Problem Solving

Objectives

Understand the meaning, phases and techniques of problem solving.

Understand the different stages , characteristics and steps involved in problem solving.

Understand the role of teachers and its educational implications.

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INTRODUCTION :

                Problem solving is the process of identifying a problem developing possible solution paths , and taking the appropriate course of action . It is the process to choose and use the effective and beneficial tools
and behaviourct to reach the target.
                In fact problem solving contains critical thinking , taking decision, examining and reflective thinking

DEFINITION :

According to M.N.Singh and S.B. Maheswary "Problem solving is planned attack on difficult for finding out satisfactory solution."

According to Gates " A problem exists for an individual when he has a definite goal which he cannot reach by the behaviour pattern which he already has available".

Phases in problem solving :

In classroom situation problem solving can be viewed in two phases

     i. A way of thinking
     ii. A way of teaching

Steps in problem solving method :

1. Sensing the problem
2. Interpreting ,defining and delimiting the problem

3. Collect the relevent data
4. Organising and evaluating the data
5. Formulating tentavive solution
6. Arriving at the final solution

TEACHER'S ROLE IN PROBLEM SOLVING :

1. Maintain the spirit of discovery among students
2. Give proper guidance to the studends from the beginning till the solutions is reached
3. Extend optimum help to each student in case difficulties are experienced
4. Supply only extra information regarding the problem
5. Establish rappot with studends for the smooth, competion of the work

Stages in problem solving :

1. Problem solving: Isolating those parts of the problem that can be attacked profitably

2. Problem Discussion: making sure that the students understand what is involved in the problem

3. Planning for action : Preparing suitable hypothesis for investigation

4. Problem Survey: Analyzing problem situation for details to be studied

5.Problem Description : Providing a clear statement of the problem to be studied

6. Further Analysis and limitations: Tentative testing of hypothesis to identify those most likely to yield a solution

Characteristics of a problem solving :

1. Clear and definite
2. Challenging and hence intrest generating
3. Related to actual life situations
4. Thought provoking
5. Feasible with in the time available
6. Workable with the resource available
7. Understandable to the learners
8. Corrected to the existing knowledge of the learners
9. Suitable to the age ,needs and physical and mental capability of pupils

Techniques used in problem Solving

INDUCTION:

          1. It is like teaching with discovering method

          2. Cases are observed carefully

          3.   The similarities nd dissimbrities are found

          4. then you can reach the general rule or law with the techniques "generalization" or " making abstact" from the similarities

Techniques used in problem Solving

DEDUCTION:

1. It is Reverse of induction technique

2. the convenience of it to the one of the case is controlled mentally

Advantages of problem solving

1. It helps students to adopt the idea of not to be hurry to make a decision

2. It makes student to be interested in learning

3. It provides the active participation of the students in teaching learning activity

4. It provide students to gain scientific view and thinking

5. It helps to improve the sense of responsibility of students

6. It provides student to face the problems boldly and to deal with it in a scientific approach.

7. It improves the ability of making proposes and putting forward the hypothesis

Disadvantages of problem solving

1. It is not possible to apply this method to all disciplines

2. It can load some burden to some students

3. It can be difficult for students to provide the materials and sources which is required for solving the problem

4. Evaluating the learning can be difficult

5. When the classroom is completely teacher dominated then in such a classroom the problem solving method will fail

Conclusion

Problem solving involves seeking to achive goals and overcoming barriers

As we know sometimes first try may not work.we should not be discouraged or breakdown if one does not work try an alternaative method to achive our goal.

Check your progress

- **What is problem solving method? Mention the stages of problem solving? How does this method help in present learning atmosphere?**

- **Discuss the steps in problem solving?**

Thank You