

WHEN DO GROUPS NEED TO PROBLEM SOLVE?

Groups need to problem solve when they have:

1. Unsettled matters.
2. To find answers to difficult questions.
3. A problem without a solution.
4. A desire to change a situation.

Groups need to problem solve when they have:

1. *Unsettled matters.* When a goal has been set by the group, but it is not clear how to reach the goal, such as how to split up the work.

2. *To find answers to difficult questions.* When the goal is clear, but some of the ways to reach the goal are *hard* or *sensitive*, such as how to get the money your group needs. Sometimes answers are difficult because we have to combine bits of information on ideas from a lot of sources in order to determine the “right” answer.

3. *A problem without a solution.* When the problem is clear but the answer is either impossible for the group to figure out or because the answer lies in actions that lie beyond what the group can successfully achieve. Solutions can be both long-term (where the answers will solve the problem forever) or short-term (where the answers will only solve the problem for a little while, and then the problem will return). Usually “a problem without a solution” refers to a long-term solution.

4. *A desire to change a situation.* Since most efforts to change a situation (such as changing the rules of the group or choosing a new leader) require group cooperation and agreement, problem solving is needed to get everyone’s ideas and suggestions before the change is made. If people are involved in the decision to change a situation, they usually will support the decision in action.

HOW DO GROUPS PROBLEM SOLVE?

Many different methods or ways are used in solving problems. Which method is best to use often depends on the situation or the problem. Some problem solving is long and complicated, some is quick and done by individuals.

No matter what the problem is, all groups and individuals should consider these basic steps in problem solving:

1. Defining the problem.
2. Diagnosing how big it is and what causes it.
3. Formulating alternative strategies or plans for solving it.*
4. Deciding on and implementing the most desirable strategies.
5. Determining and evaluating the success of the strategies used.

* Key step in problem solving.

Defining the type of problem is the first and most important criteria to be considered when choosing a method. Take, for example, the task of completing a crossword puzzle. It would be more effective to have a group solve the crossword puzzle rather than just one individual. When the task requires a more creative outcome, it is better for the problem to be solved individually. When groups solve problems they often do some of the following things:

1. Organize. (Getting together.)
2. Identify common problems. (Where are we now?)
3. Inventory resources – human and material. (What is available?)
4. Study specific issues. (Let's take a closer look.)
5. Set priorities. (It's time to choose.)
6. Set group goals. (What do we want to achieve?)
7. Strategy – plans. (What steps do we follow?)
8. Coordinate with others. (Let's avoid duplication.)
9. Execute. (Let's carry it out.)
10. Evaluate. (How did we do?)

THE FIVE “D’S”

Now let’s talk more about each step in problem solving.

1. **Defining the problem** is the most difficult step in problem solving. A problem exists when a group wants to do something they haven’t done before. In other words, they want to change a specific situation to something else. When defining a problem it is important for the group to clearly describe what the goals are and what things are important to reaching those goals.

2. **Diagnosing the problem** involves identifying all the things that will help the group move toward reaching their goals. It’s important to identify things that will help to solve the problem and also things that will hinder you from solving the problem.

3. **Developing strategies** for solving the problem should involve all members in the group. Creative ideas and imagination of group members is very important in this step. Many of the interpersonal skills learned earlier (communication, individual behavior, group setting) are essential in this step. Group members must all agree on the strategies that can be used. (Key step in problem solving.)

4. **Deciding on the one best strategy** can be a very exciting activity for the group. To decide on a strategy it is important to:

- Examine the resources and materials needed for each.
- List the positive and negative points of each.
- Evaluate how realistic each strategy is.

The actual decision should be based on three important points (see Module G for information on how decisions are made). Decision implementation is sometimes forgotten in problem solving. Implementation is the process of actually carrying out the necessary actions of the solution or strategy. Implementation requires that all group members are committed to the strategy selected. The following questions may be useful in processing how well your group has decided on and implemented a strategy:

- Does premature voting occur?
- Are all the members ready for a decision? Has there been adequate testing of ideas?
- Does the group make any effort to summarize its progress?
- How is the decision made? What method is used?
- Are feelings of the members adequately explored?
- How does the group handle conflict? Is conflict smoothed over or brought out into the open?
- Is there a detailed plan of action?
- Does the group assign responsibilities for various action steps?
- Does the group pause for reality testing, refinement, and replanning?
- Does it anticipate potential problems in implementation?
- Are all of the members committed to the decision? Which members appear to have reservations or to be displeased?
- Does the group allow time for a critical examination of its process of arriving at a decision?

5. Determining and evaluating the success of the strategy picked to solve the problem can often be the most satisfying of all the steps. In this step the group examines what changes actually occurred after they implemented their solution. How close did the group come to reaching their goal? This step is also important in deciding what new problems need to be solved and what strategies could be used to solve them.

Brainstorming

Brainstorming is a process used in problem solving when it is necessary for the group to produce many different and creative ideas. It is a good way to think of many different ideas in a short period of time. Brainstorming allows for full participation of group members, by allowing complete freedom of expression of ideas.

To help make brainstorming successful, group members should be familiar with a number of ground rules:

1. There will be *no* evaluation or criticism of ideas.
2. Practical ideas are not more important than wild ideas.
3. Quantity of ideas is more important than the quality of ideas.
4. Focus on a single, specific problem.
5. Pool your creativity – build on other's ideas.
6. Cooperate.
7. Record all ideas.

