

A Group Process Model for Problem Identification and Program Planning¹

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This article sets forth a group process approach useful for practicing administrators charged with a program development task. More specifically, meeting formats are suggested for involving the following critical reference groups in successive phases of program development: (1) clients (consumers or users) and first-line staff, in problem exploration; (2) external resource people and internal specialists, in knowledge exploration; (3) key administrators and resource controllers, in priority development and local adaptation; (4) organizational staff, in program proposal building; and (5) all constituencies, in final approval and evaluation designs. The meeting formats were suggested by contemporary small-group theory; the sequencing of the involvement of reference groups came from studies of community planning.

INTRODUCTION

The divisional manager of an aerospace firm is faced with the problem of designing a program to manufacture a new control system for a missile component. In order to develop the program, he will need to involve functional managers in several engineering

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units, obtain financial resources from top management, consult technical experts from several research institutes, and obtain co-operation of military representatives.

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The executive director of a social welfare agency is faced with the need for developing services for elderly persons in a small semirural community. There is no prior history of such a program among the senior citizens. The local town board is hostile toward "government" intrusion. The director needs assistance from a number of other social agencies and health service institutions in working out the program.

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A junior faculty member in the business school within a large state university is interested in exploring a program whereby M.B.A. candidates can provide technical assistance to small businessmen in the predominantly Negro central city area nearby. Although he is aware of other similar efforts, the exact nature of a successful program, the type of faculty involvement required, the reaction of his department chairman, and commitment of resources by the dean are all difficult to predict.

The purpose of this paper is to present a group process model for situations like those cited above which planning groups can use for (a) identifying strategic problems and (b) developing appropriate and innovative programs to solve them. The model was originally developed from social-psychological studies of decision-conferences and studies of program planning in an (Office of Economic Opportunity) Community Action Agency. The model, which we abbreviate as PPM (Program Planning Model), has been used by the authors in a wide variety of organization change and task force situations—in business, industry, government, and education.

PPM is not a rationalistic economic model for system planning. It is, rather, a socio-logical model suggesting a planning sequence which seeks to provide an orderly process of structuring the decision making at different phases of planning.² In developing the model, we were particularly concerned with situations where a variety of groups, fragmented in terms of vested interests, rhetorical and ideological concepts, and

2. The terms "economic" and "socio-logical" are taken from the decision-making studies reported in James D. Thompson and Arthur Tuden (1959).

differentiated expertise, needed to be brought together in order for a program to emerge or change to take place. Modern decision theory clearly indicated that different problem-solving phases and different types of problems called for different group processes (Delbecq, 1967). It did not, however, provide guidelines for interfacing divided groups involved in the vortex of large-scale planning situations.

These contextual differences between planning situations involving differentiated groups and rationalistic planning within an organizational function (such as capital investment planning) can be illustrated by elaborating upon the problems faced by community planners.

To begin with, the community planner faces all the realities of calcified bureaucracy. That is to say, needed physical and financial resources, technically trained personnel, and legitimating power are often locked within established business, political, and social institutions. Each of these institutions, itself, may be only moderately malleable. The character of difficulties in achieving innovation within established bureaucratized organizations is well documented in the literature (V. Thompson, 1965). The problem of community planners transcends these intraorganizational difficulties since they must coalesce resources from a number of organizations. Further, since political units crisscross the metropolitan conglomerate but seldom encompass it, problems of legitimacy are compounded.

An additional problem is that a particular public unit seldom commands sufficient technological expertise to deal with complex urban problems (Lipsky, 1968). This issue of technological expertise is, in itself, a quagmire. The combination of the "information explosion" together with increasing specialization of discipline-oriented scientists has made the term "interdisciplinary" a euphemism.

Finally, the appropriateness of technocrats' unilaterally "planning for" communities may well have passed. The involvement of citizens, clients, low-income neighborhood groups, concerned political representatives, and others makes the questions of "subsidiarity" and Maximum Feasible Participation" most important concerns for community planning.

The contemporary planning process must include opportunities for client participation and representation in the evolution and implementation of community change programs.³

PPM is directly concerned with situations like those described above. It suggests a method in which internal exchange across organizational units and extraorganizational interfaces can be sequenced, and offers an explicit process for structuring the character of participation within each phase of planning.

THE PPM
PROCESS
OUTLINED

PPM divides program planning and development into five phases. While these phases are compatible with the "scientific method," PPM suggests specific group techniques and specific roles for different interest groups at different phases in the process.⁴ The entire process may be briefly summarized as follows:

Phase I: Problem Exploration

- Involvement of client or consumer groups
- Involvement of first-line supervisors

Phase II: Knowledge Exploration

- Involvement of external scientific personnel
- Involvement of internal and external organizational specialists

Phase III: Priority Development

- Involvement of resource controllers
- Involvement of key administrators

Phase IV: Program Development

- Involvement of line administrators
- Involvement of technical specialists

Phase V: Program Evaluation

- Involvement of client or consumer groups
- Involvement of staff and administrative personnel

3. For a discussion of "Maximum Feasible Participation" in Community Action Programs refer to CAP Management Guide 6321-1. Washington, D.C.: Office of Economic Opportunity, January 1969. Pp. 1-2. See also Arnstein (1969), Lipsky (1968), Mogulof (1969), and Warren (1969).

