

IFAS Leadership Development: Problem Solving in Groups ¹

Elizabeth B. Bolton²

Recommendations for Leader Training

- Prepare to teach this lesson by reading and familiarizing yourself with the objectives, materials, handouts and exercises.
- Begin preparation several days in advance in order to secure whatever additional resources you need to make the lesson a "local" learning experience.
- Plan a learning environment with care so that the surroundings contribute to the achievement of the objectives.
- Begin on time, and end on time. Schedule a break at about halfway through the lesson.
- With each lesson after the first one, ask participants what they did as a result of the previous lesson. Record these!
- Introduce each lesson with an overview of how it fits into the overall major leadership development program.

- End each lesson with a summary and restatement of objectives. Explain what the participants are expected to do with the lesson after they leave.
- Heighten anticipation for the next lesson by sharing a brief description of it, but be cautious not to give too much away.

The IFAS Leadership Development Packet of eleven modules was developed for use by Florida Cooperative Extension agents. They were designed for training agents and officers, and not for general distribution to the public. Handouts for audience use are labeled and printed on white paper. These may be duplicated for use during class.

Each lesson is designed for a workshop approximately two hours long. Use your judgement on shortening or expanding various parts according to the needs of your participants.

Objective

1. To introduce participants to a series of steps that can be used to solve local problems.

1. This document is FCS9064, one of a series of the Family Youth and Community Sciences Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Original publication date September 1986. Revised November 2005. Reviewed December 2008. Revised January 2009. Visit the EDIS Web Site at <http://edis.ifas.ufl.edu>.

2. Elizabeth B. Bolton, professor, Community Development, Department of Family, Youth and Community Sciences, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, 32611.

Lesson Outline

- Introduction and Overview of Objectives (10 minutes)
 - *Problem Solving in Groups*
 - *Systematic Problem Solving* (overhead)
- Lecture and Exercise (45 minutes)
 - *Shapes Model* (Six phases of solving problems)
- Break (5 minutes)
- Lecture and Exercise (45 minutes)
 - *The S-T-P Model of Problem Solving*
 - *Putting Thought Into Action*
 - *Sample Action Plan*
- Summary and Evaluation (15 minutes)
- **Total time 2 hours**

Lesson Plan -- Solving in Groups

Step 1 -- 10 minutes

Use Systematic Problem Solving as an overhead for a visual during introductory remarks. (See Figure 1.)

Use *Problem Solving in Groups* as a background for introductory remarks. Discuss:

- how groups can solve community problems
- a logical procedure for solving problems

State objective of the lesson and write it on chalkboard.

Step 2 -- 45 minutes

Lecture about the six problem solving phases in community development using the *Shapes Model*. Use this as a handout following your lecture.

Refer to the *Shapes Model* for directions on completing the exercises to help members understand

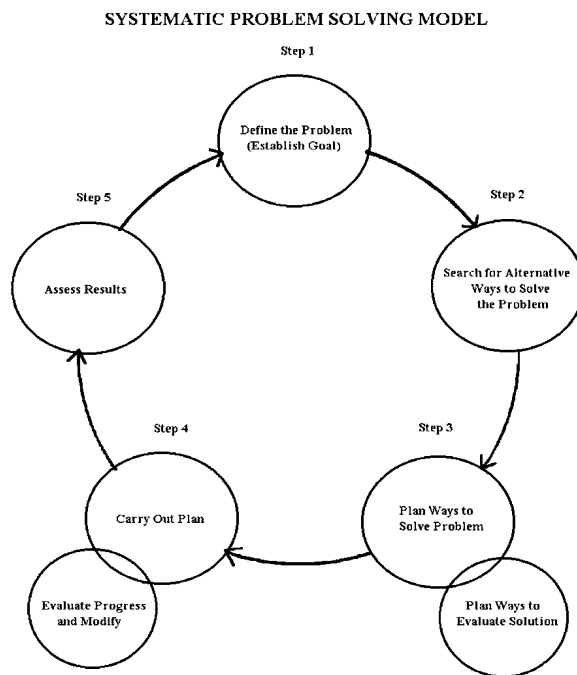


Figure 1.

phases of problem solving in communities. Use *Problem Solving Phases* and *Problem Solving Steps* for activity statements. This exercise takes about 30 to 45 minutes. Allow about five minutes for discussion following exercise. Plan ahead for this lesson.

Break -- 5 minutes

Step 3 -- 45 minutes

Use *S-T-P Model of Problem Solving* as background for brief lecture.