After the brainstorming session is over, all ideas should be listed and the group should evaluate them and check for the possibility of using them. The following exercises can be used before or after the discussion of this section.

F-II: GROUP PROBLEM SOLVING

Purpose:

To illustrate the processes involved in problem solving.

Setting:

Participants are seated around a table with five to eight people in a group.

Materials:

- Large envelope or other container
- Construction paper
- Scissors
- Stapler
- Glue
- Pencils
- Pens

Time:

About 30 minutes

Procedure:

1. Put the materials you've gathered into the large envelope or other container and place the envelope in the center of the table. Decide whether you're going to set a time limit (such as 30 minutes) on the group's work.
2. Tell the group that they'll have about 30 minutes (if you've set a time limit) to use the materials in the center of the table to make a checkerboard or some other object such as a flag or a coat of arms. You may wish to provide a model of whatever you're asking them to make. If you chose not to set a time limit, tell them to inform you when they're finished.

Processing:

After 30 minutes or when the group is done, ask them the following questions:

- How did you settle on what materials you would use on the project?
- What questions did you have to answer to make the product?
- How did you change the materials into the finished product?

F-III: PROBLEM SOLVING

Purpose:

- To study how a method of problem solving is chosen and how well resource persons are included in the task.
- To observe leadership emergence and to focus on cooperation.

Setting:

Anywhere a group is formed

Materials:

None

Time:

Any time desired

Procedure:

1. Choose a pressing group problem that needs to be solved. (For example, if it is a camp situation it may mean deciding on sharing rooms, duties, tasks, and so on.) Who, what, where, how, and why needs to be solved by the group.
2. After choosing a problem, announce to the group that they are to solve the problem in a set amount of time. Then have the group go about the process of solving the problem.
3. Make sure everyone gets involved in the activity. It is to be hoped that the group will respond as a group since all are affected by the decision. You must monitor the activity and be aware of group behaviors.

Processing:

After the group has decided on the solution or what they are going to do about the problem, consider the following questions:

1. Have you defined the problem in simple, specific terms?
2. How is it worded?
3. Have alternatives been considered?
4. Have the ideas been studied?
5. Who has been involved in the group process?
6. Is a time schedule needed?
7. How is the action plan to be carried out?
8. Are all satisfied with the decision?
9. Have all the steps in the group problem-solving method been considered?

Suggestion:

Avoid scheduling activities with your group, and present options to the group for their decision.

F-IV: BRAINSTORMING – A TECHNIQUE TO GET OFF DEAD CENTER OR ANYWHERE IN BETWEEN

Purpose:

To involve group members in building on their own and others' creative abilities and to acquire the experimental frame of mind necessary for effective problem solving. Brainstorming can often bring out some useful suggestions and increase the person's involvement in learning.

Setting:

This exercise can be used with any age group in any convenient place.

Materials:

Newsprint or wrapping paper
Marking pen or crayons

Time:

45 minutes or less

Procedure:

1. Choose beforehand a specific planning task or problem to solve related to the group's goals.
2. Introduce the topic of brainstorming. It can be used as the first step in problem solving or as a method for getting out the maximum number of ideas for consideration. Emphasize that the only rule is to spill out ideas as quickly as possible without criticism by anyone.
3. Divide the group at random into groups of three to five participants. Each group should have newsprint or wrapping paper. Have each group select a recorder.
4. Start with a practice session, instructing the groups to think of as many things as they can that a person does in a day. The recorder lists these on the paper.
5. After 5 minutes stop the listing and have the groups quickly count and share the number of items they recorded.
6. Ask these questions of the group:
 - Did everyone get a chance to contribute ideas?
 - Were you able to avoid criticizing other people's contributions?
7. After the practice session, announce the group problem you have chosen and take a few minutes for questions and clarification.
8. Give the groups 10 minutes to record their ideas. (If any groups lose steam ahead of time, encourage them to keep trying.)
9. Ask each group to choose its two most important ideas to be shared with the entire group.
10. Post the lists so that everyone can see how many ideas emerged in a short time.
11. Select a planning committee to combine ideas.

Processing:

Ask the group the following questions:

1. Was this a good way to get your ideas listened to?
2. Did many good ideas come out?
3. Can you think of other times you might use this method of sharing ideas?

F-V: BRAINSTORMING 2

Purpose:

To explore as many ideas as possible to aid in problem solving.

Setting:

Group (8 to 12 people) sitting in a circle on the floor.

Materials:

Paper and pencil for each group

Newsprint

Markers

Masking tape

Time:

About 1 hour

Procedure:

1. Present the ground rules:
 - No criticism during brainstorming phase.
 - Far-out ideas are encouraged (they may trigger ideas for others).
 - The more ideas the better.
2. Designate one person in each group to write down every idea that comes up in the group.
3. Present a problem. Choose a real one or the example illustrated here. "You are cast ashore on a desert island with nothing to wear but a belt. What can you do with a belt?"
4. Allow the group about 15 minutes to generate ideas.
5. When time is up, have the groups evaluate their ideas and suggest the best five. Then have them suggest ways in which any of these five ideas can be used together.
6. If there is more than one group, groups may want to share some of their top ideas.

Processing:

Ask the group the following questions:

- Does brainstorming stimulate groups to think of more ideas than usual?
- What are other advantages of brainstorming? Disadvantages?
- What effect does not evaluating ideas of group members have on the level of group participation?