Innovative Meeting Management

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Not Another ##@!**@# Meeting!

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Meeting goers, in their struggle to get everything done that they must do, have probably cursed more than one meeting in their lifetime. People whose worklives revolve around meetings often feel consumed by the amount of time they spend in meetings. And yet, these same people are required to spend a good portion of their worklives in meetings. In fact, meetings are often the medium through which their work is accomplished.

This is a book about meetings, the result of a meeting about meetings. Besides containing wisdom and hard facts, the authors of this book present three recurring themes:

- First, most organizations today are going through significant change;
- Second, effective meetings will continue to be a meaningful work activity;
- Third, purposeful behavior in the form of leadership decisions and selected meeting procedures can increase the efficiency and effectiveness of meetings.

These three themes are profound, both apart and together. They deserve a closer look. The change process makes organizations and individuals feel less secure (Senge, 1990). Knowing that other organizations are experiencing similar change may be mildly therapeutic, but it is not very prescriptive in terms of ways to deal with change. Despite the culture and leadership style of an organization, organizational change requires a variety of meetings to handle a variety of needs. In order for organizations to cope effectively with change, members will find themselves involved in **more** meetings, rather than fewer. Thus, organizations and individuals with an undistinguished history of meeting management will find themselves ill-equipped for change. A deliberate, focused leadership position that articulates the organization's mission and goals, empowers groups and individuals to act upon them, and provides groups with a repertoire of appropriate meeting procedures can

help organizations to shape the future. And clearly, shaping the future is more valuable than trying to shape the past.

Meetings are a paradox in the minds and actions of many people. They believe meetings to be both good and bad. Their disdain for meetings and their belief in the potential of meetings are often expressed concurrently. We know one manager who plans his meetings while he is attending the meetings of his colleagues. His peers who are aware of this phenomena consider him disrespectful. In response to their perception, he would retort, "Disrespectful? What about the person who is wasting my time and the time of ten others with this bad meeting! I won't let my colleague do that to me. There is far too much work to be done for me to be sitting around in unproductive meetings."

Yet another manager, upon hearing we were going to study meetings, suggested that we meet to discuss something important, something that would have an impact on business. Something of value. Ironically, when we call this manager's office, three days out of five her secretary is likely to respond, "I'm sorry. She's in a meeting right now." And she probably is.

Too much to be done? Unproductive? These responses help build a context for the three themes that were outlined earlier: 1) Organizations are facing significant change; 2) Meetings will continue to be a meaningful work activity (one that is likely to increase); and 3) Purposeful leadership is needed to improve meetings. The context we suggest is a full acknowledgement that meetings are a means to an end—not an end unto themselves.

Meetings are a means to be taken seriously by the organization. They must be carefully placed and executed in line with an organization's mission, goals, and strategies. If those elements of leadership do not exist or have not been defined in the organization, then meetings must be held to develop them. Clearly, the leadership from this high level of the organization directs and bounds the other levels of the organization. Meetings in this context are powerful means of working through the organization to achieve the mission and goals—the

end. Without such a system in place, meeting members often sit in their required meetings, silently inserting their own private missions and goals. Then they openly encourage strategies that support their unstated and sometimes incongruent missions and goals.

On the surface, this process may appear to be totally controlling, top-down, and authoritarian, out of synch with the teamwork we often seek for effective meetings. However, authority and harmony are two different concepts. Meetings can be anchored in one or both. The concepts of openness (Senge, 1990) and process improvement (Deming, 1982; McLean & DeVogel, 1988) and the focus on the results of such human investments (Campbell & Campbell, 1988; Swanson & Gradous, 1988) require that there be meetings from the bottom up, as well as from the top down (Beer, 1990).

Opportunities for Theory and Practice

Opportunities exist for practitioners and scholars alike to advance the theory and practice of meetings in organizations. Given the amount of time people spend in meetings and the potential performance gains, a focus on this opportunity should easily be a good investment. Simply reducing the amount of time spent in meetings (the crudest possible performance measure) would be a financial benefit to many organizations. Unfortunately, this narrow perspective would beg the leadership goal of shaping the future and the larger role that effective meetings can play in this quest.

This opportunity to bring scholars and practitioners together to advance the theory and practice of meetings made sense to us. Even so, one invited practitioner chuckled out loud after we described our plan for a symposium and ensuing monograph and then responded, "Let me understand this! You're going to have a meeting to study meetings?" He accepted our invitation.

The Symposium-Monograph Process

The missions of the 3M Meeting Management Institute in Austin, Texas, and the University of Minnesota Training and Development Research Center in St. Paul,

Minnesota, have a great deal of harmony. Both organizations are deeply concerned about practical problems in the workplace—the systems and the people working on and in those systems. Consequently, the partnership was easily formed for this effort.

We selected a symposium-monograph process as a means to advance our understanding of meetings and ways to increase their productivity. The Training and Development Research Center has had years of experience bringing scholars and practitioners together to advance the understanding of workplace and organization issues. The Center's theory-to-practice format relies on the work of a distinguished scholar, along with distinguished practitioners' serious reactions to that scholar's ideas. They meet to answer the question, "Given this theory and research, what should we be thinking and doing back in our organizations?" The symposium of experts, who came together at the University of Minnesota, provided an intense and intellectually stimulating two-day exchange that resulted in the framework and plan of work for this monograph.

Before scheduling the symposium, more than a month was spent studying the literature and calling researchers across the country to help us identify the distinguished scholars in the area of meeting management. The names of four scholars kept appearing, and, in the end, Dr. Marshall Scott Poole of the University of Minnesota was clearly the first choice in terms of his scholarship and his specific orientation to organizational decision making. We invited him, and he accepted.

We then compiled a list of distinguished practitioners who represented a variety of organizations in terms of missions, size, and geographic location. Their responses to our invitations to participate were overwhelmingly positive. The names and affiliations of the distinguished practitioners appear on their respective chapters and at the end of the monograph.

The Monograph

This monograph is divided into the following three sections:

- The Role and Effectiveness of Meetings
- Meeting Processes and Procedures
- Changing Organizations and Meetings

We hope that you will delight in the diverse perspectives the authors bring to their work. The result of a true symposium of experts, this monograph does not display merely one philosophy, one point of view, or one vocabulary in relation to meetings. The common element for all authors was their starting point—Dr. Poole's manuscript, entitled "Procedures for Managing Meetings: Social and Technological Innovation." Using that as a springboard, all the authors took the theory-to-practice challenge seriously and provided what we believe to be enjoyable reading and useful ideas with which you can experiment in your own organization.

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Section 1

The Role and Effectiveness of Meetings

Meetings Designed to Help Organizations Respond to Change

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Change is the lifeblood of business and industry. Today, almost every country is living through a transition between the cold war and the triumph of the free economy. Although the equilibrium of change has focused on the East versus the West, in the years to come, this will evolve into the equilibrium of regional markets. As a result, politics will be even more related to the economic powers. This new perspective will result in a new way of life and new procedures for adapting to change.

The Challenge of World Change

Economic and political relationships are going through dramatic changes because of the increasing pace of competition and cooperation among countries and regions. These changes are forcing production to be transformed by technology, just as they are causing the distribution of goods and services to be revolutionized by communication.

The world will witness the innovation of new products and processes. For example, it will be a daily occurrence for businesses in remote locations of the world to receive different parts of a new device, assemble those parts, add another component that they have produced in their remote location, send the semi-manufactured product to yet another manufacturing site, and never see it again. Small parts or components will be produced in different towns and cities to be assembled into whole products in still other distant locations. Because of this trend, huge transnational industries will form partnerships with many small suppliers of very specific components and services. The smaller companies will survive by supplying "niche" products and services. As long as they provide the larger firms what they need at competitive prices and high quality, they will be able to remain independent.

From a global point of view, entrepreneurs, managers, and specialized workers who have very high living stan-

dards will work alongside the larger numbers of poor who work in low paying jobs. In response, huge social projects will have to be undertaken in order to provide the less developed masses with the minimum benefits of modern technology. New social structures will emerge to take on very large housing and social projects to help balance the inequities in living conditions.

The increasing speed of change will be the predominant feature of the next decades, along with managerial competence that enables survival in the highly competitive world of economics. The kind and amount of work to be done will increase and change radically, at least from the point of view of today's managers who know that organizations must change in order to be more competitive. An article about workaholic managers in *Fortune* (March 26, 1990) suggests that the American workweek "looks like a picnic compared to what's ahead in the age of global competition."

All of these changes will alter the communication that takes place in business and industry. Even the traditional meeting will take on a new look. For example, various tools that improve information systems make it possible for managers and workers to have a great deal of information available about a subject so they can make decisions much more accurately than before. In *Fortune* (June 18, 1990), Bill Gates, CEO of Microsoft, first questions the need for meetings and then answers, "The top executive has more data than other people, so he *[sic]* has to have meetings to share his data. What if everybody had the same data and had a better way to look at it? Would you need as many meetings, as many levels of management? Maybe not" (Schlender, 1990).

Ironically, the number of meetings may increase in tomorrow's world of CEOs and other white collar workers. For example, personal computers may allow people to have all the information they think they need as they enter into a meeting with nothing else in mind but their own goal and gaining the approval of their colleagues. They may sit around the room behind the computer talking about many topics. If they need additional information, they will simply consult their PC, which is hooked up to the meeting network. With fresh data in

mind, they can make proposals or expound upon someone else's ideas. Over time, the group becomes confident working in computer-aided, decision-making meetings. Sooner or later, business people will communicate frequently with others by computer networks, just as they communicate by telephone or telefax today.

In spite of the new technologies, however, people will continue to communicate in the traditional manner, balancing meeting participation between face-to-face meetings and technology-mediated meetings. Regardless of the method, meetings are likely to increase in number because they have a profound reason to exist: the social needs of group communication and behavior.

Change and the Manager

Almost every study on globalization states that managers will have to become generalizers and will have to be trained accordingly (*Fortune*, January 1990) in the future. In other words, managers will not need to be managerial specialists as long as they take a problem-solving approach in their work. Meetings will be important not only for decision making, but also for negotiation as managers monitor how a job needs to be done in view of approaching conditions. The primary way for a leader to get things done within a group is by encouraging two-way communication in a personal fashion, while making sound decisions that are best for the organization.

Few managers will remain leaders for long by merely signing letters and documents, or by acting from behind a television or a PC monitor. Leaders need to be seen with their colleagues and followers close by. This will not be as difficult to achieve if machines and capital goods are going to be controlled by computerized systems. Such changes will require business to have fewer unskilled workers. Instead, highly skilled specialists will have to communicate regularly with others. Individuals will be dispensable, but groups will not.

Change and the Organization

Over time, these trends will change organizational structures. Instead of having layers of bosses, companies will have teams for the organizational functions and even multidisciplinary teams instead of layers of managers. These teams will work in meetings solving problems when they are not studying information, taking some special training, or communicating in some other way with their peers or other co-workers.

Moreover, on-going, long-term teams for different common functions will continue to exist at the top of the organization, as will teams that are formed for a prescribed time period, such as committees and other work groups. For example, if a problem must be solved, the organization may choose and appoint a group of people to work on it until a solution is reached. Just as in the case of a project team, these people will work together jointly until the job has been finished within the organization. Then, it may dissolve. The team may include not only in-house staff members, line workers, or supervisors, but also external consultants.

The New Workplace

Just to complete the mental picture of change, by the year 2100, cities will begin to change their appearance. The conglomerates may be surrounded by homes and entertainment areas, but in their center, or the downtown area, there may be only "buildings for meetings," instead of office quarters. There will be little need for offices if work, reading, thinking, and even conversations may be held happily at home behind the desk and the PC, with the telephone nearby. Malls as they are known today may exist, but people will visit them only to see, touch, and meet people. Products and services will be ordered by phone and delivered quickly to the buyer's home. Even industrial districts will be close to home. Perhaps factories will be located in residential areas close to the countryside, full of industrial robots, with a few supervisors who will check on everything for a few hours, and then consult with the staff group, asking for help or changes.

Time and knowledge will be expended to implement change. The usefulness of face-to-face meetings will continue. Through their interrelationships, people will be able to create the unique characteristics of a successful enterprise. The high quality of tomorrow's enterprise must be achieved by different means, policies, and procedures. One of these means will be efficient meetings. This will be a major way for companies to ensure high quality standards in the future.

It has become an accepted organizational value to be flexible and to respond quickly to changes; to have adequate information about the market as a whole, as well as about the environment; to make timely and sound decisions; to incorporate a high degree of quality into products and services; and to maintain a competitive attitude among the employees in the various departments and divisions in order to compete and win in the market. Such organizations must hire the best employees and feel proud of them. In other words, if an organization is to survive in the age of global competition, it will have to be loyal to its own philosophy, responsible to both customers and suppliers, intelligent, perseverant, and creative. Nothing more and nothing less.

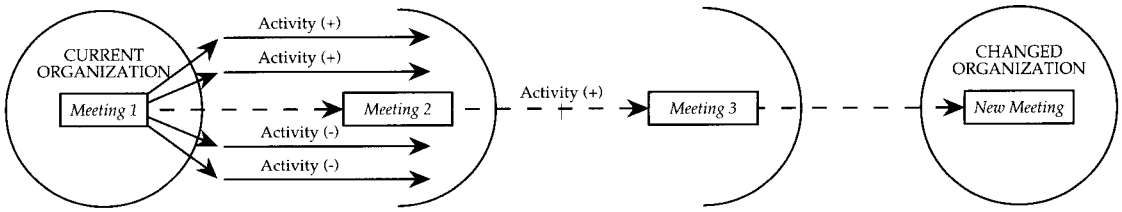
To combine all these characteristics into one enterprise, a company must have the mission, or purpose, and the people. With leaders who are committed to the organization's objective, an organization can give its people the resources to organize themselves. This is done primarily in meetings. Quality circles, team building, and effective leadership all depend on the same tool: meetings.

In order to help organizations change internally, meetings must allow participants to do the following:

- Be flexible;
- Expedite the availability of information about the environment;
- Help make effective decisions;
- Promote the implementation of strategies;
- Develop personal changes;
- Monitor and evaluate changes.

Figure 1
The Chain of Meetings Over Time

Given this, meetings cannot be analyzed in isolation. What is relevant from this perspective is to have an awareness of the aims pursued by changes within the organization using many meetings. In other words one meeting today must be linked to the last one and to the next one.



The organization is graphically portrayed on the time-line in Figure 1 from its present state to a changed condition. To achieve the change, the organization should pass through activities that are predicted by meetings. Initially, activities are likely to be both positive and negative, and the meetings become the critical means of harmonizing the activities.

Obviously, to get through change, the organization will expend numerous efforts performed by means of different activities of its members; consequently, meetings will not be the only factor to be considered, but they will be primary. They must also be in full agreement with all other actions undertaken. For example, in *In Search of Excellence* , Peters & Waterman (1982) state that organizations with fewer levels are more suited to change. The fewer the steps from the CEO to the last level, the easier communication will be (Figure 2). Effective meetings in a flat organization will yield large effects. Organizations will need only a few meetings to communicate or decide upon a policy, an order, or any action.

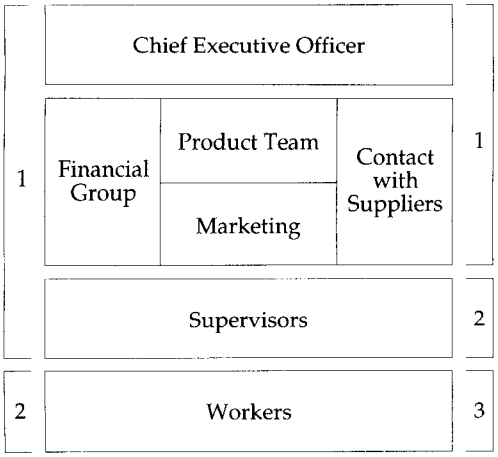


Figure 2
The New Enterprise with Only Two or Three Levels

Case Study: Change and Meetings

Social interactions enrich the meaning of meetings because a person's behavior is influenced by others; as a result, the decision-making process is undoubtedly improved by well conducted meetings. Some years ago, the Mexican oil industry began having problems with the evaluation of the training process at a certain products distribution terminal. Thanks to an idea presented by Renan Gonzalez Fuentes, who was the person responsible for this terminal, a number of meetings were held between the supervisors in charge of various positions and the highest manager within the plant. An experienced facilitator, knowledgeable about the various procedures that may be used in meetings, was added. This group was called "the promoting group." After several meetings it became integrated, so the resulting team decided on the type of training to be considered in order to solve problems and increase productivity. The team also decided which variables were going to be measured and what kind of administrative actions should be taken parallel to the training program. In order to change something within an organization by means of training, some managerial and administrative changes must also be made.

The promoting group chose a number of workers to apply the training program and measure possible changes. In order to have a comparison, the promoting group also chose a control group who did not undergo any training.

The people from both groups attended some of the meetings in order to understand and give their own ideas about the training programs, as well as administrative measures to be undertaken. Later on, and with everybody involved, both program and measures began. Because the control group was really involved in finding solutions, its productivity increased but never as much as that of the pilot group for several months.

The meeting with the promoting group continued in order to discuss statistics on the group's behavior and accomplishments. After some changes in the programs and more than six months of working in the same manner, the promoting group decided to apply the full training program to all the workers. We followed the same procedure. First a number of meetings were held with each group, and, after they understood and became aware of the importance that managers attached to the training program, we began to measure production variables as the training was started.

The results for the first year and a half were excellent. The initial goals were surpassed, and the participants in the promotional group were considered to be pioneers. Since then we have used the same system to get measurable results in training and the case study developed together with the methodology known as "IMPECAP" has been presented in two contests and received two awards —second place in the contest for the fiftieth anniversary of the Mexican Petroleum Industry and second place in the 1988-1989 competition organized by the "Foro de Entidades Capacitadoras del Sector Publico" in Mexico.

Conclusion

The 90s will only be a decade of transition between industrial development and severe economic competition covering the whole economic process: production, distribution, and consumption. The pace of change in technology, communications, and information will be increased by global competition.

This change is one of globalization and competition, efficiency and effectiveness. It is a process in which "time" will be valued highly. In order for organizations

to be prepared for the future, they must upgrade and broaden their communications and decision-making processes. One of the most important tools to be considered is the "meeting" in order to innovate and bring about changes within an organization. As more and more people apply research and technology to this "tool," perhaps the form and procedures will change, but meetings will continue to exist and will probably even increase in number.

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Managing Your Meetings for a "Bottom Line" Payoff

by Stuart M. Smith
Mount Carmel Health

Meetings consume an enormous amount of time for managers and professionals. Yet there is very little data to show if the time spent and the work accomplished in meetings is worthwhile. Meeting managers can certainly estimate the rough costs of meetings (a simple matter of multiplying the salaries of those involved by the time expended plus related out-of-pocket expenses), but the more basic question is "Did the activity make a difference?" Were the participants, through this meeting or series of meetings, able to help their organization accomplish key goals and move closer to achieving its mission? It is absolutely essential that professionals and businesspersons manage their meetings as if their company's bottom line depended on it—because it does.

If business people learn to measure the impact of their meetings and, consequently, their meeting management effectiveness, they will find themselves in an enviable position. The most obvious benefit will be their ability to demonstrate the dollar value of the results of their meetings. This is particularly important for human resources (HR) professionals since much of what HR departments do is considered "soft" and unmeasurable.

Attention to measurement, however, provides a number of other solid benefits (Fitz-enz, 1984):

- It focuses staff on the important issues and helps ensure that critical needs of the organization are met;
- It clarifies expectations about the objectives being addressed, the roles and responsibilities of those involved, and the anticipated outcomes;
- It stimulates team members to become actively involved and motivated and fosters creative approaches/solutions to the issues being discussed; and
- If you are part of the technostructure and support staff of the organization, e.g., strategic planning, training and development, public relations, research and development (Mintzberg, 1979), it brings you closer to line management.