4. For a treatment of problem-solving phases in small groups, see Bales and Strodtbeck (1967).

We can now proceed to discuss each phase in appropriate detail.

PHASE I:
PROBLEM
EXPLORATION

Phase I begins with the identification of a cross section of client or consumer groups divided according to age, geography, technical applications, or whatever client or user categories are in keeping with the nature of the service or product in question. The heart of the process is a problem exploration meeting which is conducted according to the following format.

Fifty or 60 clients are brought together for a meeting to discuss their individual and common problems, which are the focal issues around which the new program will emerge. The organizational representative opens the meeting by indicating the sincere interest of his organization in understanding the character of their (the clients') problems in order that his organization might better plan its program of services. He then indicates that the purpose of the meeting is to understand the *problems*, not to explore solutions. Further, most problems have both emotional and organizational dimensions. The emotional dimensions center around feelings such as anxiety, fear, embarrassment, and the like. The organizational dimensions often deal with authority, structure, costs, availability of resources, quality of services, and so on. He tells the client group that his organization is interested in both problem dimensions.

The organizational representative then divides clients into groups of six to nine according to common characteristics (such as age) and has these small groups sit around separate tables. Each individual is asked to write "personal feelings" on one side of a 5" x 7" card and "organizational difficulties" on the other side of the card. He then asks all present to spend the next 30 minutes listing aspects of the problem on their individual cards without speaking to anyone else at their table. The groups proceed in silence.

At the end of 30 minutes, the organizational representative provides each table with a large paper pad, felt pens, and masking tape. A junior staff member from the organization offers to serve as recorder for each table. The junior staff person asks each member of the client group, one at a time, to read aloud *one* "organizational difficulties" item from his card. He writes that item on his pad exactly as the client member reads it from

his card. He then proceeds round-robin to receive one item from the next client in sequence, numbering each item. He suggests that if several members at the table have the same item on their cards, they should raise their hands so he can record it by putting check marks next to the item. However, he avoids any debate about equivalency of items by writing all related "problems" as separate statements rather than rewording a particular one even if there is overlap. He continues writing items until all the "organizational difficulties" items are on the pad. He then tears the sheet off the pad, tapes it to the wall, and repeats the process for the "personal feelings" items.

After the group has listed all items on the two sheets of paper, members are offered a chance for a coffee break. Upon returning, they are given one-half hour to review and to discuss in a serial fashion each of the items on their two lists; clarify, elaborate, or defend any item; or add items. However, the group should avoid collapsing or condensing items into categories since a greater specificity of the problem dimensions is retained when the items are not condensed into general problem categories. At the end of 30 minutes, the group is given 3" x 5" cards. Each member is asked privately to vote (by number) on the five items he considers most crucial on the "personal" problem list and the five most crucial on the "organizational" problem list.* The junior organizational staff member then collects the individual votes and records the votes of the group on each of the appropriate sheets.

All the groups then come together, and the votes of each group are reported to the entire client audience. A discussion period follows: it lasts as long as the client group actively talks about the subject—usually about 10 minutes.

The organizational representative then briefly explains the remaining phases of the PPM process and asks the group

* The specific voting procedure used depends upon the degree of specificity of information that is desired from the group and the nature of the topic under investigation. If the topic is very general and only preliminary information is desired, a simple *listing* of priorities is sufficient. If a more detailed understanding of priorities, in order of importance, is desired, a *ranking* of priorities is appropriate. If one desires understanding of the magnitude of difference between priorities, a *rating* of priorities is needed.

whether it would like to select representatives to participate in Phase II of the process. If the group wishes to proceed, members vote for their representatives. The clients are thanked and the meeting ends.

Figure 1 presents a summary of the Phase I meeting.

*Theoretical Defense
of Phase I*

Use of nominal groups to increase creativity. One of the objectives of PPM is to facilitate, in the greatest degree possible, innovation and creativity in program planning. The Phase I PPM format is based on research which shows that creativity can often be facilitated by following specific group processes. While research supports the desirability of involving certain types of creative individuals in later phases (Scott, 1965), Phase I emphasizes our agreement with Victor Thompson and Smithburg (1968) on the need to structure group processes. They write: "Mystical, charismatic personality qualities have been greatly overemphasized in the discussion of creativity and discovery in comparison to . . . structural rather than personality variables."

The overriding imposed process in Phase I is the use of the nominal group technique in the early part of the meetings. In recent years, a number of major research studies substantiate the superiority of *nominal groups* (groups in which individuals work in the presence of one another but do not interact) as compared with conventional "brainstorming" groups.⁵ This research indicates that interacting groups produce a smaller number of problem dimensions, fewer high quality suggestions, and a smaller number of different kinds of solutions than groups in which members were constrained from interaction during the generation of critical problem variables (Campbell, 1968; Dunnette, Campbell, & Jaastad, 1963; Leader, 1967; Taylor, Berry, & Block, 1958; Vroom, Grant, & Cotton, 1969). Since the use of nominal groups is not characteristic of most meeting formats, a word of explanation for the overriding

5. A complete treatment of the empirical research and the social-psychological dynamics of both nominal and interacting groups is available in Andrew H. Van de Ven and André L. Delbecq, "Nominal versus interacting groups for committee decision-making effectiveness," *J. Acad. of Mgmt*, June 1971, 14 (2).

