power. Every child has some power or ability. Only by encouraging the curiosity or curiosity of the child and getting proper response from him as well as efforts to develop his abilities more and more at home, school as well as in the society can the proper development of the child's abilities take place otherwise his development will be stunted. To prevent this from happening, the child should be given full opportunity, inspiration and guidance to develop his / her abilities. We can find children who are flexible in all habitats of life by knowing the aptitude of the child. This work should be the duty of each of us. This work can be done better during adolescence and we know many of the questions that arise in society today are mainly due to the high expectations of the parent and therefore it is important to know the child's potential. That is why the student firmly believes that this is why the student should study the college has made a sincere effort to make a comparative study of the trainees' thinking skills and problem-solving abilities.

## 2. Review of related literature

Table 1: Reference review

Sr.	The name of the researcher	Title	Year	University
1	Dave D. S.	Creation of question archive based on grammar syllabus of Bhavnagar Std-8 of Gujarati subject	2001	Bhavnagar University, Bhavnagar
2	Patel R. K.	The formation and trial of the question bank on Freud's psychoanalytic argument	2016-2017	HNGU, Patan
3	Patel D. B.	Formation and trial of question bank of instant support unit of GSET examination question paper	2016-2017	HNGU, Patan

4	Patel P.K.	Design and trial of GSET based question paper-2 psychological support test of education.	2016-2017	Department of Education, Ganpat University, Kherwa
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### 3. Research scope

From the previous research it can be seen that the question based on the grammar syllabus of Std. 8 of Gujarati subject. Compilation of archives, formation of question bank on Freud's psychoanalytic argument and trial as well as GSET exam question paper -education curriculum abstraction cornerstone of recent researches on the formation and trial unit prasnabenkani. When the research presented b.Ed.For college training Research conducted on the design, testing and comparative study of thinking skills test and problem-solving ability test for students. Therefore, there is scope for research on the design of the test.

### 4. The importance of study

In today's age, there is as much need for the development of holistic development as there is for the proper development of the specific aptitude in the child. The future of a child depends on recognizing the special strength of the child and giving it the right direction. Hence if by recognizing the special aptitude of trainees studying in colleges and giving them the right direction, productive citizens can be offered to the nation. The research presented will be useful in the following matters.

- The test the problem solving ability of the college trainees will be useful for measuring ability.
- Knowing the problem solving ability of the college trainees, they can be directed towards the course which may suit them.
- Appropriate guidance can be given by measuring problem solving ability.
- Thought skills and problem solving ability measurement will be useful for the study of the academic achievement of the trainees.
- Thought skills and problem solving will be useful in studying the relationship between ability and intelligence.
- Various activities can be thought out and implemented to develop problem solving ability.
- Necessary directions will be available for future research.

### 5. Statement of the problem

The problem is the lack of solutions for need satisfaction. A problem is a situation that arises when there is a lack of obstruction of the prevailing way of meeting a need. The activity of finding a solution to such a situation is research, so it can be said that the question that needs to be solved through research is the problem. The research problem needs to have the following components.

- A person or group with a problem
- The desire to accomplish certain goals
- Alternative tools or work methods to accomplish the purpose
- Choice of options and doubts in the mind of the researcher
- The environment in which the problem is involved
- The subject of the present study is as follows.

### 6. Operational definitions of terms

In order to understand the research problem more clearly, it is necessary to specify the exact meaning used by the researcher. Understanding the keywords of the research problem is essential for the researcher and future research. Explain the importance of word definition to ensure any research problem Whitney states that "define a problem means to put a fence around it to separate it by careful distinctions from like questions found it in related situations of need." Some of the terminology used in the present research has been used in the sense of .The meanings of these words are clarified here which are defined as under.

Pasi, Subhashini and Mishra (2004) identified 23 subtle skills for developing critical thinking. They are comparing, evaluating, guessing, making logical guesses, separating similar ideas, separating facts and opinions, classifying, estimating, interpreting, identifying marks, identifying propaganda, justifying. Determining, identifying assumptions, observing, predicting, reorganizing, determining motivational reasoning, translating, summarizing, synthesizing, and exploring implications.