The High Cost of Meetings

According to Altier (1988), the average manager and technical professional spend nearly 25% of every workweek in meetings. A significant amount of time is spent on decision making in meetings with others. Yet, there is a clear lack of effectiveness, and Altier indicates that as many as 50% of decisions are made by default. The *3M Meeting Effectiveness Study* (Monge, McSween, and Wyer, 1989) confirmed these results and found that (a) one third of meeting participants feel they have little or no influence on the outcome of decisions, and (b) a quarter of the participants say they discuss irrelevant issues at least 11% to 25% of the time.

Surveys have shown that for many managers and supervisors, unproductive meetings rank near the top of their list of persistent irritations (Axley, 1987). Many feel that personnel simply hold too many meetings. And the impact of a poor meeting is rarely neutral. Once a pattern of poor meetings has been established, it is only a matter of time before the best people will quit coming. Unproductive meeting time translates into wasted company dollars. Sheridan (1989) reports that a recent survey found unproductive meeting time to be a $37 billion annual waste. In short, business meetings can be the most costly communication activity in an organization if poorly managed (Michaels, 1989).

Common Hindrances to Productive Meetings

Some commonly mentioned hindrances to effective meetings (see, for instance, Axley, 1987; Towns, 1986; Monge et al. 1989) include the following:

1. Meetings held with a general lack of focus and without a planned agenda of topics or events.
2. Meetings held without some of the key people in attendance.
3. Inappropriate timing or inadequate advance notice of the meeting.
4. An inappropriate location or environment.
5. Participants unprepared to discuss the topics on the agenda.
6. A lack of rapport within the group and/or personal competition among members.
7. A domineering or otherwise ineffective leader.

Sigband (1985) condenses this list into two elements U.S. executives identified as the primary reasons for meeting failure: insufficient planning and no training or guidelines for conducting meetings. Certainly, one would expect that some of the $50 to $210 billion that is spent annually on training and development (Swanson & Gradous, 1988; Casio, 1982; Lombardo, 1989) would be targeted for effective meeting management.

Why then do people continue to hold so many unproductive meetings? Individuals may attend meetings for reasons that differ from or are antagonistic toward the attainment of the organization's goals and mission. Some of these include (a) the desire to avoid work, (b) the desire to share gossip, (c) the desire to be liked and respected, and (d) the need to reflect power (Kieffer, 1988).

How Can Professionals More Effectively Manage Their Meetings?

One way to control meeting mismanagement is to embark on an aggressive regimen of training programs. Managers and all those frequently called upon to facilitate meetings could be required to attend courses on effective meeting management. This would undoubtedly reap some benefits, if not for the participants, at least for the vendors marketing such programs.

There are, as Poole and others have identified in this monograph, numerous types of meetings. For instance, there are planning meetings, transition meetings, conference groups, business meetings, sales distribution meetings, process meetings, mission meetings, problem-solving meetings, information meetings, training meetings, etc. (see as example Lovett, 1988; Bales, 1954; Hamann, 1986; Wilkinson, 1988).

Similarly, there are myriad technological and non-technological innovations to facilitate meeting productivity. Non-technological meeting techniques include using facilitators, rather than managers, to control the meeting (Conlin, 1987); splitting the facilitator function between task and process facilitators (Bales, 1954); transferring the responsibilities of the chairperson to the participants and applying a PCF (process, content, feelings) model (Dutton, 1987); rotating the position of meeting chair

(Prince, 1969); and instituting special procedures for resolving conflict in order to conduct orderly management of meetings (Lee, 1954).

Technological innovations consist of a variety of augmented meeting support (AMS) technologies (Meyer and Bulyk, l986; 1986), including 3-D multi-imaging (Lester, 1987); video teleconferencing (Rosetti and Surynt, 1985); television/film—the technology and actual content (Restuccio, 1985); and automated group support systems (Nunamaker et al., 1989), such as those that were recently used in a field study at IBM. The results have been impressive. Use of the group support systems at IBM resulted in a 56% savings in the actual number of person-hours expended compared to the number that had been anticipated. User satisfaction was also higher compared to non-automated support situations. The problem-solving performance of the groups involved in the video teleconference was significantly higher than the performance of the groups involved in the face-to-face meeting.

Each of these techniques is designed to add to the ability to optimize the potential of meetings. As with situational management theory (Hersey & Blanchard, 1988) and organization contingency theory (Mintzberg, 1983), these different meeting formats and innovations represent design parameters which can be selected from a "palette of options" to enhance the effectiveness of meetings in specific situations.

However, if businesspeople limit their attempt to manage meetings more effectively to these known strategies and to the development of training programs designed to teach them how to use the strategies, they will miss the more substantive and crucial reasons for poor meetings. They must focus on why. "Why are so many meetings held in this organization, and why are they so unproductive?" "Why was this meeting held?" "What problem was it trying to resolve?" Meeting managers must become action researchers: collecting and analyzing data, identifying "gaps" between "what is" and "what ought to be," planning and carrying out steps that they predict will improve meeting effectiveness, evaluating (i.e., re-diagnosing) the effects of their efforts, and refining their action steps (Weisbord, 1987).

Quantifying the Effectiveness of Meetings: Where Do You Start?

Meeting managers should start with the basic premise that "[i]f work contributes to the performance goals of the company, it can be valued in dollars and cents" (Swanson & Gradous, 1988, p. 28). Therefore, if the work that is done in meetings results in measurable improvement in work performance and increases an organization's ability to meet its mission, it too can be measured—and in economic terms, as well.

Certainly there are many who would take issue with this. They most likely would offer a litany of reasons why meetings are not amenable to measurement. Indeed, the misunderstanding about the feasibility of measuring meetings, the lack of knowledge of how to go about it, and the reluctance to assess the value of meetings are the same roadblocks that plague the measurement of HRD and non-HRD interventions, in general.

Perhaps the most difficult decision is determining what should be measured about meetings or subsequent actions. For example, if too many meetings are held, managers might decide to initiate a training program on effective meeting management. Consequently, they might be inclined to measure the knowledge participants gained in the training program. Or, they might measure the time participants spend in meetings before and after the training. Were they to do so, they would be attending to the symptoms and consequences of too many meetings, and not to the cause. They must look beyond these apparent units of measurement and identify the causal relationship between the unit of performance measurement, the organization's need (defined as a critical condition that the organization must meet in order to achieve its mission), and the expected benefit (Swanson & Gradous, 1988). The "why" questions mentioned above must be asked in order to identify the appropriate unit of measurement.

Fitz-enz (1984) suggests several methods for finding appropriate measurable events. These include brainstorming, nominal group technique, and the matrix method. This last approach involves the following steps:

A) Make a list of variables in an attempt to describe the environment or situation you are studying; combine, substitute, or eliminate variables so you shorten the list and add meaning;
B) Make a matrix of them on a grid (1/4" graph paper works fine). Start at the top left and first list the variables down the left side and then along the top;
C) Eliminate redundant or duplicative cells;
D) Match each variable against all other variables, one at a time; and
E) Make decisions as to each combination's usefulness.

When examining the relationships between variables, determine which should be treated as independent and which as dependent variables. Remember, all these variables are subject to one or more of three dimensions of measurable improvement of work performance units. Each can be analyzed according to the **time** it takes to achieve a goal, its **quantity** (volume or frequency of occurrences for a fixed time period), or its **quality** (Quinn, 1989; Fitz-enz, 1984; Swanson & Gradous, 1988). Of course, overlaying all of these is the dimension of **cost**.

The search for the appropriate unit of measurement is critical and should be embarked upon with care. The advantage of using the matrix method is that its structure and process force you to examine factors related to the problem that may not be readily apparent. For instance, perhaps an organization has many meetings because its formal communication system is inadequate. Holding meetings may be an attempt to ensure that everyone hears and understands the same message in a timely manner. Here, the emphasis might be on improving the alternative (non-meeting) communication mechanisms to enhance the **quality** of work performed. Or the organization may be such that new people are continually joining (e.g., they may be replacements because of high turnover). The real performance desired might be increased retention (**quantity**). Perhaps group or divisional business meetings may be held as a way to indirectly indoctrinate new members. In this case, the **time** it takes a new employee to conform to the company's policies and standards of performance may be the appropriate measurement unit.

Some Models for Measuring Meeting Effectiveness

A variety of cost analysis models exist to help measure meeting effectiveness. Quinn (1989) makes the excellent point that, in addition to demonstrating to others the value of programs, meeting managers need this information. Cost analysis can help them identify where they need to make changes so they can enhance outcomes and minimize costs. It also enables them to communicate with operating management in a language they understand, namely dollars and cents. Yet, for all the rhetoric, it is widely recognized that such analysis is infrequently used. Variations on the basic outcomes-inputs (costs) model include benefit-cost analysis, effect-cost analysis, utility-cost analysis, and cost-feasibility analysis (Levin, 1983).

Benefit-cost analysis requires valuing the outcomes, as well as inputs, in dollar terms. Benefit-cost is considered the most powerful and, therefore, the preferred cost analysis technique. It is used to choose among alternatives to maximize the financial return for the costs involved. Dissimilar programs can be compared because comparison is on the ratio of benefits to costs in monetary units. Examples of benefits defined in monetary terms include production increases, decreases in production waste, increases in market share, and faster response time in serving a client. The primary shortcoming of benefit-cost analysis is the difficulty in specifying the dollar value of a given performance change.

Effect-cost analysis is used to compare programs that have similar goals. Program inputs are in dollar terms. Outcomes can be measured, but not in financial terms. Non-monetary benefits include employee attitude change, management style improvements, or health and safety. Programs can be compared to find the most effective one for the cost. A subset of effect-cost analysis is the behavior costing approach which "...is based on the assumption that attitudinal measures are indicators of subsequent employee behavior" (Casio, 1982 p.87). Expectancy theory (Lawler, 1973; Vroom, 1964), which underpins the costing approach, implies that choices are made based on the expected satisfaction, job involvement, and motivation. Attitudinal indices of employee satisfaction and job involvement should be good predictors of whether an individual will "appear at the work

place" (e.g., meeting), and employee intrinsic motivation should be a good predictor of participants' performance at the meeting. Interestingly, and perhaps contributing to practitioners' confusion and non-use of the models, authors often define benefit-cost and effect-cost in reverse. See, for instance, Casio (1982) referencing Cullen, Sawzin, Sisson, and Swanson.

Both benefit-cost and effect-cost analysis require empirical studies that assess the outcome and input values of these efforts. These and other techniques for assessing the financial impact of HRD-type interventions (e.g., ROI, payback period), are used for evaluating the actual effects of such interventions. Meeting managers need to do a better job of forecasting the expected impact of (a) proposed programs/initiatives and (b) their meeting management strategies and products.

Utility-cost analysis is a tool that can help accomplish this. "[It] involves estimating benefits and costs before programs are created" (Quinn, 1989). Utility-cost analysis can assist decision makers who are faced with a choice of several strategies to select the strategy that maximizes the expected utility for the organization across all possible outcomes. It is well suited to business because it "provides a framework for making decisions by forcing the decision maker to define goals clearly, to enumerate the expected consequences or possible outcomes of his or her decision, and to attach differing utilities or [monetary] values to each" (Casio, 1982, p.130). These attributes fit well with requirements for measuring meeting effectiveness. They help clarify the "why" of meetings, and, in the process, help to identify the appropriate unit of performance measurement, the organization need being addressed, and the expected benefit of the actions.

Cost-feasibility analysis is the fourth cost model. It is used to compare costs of a proposed program against budget limitations. Cost-feasibility analysis considers only the costs and not the outcomes. It makes no assumptions about the outcomes being equal or otherwise. Because the other three models involve cost calculations,

cost-feasibility analysis can be considered a subset of these. However, it can also be used independently as a preliminary procedure.

Swanson and Gradous (1988) combine aspects of benefit-cost analysis and utility-cost analysis methods in a straightforward approach for forecasting financial benefits of human resource development. (The approach is also applicable to non-HRD programs, e.g., changing the reward system; restructuring the organization; or implementing a new meeting management control process). Swanson and Gradous respond to the criticism levied at benefit-cost analysis that it is often difficult to specify the dollar value of a given performance change. They acknowledge that "current management thinking about the benefits to be derived from investments is rooted in traditional models for investing in capital assets" (p. 17). Their HRD financial forecasting method deviates from this traditional approach (and embraces concepts of utility analysis) in several ways. The most significant departure is in the way benefits derived from investments are valued. In traditional capital investment models, benefits are defined as the additional units of products or services produced (see Wallace and Fay, 1983; Dunn and Rachel, 1971). "In the HRD benefit-forecasting model, the specific benefit to be derived is the value of future changes in performance after the costs to achieve that change are deducted" (p. 19).

Also, the performance change expected to result from these HRD activities can be very broad (indirect) compared to traditional models where the focus is on the direct output derived from the investment. For instance, an increase in employee retention rates may be the expected performance change after an organizational development intervention is implemented with managing partners of local offices in a professional services firm. Swanson's approach involves determining monetary values for the **performance value** expected to result from the HRD/non-HRD initiative, the **cost** of the initiative, and the **benefit** resulting from the initiative.

Performance value analysis is anchored on four pieces of information: (a) a definable unit of work performance, (b) the performance levels—existing and target, (c) the

value of each unit (in dollars and cents), and (d) the total performance value, i.e., performance value gain per worker/work group times the number of workers/work groups participating in the initiative. Forecasts of costs are developed by considering costs associated with the needs assessment/work analysis, design and development, implementation (delivery), and evaluation components of the initiative.

Estimating benefits is, in its simplest form, a matter of subtracting costs from performance value. These models require little of meeting managers other than their ingenuity in applying them to the specific situations they face. Yet, the techniques are seldom used.

Combating Resistance to Measurement

Today, financial benefit forecasting models which enable managers to evaluate the effectiveness of HRD/non-HRD interventions are readily available. With computer technology, the necessary data can be conveniently stored and retrieved. The software, which increasingly accompanies these models, makes it easy to run "what if" scenarios to help select the best approach among alternatives. Certainly, this technology provides a valuable tool for measuring the impact of meetings and for helping meeting managers to manage their meetings more effectively.

Why then is there such a scarcity of financial quantification in HRD and related areas? There are at least four reasons (Casio, 1982). First, human resources personnel do not know how to objectively measure their own activities. In many cases, their education and training does not include courses in financial measurement techniques offered in most business school curricula. Second, some practitioners believe that objective quantification of their work is simply inappropriate. Professionals involved in strategic planning, training, employee relations, legal counseling, public relations, and union negotiations often view their work as an "art"—subject to the same limitations as any other creative endeavor. Part of this hesitation toward measurement stems from a discomfort with relying on the assumptions (particularly cause-effect relationships) about costs and benefits of the

activities. Third, top management has accepted this myth and has not demanded accountability of these activities the way it does of line functions. Those in top management usually come from operations, sales, marketing, or finance. They are often unaware about what can or cannot be measured in these "soft" areas, and they don't push. Fourth, some HR managers fear measurement, or at least they don't want to be measured. Measurement could, in fact, show that their programs are ineffective and excessively expensive, or that the programs do "little more" than make people feel good.

Lombardo (1989) interviewed training managers to learn why cost-benefit analysis of training is so rarely used. She found that although training managers complained about not having specific quantitative standards against which their performance could be judged and although they clearly recognized the potential advantages of having such measurement, the above reasons proved to be powerful disincentives for using such analysis.

What can be done to encourage measurement?

People behave as individuals or as members of a group in ways they believe will be beneficial to them. In choosing to do or not to do something, they determine (sometimes instantaneously) the perceived value to them against what it will cost them in time, money, and lost opportunities. This is really what utility theory is all about.

A simple prescription encourages the use of measurement to help quantify the impact of meetings and, thus, to allow people to manage meetings more effectively . Meeting managers must convince themselves and others that measuring the value of meetings is worthwhile. Fitz-enz (1984) suggests that to get statistics collected and used in HR (and similar functions), staff members must be convinced (a) there is a **business reason** for doing so, (b) it **can be done**, (c) it **won't mean a lot of extra work**, and (e) there is definitely **something in it for them.**

Next, meeting managers must discipline themselves to measure the results and process of their activities regularly; to monitor these findings continually; and to take

the necessary steps to refine and improve their group's performance. Doing so will result in clear benefits for the organization. It will focus staff on the important issues and help ensure that the critical needs of the organization are met. It will help clarify the group's objectives, as well as the roles and responsibilities of those involved. It will serve as a catalyst for staff involvement and motivation, an action that will foster creative approaches/solutions to the issues being discussed. And finally, it will help bring those within the technostructure or support staff functions closer to line management.

Meeting managers cannot wait any longer. The time to act is now. The staggering cost of wasted, ineffectual meetings is crippling organizations. Professionals and businesspersons must manage their meetings as if their company's bottom line and their own careers depended on it—because they do.

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Ensuring Productive Meetings

by John B. Lazar
AT & T

Meetings are a corporate fact of life. Much managerial work and organizational communication get accomplished through meetings. However, meetings are often the cause of dissatisfaction and unproductive time. Otherwise much more could get accomplished. Mintzberg says up to 60% of managers' time is spent in meetings (Monge, McSween, & Wyer, 1989). A Hofstra study (Hosansky, 1989) found the average percentage of unproductive time spent in meetings to be 33.4%. The estimated cost of that time is thirty-seven billion dollars. Managers in the Hofstra study said meetings achieved intended outcomes only 64% of the time.

There is a great opportunity to improve corporate productivity simply by improving productivity during meetings. Poole (see this publication) contends the single most powerful tool available toward this end is meeting procedures, "sets of rules or guidelines which specify how a group should organize its process to achieve a particular goal." He limits his focus to meetings that serve decision-making purposes (rather than those that convene for communicating information, solving problems, exploring new ideas, or gaining support).

If that focus is expanded from decision-making tasks to all types of tasks performed by work groups in meetings and from procedures to the full range of factors that influence the group's effectiveness, "performance analysis" can be used to determine the causes of group ineffectiveness in meetings. Solutions can be then identified and implemented to improve both individual and group effectiveness.

This paper first examines the terms *group* and *group effectiveness*. A performance analysis model is then described that can be used to assess the causes of group ineffectiveness in meetings, and an example is provided. Finally, opportunities for further research and applications are suggested.

Describing a Group

Although a meeting is a place where work gets accomplished, it is the meeting group that does the work. Thus, any discussion about meeting effectiveness must start with a description of a group. McGrath (1984) has researched groups and group behavior extensively. He states that the key features of a group are the potential mutual interactions of its members, mutual awareness of each other, some degree of interdependence, and continuity over time. They have a past and an anticipated future. This is the conceptual description of meeting events especially for established, rather than ad hoc, groups.

Identifying Meeting Tasks

Different types of tasks influence group performance differently. Four types of meeting tasks have been identified in the research:

- Problem-solving and decision-making tasks, including gaining acceptance for ideas and reconciling different points of view;
- Planning tasks;
- Information-sharing tasks, such as reports, news, or statements of management's point of view;
- Information review and evaluation tasks, such as operations and recommendations (Daniels, 1986; Doyle & Straus, 1976; The 3M Meeting Management Team, 1987).

Daniels (1986; 1990) suggests two distinct classes of meetings: task force and regular (e.g., staff meetings or standing committees). Each class of meetings has its own set of functions and agendas. Task forces, according to Daniels (1990), are formed to do "the initial, in-depth study of complex problems, decisions and plans" (p. 3). This is the meeting setting in which most group or work team research has been conducted. Regular meetings, on the other hand, authorize or affirm the organization's values, structures, and roles (Schwartzman, 1986). They are called periodically and, by exercising the organization's power, also perpetuate its culture.

Assessing Group Effectiveness and Models of Group Effectiveness

"Work group effectiveness" is a multidimensional concept. Research provides a variety of meanings of the concept, each with its own theoretical model and set of criteria. For example, Hackman (1983) assessed group effectiveness by three criteria:

- The acceptability of the task output to those who receive or review it;
- Maintained or enhanced capability of members to work together in the future;
- Member needs which were more satisfied than frustrated by the group experience.

