

Teamwork in Problem Solving

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The social, physical, and institutional environment in which Extension staff members function is characterized by increasing variety and complexity. Consequently, new Extension practices are required. One such practice, teamwork, is analyzed in this article. A new definition of teamwork is stated, with guidelines for implementing it. Problems of gaining staff commitment are identified, and conditions are described that contribute to team efforts to solve problems.

INTERDISCIPLINARY cooperation has been stressed in Cooperative Extension for years. Most meetings that draw staff members together (either at area, state, regional, or national levels) find participants discussing the question of how to combine the disciplines and their efforts in effective problem solving. The recently published Joint USDA/NASULGC Extension Study Committee Report¹ calls for more "task force" or "total problem" teaching teams, where talents from a variety of disciplines are combined. This fact constitutes one reason for discussing teamwork. There are at least two other reasons.

The first concerns interpersonal communications. Because of the many possible staff linkages in a complex institution such as Cooperative Extension, the magnitude of the communication problem is cause for concern. There are 10 possibilities for person-to-person communications within a county staff of five professionals; there are

¹ *A People and a Spirit*, A Report of the Joint USDA/NASULGC Extension Study Committee (Fort Collins, Colorado: Printing and Publications Service, Colorado State University, November, 1968), p. 42.

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1770 possibilities among 60 specialists on a state Extension staff. Adding one staff member to the county staff of five adds five new possibilities for interpersonal communications (a county staff of six has 15 interpersonal communication possibilities). Adding one specialist to a state staff of 60 adds 60 possibilities (for a total of 1830).

If the number of professional staff were to be doubled (as recommended in the Joint Committee Report) the increase in interpersonal communications possibilities would be substantial. Communication involving administrative, supervisory, and clerical personnel must also be taken into account. Add to the increase in professional staff the substantial number of subprofessionals recommended (52,460) and the problem skyrockets. If all the relationships recommended in the Joint Committee Report are taken into account, the real magnitude of the communication problem becomes more apparent.

The second additional reason for talking about teamwork concerns the political and physical environment within which Extension functions. Each subsystem (political sub-division, institution, administrative arrangement, transportation system, etc.) added to the already complex political and physical environment increases the complexity geometrically, not linearly. To illustrate: W. L. Rogers² has pointed out that adding two states to the Union increased the number of political contact points on the state level almost 2500 fold. Recommendations of the Joint Committee Report would result in a similar increased complexity in the Extension environment. For example, one recommendation is that local offices should be restructured on a multi-county basis when such arrangements would result in more efficiency.

Increasing environmental and institutional complexity has a number of consequences for Extension programming and staff cooperation. As Extension staffs increase and become more specialized, more time is required in establishing priorities and directions. As consideration is given to the Joint Committee recommendations, more teamwork will be required to provide the advanced planning and preparation needed to achieve environmental and institutional goals (outdoor recreation, health facilities, waste management systems, etc.). As programs become more comprehensive in nature, organization will become more involved.

Traditional administrative and organizational practices and

²W. L. Rogers, "Aerospace Systems Technology and the Creation of Environment," in William R. Ewald, Jr. (ed.), *Environment for Man* (Bloomington: Indiana University Press, 1967), p. 260.

procedures will need to be reexamined if Extension Services are to deal meaningfully and effectively with more comprehensive program efforts—especially in the areas concerned with the socioeconomic and physical environment. This article focuses on one important practice: teamwork in problem solving. In approaching this subject we will do the following: (1) Identify some prevailing views of teamwork; (2) present an operational definition of teamwork; (3) suggest guidelines for employing the operational definition; (4) discuss the problem of getting commitment to teamwork; (5) identify conditions that contribute to (or hinder) achieving commitment.

Prevailing Views of Teamwork

Part of the difficulty in achieving teamwork in problem solving is that staff members sometimes have different perceptions of what teamwork is. Differing perceptions cause different expectations. Thus, in attempting to achieve teamwork, leaders and members often must deal with a wide spectrum of views and sometimes rigid, inaccurate perceptions.

Over 200 Cooperative Extension staff members in Washington State were asked independently of each other to define teamwork. The results show that while a normative view of teamwork could be established, many individuals were in disagreement with this normative view.