Have class go through developing an action plan as shown in *Sample Action Plan*. Break into small groups of five and have each group develop an action plan using the STP model and the five steps. Be prepared to furnish problem situations or statements for groups to work on. This exercise will take about 30 minutes.

When action plans are developed, use the seven steps to check action plans.

Step 4 -- 15 minutes

Use the action plans as a focus of closing discussion. Emphasize:

- how groups can solve community problems
- the logical process
- a plan of action is necessary to "make it happen"

Evaluate session and adjourn.

Problem Solving in Groups

Problem-solving processes are the ways in which groups go about accomplishing their goals and purposes. We define a **problem** as the discrepancy between the way things are and the way we want them to be.

Groups and individuals go about problem solving continually. They may engage in problem-solving consciously or unconsciously, perform it systematically or unsystematically and succeed or fail. The problem-solving process outlined below is one selected from several approaches available.

1. **Define** the problem, by analyzing "what exists" in terms of "how we want it to be."
2. **Search** for alternative solutions to the problem.
3. **Plan** for the implementation and evaluation of selected solution.
4. **Carry out** the plans.
5. **Assess** the results.

The following paragraphs elaborate upon these steps and provide an illustration along with some alternative procedures that you might utilize to assist a group in problem solving.

Define the Problem. Problem solving can start with a perceived need. The first step is to validate the need. A needs assessment designed by the group can be used for this.

A common approach is to develop a questionnaire or interview schedule to either collect information from the whole population that would be affected by a decision, or to sample a group that would be representative of the population. With the assistance of a facilitator, the group then reduces and

analyzes the data from the needs assessment and prioritizes the information to identify the need mentioned most frequently. Depending upon the data collected, a search for alternatives can begin.

Search for Alternatives. Now that the group has validated a problem, help the group determine how best to meet this need. One way to assess the alternatives is to develop a list of criteria for an acceptable solution, such as cost, number of clients reached, amount of time for preparation, number of staff to accomplish task, etc. When an acceptable solution has been adopted, the next step is planning.

Plan. Planning actually involves two major activities.

- Developing plans for implementing the solution: Who does what, when, where, and by what time.
- Developing plans for evaluating the project: Plans for monitoring who is doing what, how it is going, and what criteria will be used to assess the success of the project.

It is important to stress to a group that evaluation plans are just as necessary as project plans. For example, if offering a course is the chosen solution, provide information that details who is teaching the course, the goals and objectives of the course, the materials necessary, and the dates for the course. An evaluation helps assess if the goals and objectives of the course are met. Always provide what kind of data will be collected by whom and when for the evaluation. It is also important to ask: "Would these plans be better if citizens were involved in the planning process?"

Implement the Plan. Implementation takes place when the course begins. As a facilitator you may have no actual role in teaching the course, but you can help with monitoring data.

Assess the Results. After all the data have been collected, those involved with the course can assess what went on. In this final stage of evaluation, persons assess data and determine additional needs. In many cases, this step in the problem-solving process leads into another problem-solving cycle.

When examining problem solving as a systematic approach for meeting needs, consider:

- The problem-solving approach is not linear. It is cyclical with feedback loops at each phase, thus giving the people involved in problem solving an opportunity to check what they have done, and see if they are on the right track.
- Whenever possible, include all those affected by a decision in the decision-making process, including clients. Citizen groups can be effective problem solvers with some guidance from a facilitator.

Shapes Model

Shapes is a model that was developed by L. Davie, T. Patterson, D. MacKeracher and R. Cawley as a tool for evaluating social action programs. This model identifies six problem-solving phases in community development.

Phase 1: Pre-Identification of Needs

The people act more or less randomly in response to what is happening in the community. Much interpersonal testing behavior occurs, and is often linked to overt problems and assumed to be caused by those problems. This assumption may turn out to be inaccurate on close inspection.

Phase 2: Need Identification

The people begin to consciously identify needs and problems from their own point of view. These perspectives are shared with other people. Effective sharing means that the people are able to reach some agreement on what the problems and/or needs actually are.

Phase 3: Objective Setting

Once the problems and/or needs have been identified, the potential arises for setting objectives. General objectives might determine directions to be taken in planning. Specific objectives might determine potential solutions or strategies to be used in pursuing these directions.

Phase 4: Planning

Specific plans for action are outlined. The action plan grows out of the directions, strategies, and potential solutions. Planning activities may include: obtaining the cooperation of new people, considering alternative plans, assessing resources required for the proposed action, gaining commitment from people controlling resources needed, organizing publicity and other campaigns to solicit support of the larger community, and receiving final commitment from the people involved to support the plan of action.