FIG. 1. *Outline of Phase I Meeting—Program Planning Model*

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| <ul style="list-style-type: none">I. Selection of Client or Consumer Sample
(Divided according to age, geography, technical application, or other appropriate categories)II. Meeting with Clients or Consumer Groups to explore problem dimensions<ul style="list-style-type: none">A. Introduction (10 minutes)<ul style="list-style-type: none">1. Welcome2. Expression of organization(s)' interest in clients' problems3. Indication that focus is on problems, not solutions4. Explanation of "personal" vs. "organizational" problemsB. Directions for small-group participation<ul style="list-style-type: none">1. Assign clients to small groups of 6 to 92. Instruct them in nominal group format<ul style="list-style-type: none">a. Listing "personal" problem dimensions on 5" x 7" cards (15 minutes)b. Listing "organizational" problem dimensions on 5" x 7" cards (15 minutes)3. Provide flip chart and recorder for round-robin sharing of individually noted items<ul style="list-style-type: none">a. Items from individual cards (first organizational, then personal)b. New items suggested by processC. Fifteen-minute breakD. Interacting group discussion of each item on flip chart in serial fashion for clarification, elaboration, and/or defense, but not for collapsing or condensing items.E. Nominal group voting on 3" x 5" cards for top five priority items on both "personal" and "organizational" listsF. General Session—discussion of tabulated votes from each small groupG. Explanation of PPM and election of representative(s) for Phase II |
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superiority of nominal groups in the structure of PPM is in order. The following factors seem to explain the superiority of the nominal technique for the generation of problem dimensions and appropriate solutions (though in Phase I of PPM we are not concerned with solutions).

There seems to be little question that interacting groups inhibit the performance of their members (Taylor et al., 1958). Despite elaborate attempts (e.g., "brainstorming") at freeing individuals to speak spontaneously and fully share their ideas,

people seem comfortable in sharing only fairly well-developed ideas with the group, particularly in a newly formed group.

The second explanation relates to the tendency of interacting groups to focus on a particular train of thought. Interacting groups often "fall into a rut" by concentrating on and elaborating a single problem dimension. Individuals find it more comfortable to react to someone else's idea than to generate their own ideas. This is especially limiting since early ideas which become the focus of the group's attention often contain obvious rather than subtle problem dimensions (Dunnette et al., 1963; Osborn, 1957; Taylor et al., 1958).

It is also necessary for participants to become fully and thoroughly enmeshed in the problem. The tension created by the nominal group situation, in which other members at the table are industriously writing, maximizes social facilitation-tension which is important for individuals' full involvement in the task at hand. "Creations and discovery are much more likely when there is a personal commitment to searching for a solution" (Victor Thompson & Smithburg, 1968).

The nominal group process also avoids evaluation of any particular problem dimension and the distraction of elaborating comments, while problem dimensions are being generated. This is congruent with Maier's (1963) research on creative groups.

Finally, the round-robin procedure, coupled with the separation of "personal" from "organizational" problems increases the tendency of individuals to begin sharing risky problem dimensions with other members of the group (issues that involve increasing degrees of self-disclosure). The round-robin procedure of each member's offering a single idea allows secure personality types who are greater risk-takers to engage in early self-disclosure. This modeling by the more secure members of the group makes it easier for less secure members to take their turn and suggest risky problem dimensions, particularly "personal" problems which they might hesitate to bring before the group in an interacting situation (Culbert, 1968). Experience also suggests that clients or consumers will avoid identifying "personal" dimensions dealing with social-emo-

tional problem dimensions unless stimulated by a separate category beyond the "organizational" category.⁶

Other Benefits *Interfacing clients and professionals.* The process specified for Phase I contains a number of other benefits in addition to the facilitation of innovation suggested by the above discussion of creativity in nominal groups.

One of the critical issues in program development is the interfacing of client or consumer with professional personnel. Authors dealing with organizational innovation stress the need for such interfacing, but mechanisms for the facilitation of this boundary relationship are seldom discussed. The process specified in Phase I has two special benefits for the total program planning process in relating professionals and nonprofessionals. The first benefit relates to the value of focusing attention on client needs as the starting point for program development. Such an approach is quite consistent with a number of evolving perspectives on organization programming. It is congruent with the "new marketing concept" in industrial organizations which stresses the need for consumer panels or market research as a basis for product development. It is likewise consistent with the new emphasis on involvement of the clients of a social agency as a basis for planning programs. Contemporary literature is replete with instances where social agency professionals have planned client services which do not meet real needs of the clientele.