Most staff members felt that teamwork is the act of two or more persons working together toward a common goal, sharing their time, talents, and knowledge and using methods acceptable to all team participants. Others assigned an almost mystical quality to the term. One staff member said teamwork is "a quasi-formal attempt to do unto others as you would have them do unto you." Another said teamwork is "doing our thing together to satisfy, improve, and enhance the growth of individuals and the society." One commented that teamwork is "a Rotary button."

Some staff members identified teamwork with bureaucracy. One said that teamwork as exemplified by university administration seems to mean, "Do as I say—don't make waves." Another said, "Teamwork is work accomplished cooperatively by more than one individual under the direction or coordination of a leader."

Staff members individually suggested a large variety of conditions for teamwork. These included cooperation, common goals and unity of purpose, concerted and harmonious action, defined responsibilities, assigned tasks, consensus, awareness of others' concerns, con-

scious action, interaction, satisfaction, helping relationship, spirit of equality, equal sharing, and democratic action.

As desirable as they may be, is it possible to achieve all of these conditions? Are staff members expecting too much—are these conditions necessarily requirements for effective teamwork? Might these views of teamwork even inhibit its practice?

Matters that count (complex problem solving or determination of program priorities) probably cannot be accomplished without some tension, frustration, and even conflict. Staff members having the view that teamwork must connote pleasant relations may feel that the occurrence of tension, frustration, and conflict is evidence of failure. The temptation under such circumstances is to back off instead of pushing ahead. However, without some tension, the participant's real convictions on a problem may be concealed.³ Some tension, frustration, and conflict may be necessary in searching for and implementing solutions.

Operational View of Teamwork

The varying views of staff members toward teamwork suggest the need for an operational and more consistent definition of this term. This definition is particularly needed nationally if states are to move uniformly to achieve more effective teamwork.

Our operational definition of teamwork: *Teamwork occurs when two or more persons commit themselves to series of systematic actions.* The essence of teamwork is commitment—commitment to some purpose. Joint consideration of actions is not enough; expressed commitment to them is necessary. The actions are part of a process involving a methodical and systematic series of commitment steps. The actions include individuals (1) agreeing on *what is* (situation or circumstances), often involving a process of analysis and synthesis; (2) concurring on *what the new situation ought to be*; (3) selecting *common objectives or purposes*; (4) committing themselves to *systematic* action steps; (5) deciding *indicators of progress*;⁴ and (6) agreeing to *appraise progress* using standards prescribed by the indicators.

³ Marvin E. Shaw and J. Michael Blum, "Group Performance as a Functional Task Difficulty and the Group's Awareness of Member Satisfaction," *Journal of Applied Psychology*, XLIX (June, 1965), 151.

⁴ Indicators of progress are predetermined factors that denote, by their presence, the existence of certain conditions that correlate highly with progress toward achieving objectives. Positive changes in ways of thinking, believing, acting, and participating are indicators suggestive of progress.

Guidelines for Employing Teamwork

Teamwork as we have defined it should be employed rationally and judiciously, and only if problems cannot be solved in other ways. Particularly, the team approach should not be used when individual efforts are sufficient. Innovative, creative, or sustained efforts by one individual may provide important breakthroughs in problem-solving situations. Often, individuals who think independently and defend their ideas are the ones who move things ahead. No one worked directly with Einstein on his pioneer thinking, though a large team built "the bomb."

In general, teamwork should be employed when the problems to be solved are complex, requiring a variety of perspectives (different ways of viewing or thinking about the problem). Determining new zoning requirements for the open space surrounding a city may, for example, require a team with a planner, tax specialist, resource economist, recreation specialist, and representatives of local government. Allocating the farm income between family living expenses and investment in the farm business might require the help of the agricultural agent, home economics agent, the farm operator and his wife, a banker, and an economist. Such problems involve goals, values, and aspirations of groups or individuals. They require thorough analysis and varied specialized knowledge not likely mastered by any one person; consequently they probably are more efficiently solved by coordinated group action.

We have said that teamwork effort is justified when dealing with problems requiring several perspectives and where several possible solutions are involved. Teamwork may also be justified where (1) group solidarity on a particular issue or program is required, (2) each person selected can make a unique contribution, (3) the various and diverse contributions are coordinated, (4) its use is not a substitute for action, and (5) the sum of the deliberations and alternative courses of action add to more than the courses of action developed by individuals had they worked independently.