Phase 5: Action

The planned activity occurs. This phase may involve the delegation of authority to one or two people to manage the planned activity. These people are then responsible to monitor the day-to-day activities and problems, to make adjustments as necessary, and to report progress to the planning group.

Phase 6: Assessment and Monitoring of Effects

The assessment of effects of the planned activity are reported back to the people, both during and following the time of the planned activity.

Shapes Exercise

Number of people: 5 to 6 in a small group

Minimum time: 30 to 45 minutes

Materials: thirty 3 x 5 cards with situation statements on them, felt pens, newsprint

Setting: space for small group divisions

Purpose

This exercise helps members to develop a better awareness of the phases of problem solving in a community or within a group. It can help members outline phases of an action plan. The *Shapes* exercise stimulates communication among members and facilitates group bonding. It also gives members an opportunity to practice consensus decision-making.

Process

1. Leader introduces the overall *Shapes Model* and explains the six phases. (Refer to *Shapes Model*)
2. Members break into small groups (5 to 6 people).
3. Each small group selects a chairperson.
4. Each group then divides the newsprint into six sections and numbers each section to represent each of the six phases. Do not write in phases.
5. Chairperson of each group takes the set of 3 x 5 cards with situation statements and guides group members to a consensus decision on where the statement belongs (Phase 1-6). He places it on the newsprint in the space with the appropriate number. The group goes through all 30 situation statements and places them on the agreed phase number. (See Table 1 for *Problem Solving Phases*.)
6. Following the completion of the statement sorting process (Q-Sort), the small group reports the results of their placements back to the large group.

To observe a small group process, an observer can be assigned to each group and then report to the large group on how the group functioned.

Discussion Questions

- Were you able to identify steps in problem solving?
- What is your impression of this community development model? Realistic?
- How did your group function? Cooperatively? Did only a few members talk?
- Did you go through these same steps in your small group? Were there any additional steps?

Problem Solving Steps

In preparing an action plan, a group should follow these steps:

STEP 1: Brainstorm to develop a list of all tasks which need to be completed if the goal or major tasks are to be achieved, no matter how obvious they might initially seem.

STEP 2: Prioritize the tasks from things that need to be completed first until the final tasks.

STEP 3: List the sequenced tasks and assigned responsibilities for completing each task, using the format below. This is a good time to identify any additional resources or support needed by the group or individuals to complete each assigned task.

STEP 4: Next, make reasonable estimates of how much time each task should take to complete and set a realistic target date for completion. As a rule of thumb, **avoid an optimistic time limit** which assumes that everything will go right. Rather, use a time estimate which falls between the most likely and the most pessimistic time estimate. Applying such a rule will save a lot of pressure and frustration later.

STEP 5: Finally, make sure that everyone is clear about what he or she is to do and who is responsible for coordinating the overall plan. (See Table 2 for sample chart.)

The S-T-P Model of Problem Solving

The STP model is designed to provide a framework to apply the available resources to the solution of an existing problem. Usually, a problem exists before it is noticed or can be defined. However, individuals are aware of, or sense, conditions that evoke reactions such as dissatisfaction, frustration, tension, and other feelings. These are often called **symptoms** that give clues to the problem.

A **problem** exists when the situation is different than what is desired, even though the new condition desired may not be known. The STP model can help to more clearly identify the problem and assist in its solution.

STP Defined

A method of organizing information to define a problem, and to resolve or manage conflict and other situations which occur while creating a solution.

Information is organized into three interrelated dimensions:

- **The Situation Dimension.** Information about:
 - the essential features of the current state or situation, and
 - the forces or conditions that facilitate or impede moving to a solution.
- **The Target Dimension.** The desired target or state. This includes what is to be accomplished, and what needs to be avoided. Targets or goals are chosen because the individuals working on the problem value or desire them; they are not imposed. Requirements or conditions imposed that apply to the solution should be listed under the situation dimension. Targets are always more general than the proposed solution, since the same target may be achieved by different proposals.
- **The Proposed Plan Dimension.** Specific action proposals and steps aimed at changing the current situation and solving the problem are listed. Who will do what when becomes the focus of this part of the model.

See Table 3 for some of the common conditions, situations, expressions and terms that fit into the three dimensions.

Putting Thought Into Action

Once the group has chosen the most desired solution, the next step is to list sequenced action steps that will lead to the accomplishment of the goal. This phase can be the most frustrating. The plan should specify **who does what at what time**. In developing a plan, the group might consider some of the following questions:

1. Does the plan specify sequenced tasks which must be completed if the goal is to be reached?
2. Does the action plan identify clearly who does what and when?
3. Are all the needed resources for completing each of the tasks clearly identified?