The second benefit of Phase I relates to the interaction dynamics of professionals and clients. Getting professionals to react to client statements is a tricky business. The experience of OEO and political agencies has been that the interfacing of client groups with professional or political groups has often resulted in "maximum feasible *misunderstanding*" (Moy-

6. For example, in a meeting exploring services for elderly persons, "organizational" or "outside" problems such as cost of drugs, transportation, and so on were easily mentioned. Only when groups of elderly were asked as separate individuals to list "personal" problems did areas such as fear of death, loneliness, preoccupation with sickness, feeling disliked by younger people, and other critical social-emotional issues come out.

nihan, 1969) rather than maximum feasible participation. Indeed, the literature would suggest that low-status clientèle interfaced with high-status professionals will often be forced into a rather passive and subordinate position by the professional staff (Delbecq, 1968).⁷

Further, militant representatives of clients or customers often confront professionals with rhetoric which alienates the professional or political resource controller. As Lipsky (1968) has pointed out, militant client leaders are often obliged to substitute rhetorical and psychological rewards for material benefits to appear charismatic. As a result militant consumer or clientèle representatives often master the art of overstatement, which pleases constituents but interferes with problem solving. The nominal group technique focuses the attention of client and consumer groups on real problems, thus helping to avoid emphasis on psychological and ideological statements by formal leaders. Our own experience has been that rhetorical leaders are not able to dominate problem-centered discussion by consumers or clients in nominal group situations. As a result, the output from Phase I provides a summary of critical problem dimensions in comfortable terms to which professionals in Phase II and resource controllers in Phase III can respond. In a similar fashion, the technique avoids dominant focus on the personalities of the organizational representatives leading the meeting.

Finally, the organization may tap several reference client or consumer groups, so that it does not focus its response on a particular group which claims to speak for a charged, faction-ridden constituency.

Avoiding semantics and producing richness. The round-robin aspect of listing problem dimensions also lessens argumentation over semantics and facilitates increased balance in participation. Verbally skilled members are precluded from easily monopolizing the group with arguments over wording. The listing of all problem dimensions also increases qualitative

7. See also references cited in Footnote 3.

richness, which, in turn, adds to the tension which is the catalyst (or precursor) of change.

Creating tension and facilitating change. A central issue in getting a new program underway is the development of sufficient tension in professional organizations to justify new change programs. The nominal group process provides both quantitative data in the sense of voted-upon priorities and qualitative data in terms of a rich, descriptive discussion of the problem. The qualitative data flow from the discussion which follows the nominal group activity, in which members often provide critical incidents or personal anecdotes. The combined qualitative and quantitative data encourage professional reaction to real client needs. That is to say, the data from Phase I, together with the presence of representatives from the Phase I meeting in Phase II, create a situation in which professionals cannot easily ignore client priorities established in the first phase. Furthermore, both the priorities which the group votes upon and the qualitative incidents become news for public media, where this type of pressure is appropriate. News releases, summary memoranda, and internal reports can all evolve from the consumer- or client-centered meetings in Phase I as mechanisms for eliciting the tension which must underlie change by the sponsoring organization.⁸

Expediency in terms of time expenditure. While they are not always appropriate substitutes for quantified survey research, Phase I processes are easily activated. Since it can be activated in a single evening for a large number of clients or consumers, the process is a minimal but effective mechanism for increasing the focus of the program planners on real client or consumer problems. Further, if Phase I is elaborated by means of survey research, the items which emerge in Phase I become an important base for the development of survey research instruments.

Summary of the Phase I, then, is a deliberate, structured process which seeks to

8. For a discussion of the role of tension in fostering organizational change, see Dalton (1969).

*Benefits of
Phase I*

accomplish the following objectives: (a) to facilitate problem definition by a rich input of problem dimensions through nominal group techniques; (b) to focus attention on those items which have the highest priority in the clients' or consumers' perspective; (c) to avoid reaching toward a limited few "leaders" or a single client group to create the definition of the clientèle or consumer problem, but rather to react to multiple reference groups and representative clients; (d) to force professional members to react to the realities of client perceptions rather than to their own theoretical or professional biases; (e) to create sufficient tension to assure responsiveness on the part of the professional organization to clients or consumers; (f) to provide a mechanism for the interfacing of both clients and professionals in a manner which avoids mutually frustrating semantic hangups; and (g) to increase the legitimization of later program proposals by early involvement of client or consumer groups.

PHASE II:
KNOWLEDGE
EXPLORATION

Phase II begins with the identification of external scientific and organizational experts whose discipline and functional skills relate to the priority items which evolved in Phase I. Combined with internal functional experts from the principal organization(s) who will be responsible for the implementation of the planning program, this group of knowledge resource persons (hereafter referred to as "specialists") is invited to engage in a problem-solving meeting following processes somewhat similar to the Phase I format.