He also noted intermediate criteria of effectiveness:

- Level of member effort;
- Amount of knowledge and skill applied to the task;
- The appropriateness of the performance strategies used by the group.

Gladstein (1984) offers a model that uses performance and member satisfaction as effectiveness criteria. From a socio-technical perspective, effectiveness is indexed by the group's ability to fulfill both task requirements imposed by the organization and the social needs and goals of the group members (Cummings, 1978; Trist, 1981).

Shea & Guzzo (Guzzo, 1986), in their model, assert that effectiveness must be situationally defined by the extent to which the group fulfilled its charter. They contend that the purpose of the group drives the selection of effectiveness criteria. Only if the group's charter includes quality of social interaction as a reason for its operation would it become an appropriate criterion.

Sundstrom, De Meuse, & Futrell (1990) define effectiveness in terms of performance (similar to Hackman, (1983) and viability. Viability means member satisfaction, participation, and willingness to continue to work together. Hackman (1986) suggests combining globally defined effectiveness criteria and task/situation-specific criteria into indices of effectiveness which have general applicability.

Members of an organization work as a group in meetings to perform specific tasks. The recipient or reviewer of the

task output will assess group effectiveness. However, assessments may be made by the meeting members as well, based on their satisfaction with the group's output and process and/or the probability of continuing to work together. When a meeting is judged to be ineffective, causes can be identified which, when reduced or eliminated, should increase future meetings' effectiveness.

Problems, Causes, and Solutions

Using Performance Analysis

Performance analysis (Harless, 1970; Mager & Pipe, 1984; Rummler, 1972) is a systematic information-gathering and analysis process. It is used on an identified or anticipated performance problem before a solution is chosen. It helps answer several questions:

- What is the specific performance problem?
- Is it worth solving?
- What solutions will reduce/eliminate the causes?
- What solutions are forecast to be most cost-effective to implement?
- What solutions are best to recommend and/or implement?

Though the model is geared to performance deficiencies produced by an individual, it can easily be expanded to include assessment of group performance (Rummler & Brache, 1988). Root cause analysis asks the analyst to speculate about possible causes that contribute to each specific performance deficiency identified. Causes may be identified at either a group or an individual level of analysis. The analyst then gathers data to confirm or discount the speculations. Hypothesized root causes should fall into one of four general types (Rossett, 1987):

- Absence of skill/knowledge;
- Absence of incentive or improper incentive;
- Absence of motivation;
- Absence of adequate environmental supports.

Absence of skill/knowledge root causes are those that occur when the performer lacks the skill or knowledge needed for the desired performance. In other words, given the ".357 Magnum test" (place gun to performer's forehead

and give a command to perform as requested), the person still couldn't do it.

Absence of incentives or improper incentives are those root causes for which consequences for desired levels of job performance either don't exist, are not suitable, are weak, or are not consistently supplied. Unfortunately, what is desirable to one performer may not be to another or even to the same performer at a different time.

Absence of motivation root causes relate to a person's cognitive beliefs and values. Either the perceived worth (value) of the task or the perception of the person's likelihood of successful task completion (expectancy) is low. When viewed as a multiplicative function, if either value or expectancy is low, motivation will be low.

Absence of adequate environmental supports root causes are a function of all factors in the performer's environment which may prevent satisfactory performance. This includes the supervisors and managers and the policies they enact, as well as procedures, tools, colleagues, and task-related distractions or obstacles.

All of these causes directly influence the speculation about possible solutions. The classes of solutions considered will be directly related to the types of causes confirmed. Consideration should be given to the practicality, feasibility, and costs (both tangible and intangible) of each solution. Finally, specific solution(s) can be selected and recommended which are forecast to have the greatest net benefit to the organization (Swanson & Gradous, 1988).

As an example, consider a task force that has held two meetings in the last month. Its stated purposes were to gather information necessary to make several decisions about resource allocation and then to make the recommendations based on that information. However, their recommendations were deferred at the second meeting. The task force couldn't act because they had insufficient information. Management, waiting to receive, endorse, and implement the recommendations, was frustrated and dissatisfied by the lack of a task force output, as were the task force members.

An analyst could first speculate about the cause(s) of the task force's ineffectiveness. For example, what *skill/knowledge root causes* might be present? Perhaps the members didn't know how to gather data. Maybe they didn't know where to look or whom to talk to.

What about *incentive root causes*? Maybe there were no consequences for failing to gather the data or making recommendations. Perhaps the group's recommendations may have had negative consequences for some of the task force members.

What *motivation root causes* might exist? Did some of the members not value what they or the task force was doing? Could it be that members didn't believe they could complete their assignment successfully? Perhaps they felt management had already made their decision, belying the group's effort?

What *environmental support root causes* might be present? Did the members have cues that let them know when to carry out their assignments? Did the roles, norms, and task process encourage the members to do their job effectively? Were there distractions, interruptions or obstacles that prevented the members from succeeding?

An analyst's next step would be to interview members of the task force. In this example, data gathering revealed that members' lack of preparation was caused by their failure to remember what their specific assignments were for the meeting. As a result, they were unable to fulfill their assigned tasks and bring those outputs to the next meeting for consideration.

In fact, members had been informed of their assignments during the meeting, but they failed to write them down. According to several members, "That's the job of the person taking minutes. That person is supposed to send them out so we know what to do next." Those minutes were not distributed as promised. The cause? The recorder didn't feel that minutes were that important. He didn't see the value of his output to the group's effort.

In addition, an agenda for the second meeting arrived later than expected, the same day as the meeting. This tardiness was caused by a number of interruptions and

distractions that kept the meeting leader from drafting and distributing the agenda on schedule. Monge, McSween, & Wyer (1989) found this to be a frequent occurrence, with 25% of the respondents in their study saying they usually receive less than one day's notice for an upcoming meeting.

Finally, there were no effective negative consequences for non-performance: none for the recorder's nonexistent minutes, none for the meeting leader's late agenda, and none for the group's failure to submit their recommendations at the specified time.

With the causes of the group's ineffectiveness identified, an analyst could determine solutions for the problem. The process of matching cause to solution can most easily be accomplished by using information as found in Figure 1. In it, types of causes are classified according to the identified inadequacy. Classes of solutions are shown which, based on the specific cause, may be appropriate.

Figure 1
Types of Causes and Classes of Solutions

TYPES OF CAUSES

CLASSES OF SOLUTIONS	Absence of skill/knowledge	Absence of incentives or improper incentives	Absence of motivation	Absence of adequate environmental supports
	Job aids	Process feedback/ evaluation	Additional/fewer tasks	Redesign work
	Expert systems	Output feedback/ evaluation	Additional/fewer responsibilities	Change job assignment
	Performance support tools	Outcome feedback/ evaluation	Additional/less authority	Simplify work
	Procedures	Praise	Role/goal clarification	Change process
	Documentation	Removal of reinforcement	Norm clarification/ publication	Automation
	On-the-job training	Reward	Motivational feedback	Better tools/equipment
	Instruction	Punishment	Values clarification for task	Increase/decrease # of performers
	Coaching	Contingency management	Task variation	Change policy
	Modeling			Change work conditions
				Change supervision
				Change work group membership
				Replace performer

Adapted from Harless (1979) and Rossett (1987).

Figure 2
Problems, Causes, Class of Solutions and Specific Solutions for Example

For example, the cause "Members don't write down their assigned tasks" can be placed in the *Environment* category. One possible class of solutions might be to "Redesign work" so members are explicitly accountable for keeping track of what to do. Figure 2 shows specific solutions for cause identified in the previous example.

Performance Problem	Identified Cause	Class of Solutions	Specific Solutions
Task force (TF) did **not** make recommendations on time	No negative consequences for non-performance	Contingency management	• Provide meaningful consequences for performance and non-performance
TF members did **not** write down assigned tasks	Norm of not writing down one's assigned task	Norm clarification/publication Redesign work	• Discuss and clarify norms around taking notes on assignments • Designate that members now take notes of their assignments
TF members did **not** complete their assigned tasks	Did not value timeliness of output Did not remember assigned tasks No negative consequences for non-performance	Values clarification for task Redesign work Contingency management	• Discuss importance of timely recommendations to support organization's goals • Designate that members now take notes of their assignments • Provide meaningful consequences for performance and non-performance
Recorder did **not** send minutes	Did not value importance of output No negative consequences for non-performance	Values clarification for tasks Contingency management	• Discuss importance of TF members receiving timely minutes • Provide meaningful consequences for performance and non-performance
Leader did **not** send out agenda on time	Events interrupted task completion No negative consequences for substandard performance	Change work conditions Contingency management	• Set aside block(s) of time to complete tasks • Secretary takes calls when working on tasks • Provide meaningful consequences for performance and non-performance

The causes reflect both group and individual points of influence. The level of analysis suggests that potential solutions can be implemented at both levels. As mentioned before, the analyst must still do analysis to determine the cost-effectiveness of any solution, as well as to decide how feasible and practical it may be to implement.

The example illustrated a systematic approach for analyzing and solving a case of group ineffectiveness in meetings. The example is, in essence, a reaction to an existent problem. What can be done to prevent such problems before they occur? And who will be responsible? Management, meeting leaders, and meeting participants all have a vested interest in (and, therefore, some responsibility for) making meetings effective.

Responsibilities for Group Effectiveness

Managers

Managers assess group effectiveness in an ongoing manner and provide resources for the solution of problems. Sometimes this prompts team development in order to enhance or shift interpersonal processes, norms, cohesion, and roles (Woodman, & Sherwood, 1980). Other kinds of training or coaching may be implemented as well. Managers who often have the authority to change incentives in order to reward desired group outputs may grant that authority to meeting leaders so they can reward group productivity and/or viability during meetings. Gilbert (1987) has suggested that, in general, monetary incentives have a "super" potential for improving performance. Managers can make organizational resources (e.g., information, accessibility to personnel) more available to support meeting goals and outputs (Daniels, 1986). Managers can enrich the jobs of their meeting members by providing opportunities for expanded tasks and responsibility in their work setting. Finally, managers can provide the resources to implement new technologies (see Poole, this publication) to make group effectiveness and efficiency more realizable.

Meeting Leaders

Meeting leaders also play a key role in making meetings work (Doyle & Straus, 1976). Before the meeting, the leader is responsible for ensuring that everyone knows

the location, purpose, and time limits of the meeting. The leader may have the authority to choose who attends the meeting. Adequate preparation also includes proper room setup and development of effective visual presentation materials (The 3M Meeting Management Team, 1987).

During the meeting, the clarification of roles, goals, and terminology can enhance group process and, potentially, outputs. Job aids (e.g., checklists or decision tables) can be used to improve participant performance. The leader may make process comments, provide motivational and output-related feedback, and support the giving of member praise. The meeting leader models desired normative behaviors, guides group activity, and endorses provision of rewards (in this case, non-monetary incentives) for appropriate behavior. Given this atmosphere, members, over time, may establish higher levels of trust with each other. This could be based, in part, on shared history within the meeting space and assessments about common interpersonal values reflected in the meeting process. Another way the leader can improve meeting effectiveness is to design or change the way group work is done (Daniels, 1990). This may include the following:

- Reassessing task strategies and, as a result, redesigning activities;
- Simplifying the process and/or procedures;
- Shifting responsibility for specific member roles and responsibilities, including the encouragement and support of members, to increase their own "leadership" roles;
- Altering the size of the group or the constituency of the meeting membership.

At the conclusion of the meeting, recapping the action item assignments and providing time for members to evaluate the meeting can confirm and solidify member understanding.

After the meeting, the meeting leader (or designated recorder) should share the meeting minutes, produce a public record of the actions taken, and confirm commitments made. The leader can support ongoing group effectiveness by following up with members on their action items.

Meeting Members

Meeting members, too, have their responsibilities for the group's effectiveness. Coming to the meeting prepared to participate is crucial. This includes sharing both data and opinions (and knowing which is which) and listening openly to others' discussion. Knowing individual and group expectations is also important. Seeking clarification of roles and goals can help everyone stay focused. Willingness to make process or task-related comments can surface norms which can then be challenged or reaffirmed. Providing praise and constructive criticisms for member's actions, rather than for the person, can support an attitude of openness. Being accountable for assignments, both during and between meetings, facilitates effective coordination among meeting members.

Research Opportunities

Research of group performance and the modeling of group or team effectiveness has provided a wealth of data. It has not offered, however, a degree of specificity by which one could confirm models. Recommendations to address this problem come from Goodman et al. (1986; 1987), McGrath (1986), and Sundstrom et al. (1990). They recommended that researchers do the following:

- Move from general to more specific models of group effectiveness.
- Identify critical variables and the interrelationships among variables for work groups.
- Increase construct specification.
- Determine what is an optimal mix of organizational context features for different types of work groups.
- Determine if different models need to be developed for different types of group tasks.
- Study groups in context and as intact social systems.
- Use innovative approaches to study the developmental processes of work teams at multiple points in time.
- Find ways to reconnect applied (empirical) data to theoretical models of group performance (Goodman et al., 1987).

Opportunities for Research and Application

- Take group process seriously.
- Develop innovative ways to define and measure group effectiveness so cross-group comparisons can be made (Goodman et al., 1986).

According to some researchers (Daniels, 1990; Schwartzman, 1986), little systematic work has been done to understand meetings and what happens during them. More research has been done on small group activities (see above) and decision-making tasks, leaving the readers to draw their own conclusions about their applicability to meetings. Three suggestions for researchers made by Schwartzman (1986) are of interest:

- Study how meetings cut across lines of organizational authority.
- Describe and compare the form and function of meetings across organizations.
- Investigate how meetings serve as homeostats or cultural regulating mechanisms, similar to Daniels' (1990) characterization.

The current incoherent understanding both about group effectiveness and its relationship to meeting effectiveness is shared by Goodman et al. (1986), "There are gaps, dilemmas and problems in our knowledge of group phenomena" (p. 24). The research opportunities are enormous.

Application Opportunities

At a practical level there are four steps to increase the effectiveness of meeting participants. First, clarify what is meant by "meeting effectiveness." One method is tying identified measurement indices and standards/goals (Brown, 1990) to stakeholders' points of view. Second, meeting results should be linked to their support of organizational goals (outcomes), as well as meeting outputs. Third, managers can identify the time frames to measure effectiveness. Fourth, they can use the results of such measures as part of performance appraisals and/or developmental plans to increase the perceived relevance and value of meetings to participants.

In anticipation of the breakdowns that so often occur in meetings, management could create checklists for meeting participants to use before the meeting. The purpose would be to provide advanced organizers to orient and guide participants' preparatory meeting activities. The question would call for assessing whether variables thought to affect meeting effectiveness were considered and designed into the meeting at designated levels of quality. Management might choose one of the group effectiveness models as the basis for drawing up the question set. Alternatively, it might use the performance analysis model for that purpose. As a third possibility, it might select job aids already available in the literature (Doyle & Straus, 1976; 3M Meeting Management Team, 1987; Daniels, 1990) and adapt them to suit its own needs.

Because meetings are already an organizational fact of life, ways are needed to improve future meeting effectiveness. The performance analysis model is an effective tool for that purpose. Its process supports systematic data-gathering and analysis and prevents rushing to solutions. It encourages managers to confirm causal hypotheses and relates relevant classes of solutions to variables to affect individual and group performance. It empowers managers to move beyond being victims of ineffective meetings by providing them with a process to assess what didn't work and why and to determine what cost effective changes they can make in the future.

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Section 2

Meeting Processes and Procedures

Procedures for Managing Meetings: Social and Technological Innovation

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"There is a method in this madness."

—William Shakespeare

Meetings are a major industry. Estimates suggest that most organizations devote between 7% and 15% of their personnel budgets to meetings. One study estimates that there is a meeting every minute in large American organizations. Studies of managers show that they spend 30% to 80% of their time in meetings (Mintzberg, 1973; Mosvick & Nelson, 1987). Daily media report hundreds of decisions emanating from civic bodies, juries, boards of directors, government panels, church groups, clubs, labor caucuses, school boards, task forces, and the like. Doyle and Straus (1976) assert that as many as 11 million meetings may take place every day in the United States. Seibold (1979) makes the personal impact of meetings clear:

> If we attend just four hours of work or civic meetings per week, we will have spent over 9000 hours in meetings during an average lifetime—more than one year of our life in meetings! (p.4)

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ever, is the social process around which they are organized: meetings, negotiation, information exchange, and so on.

This essay will focus on meeting procedures designed to help with decision-making tasks. Decision making is defined broadly as a process of deliberation, choice, and planning which involves the gathering and processing of information, problem definition, solution search, analysis and evaluation of alternatives, selection of a course of action, and planning for implementation. Decision making reflects the "social thinking" and political processes that are prerequisites for taking action. Decisions vary widely in scope, from the "big" decisions involved in strategic planning to the "smaller" everyday operating decisions. Hence, decision making is a fairly inclusive category. However, it does not include such group activities as the direct coordination of physical effort (e.g., managing an auto assembly team) or the logistics of group management (e.g., minute taking or meeting scheduling).

Some Examples

If we required any proof that decision making is a problem for groups, we would find it in the wide array of meeting procedures designed to improve it. In an excellent compendium, Paul Nutt (1984) details at least 47 distinct procedures for managing various decision-making functions. It is useful to consider some examples which show the range of options:

Roberts' Rules of Order, often known as "parliamentary procedure," is an old standby. Designed to help structure deliberation during the entire decision-making process, Roberts' Rules specify how proposals must be phrased; the order in which they may be considered; the order of speaking; how decisions are made; and how the rules themselves should be enforced, clarified, questioned, or suspended. In short, Roberts' Rules is concerned with how the meeting is conducted, rather than with the content of the deliberations. Intended to promote democracy in large and small groups, Roberts' Rules have been criticized for being too complex and for being subject to manipulation. Notwithstanding, Roberts' Rules remains among the most popular of procedures for organizing meetings.

Brainstorming, the legend goes, was developed in an advertising agency to promote creativity (Osborn, 1963). Brainstorming is governed by two key principles: Defer Judgment, and Quantity of Ideas Breeds Quality. Deferring judgment requires participants to refrain from criticizing ideas and their proposers before the idea has had full development and a fair hearing. It is intended to reduce fear of criticism and rejection by brainstormers. The idea that quantity breeds quality is founded on the notion that the first ideas we come up with are usually the most obvious, and that truly creative ideas will come after we have gotten the obvious suggestions out.

Brainstorming is usually facilitated by a leader, who writes all ideas on a flip chart or other display in order to stimulate further thoughts and interactions among group members. Groups as large as fifteen persons may be used and the larger and more diverse the membership, the better. The leader enforces four basic rules:

1. No criticism of one's own or others' ideas is permitted. Critical evaluation will be reserved until after the brainstorming session.
2. Participants are to contribute as many ideas as possible. After members have "run dry," they are encouraged to continue pressing for more ideas. The best ideas often come after the easy and obvious ones are on the board.
3. Wild ideas are encouraged, no matter how farfetched they may seem.
4. Building on previously listed ideas ("hitchhiking") or combining ideas is encouraged because it promotes both integration and refinement of ideas.

Studies of brainstorming suggest that it produces a wide range of ideas and heightens group enthusiasm, although it is not clear that groups using brainstorming outperform the same number of individuals working alone (Jablin & Seibold, 1978).