## 7. Problem solving ability

Problem solving is the process of overcoming difficulties that appear to interfere with the achievement of the goal. It is a process of adjustment despite the intervention (Skinner, 1968). The problem-solving ability in the present study refers to the cognitive skills involved in the problem-solving process. The current study will consider problem solving skills i.e. skills in problem identification, problem structure, finding possible solutions and evaluation.

For the present study, the study the problem solving ability of the college trainees will be tested. The final test will be based on the hardness and differentiation test value by passing the pre-primary and primary test, after the college trainees have created questions for measuring thought skills and problem solving ability to create situations that can be imagined in abstract situations. In the present study, (1) thought skills test and (2) problem solving ability test will be considered.

Faculty, graduate and postgraduate students of various educations to prepare teachers who can do training at the Institute for, the bachelor of education program, generally known as B.ed.is a professional course that prepares teachers for upper primary or middle level (ix - xii), the program shall be offered in clauses (b) of regulation " NCTE regulation 2014. Based on the above definition, it can be deduced that a standardized test is a Through the test given to the college trainees, The knowledge and skills acquired by the college trainees are an effective and reliable means of measuring the prevailing situation of a single task in the form of a single score.

## 8. Objectives of the study

Central to the whole research work are the objectives of his study. Only after the objectives are clear can the research work move forward. Objectives of the study indicate that the study will be about certain things. As well as clarifies the main sections of the study. The objectives of the research need to be precise as the Tools can be selected or designed for retrieval of information based on the objectives of the study. The objectives of the present research are as follows.

- 1.To study the effect of gender on the problem solving ability of B.Ed. College Trainees.
2. To study the effect of habitat on the problem solving ability of B.Ed. College Trainees.

## 9. Research Variables

The present study include gender, habitat, educational qualifications and educational streams as independent variables and problem solving ability as independent variables as well as Gujarati medium as controlled variables. Information about this is given in the table.

**Table 2: Table showing research variables**

No.	Variable	Type of variable	Level-	Type of Level	Type Measuring tools
1	Gender	Independent	2	Male Female	Collected information
2	Habitat	Independent	2	Rural Urban	Collected information
3	Problem solving ability	dependent	-	-	Self-made Standardize Test
4	Medium	Controlled	-	Gujarati	Collected information

## 10. Research hypotheses

Planning of ideas is very important in research. Statement of the problem demonstrates a sense of problem by what must be done through certain assumptions. The direction or goal of any study research is its hypotheses. The hypothesis is constructed at the beginning of the research and is verified based on the information or results obtained during the research. The following hypotheses will be constructed for the presented research.

1. There will be no significant difference between the mean score of male and female B.Ed. College trainees on the problem solving ability test.
2. There will be no significant difference between the mean score of rural and urban habitat B.Ed. College trainees on the problem solving ability test.

## 11. Delimitation of the study

Gujarat State Government Recognized Gujarati Medium B.Ed. College trainees are included in the presented research.

## 12. Population and sample of research

### 12.1 Population

For any good research, it is mandatory for the researcher to study the universe and sample in depth. or good research work it is necessary to define the universe and the sample. In the present research for the trainees studying in the college, it is necessary to formulate a test of DR. MAHESBHAI A. VAGHEL A problem-solving ability and check its effectiveness. Therefore, the entire state of Gujarat Gujarati medium college trainees becomes a pervasive world of presented research. Zone-wise Selection of the sample B.Ed. College trainees from the Gujarat state were selected.

**Table no 3: Selection of the sample B.Ed. College trainees**

Zone	Habitat of College	No of College	B.Ed. Teacher Trainee (25 from FY 25 from SY)
North	Urban	1	25
	Rural	1	25
South	Urban	1	25
	Rural	1	25
East	Urban	1	25
	Rural	1	25
West	Urban	1	25
	Rural	1	25
Total	Urban	1	100
	Rural	1	100
Total			200

The researcher selected a random sampling method graded for the presented research. In the present research the hierarchical random sampling method was used to give the college trainees the opportunity to select everyone in the sample. Colleges were divided into two parts to select the study colleges. After dividing the colleges into rural and urban habitats, he made a list of colleges and prepared lots for it. Colleges were then be selected by drawing lots. Then the principals of the departmentally selected colleges were interviewed face to face. The selected pattern was randomly selected. In order to complete the research study within the stipulated time limit, the researcher selects the sample in a cluster manner, in which colleges were selected by drawing lots. College trainees were selected. In which an attempt was made to take the number symmetrically according to urban and rural habitat.