Commitment To Teamwork

Teamwork represents a series of firm commitments to actions intended to solve problems. Individuals must say "I will" to them. But individuals may say "I will" in a group situation when they really mean "I will not." So leaders and individuals should test commitments by checking back with team members or by observing situations where commitments can be discerned. Otherwise, the team-

work effort may break down without even beginning to solve the problem.

Since individuals often perceive problems differently because they have varying values, experiences, and aspirations, it is difficult to achieve coordinated commitments to a systematic series of actions. What are some of the problems in obtaining commitment to a team effort? Most Extension staff members seem to desire autonomy. They want to be free to choose their own priorities and courses of action. For example, the majority of individuals currently entering Cooperative Extension as specialists have had graduate training in academic disciplines. Graduate training stresses independent thinking and action. Thus, these individuals have a strong tendency to think and act independently when planning and implementing programs. However, once committed to a team effort, their ability to think and work independently can strengthen the development of alternative solutions to specific problems.

County staff members may desire autonomy for an additional reason. The demands placed on them by administrators, specialists, and others for commitment of time may leave county staffs in the position of being over-committed and unable to deliver. Strong pressure exists for these individuals to organize and assist with programs that will satisfy both Extension administration and local leadership and clientele. Thus, confronted often with more demands than they think they can meet, county workers sometimes commit themselves superficially. However, in many cases the success of a particular program depends upon the commitment and back-up provided by supervisors. Commitment is a two-way street.

Because of complex staffing arrangements, Extension also confronts organizational difficulties in achieving commitment to teamwork. Specialists and supervisory personnel sometimes are located at widely dispersed centers and must deal with different environments. County staff members are headquartered in many separate locations. Staff members have widely diverse specialities. Lack of effective communication may result from these conditions, leading to segmented and fractional activity and absence of consensus and commitment.

How do we identify and measure commitment? Commitment involves selecting a few among many work opportunities. So commitment can be identified by the choices an individual makes. If the individual demonstrates by his choice of actions that he values certain activities over others, then his commitments are made clear. It is the responsibility of a team leader to observe team members' choices. He can then sanction those choices that support team effort as a

means of insuring that adequate priority and energy are given to it.

Conditions Contributing to Commitment and Teamwork

The list of conditions presented here may not be complete; each reader is challenged to add additional conditions to the list.

1. *The team needs individuals who know why they have been assigned to the team.* Individuals should know if they have been placed on the team because of their possible influences in getting predetermined decisions legitimized; or because they need to be informed; or because there is a need to get things done and one person cannot accomplish them by himself. Or perhaps the team members are chosen because each person has a unique contribution to make; or because different ideas are truly desired; or because the person calling the group together wants to share responsibility for possible failure.

2. *The team needs individuals who define and clarify problems effectively.* Many groups spend too much time deliberating on problems because they do not have agreement on the dimensions of the problem they are dealing with. Clarification and agreement on what the problem really is can help prevent a group impasse.

3. *The team needs individuals or group leaders who effectively present problems to be solved.* Before a problem can be solved, it must be identified. Ineffective presentation of problems can block the teamwork process. If the presentation is critical or places blame, it becomes a threat; response will be emotional rather than intellectual. The manner of stating the problem should not place the group on the defensive; it should encourage freedom of thought. No solution or alternatives should be implied. Such procedures restrict freedom and decrease the possibility of creativity.

Most problems have several possible solutions. If the search ends before a number of alternatives are found, some potentially productive solutions may be overlooked. There is evidence that group solutions are of a higher quality when groups are encouraged to find an alternative solution after they have presumably solved the problem.⁵

4. *The team needs individuals or group leaders who define the structure and function of their group or team.* Planning, even for a limited time, at an early stage in problem solving is beneficial. An opportunity for planning may provide a basis for a higher level of cooperation. Time spent on planning early in a group's development seems to be time well spent, particularly if sufficient time is spent to

⁵ Edwin D. Lawson and Irene F. Lawson, "Group Planning and Task Efficiency," *Canadian Journal of Psychology*, XXI (April, 1967), 174-75.

enable each team member to know his function and responsibility.⁶

5. *The team needs individuals who think independently and defend their ideas.* Such individuals usually force more options and stimulate more solutions to problems. However, these individuals should reflect on Philip Selznick's⁷ conclusion that innovative or creative efforts toward what he calls critical decisions are decidedly risky in bureaucracies. New ideas that appear promising are often not rewarded sufficiently to offset the risks involved. On the other hand, Extension can encourage and reward innovation and creativity.