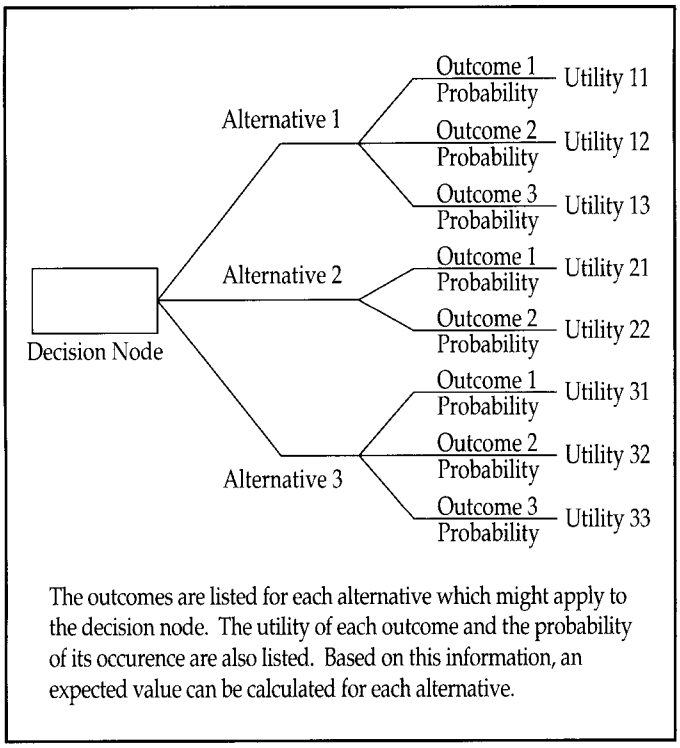
Nominal Group Technique (NGT), a very popular procedure, was created by Van de Ven and Delbecq (1971) for the generation and evaluation of ideas—problems, solutions, criteria, constraints, etc. It is based on previous research which showed that 1) idea generation was most

effective when people were in groups but did not interact (e.g., they sit silently and write their ideas down) and 2) evaluation of ideas was most effective in interacting groups. Their six-step procedure, shown in Table 1, devotes the first half of each session to idea generation and the second half to clarification and evaluation. Evaluation may go through several cycles to narrow the list to the best idea. The optimal size group for NGT is seven to ten members. Considerable research has supported the effectiveness of NGT (Van de Ven, 1974; Nutt, 1984).

Table 1
Nominal Group Technique

Step 1.	Silent Generation of Ideas in Writing
Step 2.	Round-Robin Recording of Ideas on a Flip Chart
Step 3.	Serial Discussion for Clarification
Step 4.	Preliminary Vote on Item Importance
Step 5.	Discussion of Preliminary Vote
Step 6.	Repeat Steps 4 and 5
Step 7.	Final Vote

Multiattribute Decision Analysis (MDA) is a procedure for formal analysis of alternatives. Participants generate a list of alternatives, a list of outcomes associated with each alternative, the probabilities that these outcomes will actually occur, and the value of each outcome. Based on this data, the expected value of the alternatives can be calculated and used to compare the alternatives. This information may be displayed as a "decision tree," as shown in Figure 1. In addition, the values of probabilities can be varied to conduct a sensitivity analysis of which outcomes are robust over many circumstances and which change. MDA is usually conducted by one person, but groups can decide what the entries should be. Some computerized systems help groups to conduct MDAs (Steeb & Johnston, 1981).



The outcomes are listed for each alternative which might apply to the decision node. The utility of each outcome and the probability of its occurence are also listed. Based on this information, an expected value can be calculated for each alternative.

Figure 1
A Sample Decision Tree

Hall's Consensus Rules (Hall & Watson, 1970), shown in Table 2, are a set of general guidelines for decision-making groups. Unlike the previous procedures, which set out definite steps groups must follow, Hall's rules present members with a general philosophy to employ throughout the decision-making session. Rather than specifying what groups should do, Hall's rules are applicable to most stages of the decision process, and it is left to members to apply them. In several studies (DeSanctis, Sambamurthy, & Watson, 1989; Hall & Watson, 1970; Nemiroff & King, 1975), Hall's rules increased the quality of group decisions.

Table 2
Hall's Consensus Rules

Your group should employ the method of Group Consensus in reaching its decision. Here are some guides in reaching consensus:

1. Avoid arguing for your individual judgments. Approach the decision on the basis of logic.
2. Avoid changing your mind only in order to reach agreement and to avoid conflict. Support only solutions with which you are able to agree to some extent.
3. Avoid "conflict-reducing" techniques such as majority vote, averaging, or trading in reaching decisions.
4. View differences of opinion as helpful rather than as a hindrance in decision making. Differences of opinion are natural and expected. Seek them out and try to involve everyone in the decision process.
5. Disagreements can help the group's decision because a wide range of information and opinions increases the chance that the group will hit upon more adequate solutions.

The devil's advocate procedure assigns one member as "designated critic." The devil's advocate consciously opposes or criticizes accepted stances. He or she suggests disadvantages to alternatives, offers different analyses of problems, questions the value of evidence, and generally helps "keep the group honest." This procedure differs from the others discussed here in that only one member is responsible, rather than the group as a whole. Janis (1972) and Nutt (1984) recommend this procedure for planning and policy making. Schweiger, Sandberg, & Rechner (1989) showed that use of a devil's advocate improves the quality of group decisions, compared to the decisions of groups who use no procedures.

Synectics, developed by Gordon (1961), is designed to encourage creativity in problem formulation through the use of analogies and metaphors. It does this through a structured seven-step procedure:

1) The leader describes the problem briefly;
2) The group reviews information about the problem and discusses it in concrete terms;

3) Members list all the solutions that occur to them immediately and discuss their limitations (This gets the obvious answers on the table and clears the board for the creative process);
4) Each member is asked to describe the problem as he or she sees it and to offer a wishful solution;
5) Members are asked to dismiss the problem from their minds and begin a "mental excursion," in which they free associate and talk about analogies to the problem. Members are encouraged to roam far afield and suggest unusual analogies because this makes the familiar strange and causes members to see different sides of the problem. The group and leader select a few good analogies for further examination;
6) The group "force fits" the problem to the analogy and discusses the insights this produces;
(7) The group develops a "viewpoint" on the problem, including a strategy for creating an effective solution.

A typical group should be five to seven people, and a session may last up to four hours. The leader's role is very important in synectics; his or her insight and ability to work the process are critical to its success. Unlike the other procedures discussed here, synectics attempts to harness members' intuitions.

Finally, the *Delphi Technique* surveys and pools member judgments without discussion (Delbecq, Van de Ven, & Gustafson, 1975). Delphi is designed to help in problem formulation and scenario creation; it was created by Dalkey (1967) in order to get expert forecasts of the future. The "group" using Delphi need never meet face-to-face because the process is carried out via questionnaire with written feedback to members. First, members are given the Delphi question, the initial inquiry that starts the process (e.g., "List the problems in meeting the demand for prenatal care"; "What are the strengths and weaknesses of various videodisc technologies?"). The question is accompanied by a survey form that members return by a specified date. The facilitator then tabulates the lists on a second questionnaire that asks members to vote for or rate the importance of the various items. In some cases members are also asked to write arguments or position papers justifying their responses. The facilitator then tabulates the ratings, sum-

marizes the arguments, and requests that members re-evaluate their choices. This process continues until convergence occurs or until the group runs out of time. There are several ways to facilitate convergence: Specific members may be asked to write compromise or summary positions that could serve as points of agreement; the votes or ratings may be used to sweep out lesser items until only a few remain; or sometimes a committee writes a final report.

Delphi is unique because it does not require the group to be physically present; it may be used to create an ad hoc group. The utility of Delphi has been demonstrated in numerous case studies and some experiments (Nutt, 1984). The facilitator is particularly important as the communication link between members. Delphi has been implemented on computer conference systems (Hiltz & Turoff, 1978).

Procedural Dimensions

This representative sample highlights five dimensions in which procedures vary. These dimensions—*scope*, *restrictiveness*, *comprehensiveness*, *group control*, and *member involvement*—allow a definition of different classes of procedures. First, procedures differ in *scope*, the extent to which they are general purpose, rather than being adapted to a specific meeting task. A good measure of procedural scope is the number of functions with which a procedure can potentially deal: Roberts' Rules is a high-scope procedure because it can be applied to almost any decision-making function (developing proposals, dealing with disputes, taking votes, managing a wide range of meeting processes), whereas a low scope procedure, such as brainstorming, focuses on a specific subtask in a meeting—the generation of ideas.

Second, procedures vary in their degree of *restrictiveness*, the extent to which they limit the group's activity (Silver, 1988). Roberts' Rules and Nominal Group Technique are highly restrictive because they tightly control group behavior. On the other hand, the Devil's Advocate is low in restrictiveness because it controls only the advocate's behavior and does not specify that very tightly.

Third, procedures vary in terms of *comprehensiveness*, how general or specific procedural rules are (DeSanctis, D'Onofrio, Sambamurthy, & Poole, 1989). Roberts' Rules, Nominal Group Technique, and Multiattribute Decision Analysis are all highly comprehensive because they specify precise rules and steps for carrying out meeting functions. Devil's Advocate and Hall's Rules are low in comprehensiveness because they give general guidelines but no specific scripts for interaction. Brainstorming has moderate comprehensiveness; its rules are specific, but they govern only a limited range of behavior during the brainstorming session, leaving a good deal to the group's imagination.

Fourth, procedures vary in terms of *group control*, the degree to which the group can manage the procedure by itself rather than having a facilitator or expert run the process. Multiattribute Decision Analysis is low in group control because it usually requires a facilitator or consultant to help the group with complex programs and inputs. Roberts' Rules is moderate because the chairperson and parliamentarian who facilitate the use of the rules are chosen from the group and because members can consult and use the rules themselves. Hall's Rules are high in group control because the members themselves enact and enforce these rules. Nominal Group Technique varies in level of group control, depending on how it is applied. Although it may be run by a neutral facilitator, the steps are clear, and a group may apply the procedure itself.

Finally, procedures vary in the degree of member involvement, the number of members who must cooperate in order to apply the procedure. Procedures like Nominal Group Technique, Delphi, and Hall's Rules are high involvement because they require the cooperation of all members. Devil's Advocate, on the other hand, requires only a single member's cooperation.

These five dimensions reveal important attributes of procedures. Table 3 shows the eight procedures discussed above, rated on the five dimensions. They are useful because they provide a vocabulary for comparing

Table 3
Example Procedures Rated on Dimensions

procedures in general terms, rather than on a case-by-case basis. They are also useful because they suggest attributes relevant to the selection of procedures and to the design of novel procedures.

PROCEDURES / DIMENSION	Robert's Rules of Order	Brain-storming	NGT	MDA	Hall's Consensus Rules	Devil's Advocate	Synectics	Delphi Technique
SCOPE	H	L	M	L	H	L	M	H
RESTRICTIVENESS	H	H	H	H	L	L	H	H
COMPREHENSIVENESS	H	H	H	H	L	L	L	H
GROUP CONTROL	M	H	M	L	H	H	M	L
MEMBER INVOLVEMENT	H	H	H	H	H	L	H	H

H = High M = Moderate L = Low

The Paradox of Meeting Procedures

The application of meeting procedures looks deceptively simple. Choose the proper procedure, get the group's commitment to follow it, and then run with it. But nothing is ever simple.

Ample evidence suggests that procedures help groups perform better. Studies by Eils and John (1980), Guetzkow and Dill (1957), Hackman and Kaplan (1974), Larson (1969), Maier (1970), Nemiroff and King (1975); Schweiger, Sandberg, and Rechner (1989), Van de Ven (1974), and White, Dittrich, and Lang (1980), among others, have supported the idea that groups that implement some procedure outperform groups that do not [see Hirokawa (1985) for an exception]. Furthermore, the structure does not have to be particularly elaborate for this effect to materialize. In Hackman and Kaplan's study the procedure consisted simply of engaging in a five-minute planning period before diving into the task.

There is also evidence that some procedures are better than others for particular types of problems and situations (Larson, 1969; White et al, 1980; Nutt, 1984). Adopting the right procedure can make a difference in group effectiveness.

Two additional points are worth noting. Hirokawa (1985) provides evidence that carrying out key problem-solving functions (e.g., considering negative qualities of options, thorough discussion of the problem) is more important than going through the steps of a procedure in their exact order. This implies that merely following a procedure's specific instructions is not as important as following them well and thoroughly and adapting them to the situation. In another study, Van de Ven (1974) compared groups using Nominal Group and Delphi Techniques with groups using no procedures. He found that groups using either procedure produced more ideas and higher quality ideas than did the no-procedure groups, and that they also had a greater feeling of accomplishment. However, he also found that Delphi groups took twice as long as the no-procedure groups, whereas Nominal Groups took about as long as the no-procedure groups. Procedures sometimes take more time, but there is a return on this investment (cf. Nemiroff & King, 1975).

Despite the effectiveness of meeting procedures, groups are often reluctant to apply them. Hackman and Kaplan (1974) found that planning was rare in groups and that even when groups had a planning period, they often neglected to use it properly. Shure et al. (1962) found that groups tended to neglect planning and plunge into work on their tasks, even though planning improved performance significantly. These results demonstrate what March and Simon (1958) call "Gresham's Law" in planning: "Routine activity drives out planning" (pp.184-87). Groups often spend considerable time setting up agendas or laying a plan for their discussion. However, once the discussion begins, a member deviates from the plan, perhaps jumping ahead several steps, and, more often than not, the others follow, jettisoning all previous work. Maier (1970) reports several studies which show that groups tend to go straight to the choice phase, disregarding analysis of the problem, even though the problem is far from obvious.

Groups also resist procedures because of their work habits. Groups become accustomed to using a standard set of procedures and resist adopting new ones, even though the new procedures may be more appropriate for the task at hand. Delbecq (1967) observes:

> Managers develop expectations about appropriate behavior in decision-making meetings with their superiors, so that their behavior falls into a pattern with limited variability, which may be appropriate for some types of decision-making, but highly inappropriate for other decision-making situations. (p.330)

Groups may reject novel procedures simply because they do not fit with established patterns. Resistance to procedures may also take more subtle forms. Groups often violate key provisions of procedures, rendering them bootless. It is fairly common for members of brainstorming groups to criticize ideas regardless of the leader's directions. If a procedure seems too difficult or time consuming, some groups abandon it midstream. In studies of the use of procedures conducted by Poole and DeSanctis (1990), more than 50% of user groups did not follow procedures faithfully. They must be encouraged or sanctioned to use them properly.

Consequently, a paradox exists: Procedures show decisive benefits, yet many groups are reluctant to use them. Why is this? The key to understanding procedures and why they are used (or not used) is to understand how they enter into group interaction and why they have salutary effects. In a nutshell, procedures improve group performance because they make groups uncomfortable. Procedures counteract sloppy thinking and ineffective work habits which are part and parcel of everyday group interaction. Because they go against the grain, procedures are "unnatural" and, hence, uncomfortable for groups. The central question, then, is how to get groups to take this bad-tasting medicine. How can you get groups to implement and faithfully use meeting procedures? Before tackling this question, think first about the nature of meetings.

A Golden Mean for Effective Meetings

To understand why procedures are important, it is first useful to ask: Why do we use meetings in the first place? Hoffman (1965), Maier (1967), Davis (1969) and Shaw (1981), among others, have listed a number of benefits to using groups. These include the following:

- Groups generally have greater knowledge than any individual.
- Groups have a diversity of perspectives on the situation, which results in broader thinking. The greater the diversity (provided differences can be managed), the more effective the group.
- Group members can check each other's ideas.
- Merely being in the presence of others is psychologically arousing. This social facilitation effect stimulates greater effort by group members.
- Participation in group discussions often increases members' commitment to the decision.
- Bringing people with different points of view into contact will often surface conflicts which must be resolved for an effective and practical decision to emerge.

Several of these benefits can emerge only if members contribute their individual ideas and opinions. So, it is in the group's interest to encourage critical, independent thinking among members. Most people realize intuitively that effective meetings require autonomous thought. It is common to fall into a "reverie," where individuals tune out the group and think along their own lines. From such reveries come many of the best ideas.

Independent thinking is also a fact of life in groups because members have different goals. Meetings contain a mix of motives, both individual and group-oriented, and groups usually try to attain several goals, attending first to one and then to another in a complicated juggling act. It is useful to distinguish group-oriented goals from individual ones.

In terms of group-oriented goals, the first thing that springs to mind are the final outcomes of the decision process, which can be evaluated in terms of quality, acceptance, and creativity. However, quality, acceptance, and creativity are probably overestimated as motivators

of group behavior. Although these long-term, bottom-line outcomes are undoubtedly important to members, their behavior in meetings is oriented toward more immediate goals: Making progress on the task while maintaining social relationships among members (Bales, 1953). These short-term goals may translate into the three outcomes. Progress on the task may be judged on the quality of the evolving product, the group's move toward building commitment, and creative thinking. However, other concerns, such as whether the task is taking longer than expected or whether the group is on schedule, also enter into short-term evaluations. Other short-term goals immediately related to meeting conduct include making the group look good in the eyes of superiors and keeping work at a manageable level.

And, of course, individual members also have their own goals, such as enhancing their power or status in the group, catching up on gossip, strengthening relationships with other members, advancing a pet project unrelated to the decision at hand, and political maneuvering. Individual goals often create "hidden agendas," promoting behavior unconnected to achievement of task and social goals (Fouriezos, Hall, & Guetzkow, 1950).

In every group several goals operate at any given time. The precise mix of goals within each group varies, depending on the group's task, membership, history, and context. Although several motives do not contribute to decision making per se, each is important in its own right. If their individual needs are not satisfied, members may withdraw from the group. Recognition from superiors and a sense of progress contribute to group morale. Keeping work at a manageable level may lead to lower production, but it may also allow members to pace themselves and avoid burnout.

This sets up the situation faced in every meeting: A set of individuals, each with his or her own goals and motivations (only some of which are directed toward task accomplishment), must somehow work together. Moreover, this set of individuals must do so in a sufficiently coordinated manner to act **as a group**, while encouraging independent thinking. This is a tall order.

It is particularly difficult because of limitations in human cognitive abilities. As wonderful as the brain is, it is simply incapable of focusing on and comprehending everything in the "booming, buzzing confusion" that comprises a meeting. The evidence indicates that our cognitive faculties are subject to severe restrictions that make it difficult to pay full attention to several goals at once. People must either emphasize one goal and compromise on the satisfaction of others (Zander, 1971) or alternate between goals, focusing first on one and then on another in serial fashion, to keep them all active (March and Simon, 1958; Bales, 1953). For example, if members are thinking hard about the group's problem, they will have difficulty giving equal attention to what others are saying. As a result, they can either focus primarily on thinking the problem through and giving less attention to others, or they can alternate between thinking about the problem and listening to others. In any case, it is unlikely that equal energy can be devoted to both goals.

Dean Hewes (1986) has studied the ways in which this limitation influences group interaction. He observes that while members are interested in developing ideas and proposals, they also recognize that meetings warrant social interaction—that is, that they should be working as a group and relating to each other. However, although members have a minimum of two goals—contributing to the content of the decision and working as a group—they can serve only one wholeheartedly. Most often they are reluctant to redirect their attention from developing their own ideas and opinions to what others are saying. As a result, members often do a half-hearted job of linking their thoughts to those of others.

In its extreme form, this creates a "cocktail party syndrome," characterized by disjointed discussion and no real clash or combination of ideas. Listen closely to the "conversations" that occur at a cocktail party. People make vacuous comments (often while looking at someone else) which are only loosely related to what someone says to them. But, on the surface, these comments seem to form a coherent conversation because people send various messages which signal connections be-

tween statements, such as references to previous comments ("Yes, I know what you mean. Last week I was....) or habitual turn-taking devices (e.g., pausing at the end of a sentence to give the other an opportunity to speak). People talk **at**, rather than **to**, one another because they must try to meet two goals: making interesting comments and understanding what others are saying. They can only concentrate on one, however, because of the natural limitations to their cognitive abilities. Thus, people tend to focus mainly on their own side of the conversation (their primary goal) and do only a cosmetic job of coordinating their conversation with others (a secondary goal).

Many discussions in meetings bear remarkable similarities to cocktail conversations. They bring together several individuals who must move toward convergence for the group to act. But often members have their own ideas and motivations, which are not always "in synch." For example, one member might be thinking about the nature of the problem the group faces, another about a possible solution, and still another might be in the mood to joke. The following interchange reflects this:

Member A: The problem here is that our receptionist has too many calls to manage effectively. I wonder how we could assess what the proper number of calls is?

Member B: Yeah...I was thinking a nicer waiting room would really liven things up here.

Member C: That's a great idea...if they're going to wait there until they're old and grey, they might as well wait in comfort, eh?