### 13. Limitations of research

Not all research on the human aspect, like the research on physics, can be perfect and complete. The scope of such research is limited by human instincts and circumstances. The limitations of the present study are as follows.

1. Presented Research B.Ed. College trainees are limited enough.
2. In the present research keeping in view the time and circumstances, colleges and B.Sc. B.Ed. Sample selection of college trainees were done by stratified random cluster system during the year of 2019-20.
3. Thinking skills test and problem-solving ability test. B.Ed. Information were analyzed and interpreted based on the answers given by the college trainees.

### 14. Field of research

As the needs and goals of a changing society change, so do the habitats of research.

**Applied research:** The main purpose of such research is to put philosophical principles into practice or to apply theoretical knowledge. The findings of the basic research are applied by the practical research to provide a role for them to be useful in life practice.

### 15. Type of research

In the present research, the researcher has prepared a test of self-written problem solving ability. B.Ed. It is an attempt to measure the thinking skills acquired by the college trainees and the ability to use the knowledge of problem solving ability in their life practice. Hence the type of research presented is applied research.

### 16. Tools for research

Formulation of questions to create different situations for college trainees after formulating questions to measure problem solving ability, final test was formulated based on hardness and distinction value by passing pre-primary and primary test. In the present study, self-prepared (1) problem solving ability test was formulated.

### 17. Research Methodology

The research plan for the present study was presented in the present chapter. Details of the design of the first test for designing the test keeping in view the components of content and thesis selection, problem solving ability for the design of the test were done. Standards were set where the reliability of the self-made test appears to be realistic and meaningful. Standards were established by examining the mutual effect on problem solving ability in terms of variables like gender, habitat.

### 18. Data Collection

Colleges were divided into zone; to select the colleges by selecting the researcher stratified random sampling method for the presented research. After dividing the colleges into rural and urban habitats, he made a list of colleges and prepared lots. Colleges were then be selected by drawing lots. Then the principals of the departmentally selected colleges were interviewed face to face. In order to complete the research study within the stipulated time limit, face to face information was collected by the researcher.

### 19. Data Analysis and Interpretation

Presented researches were analyzed and interpret information obtained through thinking skills test and problem solving ability test. In which the scores were sorted according to different variables, classified according to caste, habitat, educational qualification and educational stream. Scores were used to calculate frequency distribution graphs and statistics. Significance was tested on the basis of gender, habitat, educational qualification and educational stream. The information obtained in is categorized in terms of the determined variables as well as tables were presented by analyzing the information. Based on which the information was interpreted.

## 20. Major findings of the study

Comparisons of mean score with reference t- value, it was found to be 2.88, which shows that mean score of male B.Ed. College trainees on the problem solving ability test was found to be higher than the female B.Ed. College trainees on the problem solving ability test, at 0.01 level of the significance. So, hypothesis” There will be no significant difference between the mean score of male and female B.Ed. College trainees on the problem solving ability test.” rejected at 0.01 level of the significance. Comparisons of mean score with reference t- value, it was found to be 1.59, which shows that mean score of urban habitat B.Ed. College trainees on the problem solving ability test was not found to be higher than the rural habitat B.Ed. College trainees on the problem solving ability test, at 0.01 level of the significance. So hypothesis” There will be no significant difference between the mean score of rural and urban habitat B.Ed. College trainees on the problem solving ability test.” rejected at 0.01 level of the significance.

## 21. Major findings of the study

Gender wise problem solving ability of male B.Ed. College trainees was found to be higher than problem solving ability of the female B.Ed. College trainees. Habitat-wise problem solving ability of urban habitat B.Ed. College trainees was not found to be higher than the problem solving ability of rural habitat B.Ed. College trainees. There is significant difference of gender is found to be significant on problem solving ability of male B.Ed. College trainees

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