In preparation for the Phase II meeting, the problem items developed in Phase I are divided into major and minor categories.⁹ A large visual display of these problem categories, together with an indication of the priority vote, is presented to the knowledge resource panel. Once again, the organization representative opens the meeting by stating the interest of his organization in developing an adequate program to deal with the priority problems of clients or consumers which emerged

9. The development of this classification system is undertaken by a staff member of the sponsoring organization. If there are grey areas of dispute with respect to this taxonomy, the reclassification of items can be tested against a panel of people who were present at the earlier Phase I meeting.

in the Phase I meeting. He then discusses the character of the Phase I meeting and thoroughly reviews the display of problem items. He is careful not to interpret the items analytically but he does provide a qualitative description of problems which underlie the items by repeating the anecdotes and vignettes which client or consumer groups had mentioned in the earlier meeting. To assist in this descriptive clarification, he asks for the help of the client or consumer representatives who were elected in Phase I to be present at the Phase II meeting.

Following this review of problem dimensions, he directly defines the role of the "specialists" present. He indicates that they were invited as "idea men," not as "representatives" of their particular home organizations. He states that the purpose of the Phase II meeting is to identify alternative solution components and resources for the priority items which emerged in the Phase I meeting.* In this breakdown, first he asks for help in developing a list of solution components and resources *presently available* within organizations they are familiar with which can be adapted to, or which already directly relate in their present form to, the problem dimensions. Second, he asks them to recommend *new* types of solution components and resources which could be developed as partial or complete solutions to the problem dimensions.

The specialists are then divided into small groups. Each group is composed of a cross section of age, scientific and organizational personnel, and functional expertise. Each individual in the groups receives as many 5" x 7" cards as there are priority items from the Phase I meeting. On one side of each card the specialist writes "Solution Components and Existing Resources which can be adopted or used." On the other side of the card he writes "Solution Components and New Resources which can and should be developed." During the next 40 minutes, follow-

* "Component" in this case means an element or part of a solution program. "Resource" means a person, organizational unit, or funding source. For example, a problem priority identified in an OEO Phase I meeting was "lack of available medical services in geographically dispersed low-income neighborhoods in the county." In this case a solution component listed was "develop a mobile medical clinic." A resource listed was "use university medical interns."

ing a nominal group format, each specialist completes the list of existing and new Solution Components and Resources which he feels should be part of the solution program for each priority item.

Following this, the imposed group structure of the round-robin procedure described for the Phase I meeting is used again. This time a sheet divided and labeled "Existing" and "New" Solution Components and Resources is used for each of the priority categories. As before, a junior staff member records on these sheets the items read aloud from the individual cards of the specialists.

Following a break, each group engages in a discussion of the various existing and new solution components and resources which can be incorporated in the program to deal with the priority problem items. The purpose of this discussion is to determine the most reasonable and adequate combination of solution components and resources for each priority problem. At the conclusion of this discussion, each group of specialists presents to the total assembly the list of solution components and resources which it feels must be part of the final program.

As each group reports, two staff members record and number the components and resource items. After a short discussion, all specialists present are asked to vote (using 3" x 5" cards) on those components and resources which they feel are absolutely essential in constructing a minimally adequate program to solve the priority problems raised in Phase I. (Statistical techniques such as weighting and rank ordering can be employed by analyzing nominal voting.)

Once again, at the end of the meeting the organizational representative explains the remaining phases of the PPM process and asks the groups to select representatives from Phase II to participate in Phase III of the process. The groups vote for their representatives. The resource persons are thanked and the meeting ends. Figure 2 presents a summary of the Phase II meeting.

*Theoretical Defense
of Phase II*

It is not necessary to repeat the discussion of nominal groups and their advantages for this particular phase of the PPM process. There are, however, a number of unique problems

FIG. 2. *Outline of Phase II Meeting—Program Planning Model*

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| <ul style="list-style-type: none">I. Selection of Knowledge Resource Panel<ul style="list-style-type: none">Involvement of external scientific personnelInvolvement of internal and external organizational specialistsII. Meeting with Knowledge "Specialists" to explore solution components and needed resources<ul style="list-style-type: none">A. Introduction<ul style="list-style-type: none">1. Welcome2. Emphasis on the fact that the meeting's focus is upon priority problems of consumers or clients3. Review of Phase I<ul style="list-style-type: none">a. Visual display of critical problems and prioritiesb. Nonanalytical elaboration of examples with assistance of client or consumer representatives from Phase I4. Role definition that asks specialists to be "idea" men, not "representatives" of programs or organizationsB. Directions for small-group participation<ul style="list-style-type: none">1. Assign specialists to small groups of 6 to 9 providing for a cross section of age, scientific and organizational affiliation, and functional expertise2. Instruct specialists in nominal group format on each side of the 5" x 7" cards, and ask specialists to list critical solution components and resources under "existing" and "new" headings (30-45 minutes)3. Provide a flip chart and person to serve as recorder for round-robin sharing of individually noted solution components and resources (a separate sheet for each priority problem)C. Interacting group discussion in which each small group develops a package of solution components and resources for priority problemsD. Report of each small group in general session. (Recorders make a master list of solution components and resources.)E. Nominal group voting on 3" x 5" cards on those solution components and resources absolutely essential for an effective program to solve priority itemsF. Explanation of PPM and election of representatives for Phase III |
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specific to the character of the Phase II meeting which can be minimized by the use of the nominal group technique.