Notice how the comments appear to be connected but really do not build on each other. Hewes would say that these comments reflect the different goals that preoccupy each member, as well as their perception that social interaction is appropriate. Brenner (1973) conducted an intriguing study relevant to this picture of interaction. He asked people who spoke in meetings to recall the remarks of the person who spoke just before them. More often than not, speakers could not recall previous remarks. Apparently they were concentrating on compos-

ing what they were going to say and completely ignored the person speaking at the time (see also Jablin & Seibold, 1978).

Of course, not all group interaction is like this, or groups would accomplish very little. There are also periods when members' thinking and motivations converge and the group works together. For example,

Member A: The problem here is that our receptionist has too many calls to manage effectively. I wonder how we could assess what the proper call load per receptionist is?

Member B: Is that the problem, or is it that our receptionist is always reading a book?

Member C: Maybe he's going to college on our time. But it would be good to get some measure of optimal call volume or whatever you call it.

Member A: He works pretty hard. Let's measure call load before we draw conclusions about how hard he works. That can get messy, you know.

All members are focused on the same issue, and, although their motives may differ, their comments follow the same line of thought. Over time, group interaction alternates between individual and group focus. Some meetings are very disjointed with members off in their own private worlds, whereas others maintain a common group focus throughout. Most are somewhere in between. The degree of group focus also varies across groups. Some are very coordinated, whereas others are disjointed. Hewes and others have argued that the degree to which a group departs from the disjointed state is a good measure of its "groupness."

Groups, then, consist of independent minds that work independently and then converge for various periods of time, after which one or more withdraw again to individual lines of thought. Sometimes only a few members withdraw, sometimes all members are off in their own worlds, and sometimes everyone is synchronized. Members continue this ballet until, finally, they complete the task. Such alternations are useful because the independent lines of thinking contribute additional ideas to the

group, while the periods of convergence allow testing and cross-checking of individual ideas. When members revert to independent thinking, their thoughts have been enriched by others' contributions.

The essence of an effective meeting is to manage this alternation so as to capitalize on the resources provided by independent thinking, yet avoid the cocktail party syndrome. How do groups do this? The answer is so obvious that it hardly needs mentioning: Groups evolve various coordination mechanisms to help structure their work (Poole, Seibold, & McPhee, 1985;1986). The most important is the emergence or appointment of a leader. Also important are tools such as agendas, rules for decision making, and minutes that record precedents and group history. But merely having these structures is not sufficient. Members must also believe structures are valuable. As time passes, members come to value the group itself. The group serves as a reference point against which members define themselves. This is particularly true when the group has power or status because the members can bask in its glow and feel that they are making a difference. The place of the group is so prominent in our lives that Maslow (1954) listed the need for "inclusion" or "belonging" as one of the basic human needs. The value attached to groups encourages members to drop their individual focus and become oriented toward the group.

However, the swing away from individual and toward group orientation can easily go too far. It can create an over-reliance on the leader and an overemphasis on maintaining group cohesion and unity. Members may come to value the group so much that, fearing rejection, they will not disagree. Hoffman (1965) and Shaw (1981), among others, have listed several counterproductive results which stem from these tendencies:

- Social pressure on members who disagree with the majority or with accepted norms can stifle the expression of opposing views and prevent full exploration of problems (Schacter, 1968).
- Members can reach premature convergence on a solution in order to avoid conflict. Hall and Watson (1970)

note that groups often latch onto the first available solution in order to avoid the tension associated with disagreement. This results in incomplete consideration of available options and often in selection of inferior solutions.

- Task performance pressures, in which members jettison individual thinking in order to "get something done," may lead the group to shortchange issues that should be considered for a quality decision. Task performance pressures are manifested in solution-mindedness, which precludes close examination of the problem (Maier, 1970) and encourages taking shortcuts under time pressure.
- The group can be dominated by a single member or small clique. Often one or two members do most of the talking in the group, using up limited time and blocking others' ideas (Bales et al., 1951). High status persons also tend to have greater influence in the group and may preempt other members' contributions.

This is the dark side of the cohesive, highly structured group. Janis (1972) referred to such proclivities in Orwellian terms, as "Groupthink." The reference to *1984* is appropriate: When the structuring of group work rests in the hands of an individual leader and relies on members' dependence on the group, members' individual initiative is sapped, and a drab sameness settles over the deliberations. Members are disempowered. The essential creativity that depends on autonomous, independent thinking disappears. This is not to say that firm leadership and cultivation of regard for the group are harmful in and of themselves. Unchecked and unsupported by other structures, however, they often result in unwitting abuse and an unconscious conspiracy to stifle independent thinking.

To be effective, a group must maintain a golden mean, a balance between independent thinking and structured, coordinated work. Too much independence shatters group cohesion and encourages members to sacrifice group goals to their individual needs (Deutsch, 1973). Too much synchronous, structured work—especially if it is grounded in dependence on the leader or on group approval—is likely to regiment group thinking and stifle

novel ideas. Meetings must navigate between the Scylla of the cocktail party and the Charybdis of *1984*. How can groups take advantage of the diversity which is their strength, while avoiding these extremes? How can groups achieve individual creativity, disciplined by structures which are not too heavy-handed or confining? This is where meeting procedures come in.

Why Procedures Work

Procedures are designed to counteract harmful tendencies and to harness the strengths of groups. Because procedures are objectified, written sets of rules, they avoid some of the problems associated with dependence on leaders or group approval. The structures which procedures impose are accessible to all because any member can interpret the rules and determine whether they are useful and whether they are being used properly. Hence, the use of procedures prohibits the investment of too much power in the leader's hands. With properly applied procedures, members gravitate toward the procedure being used, rather than toward the group's inclinations. Indeed, many procedures have built-in protections against group pressure. Ideally, procedures enable a group to harness individual thinking in a sensible structure without introducing the harmful tendencies mentioned above. How do they do this?

Procedures Coordinate Members' Thinking

In good meetings members think along their own lines and contribute their ideas to a common, developing line of reasoning. A good procedure provides explicit structures that indicate the general topics about which members should be thinking and when they should try to knit their thoughts together. The steps of Nominal Group Technique, for example, specify what members should be considering individually at a given time and when the group as a whole should evaluate and decide on the individual ideas. Roberts' Rules also places limitations on the topics that may be discussed and when they can be presented. Members can discuss a proposal, for instance, only after it has been moved and seconded. Even a "minimal" procedure like the Devil's Advocate focuses members' attention on weaknesses in their

thinking. Procedures thus provide junctures that give members the opportunity to pull ideas together and to consider how their thinking fits with the group's.

In terms of the procedural dimensions introduced earlier, it is possible to venture some hypotheses: Procedures which are high in scope, restrictiveness, comprehensiveness, and member involvement would seem the most likely ones to achieve coordination of thinking.

Procedures Provide a Set of Objective Ground Rules
A barrier to effective decision making is the defensiveness members may feel when corrected by the leader or other members (Brown, 1977). When members are defensive, their attention shifts to individual-centered issues (Folger and Poole, 1983), and they often become more concerned with getting even or saving face than with making an effective decision. An agreed-upon procedure offers a relatively objective set of rules which serve as a basis for correcting and redirecting inappropriate behavior. The procedure makes members aware of the ground rules governing discussion. It enables them to minimize as much as possible the operation of "backroom politics" or "prejudice" when correcting dysfunctional behavior. Corrections are given not at the whim of the leader or another member, but with reference to clearly defined rules. Members who deviate are restrained not by the group, but by the rules. So, for example, if Sam criticizes ideas during brainstorming, he is corrected not because Betty does not like his criticisms, but because the rules of brainstorming allow no criticism. This eliminates a major source of dissension and bad feelings (Van de Ven and Delbecq, 1971).

As a hypothesis, those procedures high in comprehensiveness, group control, and member involvement should provide the most effective ground rules. The procedure's restrictiveness should also be considered: In groups whose members do not trust one another, a highly restrictive procedure may be more effective because it clearly defines members' behavior.

Procedures Protect Groups Against Their Own Bad Habits

Procedures are designed to prevent counterproductive behavior in groups. Each procedure is targeted for specific types of negative behavior. For example, brainstorming is explicitly intended to stifle criticism of ideas. Round robin idea listing in Nominal Group Technique is intended to prevent talkative members from expressing all their ideas before less assertive members can say anything. Roberts' Rules permits only one proposal on the floor at a time to counteract the tendency of groups to scatter their attention across several possible issues at a time. The best procedures for protecting against bad habits should be highly restrictive and comprehensive, but lower in group control (having a leader or facilitator guide the procedure ensures that bad habits are suppressed).

Procedures Capitalize on the Strengths of Groups

In the same vein, procedures may have built-in structures that take advantage of the group resources. Synectics, for example, takes advantage of the wide range of ideas latent in a group. It attempts to jar members out of their mental "ruts" and to permit the free flow of ideas and associations that might occur if they were not so inhibited. The basic ideas underlying Nominal Group Technique are based on research findings that (1) idea generation occurs best when individuals are stimulated by the presence of others but do not have to interact with them, while (2) idea evaluation is best carried out in an interacting group (Van de Ven & Delbecq, 1971). The somewhat unusual structure of this process is designed to segment idea generation and evaluation into two distinct steps, each governed by its own unique process. Procedures are, in a sense, "idealized" molds into which we pour our meetings. With a skillful craftsperson, the meeting comes out perfectly. The most effective procedures for capitalizing on group strengths should have moderate to high restrictiveness and high member involvement.

Procedures Balance Member Participation

Participation differences are a barrier to harnessing the members' talents and establishing commitment to the final product. Studies show that a few members tend to

be high participators, while the rest participate at much lower rates (Bales et al., 1951). This effect becomes more pronounced as groups get larger; Bales et al. found that in groups of six or more, the most talkative three members make two thirds of all comments. This does not leave much room for others to be heard. And, if others do not participate, their ideas, a great resource, will be lost. Further, because participation in making a decision increases commitment (Filley, House, & Kerr, 1976), if the participation of some members is blocked, group resolve will be weaker than it could be had everyone taken part. Many procedures incorporate devices which decrease the dominance of talkative members and make room for low participators. The round robin rule in the Nominal Group Technique is intended to balance participation.

For those procedures with rules designed to balance participation, procedures high in restrictiveness, comprehensiveness, and group involvement, and low in group control should be the best for "levelling the playing field."

Procedures Surface and Help Manage Conflicts

Conflicts are difficult for most groups. They threaten to polarize the group, to create bad feelings, and, potentially, to disintegrate the group. Different members react to conflict differently. Some come out full-speed ahead with all guns blazing; others withdraw, hoping to wait the conflict out; still others try to pour oil on troubled waters, hoping for a creative solution, or at least a compromise. In a "free market" group, where there are few restraints on members' behavior, conflict can be a disaster. The group can be trapped in an ever-escalating conflict spiral or, alternatively, in cycles of conflict avoidance, where the group dances around the issues in a desperate attempt to prevent "something bad" from happening (Folger & Poole, 1983). Even when a reasonably acceptable resolution occurs, members may experience dissatisfaction. Members who ran for the sidelines may feel left out. Members inclined to problem-solve may feel disillusioned with the group if they regard the solution as second-rate. One of the members who normally meets conflicts head-on may feel he or she has "lost."

Procedures can help groups face up to conflicts in two ways. First, many procedures directly confront the group with evidence of disagreement. If a straw poll is taken, for instance, it is crystal clear whether or not members agree. The Devil's Advocate gives counter-arguments that may surface disagreements. Faced with blatant disagreement, groups can no longer run from conflict. The conflict has surfaced, and they must face it head on. This is an extremely constructive move for many groups whose members would ordinarily suppress the conflict or deal with it in some indirect fashion.

Second, some procedures actually help groups manage conflicts. Hall's Rules is built around a number of norms for dealing with disagreements. Straw votes can be used to build consensus. The repetitive voting in Nominal Group and Delphi Techniques may also serve this purpose. Procedures vary in the degree to which they help to surface and manage conflict, but a judicious choice can help groups immeasurably.

The procedures most likely to surface conflict effectively should be those low in scope (specifically, those which pertain to voting and display of differences), low in comprehensiveness (because members have "free rein" to bring differences out, but some structure which forces them to do so), and high in group involvement. Procedures most likely to promote conflict management should be those low in scope (specifically focused on conflict resolution), high in restrictiveness, comprehensiveness, and group involvement, and low in group control (a facilitator or moderator can serve as a third party)(Folger & Poole, 1984).

Procedures Give Groups a Sense of Closure in Their Work

Achievement of tasks is important to groups. Individuals and groups are frustrated if they are kept from finishing a task or do not see the end of a distinct piece of work—this is called the Zeigarnick effect (Horwitz, 1968; Zeigarnick, 1927). However, many groups face uncertain, ill-defined tasks for which it is hard to identify distinct subtasks or to determine when the task has been completed. In these situations, it is useful to identify "chunks" of work that can be completed. Procedures

often help delimit subtasks for groups, such as problem identification or alternative evaluation and, as such, can help with group motivation. Van de Ven (1974) reports that the Nominal Group Technique enables leaders to achieve a higher level of task closure than leaders in no-procedure groups are able to achieve. Procedures lower in scope and higher in restrictiveness and comprehensiveness are most likely to help groups achieve closure.

Procedures Make Groups Reflect on Their Meeting Process

One of the great barriers to creativity is mindless, habitual behavior. Most groups fall into habits rather quickly, especially when they have a designated leader and a set power structure. One of the greatest challenges to leaders and meeting consultants alike is to produce a reflective attitude, in which groups are conscious of their meeting process and sensitive to the need for managing it. Procedures help by making the implicit explicit. They spell out alternative ways of running meetings, ways which differ from everyday experience. Experience with procedures helps members realize the options they have, as well as the importance of attending to how meetings are run. In many meetings I have studied, it is noteworthy how often members comment about a procedure, quite often with an air of wonderment and incredulity that "it helped so much." In the terminology of the sixties, "their consciousness has been raised." Cartwright and Zander (1968) summarize evidence that when members are aware of leadership functions, they tend to help with these functions (unless other forces, such as an authoritarian leader, prevent them). Moreover, there is evidence that groups with shared, active leadership are generally high performers.

Procedures can also help by fostering self-criticism. When members are aware of the results they can obtain with the proper procedure, they have a baseline for comparison. Knowing alternative behaviors or outcomes, they are better prepared to evaluate their meetings and to suggest repairs. Of course, the atmosphere of the group has more to do with attaining a critical attitude, but procedures can contribute to it.

Procedures are likely to educate members and to promote reflection if they are high in comprehensiveness, group control, and group involvement. Generally, highly restrictive procedures are codified in more detail, so they should also tend to promote this effect better than low restrictive procedures.

Procedures Empower Groups

Groups that believe they have control over their own fate are more likely to be proactive. Often ill understood meeting dynamics—lack of progress, disorganization, inability to deal with conflict—sap group energy and prevent groups from making progress. In confronting these dynamics, members feel uncertain; they do not understand what is wrong or how to change. Procedures contain "theories" about how groups should work. When they use procedures, members achieve at least a partial understanding of the situation; procedures allow members to "get a handle" on their problems. With this knowledge comes an increased sense of control. Combined with the self-knowledge that comes from reflection, this knowledge gives members the tools and confidence to take control of the situation. The same types of procedures that foster reflection should tend to empower groups.

How Groups React to Procedures

Given all these benefits, it is surprising that groups do not embrace procedures whole-heartedly. However, many of the most basic tendencies in group behavior are counterproductive. They give groups manifold reasons to reject or ignore available procedures. Social interaction is often governed by a law of energy conservation: People tend to act so as to conserve time and energy. And, because most group activities are time and energy intensive, the additional energy required to select, learn, run, and enforce procedures may seem excessive. This is unfortunate because well chosen procedures can save a great deal of time and energy over the long run. However, groups seldom think in the long-term. Instead, groups find various reasons for rejecting procedures.

"This is unnatural; it doesn't 'feel' right."
Members often complain that procedures inhibit them. And, in many cases, they are correct. Procedures designed to balance participation will seem unnatural to talkative members. A rule mandating anonymous votes will cramp the style of powerful members used to pressuring those who do not agree with them. Whenever procedures jar the group out of its ruts, they may seem unnatural to members, and members will be tempted to abandon them.

"This is too hard and too complicated; we don't need anything this complex."
Managing procedures requires effort. Members who would normally run their own course must coordinate with each other. Managing the procedure also uses energy the group would normally employ on the task or devote to other goals, such as socializing or meeting individual needs. It is true that procedures divert energy that could be devoted to the task. Even worse, the payoff from this diversion comes only in the future, in higher quality, creativity, or commitment. Given these distant and intangible rewards, it is not surprising that groups often choose to focus on their work and disregard procedures.

"We are under severe time pressure and using this will only slow us down."
Again, procedures must plead guilty on all counts. Indeed, procedures are intended to slow groups down somewhat (Bryson & Roerig, 1989). Many of the dysfunctional habits mentioned above—social pressure, premature convergence, task performance pressures—thrive when the group is under time pressure (Janis, 1972; Janis & Mann, 1977). The group feels it must hurry, so it feels that "different" or "divergent" ideas must be discouraged, unity enhanced, and a solution established "at all costs and quickly." In such cases the best thing a procedure can do is to slow the group down, to prevent bandwagons from forming, and to make the group more aware of the need for diversity. The ideal would be to produce a situation in which a felt urgency motivated the group but did not create panic that forced the group into quick action.

When in a crisis mode, however, groups perceive the time available to them to be shorter than it really is (Holsti, 1971; Langer, Wapner, & Werner, 1961). Usually there is time to use at least some procedures, and a well-chosen procedure may result in more efficient use of the time available. Nevertheless, in the heat of the moment, groups can hardly be blamed for not seeing these benefits.

"Using this procedure will cause a conflict."
Groups instinctively attempt to reduce conflicts as quickly as possible. Procedures that might make underlying disagreements surface seem threatening. Often, however, a conflict must first surface and cause some discomfort before members will feel sufficient tension to really work on it (Walton, 1969). As Shakespeare's King John said, "So foul a sky clears not without a storm." The discomfort that a procedure causes in the short run sometimes leads to a stronger group over the long term, provided the conflict can be managed effectively. Of course, in some cases, surfacing conflicts truly would be counterproductive. In a task force which must get its report out before it disbands in three days, surfacing a conflict may serve no productive end. In such instances, procedures which will surface conflict should be avoided.

"Leadership is what makes the real difference in groups; procedures won't make much of an impact."
It is a Western myth that the leader—the great man or woman—is responsible for what groups or nations accomplish. People tend to attribute outcomes, both good and bad, to individuals rather than to collectives (Leary & Forsyth, 1987), and the leader is the most salient individual in a group. Consequently, people tend to attribute outcomes, both good and bad, to leaders. Reagan is praised for restoring the economy (whereas the economy is much too complex for any individual to manage); Charles Manson is condemned for his group's crazed killing spree. However, evidence suggests that more often than not, leaders are following their groups, rather than vice versa. Studies show that people act more like leaders when followers expect them to be leaders and that leaders tend to engage in the behaviors they think followers need (Crowe, Bochner, & Clark, 1972;

Herold, 1977). The myth of leader responsibility blinds us to the fact that the group itself produces most social outcomes through a complicated process of interaction. Procedures to guide this interaction may well make far more difference than any leader would. However, it is difficult to see this because of our focus on individuals.

All these reasons have merit, although some are short-sighted. Notice that the reasons for rejecting procedures once again involve a paradox. The reasons groups reject procedures—too hard, too time consuming, unnatural—are precisely the reasons procedures are useful. This paradox creates a trap that works against using procedures in a productive fashion.

