

Implementing a Solution Plan

Polya. G. (1957). *How to solve it*. Garden City, NY: Doubleday and Co., Inc.

This targeted intervention is a framework for thinking about problem solving. It helps the student(s) implement a solution plan using Polya's four-step approach.

Materials:

- Word Problems
- Graphic Organizer: Implementing Your Solution Plan
 - (1) Understand the Problem
 - (2) Devise a Plan
 - (3) Carry Out the Plan
 - (4) Look Back

Steps:

1. The teacher and the student(s) read the word problem together and the teacher paraphrases the problem.
2. Step 1: Understand the Problem. The teacher asks the following questions:
 - Do you understand all the words used in the problem?
 - What are you asked to find or show?
 - Can you restate the problem in your own words?
 - Can you think of a picture or diagram that might help you understand the problem?
 - Is there enough information to enable you to find a solution?
3. Step 2: Devise a Plan. The teacher guides the student in choosing an appropriate strategy for solving the problem. Examples:
 - Guess and Check
 - Work Backwards
 - Use Logical Reasoning
 - Look for a pattern
 - Draw a picture
 - Make a Table, List, or Chart
4. Step 3: Carry Out the Plan. The teacher allows the student to use the chosen plan and make a change if necessary.
5. Step 4: Look Back. The teacher asks the student(s) what they did, what worked, and what didn't work. This reflection will help the student predict what strategy to use in solving future problems.