A problem encountered prior to the use of nominal group techniques was a tendency for knowledge resource persons to fall into the role of defending programs which their organi-

zations were presently engaged in relative to the priority problem categories suggested by clients or consumers, rather than creatively exploring the development of new types of programs. In community groups in particular, agency and university specialists seemed to feel that it was necessary to justify the adequacy of present endeavors dealing with problem categories during Phase II meetings rather than explore the development of new types or recombinations of solution components and resources which could be part of a new program. The Phase II combination of the verbal role definition calling for specialists to be "idea men," not representatives,¹⁰ together with the nominal technique asking for both existing and possible new solution components and resources, greatly decreases this tendency for specialists to defend or proselytize for present program structures.

At the same time, listing both "existing" and "new" components and resources forces program planners to consider pooling resources and approaches to problems. It is aimed at avoidance of unnecessary duplication of resources and at encouragement of collaborative programs across organizations.

The actual participation of knowledge resource persons in the PPM process should also be discussed. Research on change programs indicates that a critical feature in achieving change is the cognitive remapping of problem situations (Dalton, 1969). Unless existing problems can be perceived through new types of conceptual lenses, the probability of innovative programs of solution remains limited. Therefore, the use of external knowledge specialists is an attempt to maximize the probability of reconceptualization of problem sets, making use of the differentiated conceptual lenses of these experts. In this respect, the juxtaposition of pure scientific personnel and applied organizational specialists is particularly important.

Research indicates that there are two types of creativity. One type is concerned with seeing critical causal elements or dimensions of problems; the other type is the ability to syn-

10. The importance of verbal role definitions and research on their effect is treated in Delbecq (1964).

thesize these elements into appropriate and feasible solution patterns (Gordon & Morse, 1968). The use of both pure and applied specialists in tandem is an attempt to maximize the probability of both types of creativity's being included in the evolution of solution programs.

The use of differentiated age groups is also important since the character of creativity of younger and older scientists is shown to be quite different. The former tend to reconceptualize problems while the latter tend to be much more attuned to questions of feasibility and implementational relevance (Pelz & Andrews, 1966, Chap. 10 & 11).

Finally, by reaching outside the sponsoring organization, the Phase II procedure avoids provincial viewpoints. It is improbable that such a cross section of specialists will tend to step into the solution program out of one common psychological set, while an organizational group might well do so.¹¹ Indeed, the research by Utterback (1971) indicates that successful change programs obtain more than 50 per cent of the information about technical means to solve a problem outside the sponsoring organization.

At the end of Phase II, the existence of the essentials of an appropriate solution program agreed upon by a cross section of specialists adds greatly to the ease of crossing the boundary to resource controllers. The fact that the essential elements of the proposed solution program have been investigated by (and endorsed across) a number of interdisciplinary experts lends an aura of legitimacy to the program. In conveying this fact, the role of the representatives from Phase II is very critical in Phase III. These representatives of the specialist group provide expert-witness testimony; they are able to cast in appropriate social science or physical science terminology the justification of program components and resources which are part of the solution strategies voted upon as essential program elements.

Summary of the Phase II, then, is a deliberate, structured process which seeks to

11. Pelz and Andrews (1966) include a discussion of calcification of viewpoints in a specialist team in Chap. 13; see also Dalton (1969, pp. 21-30) for a discussion of the need for new interpersonal ties in change programs.

*Benefits of
Phase II*

accomplish the following objectives: (a) to reconceptualize the priority problems from Phase I in terms of essential solution components and resources through use of scientific and organizational expertise; (b) to focus on new combinations of solution components and resources, avoiding defensive discussions of existing programs; (c) to activate differentiated types of creative insight by interdisciplinary and cross-generational group composition; (d) to call attention to existing but untapped solution components and resources as well as the need for new components and resources; (e) to provide a legitimate "scientific" endorsement of essential program components and resources for an adequate solution to priority problems.

PHASE III:
PRIORITY
DEVELOPMENT¹²

The description of the two prior phases of PPM has emphasized the *process* appropriate for the particular meeting involved. In Phase III, the process for the meeting is not so significant as the timing of the meeting relative to the total PPM sequence.¹³

Phase III calls for a meeting—in which key resource controllers and key administrators participate, together with representatives from Phases I and II—to review the priorities and critical solution elements of the emerging program. The critical timing of the meeting can be justified as follows.

12. There are several important caveats which need to be made at this point. First, PPM is not a model for protest. That is, it presumes a degree of openness to client or consumer needs on the part of resource controllers. In cases where there is extreme polarization of positions, the intermediate degree of tension which PPM generates will be inadequate. Second, we have deliberately not incorporated budgeting and financial constraints into the process. Budgeting overlays and techniques for dealing with funding issues are sufficiently complex in themselves that we are incorporating budget issues in a later paper. In addition, the later paper juxtaposes the PPM process with the structure of an organization whose primary mandate is concerned with developmental and experimental work (as often performed by a planning agency) as opposed to ongoing operating line work (as often performed by a social referral agency). See André L. Delbecq and Andrew H. Van de Ven, *The generic character of program management: A theoretical perspective*. Madison, Wisconsin: The Univer. of Wisconsin, Graduate School of Business. Unpublished manuscript, March 1971.