In addition to blatantly rejecting procedures, members may also appear to go along with them, but then use them in harmful ways. In some groups, procedures are used for cosmetic purposes, to demonstrate to superiors or other outsiders that the group is making progress and doing a good job. Procedures can operate as symbols that indicate a progressive group which is on top of its work (Feldman and March, 1981). The use of parliamentary procedure, for instance, is more than just an expedient to help the group organize itself. It also symbolizes both to outsiders and members alike that the group is governed by the "rule of law." Procedures may also be used to smooth a veneer of participation over a decision that has already been made behind the scenes. In one case, the Nominal Group Technique was used to assess the needs of older citizens in a planning district. The results of twenty Nominal Group sessions were then stuck in a bottom drawer, and a plan was drawn up by top administrators according to their own priorities. The Nominal Group sessions were used to lend legitimacy to the final budget, but they were never actually used in making it. Most people are familiar with cases of "democratic" decision processes which served as window dressing for decisions made by one or two people.

In the face of all these seemingly good excuses, how can groups be motivated to utilize procedures properly?

Effective Use of Meeting Procedures

Guidelines for Selection of Procedures

Effective use of procedures starts with selection of the correct technique. Once an appropriate procedure has been chosen, measures can be taken to encourage groups to use it properly.

Scattered through this essay have been a number of implicit guidelines for procedure selection. Essentially, they fall under three rubrics: Task-procedure fit, group-procedure fit, and outcome-procedure fit.

Task-Procedure Fit

What tasks does the meeting involve and what procedures are suited for these tasks? Procedures are developed with some task in mind. Some procedures, such as Roberts' Rules, are designed for organizing whole meetings. Other procedures are suited only for specific tasks. Nominal Group Technique is good only for idea development and evaluation, but it is not suitable for planning implementation. Devil's Advocate is best used when the group's thinking is beginning to gel. Delphi is best for coordinating extensive debates when many viewpoints exist.

Too often, people try to use a procedure on a task for which it is not suited. Roberts' Rules of Order is often abused in this way. It is a wonderful system for running general meetings where proposals are clearly differentiated, and sides are cleanly defined. However, it is not as useful if a conflict must be managed; voting is a poor way to decide a conflict because the losers may be disaffected and withdraw. It is also a poor procedure to use if a detailed plan must be worked out; Roberts' Rules explicitly recommends referring this task to a subcommittee not governed by the rules. Notwithstanding, because Roberts' Rules work so well in normal meetings, chairpersons too often try to use them in all situations with results ranging from mediocre to disastrous.

It is also important to remember that procedures also influence how tasks are framed. Often groups are uncertain about what is involved in accomplishing a certain goal, and they may use a procedure as a reference point to define the requisite tasks. Imagine that a leader wants to develop a new product idea and is uncertain what

such an undertaking involves. If the leader wants to use synectics, this task will be defined as a "creativity task." On the other hand, if the leader wants to use Nominal Group Technique, the task will be defined as an "idea generation and evaluation task." Groups sometimes mold their ideas about tasks to the procedures with which they are familiar. This can be a problem if the task definition suggested by their procedures is not suited to the needs or demands of the situation.

The moral: Be aware that all procedures are designed for a limited range of conditions and plan accordingly. Familiarity with a variety of procedures is a good idea. Nutt (1984) provides some useful classifications of procedures by the tasks for which they are suited.

Group-Procedure Fit

Is the group ready, able, and willing to use this procedure? Procedures also vary in the types of groups for which they are appropriate. Some procedures work best with small groups and some with larger groups. Some procedures require that the group receive special training, while others can be used with little advance preparation. If the group does not have the knowledge or skills a procedure requires, don't use it.

The group's climate should also be considered. Climate is a construct which refers to members' general attitudes about the group; dimensions of climate include openness of communication, motivation level, effectiveness of decision making, degree of participativeness, supportiveness, goal emphasis, and the nature of peer relations. Bowers and Hausser (1977) found that different types of human relations interventions had different impacts depending on a group's internal climate. Severe internal problems may prevent the effectiveness of certain procedures, and the use of certain procedures may even worsen internal problems. A group in which members hold deep-seated resentments toward each other, for instance, should probably not use a Devil's Advocate because this technique simply provides them with an opportunity to take potshots at one another.

The group's experience with the task may influence its acceptance of procedures. If the group has experienced

problems with a task, it is more likely to embrace a procedure which promises to reduce problems or speed up work on the task. Letting a group experience a task without procedures is sometimes a useful prerequisite to introducing the procedure.

Outcome-Procedure Fit
What outcomes does the group want? Different procedures sometimes lead to different outcomes. Multiattribute Decision Analysis (MDA) leads to a high quality plan, but requires considerable investment of time and effort. However, if the desired outcome is member commitment and quality is less important, then a less time-consuming technique that lets members participate is just as useful as MDA and less costly. Nutt (1984) provides some excellent choice trees for selecting procedures depending on which outcomes are desired for the various decision subtasks.

Encouraging and Enhancing Procedural Use

Even with the most discerning choice, groups may still resist a procedure or use it halfheartedly. To be effective, procedures must be used properly and consistently; they should not be changed in ways that undermine their intent. As groups gain experience with procedures over time, they generally adapt them—omitting or adding steps, shaving a corner here, reinterpreting a rule there—and this adaptive process can result in substantial changes. In some cases, these changes may undermine the intent of the procedure. For example, I have documented several cases in which one person has become "master facilitator" of all procedures used by a group—brainstorming, Nominal Group Technique, force field analysis. This role was a source of power to the "master"; he or she could manipulate the group through subtle management of procedures. Ironically, in most cases, the master facilitators did not intend for this to occur; they intended to use the procedures to help the group and often were not aware that they were using procedures manipulatively. Such is the power of small, gradual adaptations.

So how can meeting managers give procedures the best chance to succeed? What conditions are likely to pro-

mote faithful and appropriate use of procedures? Research suggests at least eight guidelines:

1. *Nothing succeeds like success.* Getting groups to use procedures is largely an issue of motivation. Group motivation is more complicated than individual motivation, but some of the same principles apply. Just as with individuals, one important motivator is positive feedback: If people know that what they are doing works, they tend to broaden their aspirations and to work harder (Zander, 1971). Positive experiences with the procedure are critical in motivating groups to use it. Ideally, this experience should involve making progress on some problem the group faces. If the group has trouble coming up with ideas, and brainstorming helps members generate dozens of new thoughts, they are likely to use it in the future. If the procedure helps the group speed up or better organize its work, members are likely to endorse it.
2. *A procedural champion is critical.* Research on organizational change has found that innovations have a much greater chance of implementation if they have a "champion." A champion is a member of the implementing organization who advocates the change and puts extra energy into getting it adopted. In a study of the planning, Bryson and Roerig (1989) found that planning procedures, too, were more likely to be used if an internal "process champion" emerged. The champion advocates the value of the procedure, reminding the group to use it, providing advice, and helping with problems. The champion is what used to be called "an enthusiast." Although finding a champion is usually a matter of luck, champions can sometimes be made. Training one or two members in a procedure makes them experts, and they may decide to exercise this expertise. Because attitudes often follow behavior, they may talk themselves into becoming champions once they see that the procedure helps the group (and, perhaps, their status).
3. *Share control over the procedure.* The greater the number of members who understand and control proce-

dures, the more likely they are to use and preserve procedures. Research on innovation shows a positive relationship between the amount of participation in implementation and innovation success (Coch & French, 1968). As noted above, the potential for member control varies for different procedures. For some there are relatively few ways to take advantage of participation because the procedures require a technician or facilitator. However, even in these cases, member control can be maximized if the technician or facilitator is responsive to the group.

4. *Tailor the procedure to the group's needs.* Groups usually adapt procedures as they use them. One way to prevent this adaptation from undermining the procedure's intent is to make it a conscious process. The group should discuss how to best tailor the procedure to its own situation. For example, while brainstorming implicitly requires a leader to correct members who break its rule, groups often decide to do away with the leader because the group can police itself. Provided that the group regularly checks itself to see that this is done properly, this adaptation preserves the spirit of brainstorming. Carefully tailoring the procedure to its circumstances gives the group a sense of ownership.
5. *Get the group interested in its own processes.* It may be a peculiarly American trait to be suspicious of self reflection. Members tend to be so focused on the content of the task, the ideas discussed, and the actions considered that they ignore the group processes that generate these ideas and actions. A major challenge is to sell members on the importance of attending to group process. Once members are aware of process, they will be much more open to procedures.
   There are several barriers to a process orientation, not the least of which is the penchant to focus on work and leave social considerations secondary. Another barrier is resistance by those currently in power. Power often depends on others' ignorance of what is going on in

group processes. Bringing hidden power relationships out into the open may create conflicts and undermine this control.

Procedures themselves can help groups become sensitive to process issues. Because they spell out rules and behavior, procedures can make members aware of the need to control process. By giving members a vocabulary to discuss process, procedures can raise the group's discourse to a new level. This creates a self-reinforcing process because once they are aware of group dynamics, members often value procedures more.

6. *Use the procedure as a tool for self-criticism.* Because procedures are ideals, they contain implicit norms for evaluating other group work. These norms can be used as reference points for other aspects of the group's process. For example, implicit in brainstorming is the norm that premature criticism kills ideas and discourages people from speaking out. If this norm is used as a standard for self evaluation, it will help general group operation, and the value of brainstorming will be reinforced in the eyes of the group. A good way to encourage this is to schedule a formal evaluation period at the end of meetings.
7. *Have a neutral facilitator run procedures in touchy situations.* Sometimes procedures alone are not enough. There are occasions when procedures are called for, yet members fear they will not be run fairly. For example, in some conflict situations, there is little basis for trust, and members will not have much faith in procedures that could be manipulated by others. It helps to have a referee, a neutral party who can insure the procedure is run properly (Sheppard, 1984). Studies of conflicts indicate that a mediator or other third party increases the likelihood that parties will agree to go through a conflict management process.
8. *Set reasonable expectations.* Nutt (1984) recommends group members have an accurate picture of the time and effort required to use a procedure. Otherwise they may withdraw in midstream. Members should also have a realistic understanding of the expected outcome of using the procedure. It is a mistake to

oversell a procedure. Unfortunately, however, there is a temptation to do so in the face of a reluctant group. Promising that a procedure will solve their problems may convince members to use it, but it may also create a performance gap between expectations and reality. In the long run, this may result in rejection of the procedure.

Reprise. These guidelines are helpful, but for many groups procedures will continue to seem foreign and disruptive. And adoption of one procedure does not necessarily mean a group will be open to others in the future. It may mean simply that the group has added one more wrinkle to its habitual behavior with no real change in other dysfunctional habits. Implementing procedures in groups is an ongoing process, and each procedure presents a new challenge. Evolving technologies may help to ease this task.

A New Frontier: Computer Supported Procedures

"Groupware," computer software for the support of group work, has exciting possibilities as a platform for procedural management. In a recent book, Johansen (1988) listed 17 examples of groupware, including computerized teleconferencing, project management software, group authoring software, computer conferences, computer support for group memory management, and group decision support systems. One type of groupware that is explicitly designed to incorporate procedures is the Group Decision Support System (GDSS).

A Group Decision Support System combines communication, computer, and decision technologies to support decision making and related group activities. Communication technologies available for GDSSs include electronic messaging, teleconferencing, and store-and-forward facilities. Computer technologies include multiuser operating systems, fourth generation languages, and graphics facilities. Decision support technologies include agenda setting, decision modeling methods (such as decision trees or risk analysis), structured group methods (such as Nominal Group Technique or Inter-

pretive Structural Modeling), and rules for directing group discussion (such as parliamentary procedure) (DeSanctis & Gallupe, 1987).

In a typical GDSS implementation members are provided with a computer and visual display terminal that allows them to enter data and control the operation of the system. The GDSS offers a range of procedures, such as agenda-setting methods, idea recording, and voting routines. Specialized decision modeling or structured group methods are usually available. Often there is also a "group" display screen, a large projector that displays common group information such as lists of ideas or tabulations of votes (this supplements the traditional flip chart or chalk board). In face-to-face meetings, members use the computer system and also talk directly to one another. In dispersed settings, groups may also use a voice or video communication channel (DeSanctis & Gallupe, 1985). GDSSs are being used in strategic planning meetings, for scientific research collaboration, for product design development, and for the management of quality teams.

A variety of GDSSs configurations are possible. Four cases can be defined, shown in Figure 2. Some GDSSs support groups whose members are dispersed, working in separate conference rooms, offices, homes, or other locations. Other GDSSs are designed for use in face-to-face meetings in a conference or board room. GDSSs may also be distinguished according to whether they support smaller working groups or larger groups whose members may not know each other well. The Local Area Decision Network supports smaller groups, typically in the same office building and working together on the same project or task (Alexander, 1988; DeSanctis & Gallupe, 1985, 1987). The Computer-Mediated Conference supports large numbers of people who are physically distant from one another but must work on common tasks (Hiltz & Turoff, 1978). The Legislative Session supports larger groups whose members meet face-to-face (Nunamaker, Vogel, & Konsynski, 1987); in these settings the GDSS may regulate member-to-member

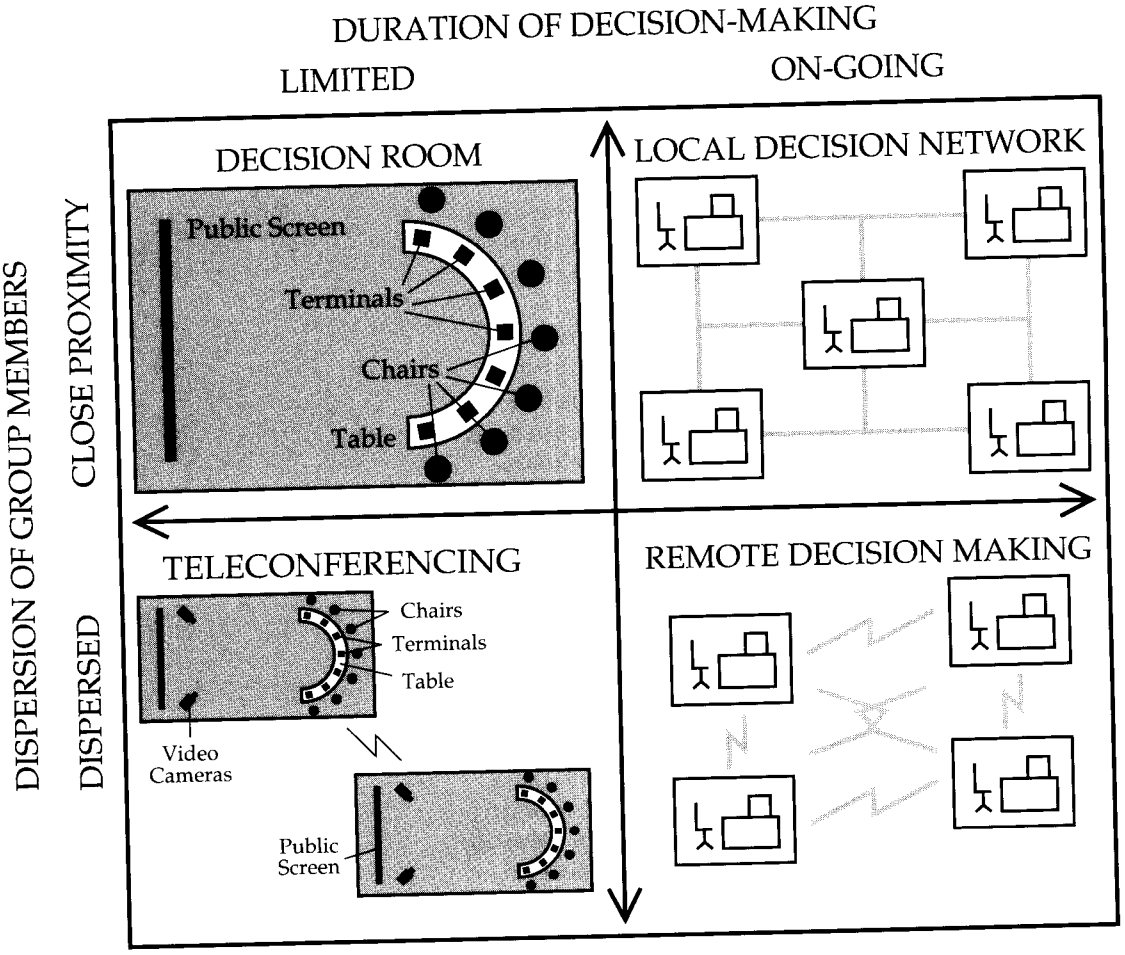


Figure 2
Framework: Group Decision Support

communication in a hierarchical fashion, allowing members to send messages to only their fellow party members or party chairperson, and meeting proceedings may be electronically recorded and analyzed by interested constituencies (DeSanctis & Gallupe, 1987). The bulk of current GDSS research is centered on the Decision Room, which is the electronic equivalent of the traditional face-to-face meeting. Two examples of Decision Room technologies are the *SAMM*© System and *PLEXSYS*™.

The Software Aided Meeting Management (*SAMM*©) System, developed at the University of Minnesota, is de-

signed to promote participative, democratic decision-making in 3 to 16 person groups (DeSanctis, et al., 1987; Dickson, Poole, & DeSanctis, in press). Designed to be operated by the group itself, *SAMM©* provides the following features to support group work: agenda setting; brainstorming; a number of types of idea or solution evaluation methods; decision tools such as Stakeholder Analysis (Mitroff, Emshoff, & Kilmann, 1979), Multicriteria Decision-Making, and Problem Formulation; public and private messaging; options to send several preformulated messages; a scratchpad; and facilities for storing records and minutes. Modules for idea clustering, causal mapping, and conflict management are also being developed. *SAMM©* is a menu-driven system. It is designed to provide the group with a range of procedural control options: Members can control the system themselves, or a facilitator or technician can help. *SAMM©* is not intended to replace existing modes of group communication. Instead, it is designed to support and encourage verbal and nonverbal interaction, as well as to provide additional channels for communication and decision support. Consequently, the group will use *SAMM©* only at certain points during a meeting; typically members work at *SAMM©* for a while and then discuss the outputs to the public screen. The group assembles at a horseshoe-shaped conference table with a terminal and keyboard for each group member. Chairs swivel and have rolling feet, so users can move about comfortably to face one another. A large screen at the front of the room displays group information (such as vote tallies or idea lists generated during the meeting). Versions of *SAMM©* for computer conferences and dispersed groups are currently under development.

PLEXSYS™, developed at the University of Arizona, is somewhat different from *SAMM©* (Dennis et al., 1988; Nunamaker, Applegate, Konsynski, 1987). Members control some aspects of the system's operation, but the operation of the system as a whole must be managed by a facilitator. *PLEXSYS™* can also be used with larger groups than *SAMM©* is suited for. *PLEXSYS™* can be implemented in a decision room or in a larger 24 workstation room. Modules available on *PLEXSYS™* include brainstorming, several idea evaluation procedures, idea

clustering, decision aids such as Stakeholder Analysis and Policy Formation techniques, and capabilities to work with organizational data bases.

One of the most interesting features of *PLEXSYS*™ is "Topic Commenter." Members enter their ideas about a topic and then view and comment on others' entries as these are "randomly" presented on their computer screen. This allows for a running "conversation" among members, even though very little verbal exchange occurs. Members read others' entries and enter comments as they occur to them, rotating through their own and others' entries for periods of 30 minutes to more than an hour. The effect is rather startling—people huddled over computers, earnestly entering comments as though they were talking to the idea's originator—a whole new way of conducting group discussion. A record of these "conversations," preserved in the database of ideas and associated comments, commonly serves as the starting point for a decision-making or planning process.

The potential of GDSSs and other social technologies lies in their ability to enhance human information handling capacity, to provide additional media for interpersonal communication, and to provide data resources and procedural structures for group work (Poole & DeSanctis, 1987).