4. Does the action plan, when relevant, include times for getting the required authorization from those in authority and/or from constituents?
5. Does the plan clearly assign responsibilities for carrying out each of the tasks, and then provide a means of coordinating the process?
6. Does the plan define the roles and responsibilities of all persons involved?
7. Does the plan provide for evaluation and revision if needed at some future date?

See Table 4 for a *Sample Action Plan*.

Table 1.

PROBLEM SOLVING PHASES	
Note: All coding should go on the back of each card.	
Phase	Statements
1*	No one was listening to anybody else.
1*	Nothing was happening.
1	Quite a bit of outside pressure to do something was felt.
1	No one wanted to come to grips with anything.
1	A lot of arguing was occurring.
2*	We began to see several problems, where before we had only seen one.
2*	We looked at those things in our community that needed changing.
2	Everybody's opinions were considered.
2	We looked at the community to see what it was really like.
2	We tried to understand the causes of our problems.
3*	Particular things we wanted to do became clear.
3*	We agreed on what our focus should be.
3	We knew we could move on when everyone had agreed.
3	We agreed on where we wanted to go.
3	We established general ideas of what we wanted to accomplish.
4*	Several people helped plan the activities.
4*	We spent a lot of time planning the details of our project.
4	We looked at different activities which might meet our goals.
4	We made sure we had the resources we needed to get the project finished.
4	We developed some strategies for dealing with unforeseen problems.
5*	Everyone helped with the activities.
5*	Things were really moving.
5	Once things got started we had a lot of minor problems to handle.
5	We carried out our commitment.
5	Part of the project was keeping in touch with everyone involved.
6*	We were satisfied knowing that we had done a good job.
6*	We talked about what happened as a result of our project.
6	We could see that our project changed things in the community.
6	Things sure were different.
6	Later on we were able to draw some conclusions about our project.
*These cards may be used as a small deck of Problem Solving Phases cards.	
Source: <i>Shared Process Evaluation System: Shapes</i> , by Lynn Davie, et. al., Ontario Institute for Studies in Education, Toronto, Canada.	

Table 2.

WHAT GETS DONE	BY WHOM	WHEN
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
etc.		

Table 3.

Situation	Target	Proposal/Plan
Starting point	Termination point	The path to get from the starting point to the termination point.
Facts, opinions, explanations about the current condition, predictions about efforts to change.	Goals, aims, ends, values, purposes, and objectives.	Means, ploys, strategy, implementation, procedures.
The situation or environment as the group perceives it.	The outcome desired by the group.	The group's behavior to get to that outcome.
Adapted by Glenn Klein, Extension Education, Oregon State University, 1978, from Frederick Foxmire and John Wallen.		

Table 4.

Sample Action Plan		
The Objective: To design, administer, and report back the results of a student survey to assess students' perceptions of recreation opportunities in our community.		
The Work Plan:		
Tasks Which Need To Be Completed	By Whom	By When
1. Inform community about activities and progress of the Community Task Force. a. draft the report b. reproduce the report c. make arrangements for distribution d. distribute to parents	Jody, Jim and Sara	10/29
2. Get recommendations from Task Force members about possible items to be included in the survey.	Dave, Task Force Members	10/1
3. Get recommendations from staff about possible survey items.	Dave and Steering Committee Members	10/22
4. Design the student survey instruments and strategy.	Dave	10/29
5. Review the student survey instruments and process for administering.	Joint meeting of Task Force and Steering Committee	6:30 11/5

Table 4.

Arrange for joint meeting of parks staff and advisory committee.	Patrick and Sara	as soon as possible
6. Revise and modify the survey based on the reviews.	Dave	11/12
7. Make arrangements for conducting the survey. a. determine sample size b. sample student population c. finalize schedule for conducting survey d. inform staff of schedule e. determine any special needs for space f. etc. ...	Patrick and Dave	11/16
8. Conduct the survey with students.	Dave	11/26 - 30
9. Tabulate the results.	Jan, Jim, Carol, Patrick and staff members to be designated with assistance from Dave	12/3-7
10. Draft, type and reproduce the results in the form of a report.	Jerry, Carol, Jody, and staff members to be designated	12/10-19
11. Review the report.	Community Task Force Members and staff members	1/7/80 - 1/11/80
12. Distribute the report.		1/14/80
* Conducted by a City Parks and Recreation Department in cooperation with a citizens advisory committee.		