13. Indeed, research indicates nominal techniques are most applicable for generating information, while interacting groups are appropriate for evaluating information. In this sense, Phases I and II are the nominal preparation for Phase III. (See Vroom, Grant, & Cotton, 1969 for discussion of generation vs. evaluation.) To avoid rhetorical cleavage, provide focus, and create balance, therefore, greater attention to visuals (referred to below) is important.

Klein (1967) describes resistance to programs as often being a function of the way change is introduced. He notes that most planners run into trouble when the agents of change have done all their planning *before* introducing their ideas to those who will be affected and who control resources. When this happens, "the innovators have usually developed a considerable investment in their plans and are often far more committed to defending them than to attempting to understand objections to them. They are not prepared to repeat with newcomers the long process of planning which finally led them to their conclusions" (Klein, 1967, p. 29). Klein goes on to note that attention to critics of an innovation plan can serve three useful functions:

First, . . . [critics] are most likely to perceive and point out any real threats to the well-being of the system which may be unanticipated consequences of the projected changes. Second, they are especially likely to react against any change that might reduce the integrity of the system. Third, they are sensitive to any indication that those seeking to produce change fail to understand or identify with core values of the system they seek to influence (Klein, 1967, p. 31).

The essential contribution of our *Phase III* is that it seeks to obtain responses from potential critics of the program who are in a position to withhold resources or to negate appropriate involvement of functional administrative units in the implementation of the program, while program proponents are still flexible.

In the Phase III meeting, the outputs from the prior two phases are presented to the line administrators and resource controllers.¹⁴ The format of the presentation is straightforward.

14. The extent to which separate client or consumer representatives are invited to attend Phase III meetings is dependent on the extent to which resource control groups (often policy boards) include client or user groups in their membership. Increasingly, policy groups have so structured their board membership that proportional representation of clients is automatically assured when Phase III review before resource controllers takes place. Where this is not the case, the Phase III meeting should include proportional representation of client or consumers together with resource control board members and key administrators. Because of the difficulties of client or consumer members in holding their own during the verbal give-and-take of such meetings, the word *proportional* should be underscored. Token representation is not satisfactory. For the remainder of the discussion of Phase III, the proportional representation of client or consumer members will be assumed.

ward: the same list of critical problems and priorities from Phase I and the output from Phase II—the outline of agreed-upon solution components and resources—are presented to the key line administration and resource controllers. Of necessity, this represents the adumbration of a program proposal rather than the presentation of specifics. The timing of Phase III is such that by meeting date there should be sufficient content in both problem analysis and solution analysis to provide appropriate focused discussion for resource controllers and administrators. At the same time, those individuals who will be charged later with the responsibility of developing the details of the program proposal have not yet become closed-minded nor have they made decisions on all the specifics of the proposed program. As a result, program sponsors will still be in a position to respond flexibly to the type of realistic adjustments which administrators and resource controllers are likely to suggest.

It is not an unusual occurrence for meaningful programs to be vetoed by resource controllers or administrators due to rather minor implementational issues. In other words, the essence of the program may be quite acceptable, while minor matters of program implementation often may not be satisfactory. What one seeks, then, in Phase III is a review of the types of reservations or qualifications that resource controllers and key administrators may have, and the adjustments required in order for the program proposal to be fully endorsed and supported. The structure of Phases I and II is such that neither the clients nor knowledge specialists are likely to attend to system and administrative constraints which those present in Phase III will be attuned to. The juxtaposition of client or consumer representatives from the Phase I meeting, knowledge resource persons from the Phase II meeting, and administrators and resource controllers spurs bargaining and negotiation in Phase III, so that within the content of the final program proposal the essential concerns of each of these reference groups can be included. The essential process caveat is that proponents of the program elements from Phases I and II must define their roles in such a way that they are open to the inputs of resource controllers and administrators and view

them as relevant new problem dimensions to be incorporated in the final program, rather than as hostile "attacks" from an audience critical of the elements which evolved in the prior two phases. A detailed process guideline for the structuring of this discussion is suggested in the elaboration of bargaining strategy by Delbecq (1967).

*Summary of the
Benefits of
Phase III*

Phase III, then, represents an important but frequently overlooked phase of program development. It provides a step prior to "calcification" of thinking by program proponents, in which the general outline of a program plan containing both problem definition and critical solution elements is reviewed, so that administrative and resource controller concerns are incorporated in a manner that "buys insurance" relative to future endorsement and support of the program proposal. Following modifications, the output of Phase III should be a "go ahead" signal.

PHASE IV:
PROGRAM
DEVELOPMENT

Phase IV of the PPM model is simply a necessary step like that in conventional program evolution. In Phase IV, working from the input of the earlier three phases, technical specialists and line administrators who are sponsors of the program develop a finalized, specific program proposal. The essential matter here is to ensure that those specialists responsible for developing the details of the program remain sensitive to critical elements developed in prior phases.