The Promise of GDSSs for Meeting Management

GDSSs open up a new range of possibilities for meeting management. They facilitate the delivery of established procedures, and they provide a foundation for new meeting formats. Their benefits include the following:

GDSSs present procedures consistently and competently. A major barrier to the use of procedures is members' lack of knowledge and skills. Members often are reluctant to spend precious time and energy researching available procedures and preparing required materials and information. And even with adequate preparation, procedures will not work very well if the facilitator and group do not have the necessary group process skills, skills that require special training and considerable experience. By "automating" procedures, GDSSs can reduce the work involved. GDSSs offer groups a menu of procedures,

lightening the burdens of research and preparation. GDSSs can be designed to walk the group through procedures and to help the group manage its processes in other ways. For example, a GDSS might organize brainstorming by having members silently type ideas, which are then displayed on the common screen without identifying the idea's author. Because all members enter ideas simultaneously, there is no possibility for criticism during the idea generation process. Moreover, anonymous entry of ideas can help to minimize the fear of censure that often stifles the presentation of new ideas. Built-in rules and features not only reduce the group's burden but also present the procedures consistently. This enhances procedural fairness and also helps groups develop habits or routines for using a procedure.

GDSSs make procedures more convenient. Computerization can help counter the objections that procedures are too time consuming and too hard to use. A field study of the *PLEXSYS™* system found up to 300% person-hour time savings compared to traditional meetings (Vogel & Nunamaker, 1988). Procedures like brainstorming and idea rating are much faster with computers because members can work simultaneously while the computer combines their inputs automatically. The need for flip charts and markers is greatly reduced . Moreover, data management capabilities of computers can greatly enhance group "housekeeping" chores. The GDSS can take minutes and print copies for every member. Records of previous ideas and votes are preserved, so the group can consult its history in some detail when the need arises. Calendar features can be used to plan and sequence group activities. In short, GDSSs make easier many things groups may neglect because they seem to be too much trouble.

GDSSs may make the beneficial impacts of procedures obvious. Research points to several ways in which computer-mediated communication differs from regular discussion (Kerr & Hiltz, 1982; Rice, 1984). Several of these effects are likely to enhance the effectiveness of procedures:

1. Computer support may increase the salience of procedures. The computer screen attracts members' attention and provides a common focus for the group.

For example, if the GDSS prompts members to "Enter your ratings for each of the following options....," member activity is synchronized and attention is focused on this step of the decision-making process. Computer-generated sounds, color screens, and public screen displays further heighten the salience of the computer and procedural steps. By increasing the salience of procedures, GDSSs may also help educate groups and create an awareness of the importance of systematic approaches.

2. The GDSS is definitely "objective." If the procedure is programmed in a way that treats all members equally, it is not open to charges of manipulation. Hence, management of procedures via computer may enhance their status as objective rules. There is some evidence that people perceive computers as "fairminded." Several studies have shown that people disclose information more readily and fully when using computer systems than they do in conversations (Weizenbaum, 1976). They are also more candid in computer-mediated communication than in face-to-face communication (Kerr & Hiltz, 1982, p.108). This suggests people are not as concerned about the negative consequences of their statements.
3. GDSSs generally balance group participation (Gallupe et al., 1988; Johansen et al., 1979; Rice, 1984; Seigel et al., 1986). This enhances the operation of procedures that depend on participation. GDSSs that give each member a keyboard and are not managed by an authority encourage each members' input. The ability for several members to input simultaneously removes the inevitable blocking of participation which occurs when only one member at a time can talk. Provision of anonymity of inputs also encourages low power members to participate (Jessup, Tansik, & Lasse, 1988).
4. GDSSs can surface differences and conflicts. Many procedures help groups because they divulge differences and give groups a way to forge some common ground. Computer-mediated communication tends to result in higher levels of conflict and negative statements than non-mediated communication (Keisler, et al., 1984; Seigel et al., 1986). So, mounting

procedures on a GDSS may enhance their ability to elicit conflicts and encourage the group to confront its conflict. However, a study by Poole, Holmes, & DeSanctis (in press) suggests that if optimal results are to be obtained, procedures for managing conflict, as well as methods for surfacing it, should be built into a GDSS.

GDSSs will provide new ways of meeting. There are so many possibilities that we can only touch on a few. The most obvious is that computer support makes it possible for groups to conduct meetings without convening face-to-face. Computer conferences may be run for synchronous groups, which all sign on at the same time, or for asynchronous groups, whose members may sign on at any time, read accumulated messages, and then add their own. An asynchronous meeting may extend for weeks or months, with members participating whenever it is most convenient for them. Hiltz & Turoff (1978) and Kerr & Hiltz (1982) describe a number of computer conferencing cases and discuss the conditions for making them effective. Computer conferences are most effective when they are organized by an active leader and have definite rules and procedures. An interesting consequence is that members of asynchronous conferences often report being able to mull over their comments before entering them, resulting in deeper and more thoughtful discussions. Audio and video support for computer conferences are also possible.

GDSSs will also provide powerful tools to support the tasks that groups could not ordinarily do themselves. Modeling tools and databases can be used to conduct analyses which formerly would have required outside consultants. For example, the Allocate module provided with the *SAMM©* system enables members to input their ratings of importance for up to fifteen solution criteria, to then evaluate options on these criteria, and to calculate expected value scores for each member and the group. Groups can use these scores to identify key criteria and options and to conduct sensitivity analyses of various choice scenarios. And it can do this in as little as an hour. In the future an array of such tools can be provided, some of which require facilitator assistance and some of which

can be operated by the group itself. Another function that could be provided by GDSSs is group authoring support. Members of a group could write documents together, trying out various versions and editing the final version as a group. The COLAB at Xerox Parc (Stefik et al., 1987) is a prototype system for group authoring, which supports the development of arguments and document writing through private and public screens.

Questions and Cautions

With these potential gains may come some costs as well. Incorporating procedures into computers may make them seem even more unnatural and impersonal, especially for people who are not used to computers. Learning to use strange machines and programs requires an investment which some may be reluctant to make.

The effectiveness of GDSS procedures may also depend on how they are designed into the systems and on how they are implemented in ongoing groups. GDSS procedures that require a specialized facilitator or technician may result in a loss of control by the group, negating the empowerment and self-awareness advantages procedures confer. Any procedures incorporated into a GDSS require careful evaluation to detect possible unintended consequences. In one experiment, providing voting procedures on the *SAMM*© system actually led groups to cut off their discussions, an effect quite different from what was expected (Poole, Holmes, & DeSanctis, in press). Additional incentives and norms encouraging discussion of votes had to be provided to achieve the constructive effects that were intended.

Building procedures into software may also make it harder for members to "own" them. Having a computer system present steps or choices to a group may reduce members' perceptions of control over the procedure. Automating procedures may hide some of the choices involved and render the procedures opaque and mysterious to members. This would work against the desirable goals of affording members more control over meetings and greater self understanding through understanding procedures.

At this point, the study of the effects of GDSSs and social technologies on group processes and outcomes is in its infancy. However, there is little doubt that powerful effects occur and that more and more GDSSs and other types of groupware will find their way to the marketplace. More research is needed to ascertain how to promote positive impacts and to ameliorate negative ones.

Conclusion

Perhaps there can be a method in this madness called meetings. This essay has attempted to pull together from diverse sources what is known about procedures. It highlights several paradoxes in group attitudes toward procedures and various reasons why groups resist procedures that promise to help them. Together, the procedural dimensions, the analysis of why procedures work, and the guidelines for effective implementation are intended to provide a framework to support discerning applications of existing procedures and development of novel techniques.

This framework cannot yet claim the status of a theory of procedures. Although it is backed by a good deal of evidence and built on useful models of groups, many gaps must be filled by future research. It is one thing to synthesize previous knowledge, and very much another to test the claims a synthesis makes.

Underemphasized in this essay is the catch-as-catch-can nature of working with procedures. Procedures are often seen as all-or-nothing items, which must be fully used or not used at all. For the facilitator, it is often useful to take pieces of various procedures and combine them to meet a group's specific needs. For instance, one might borrow round robin idea listing from the Nominal Group Technique, and then appoint a Devil's Advocate to critique the ideas. This piecing together of procedural bits—a sort of procedural salad bar—is a creative way to solve a group's problems, and it also gives insights into how procedures work. Many currently popular procedures evolved from just such experimentation.

It is good that substance is valued over style. Unfortunately, group processes are too often classified as stylistic, and concern with them is regarded as less important than contributing ideas or solutions. Nothing could be further from the truth. In meetings, process is the foundation on which substance is built. Without effective management, social processes can take the group in fruitless or harmful directions. Procedures are the most effective tools that exist for moving meetings in positive directions. As preventatives and curatives, they are the first, best hope for improving meetings.

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The Soul of the Meeting: Embedding Organizational Culture in Meeting Procedures

by Michael P. Leimbach
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"Al, at the wheel, his face purposeful, his whole body listening to the car, his restless eyes jumping from the road to the instrument panel. Al was one with his engine, every nerve listening for weakness, for the thumps or squeals, hums and chattering that indicate a change that may cause a breakdown. He had become the soul of the car."

— John Steinbeck, 1939
The Grapes of Wrath

All meetings occur within a context. People come to a meeting with a history, a viewpoint, and a set of unstated expectations. This chapter of the monograph explores organizational culture and how it affects the use of meeting management processes. The relation between organizational culture and meeting processes will be addressed by first providing an overview of a model Wilson Learning has used to describe different organizational cultures and then suggesting ways the model might be used to characterize meeting management procedures. Finally speculation is made about how meeting management procedures can be used in conjunction with an understanding of an organization's culture to enhance the effectiveness and impact of meetings.

Organizational Context for Meetings

When people enter a room for a meeting, they bring with them a history of their organization, a personal history of how meetings have gone for them in the past, and a belief and understanding of how meetings operate (or should operate) within their organization. This history and these expectations have an effect on the outcome of meetings, whether as a support to effectiveness or as a barrier to achieving the meeting objectives. It is possible to use an understanding of the organization's

history to select appropriate meeting management processes to improve the effectiveness of meetings in your organization.

This organizational history is often referred to as the organization's culture. While definitions of organizational culture vary, for the purposes of this discussion culture is defined as "the collective values that consciously and unconsciously guide behavior, influence how people act, and affect how people interact within a group setting." This definition is consistent with and incorporates many of the elements of more traditional definitions (Herzberg, 1966), as well as more current descriptions (Lincoln, Hanada, & Olson 1981).

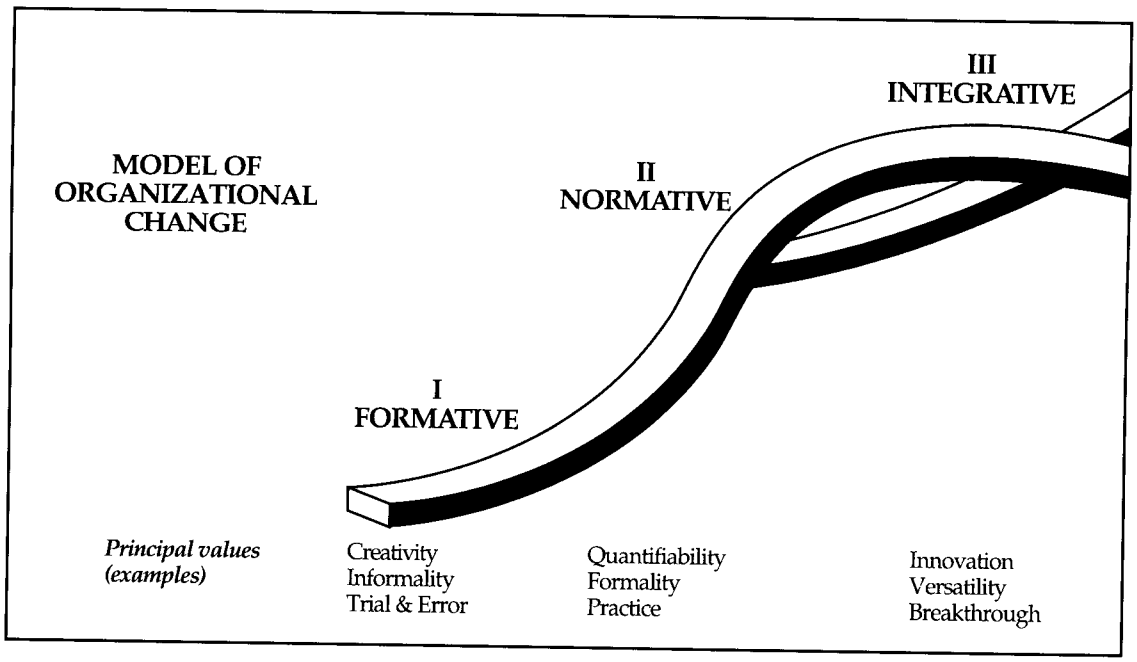
Meetings reflect the organization's culture more than any other set of events. They are the windows into the soul of a company. As pre-agrarian hunter-gatherer societies expressed their culture through ritual dances and song, today's organizations conduct meetings with much the same outcome. Whether by chance or design, the values that guide behavior within an organization are expressed in the behaviors exhibited during meetings. For example, if an organization values informality and creativity, meetings come to order gradually (if at all), chairs and tables are used for purposes other than their design, and the agenda (if one exists) is probably not followed. In contrast, meetings in other organizations make the chain of command obvious from the very first moment. Agenda points are checked off the list one by one, and when the last item is checked off, everyone files out in near silence. For a consultant working within a wide variety of organizations, it is easy to see, after only a short time, what values are held most dear to an organization by observing its meeting behavior.

A Model of Organizational Change

In trying to understand the link between organizational values and organizational success, it might be helpful to draw upon a simple model of organizational growth. The model was initially described by George Ainsworth-Land (1984). The basic premise of the model is that, while the specifics of growth and change are in themselves unpredictable, the patterns of change are not. The

model, shown in Figure 1, suggests that organizations, in developing individual efficiencies, go through three distinct phases.

Figure 1



In the first phase, the Formative Phase, the organization is searching for a workable pattern for success. This phase is characterized by a high level of creative activity but small gains in organizational efficiency. The end of the first phase comes when an organization discovers a repeatable pattern, which leads to the organization's success.

During the second phase, the Normative Phase, an organization focuses on extending, elaborating, and improving the established pattern. This is a period during which an organization experiences its greatest increase in efficiencies. Patterns are repeated and become well practiced; policies and standard procedures are initiated; and systems are set up to support the decisions mandated by those policies. Organizations in phase two tend to be successful in terms of productivity, efficiency, and often profitability. In phase two, however, extensions and improve-

ments are made within the limits of the established basic pattern. Over time, because of changes in the marketplace or environment, this pattern may not support continued growth and improved efficiencies.

The third phase, the Integrative Phase, begins when continued increases in efficiency and productivity are no longer possible with existing systems and procedures. The rate of increased performance levels off or declines. Improvement in the existing procedures and systems no longer results in increased efficiency. Successful companies recognize this and begin what Ainsworth-Land referred to as a *bifurcation*, drawing a term from the mathematics of chaos (Gleick, 1988). This bifurcation opens up old patterns and integrates them with new and different patterns, creating a new order, a new way of doing things that allows for continued growth.

The curve in Figure 1 is not intended to describe the lifecycle of an organization but to show a repeated cycle of growth and change. All successful organizations go through a number of growth cycles during their existence. In fact, current perceptions of the increased speed of organizational change (Peters, 1987; Vaill, 1989) could be described as the historical shortening of the phase-two period and more frequent occurrence of phase three. As worldwide changes have an impact on organizations, the period of great increases in organizational efficiency (phase two) becomes shorter, pushing organizations into phase three more frequently and with greater rapidity.

Organizational Growth and Organizational Culture

What does all of this have to do with organizational culture and meeting management? At Wilson Learning the model has been used to describe how an organization's culture is related to the organization's location on the growth curve. While not a complete model, Figure 1 provides examples of organizational values that may define organizational culture at each of the three phases.

Organizations in the Formative Phase tend to value those characteristics which support a search for a workable pattern. Creativity is likely to be valued and, along with it, a relatively high level of risk taking. Learning

through trial and error is valued, as is flexibility in approaching problems and solutions. In addition, many phase one companies tend to value informality (versus formal procedures), open communication, and constructive criticism.

In contrast, organizations in the Normative Phase tend to value reduced variability in behavior and outcomes, leading to a preference for more structured policies and procedures. Increased organizational efficiency through repetition and practice are valued more than learning through trial and error with a commensurate decrease in risk-taking. As a result, phase two organizations also tend to value formality and adherence to rules and procedures.

For the Integrative Phase the principal values are more difficult to define. Organizations in phase three often find conflict between the values the organization carries forward from phase two and the values that are needed to successfully navigate through phase three. Thus, people often value stringent procedures when instead they need to be innovative with procedures; they tend to value adherence to rules when they need to constructively criticize these rules.

Although it is difficult to define the values of the phase three organization, the connection between the value system and organizational success is clear. For example, many financial service organizations are hindered by the pre-deregulation values that still exist within many employees. Also many organizations, in a wide variety of industries, find it difficult to overcome the cross-functional communication barriers created by the tight functional alignment so effective during phase two.

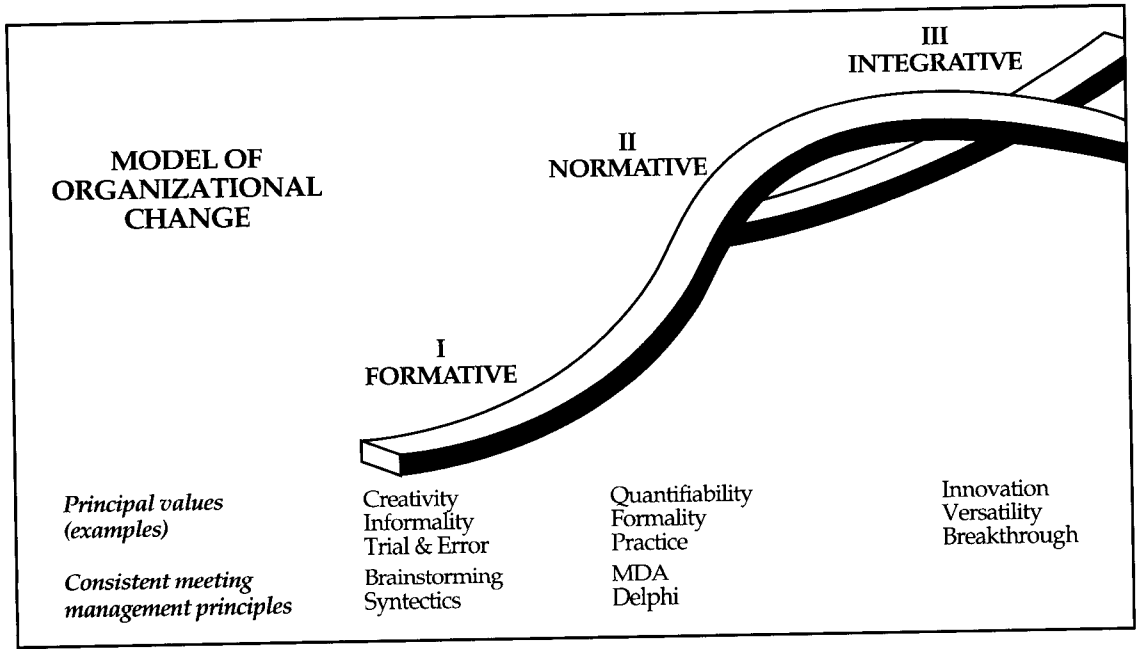
The purpose of presenting this model of organizational growth is to provide a context in which the relationship between organizational values and meeting management procedures can be explored. The significant amount of time spent in meetings (see Poole, this publication) suggests that meetings are one of the primary places where values are expressed. Careful observation of how people interact within a meeting may reveal as much about their value system as an organizational survey. Organizations that do not value creativity, for ex-

ample, will quickly squelch unique "off-the-wall" suggestions. Organizations that do not value procedures and systems, on the other hand, will quickly dismiss suggestions for an orderly agenda or a manual. Thus, given the importance of organizational values and the multitude of time spent in meetings, one way to enhance organizational effectiveness would be to create an alignment between how meetings are conducted and the organizational values needed for growth and success.