6. *The team needs individuals who are able to express themselves freely and fully in individual or group situations.* Where individual positions are not fully expressed, members may mistakenly believe that others in the group hold a position different from their own. In group problem solving, such a state arises when a proposed solution is unacceptable to some members, each of whom believes that all others in the group find it acceptable. When this happens individuals may hesitate to disagree, or to suggest alternative solutions, because they don't want to risk being perceived as deviant. This inhibition of member participation reduces the range of information available and prevents the exploration of alternatives. Thus, lack of dialogue and freedom of expression may inhibit the learning and involvement so necessary to effective teamwork.⁸

7. *The team needs individuals or group leaders who summarize progress toward goals from time to time.* Unless everyone in the group is clear about what has been done and what still remains to be completed, individual members may feel they are getting nowhere. Frustrations are then likely to develop. Shaw and Blum⁹ say that effectiveness of teamwork can be improved if members are encouraged to evaluate their satisfaction with the process employed.

8. *The team needs group leaders who provide for checking consensus or decision-readiness.*¹⁰ Forcing decisions when members are hesitant to make decisions may lead to premature action and create dissatisfaction. They may feel insecure in choosing between alternatives because they have too little information.

⁶ Most of these ideas were derived from "Problem Solving Discussions and Conferences," *Keeping Current*, I (February, 1964), 1-3.

⁷ Philip Selznick, *Leadership in Administration: A Sociological Interpretation* (Evanston, Illinois: Row, Peterson & Co., 1957), pp. 56-60.

⁸ Shaw and Blum, *op. cit.*, pp. 153-54.

⁹ *Ibid.*

¹⁰ Acknowledgement is made to Ronald Lippitt and Alvin Zander, Research Center for Group Dynamics, University of Michigan, for some of the ideas that follow.

9. *The team needs group leaders who spread tasks and responsibilities among members.* Spreading responsibilities helps give members opportunities for practice in leadership skills. Centering responsibilities with the leader may overload him so he is inefficient or give him so much power that members have no part in guiding the group.

10. *The team needs individuals who openly confront problems of group morale.* If morale problems such as fatigue, conflict, anxiety, and boredom are acknowledged and faced frankly by the group, the chances for remedying them are greater than if they are ignored and allowed to fester. Analyzing why morale problems have arisen can often help achieve group progress and more individual commitment.

11. *The team needs individuals who are willing to limit discussion to pertinent contributions.* Letting discussion drift from the point of issue can make teamwork efforts inefficient, frustrate participants, and prevent problem solving. If effective teamwork is to occur, members must have a feeling of responsibility to other members in the group and to the goals to which the group is committed.

12. *The team needs individuals who gain satisfaction from their participation.* Satisfaction grows from individuals believing their individual as well as group needs are being met. Most persons must gain some measure of new experience, personal growth, group approval, stimulation, and accomplishment, to be satisfied. Individuals identify with significant activity and institutions or groups in which they can take pride.

Overall, it can be said that leaders must have a deep knowledge of human behavior, patience, perseverance, and courage, if their team efforts are to succeed. A combination of all of these qualities is required for team leaders: to deal with individuals who practice "in-travoidance" (that basic need which causes the individual to avoid possible anxiety or failure); to resolve interrole conflict (members having differing views of their respective roles); to expose hidden agendas, positions, and ideas that members have; to push for careful analysis and synthesis of problems and ideas; and to cope with various mechanisms individuals use to protect their egos.

Recommendations of the recently released Joint Committee Report include the need for Cooperative Extension to focus on "decision centers" rather than on a department or discipline. This approach calls for more "task force" or "total problem" teaching teams. In order to implement these recommendations, a more enlightened approach to teamwork in problem solving is required. But it can be achieved only if present practices and views are reexamined.