PHASE V:
PROGRAM
EVALUATION

Phase V brings representatives from each of the constituent groups involved in Phases I, II, and III together for a final time, to complete one cycle of the PPM process.¹⁵ The need for this last meeting is based on several probable events: that a good deal of time will have elapsed between the initiation of Phase I and this final meeting prior to activation of the program; that some of the élan associated with involvement in the PPM process will have faded due to the extended time span; that some critical concern may have been overlooked in the technical development of the program; and finally, that a number of necessary compromises will have occurred in each phase so that cooperation, at least potentially, may be eroded

¹⁵ In modified form the PPM cycle can be repeated, using the evaluation data prescribed in Phase V as the starting point.

by the feeling that the solution program is not "perfect." Phase V is structured to deal with the above developments in a manner which both reinvolves critical personnel and deals with honest hesitations about the technical plan in a constructive rather than destructive manner.

The Phase V meeting begins with a report from technical specialists of the details of the program to be implemented in the near future, but focuses this report in a specific fashion. Each critical feature of the detailed plan of action is overtly related to the input from prior phases. That is to say, it is not simply a report from technical specialists of their program plan, but rather a unified statement of program plans which seeks to operationalize the specific critical elements that emerged in earlier meetings. In this sense, the orientation of the meeting must show a clear linkage between the final plan and the problem priorities, solution and resource elements, and administrative and controller concerns raised in earlier phases. This manner of presentation (a) refreshes memories of earlier meetings and (b) directly connects planning details to prior critical elements. As such, it is an important mechanism for rekindling enthusiasm lost during the long planning cycle.

The matter of hesitations about "imperfections" remains to be considered. Since it is doubtful that any operationalization of a program will totally satisfy every representative, a portion of the Phase V process, therefore, focuses on reviewing control and evaluation measures which will test whether or not the final program proposal incorporates earlier critical dimensions. If it is felt that the final program deviates from earlier expectations, there are two types of compromises possible: (1) a change in some detail of the finalized program proposal, or (2) further evaluation to determine whether a minority objection proves to be a valid weakness in the program. Generally speaking, Type 1 changes are made when a majority of the representatives at the Phase V meeting agree. This still leaves open the possibility that a recalcitrant minority will withdraw support. In this sense the Type 2 compromise offers a safety valve. By focusing the attention of

minority members on the Type 2 compromise, individuals who retain reservations about the program against the majority judgment of the meeting still have recourse. Using a Type 2 compromise, disputation about selective details of the program can be dealt with by incorporating control and evaluation measures which test the relative effectiveness or ineffectiveness of the questioned program component.

Phase V, therefore, is a meeting designed to question whether the specialists' technical translation of the outputs of Phases I, II, and III as set forth in the final program proposal is an adequate interpretation of earlier discussions. If so, how will this adequacy be measured? Some adjustments where inadequacy is predicted may be forthcoming in the meeting. In addition, to avoid a stalemate at this late phase of program development, unresolved issues about adequacy can be handled by including in the evaluation design specific measures that will provide answers about the disputed matter for later program planning and adjustment.

*Summary of the
Benefits of
Phase V*

Phase V, then, seeks to accomplish the following objectives: (a) to reinvolve client or consumer representatives, knowledge resource people, and resource controllers and administrators by structuring the review of the technical proposal around critical concerns developed in prior phases; (b) to examine the extent to which the technical program plan honors earlier concerns by focusing upon evaluation designs; (c) to allow an opportunity for majority-approved last-minute adjustments; (d) to provide an outlet for minority reservations in the form of careful control measures to determine whether such reservations are justified; and thus (e) through the above processes, to refocus and rekindle interest in the change program.

**SOME
CONCLUDING
REMARKS**

We feel that PPM as a group process model is an insightful conceptualization of program planning. It both highlights critical issues and provides a guideline for developing innovative solution strategies where clients or consumers, specialists, resource controllers, and administrators must be interfaced. It further suggests group processes and agenda formats which guide each phase of program evolution. Finally, the general

character of the process is consistent with current research on creativity, organization change, and social planning.¹⁶

The authors are presently preparing a detailed description of the application of PPM in social service planning and health planning organizations in a forthcoming book.¹⁷ From this and a number of other applications of PPM they are convinced of its practicality and power, but also convinced that considerable skill is required to activate the process. While a treatment of the requisite skills is a subject in the forthcoming book, briefly, the authors' experience suggests that practitioners often need previous training in order to (1) cognitively internalize the planning process as a discrete series of workable phases, (2) integrate the target reference groups in each phase, and (3) apply the appropriate group roles and processes necessary in each phase of the planning process.

The failure of many program planning endeavors in comprehensive health planning, urban planning, educational planning, new products development, and venture management attests that whatever approach to change is utilized, sophisticated attention to the issues which PPM seeks to cope with is required.

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16. Once again, however, we hasten to add that PPM is a model for change, not for protest or confrontation, where groups are severely polarized.

17. See André L. Delbecq in collaboration with Andrew H. Van de Ven. *Planning for new programs in modern organizations*. Chicago, Ill.: Scott, Foresman, in press.

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Case Studies of Behavioral Science Intervention

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