Meeting Procedures and Organizational Values

Meeting procedures, by their very nature, endorse or emphasize certain values. Brainstorming techniques require (or assume the values of) open communication and equal status of group members. In contrast, Robert's Rules of Order assumes a strict hierarchy of group membership and values eloquence in expression. Can meeting management procedures be described and categorized according to the values they emphasize? While far from perfect, Figure 2 represents a first effort at classification.

Figure 2



Organizations in the first phase of growth tend to value, among other things, creativity, informality, and trial-and-error learning. Thus, meeting management procedures that also emphasize these values, such as brainstorming (Osborn, 1963), synectics (Gordon, 1961), or no management procedure, probably predominate in phase one organizations. (The meeting management procedures discussed in this chapter are described in more detail in Poole's chapter in this publication.)

In contrast, organizations in the second phase of growth tend to hold values such as quantifiability, formality, and learning through practice. Thus, more systematic approaches to meeting management might be more common. Procedures like Multiattribute Decision Analysis (MDA) (Brown, Kahr and Peterson, 1975) and the Delphi process (Delbecq, Van de Ven & Gustafson, 1975) are more likely to support the phase two values than are procedures like brainstorming.

Organizations in phase three, by definition, are in transition. Consequently, it is difficult to categorize the types of meeting management procedures that will be most effective. One of the principal values of a phase three culture is versatility (or flexibility). Thus, the ideal meeting management process for phase three organizations might be a flexible repertory of procedures, one that can be drawn upon as the culture and meeting purpose dictate.

The potential role of meeting management procedures in helping an organization navigate through phase three is an interesting topic. It is clear, however, that the relationship between organizational culture and predominant meeting management procedures is an area ripe for exploration, from both a practical and a theoretical standpoint.

Matching Organizational Culture and Meeting Procedures

Organizational values are reflected in meeting behavior. Therefore, organizations will adopt (or migrate toward) meeting management processes that most closely match their values. However, in most cases this match of meeting management processes and organizational culture is by chance rather than by design. Rarely do organiza-

tions use meeting procedures purposefully to emphasize important values or to support the development of new values that are needed for future success. However, meetings can have that impact. If meetings are a reflection of the soul of an organization, then it is valuable to consider meeting management procedures as one way to support or develop an organization's culture. Two central questions emerge from this suggestion.

First, while Figure 2 suggests that certain procedures may be more typical of organizations at different phases of development, are these also the most effective procedures? One hypothesis is that more effective meetings occur when there is a strong match between the organization's values and the values predominant in the meeting management process. For example, if a phase one organization used a highly structured approach such as MDA to reach a decision, the action plan developed through that method might be acted upon less frequently than if the meeting followed a more free-form procedure. While the answer to this is an empirical one, the hypothesis suggests that if an organization's value system (culture) could be defined and linked to the values embedded within meeting management procedures, an organization might be able to increase the efficiency and effectiveness of its meetings. Similarly, people might become more engaged in a meeting when the procedures used reflect their own primary values. An organization emerging from phase one and moving into phase two, for example, might be able to encourage and expand participation in meetings and increase meeting effectiveness by using more informal and creative meeting management processes.

The second central question, and perhaps a more timely one, is the potential for meeting management procedures to help an organization navigate change. Can an organization support a cultural change through the use of appropriate meeting management procedures? Or to state it another way: Can an organization effectively change its culture without changing the procedures that guide activity in meetings? Given the prominence of meetings in organizational life (see Poole, this publication), the answer is probably no. Unless meeting

management procedures themselves support the more adaptive culture, other efforts to influence the culture would have a limited impact; a conscious effort on the part of top management or changemasters to alter the values of the organization would collide with traditional meeting procedures that reinforce existing values.

If the hypothesis of Ainsworth-Lands and others is correct and an inherent mismatch exists between the values carried from phase two and the values needed for success in phase three, then meetings could play a vital role in determining organizational success. In addition, if the increased rate of change is throwing organizations into a phase three bifurcation more frequently (Peters, 1987; Vaill, 1989), then the need to support and manage the change process also increases significantly. Meeting procedures may be one important element of this management effort. Teaching and using meeting management procedures that reflect the desired values can support an organization's growth during the Integrative Phase. Conversely, failing to support these new organizational values may lead to a lengthened or failed transition.

Benefits of Matching Meeting and Organizational Values

Aligning meeting procedures and organizational values, in other words, allowing organizational values to be the "soul" of the meeting, can have several implications for organizational effectiveness.

First, in organizations with appropriate (adaptive) value systems, meetings can be more efficient when there is synergy between the organizational culture and meeting management procedures. This is not to say that there needs to be a one-to-one relationship between the meeting management values and the organization's values, but rather that meeting management procedures need to be chosen with the organizational values in mind. For example, in an organization where seniority is a primary cultural concern, brainstorming sessions will lead to little success. If techniques like these must be used, then they must be positioned carefully, taking into account the perceived inequality of comments from high and low status participants.

Second, there will be times when an organization is trying to change culture, especially when an organization views itself to be in phase three. The cultural heritage of the regulated, pre-divestiture environment of many of the telecommunications companies provides an appropriate example. Many of these organizations find the need to instill new values and culture in order to compete in the new unregulated, highly competitive environment. In such cases, these organizations might use meeting management procedures that purposely conflict with the phase two organizational values, but that are consistent with the new values of the competitive environment. For example, one manager in such an organization responded by making sure each meeting ended with a discussion of how the group's decision added value for their customer. By incorporating meeting procedures that emphasize values such as customer orientation and innovation, the meeting process supports an overall strategy designed to move the organization to a new culture and value system. This cannot be accomplished in isolation. Other elements of the change process must also be included. However, without the support of meeting procedures, the culture change is more difficult.

The linking of organizational values and meeting procedures may also add a new dimension to recent theories of meeting effectiveness. Several theorists (Hirokawa, 1982; Gouran, 1982; Gouran & Hirokawa, 1983; Poole, 1983) have suggested that meeting effectiveness (specifically group decision making) is more dependent upon what critical functions are performed (e.g. a complete understanding of the problem, assessment of positive and negative consequences of the solution) than on how these functions are achieved (structured questions, free discussion). These studies, however, usually eliminate organizational culture as a variable (e.g., they use college students who are unfamiliar with each other). It is possible that the process used in conducting the meeting is more an element of cultural fitness and less a function of one process being more effective than another. Thus, all meeting procedures might be effective or ineffective, depending on the relationship between the procedure and the group's culture (and the strength of the cultural ele-

ment). This could account for some of the inconsistencies in the literature.

For researchers this suggests a strong need to begin exploring organizational values as a significant barrier to meeting effectiveness. For practitioners, it suggests that choosing a meeting management procedure needs to involve an understanding of how the organization's culture interacts with the procedure. Perhaps they need to look at how the history, culture, and values of an organization have an impact on one of the most significant set of events ocurring within our organizations: meetings.

Application Suggestions

Although readers will identify useful applications of this discussion to their own work units, the following are some preliminary suggestions for applying the link between meeting management and organizational culture.

- First, managers could work with their work units to identify and describe the organizational values they will need in order to be successful. This will not only clarify what needs to be achieved but will also build alignment within the work unit.
- Using the model presented in Figure 2, as well as the discussion provided by Poole, managers could identify those meeting procedures that emphasize the values of the culture they wish to create and incorporate those procedures into their meetings.
- The Growth Model (Figure 1) could be applied to individual work units, as well as to organizations. Managers could use the model to identify where their work units fall and gain a better understanding of the values needed for continued growth and development.

In doing so, many readers will undoubtedly discover other applications as they explore the relation between organizational values and meetings within their own work units.

Conclusion

The meeting leader, at the head of the table, her face purposeful, her whole body listening to each participant, her restless eyes jumping from one person to another. The leader is one with the group, every nerve listening, for the thumps or squeals, hums and chattering that indicate a change. She had become the soul of the meeting.

Does she hear discord, inconsistencies, and contradictions between the direction of her group and the direction of the organization? Or, does she sense the smooth running of the organizational system, each part supporting the others, consistency in values and direction? Whichever she hears may certainly determine the success, or failure, of the group or the organization with which she works.

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Technology: Ally or Adversary

by Richard A. Scudder
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The need to improve the meeting process is a long standing concern in many organizations. Many books and articles address ways in which the productivity of meetings can be enhanced. With estimates of the amount of work time spent in meetings ranging from 25 percent (Oppenheim, 1987) to 60 percent (Mintzberg, 1983), the need for effective meeting management is apparent.

One method for improving meeting management is through the use of special techniques and procedures. Perhaps one of the best known and oldest of these is brainstorming, but many others are also practiced. Although the enforcement of these procedures is sometimes difficult, their use significantly increases meeting effectiveness (Hirokawa, 1985). As Poole points out in this monograph, the use of procedures can be implemented not only through a facilitator, but also through the use of computer-augmented systems.

Most of the research done about computer augmentation of group meetings focuses on the use of computers as an aid to groups in making decisions. Researchers have identified different types of Group Decision Support Systems (GDSS). Kraemer and King (1986), for example, identified six types of GDSS: Electronic Boardroom, information center, teleconferencing facility, decision conference, local area group net, and collaboration laboratory. Meetings may be either local and face-to-face or geographically dispersed, as well as limited or ongoing (see Poole, this publication). Because much of the recent research concentrates on the use of decision rooms and how they can be used with group meeting process procedures, most of the research reported here reflects what is known about the use of that type of GDSS. This paper focuses on the potential effectiveness of these computerized meeting management systems.

Technology: Ally or Adversary?

Early findings by Steeb and Johnston (1981) showed that computer-augmented meetings that used multi-attribute software support resulted in groups exhibiting a higher level of decision comprehension and considering a wider range of options than those that did not. The groups also had a higher degree of consensus and satisfaction compared to groups that did not use computer augmentation. In contrast, Watson, DeSanctis, and Poole (1988) found that computer-augmented groups did not achieve greater group consensus or equality of influence than groups using only conventional paper and pencil support. Groups using computer support also ranked their discussions as less substantial, their problem-solving process as less understandable, and their confidence in solutions as lower.

On one hand, technology promises to make meetings more effective, efficient, and productive. On the other hand, it may interfere with meetings and distract participants from concentrating on the substance of the task at hand. Technology may simply "get in the way" and cause a group to focus on the technology, rather than on the issues. Furthermore, many groups indicate a lack of satisfaction with the use of technology, regardless of whether or not it helped them be more productive.

The What and the Where

Practitioners who want to use GDSS in their meetings should consider both the available tools that can be used in the meeting process and the environment in which those tools can be used.

GDSS Tools

Various tools can augment the meeting process. According to Vogel and Nunamaker (1990) these include

1. A **Session Director** which guides the facilitator or group leader in the selection of software to be used for agenda generation and reports.
2. An **Electronic Brainstorming** tool which supports the brainstorming technique. The tool supports simultaneous and anonymous sharing of ideas and comments.

3. An **Issue Analyzer** which helps group members identify the key issues on which to focus. External information can also be added for consideration.
4. A **Voting System** which allows the group to use methods such as a Likert scale, rank ordering, or multiple choice to prioritize ideas. Both graphical and tabular forms of reporting may be supported.
5. A **Policy Formation** tool which supports the development of policy or mission statements.
6. A **Stakeholder Identification and Assumption Surfacing** tool which systematically guides the group in identifying the implications of their assumptions about specific plans or policies.

In addition to these, the following tools may also be used:

7. An **Electronic Bulletin Board** or electronic chalkboard that collects and summarizes data from the group and then presents it for all to see.
8. A **Local Area Network** which connects all terminals so that group members can exchange information and use other tools.
9. A **Wide Area Network** which allows geographically dispersed members to participate as a group. One example of a wide area network is an electronic bulletin board system such as *CompuServe*.

Possible GDSS Environments

Straub and Beauclair (1988) reported that 30% of the organizations surveyed were using or planning to use GDSS. Of the respondents, 19% were using interfaced conferencing in which meeting participants held a conference via the computer at remote and/or local sites; 10% were using decision rooms in which participants used terminals or nodes in a conference room to assist in group decisions; and 4% were using teleconferencing with conference rooms at remote sites linked with video and telecommunications links. They also reported that a greater percentage of those without any kind of GDSS planned to introduce interfaced conferencing rather than decision rooms primarily because of the costs. With this level of interest in the use of GDSS, it is important to examine the conditions that can make GDSS useful or not.

Several variables can affect group meetings. Gallupe and McKeen (1990) and Vogel and Nunamaker (1990) classify the variables in the following ways:

Gallupe & McKeen (1990)	*Vogel & Nunamaker (1990)*
1. Stage of computerization	1. Group characteristics
2. Management policy	2. Task characteristics
3. Particular task involved	3. Context of the task
4. Existing organizational structure	4. The technology used
5. Amount of user experience with the system	5. The work group environment
6. The type of system used	

Perhaps the most useful way of viewing the factors that affect meetings is through a chart developed by Kraemer and Pinsonneault (1989):

Figure 1

Contextual Variables	Group Process Variables	Task/Group Outcomes
Personal Factors Attitude Abilities Individual motives Background **Situational Factors** Reasons for group membership Stage in group development Existing social networks **Group Structure** Work group norms Power relationships Status relationships Group cohesiveness Density (group size, room size) **Technological Support** Degree Type Anonymity Facilitator **Task Characteristics** Complexity Nature Degree of uncertainity	**Decisional Characteristics** Depth of analysis Participation Consensus reaching Time to reach a decision **Communication Characteristics** Clarification efforts Efficiency of communication Exchange of information Nonverbal communication Task-oriented communication **Interpersonal Characteristics** Cooperation Domination by a few members **Structure Imposed by Technology**	**Characteristics of the Decision** Quality Variability of quality over time Breadth **Implementation of the Decision** Cost Ease Commitment of group members **Attitude of Group Members Toward Decision** Acceptance Comprehension Satisfaction Confidence **Attitude Toward the Group** Satisfaction with group Willingness to work with group in the future

Kraemer and Pinsonneault (1989)

Although all of these variables obviously can affect the impact of the technology on the meeting process, too little research has been done to identify the impact of the technology on each of the variables. For that reason each of the following broad categories will be discussed:

- Contextual Variables
- Group Process
- Task/Group Outcomes

Contextual Variables

Behavioral research into groups indicates that five contextual variables appear to be important influences in meetings: personal factors, situational factors, group structure, technological support, and task characteristics. The components of each of these factors are outlined in Figure 1.

Ellis, Rein, and Jarvenpaa (1990) compared groups meeting in several different environments. One group used either an electronic bulletin board that allowed list making and free-hand drawing or a set of electronic workstations that allowed the use of electronic notepads for list making, communication between the participants, and comments from the leader. The other group had none of these electronic aids. The highest quality solutions were generated in the electronic bulletin board environment, while the lowest quality solutions came from groups using no computer augmentation. In spite of that, however, members of the first group were frustrated with the complexity of the computer-augmented environments and generally had more negative than positive comments about the use of the technology.

A note of caution should be sounded about the comparison of groups across different contextual variables, however. In their earlier study, George, Easton, Nunamaker, and Northcraft (1988) report that most of the information exchanged during a GDSS session was electronic in form, while Jarvenpaa, Rao, and Huber (1988) report that 89% of all messages were verbal during the GDSS

experimentation carried out by their group. Furthermore, George (1989) points out that the first set of sessions were carried out using the University of Arizona Plexsys™ system, which rigidly controls the manner in which communication is sent, while the second set of sessions was carried out using a much more flexible system, including electronic bulletin boards and other network technologies. Although there were differences in the tools used, both of these studies found that the use of GDSS technologies tends to keep the group focused on the task at hand.

If the procedures are carefully controlled, decision-making meetings can even be carried out non-simultaneously. For example, one member can provide input on Monday morning, while another might not provide it until later in the day or week. In an experiment using a teleconferencing system, Hiltz, Johnson, Aronovitch, and Murray (1980) showed that:

1. There is no difference in the quality of a solution reached between simultaneous and non-simultaneous decision-making sessions.
2. Face-to-face groups are more likely to reach consensus on a decision.
3. Dominant individuals are more likely to surface in face-to-face groups.

Smith and Vanacek's (1989) research points out that the use of non-simultaneous meetings is less effective because it tends to inhibit the sharing of information. People get frustrated with delays, and, if they don't react immediately to ideas, they lose their focus. In addition, if no one takes the initiative to integrate ideas, the possibility of consensus is delayed or eliminated completely.

Based on the current research, some conclusions can be drawn about the effects of GDSS on contextual variables:

1. GDSS focuses the efforts of the group on the task.
2. GDSS increases the group's overall level of effort put into the decision process.
3. GDSS increases the likelihood of reaching consensus but only if carried out in a face-to-face meeting. It decreases decision-making if carried out in non-simultaneous meetings.

PLEXSYS *is a registered trademark of the University of Arizona.*

4. In all but the smallest percentage of meetings, GDSS increases participants' satisfaction and confidence in decisions.
5. In all types of meetings, GDSS increases the quality of decisions as compared to those made in meetings that did not use GDSS.

Group Process Variables

Group process variables affecting meetings include decisional characteristics, or the way in which decisions are made within a group. These include the depth of analysis made, the amount of participation in the decision-making process, the ability of the group to reach consensus, and the time it takes a group to make a decision.

Another group process variable is communication. Communication characteristics include the efforts made by the group to clarify communication, the efficiency of the communication, and the amount of information exchanged. Other critical components include nonverbal communication and the percentage of time that the group remains task-oriented.

Gallupe et al. (1988) used experimental groups to determine the effect of GDSS on the decision-task difficulty. The groups used a GDSS room, alternatives generation, ranking of alternatives, and voting support software. The results showed that the decision quality is enhanced when a GDSS is used, especially for high quality difficulty. Gallupe also found that decision time was not affected by the use of computers but that participants were less satisfied and had less confidence in the computer-augmented environment than in a traditional one.

In looking at the impact of GDSS on the depth of analysis performed by groups, Steeb and Johnston (1981) found that the use of GDSS improved the analysis performed, a finding echoed later by Vogel, Nunamaker, Martz, Grohowski, and McGoff (1990). Vogel et al. reported that the effectiveness of groups using GDSS increased, as measured by the fact that groups were more likely to meet the criteria outlined by the session leader. Groups were also more likely to report that they felt the GDSS sessions were more effective.

Jarvenpaa et al. (1988) reported that another positive aspect of the use of GDSS was the increased level of communication. Although the level of communication tended to be higher in groups using electronic bulletin boards than in those using local area networks, the percentage of communication devoted to task behavior was much higher in both cases than in groups not using GDSS.

One major problem discussed by many researchers of meetings is dominance by certain members of the group. This limits the generation of creative ideas and decreases the effectiveness of the group. The studies by Zigurs, Poole, and DeSanctis (1989), Lewis (1982) and Easton (1988) show that the use of GDSS can significantly reduce domination in meetings. Other reports such as those by Gallupe et al. (1990) and Beuclair (1987) have shown no effects on dominance by GDSS.

One area where there is little consensus is the effect of GDSS on time. Vogel et al. (1990) reports a negative effect with GDSS increasing the amount of time needed to reach a decision. Steeb and Johnston(1981) concluded that a GDSS had a positive effect on time, while Sharda, Barr, and McConnell (1985) found no effect at all on time.

In summary, GDSS affects group process in the following ways:

1. GDSS increases the depth of analysis on a decision.
2. GDSS increases task oriented communication and clarification efforts by members.
3. GDSS limits the degree to which certain members dominate the meeting and tends to increase the breadth of participation.
4. GDSS has an inconsistent impact on time.

Task/Group Outcomes

Task/group outcomes are the final set of variables affecting group meeting behavior. The first of these variables focuses on the characteristics of the decision, including the quality of the decision, the variability of that quality over time, and the breadth of the decision. A

second variable is the implementation of the decision. Within this variable researchers may look at the cost of the decision, the ease of arriving at that decision, and the commitment of the group members in seeing the decision implemented.

A third task/group variable is the attitude of the group members toward the decision. This includes the level of acceptance of the decision by group members, how well they comprehend the decision, their satisfaction with the decision, and their level of confidence in it. The final variable, the attitude of the group, includes the satisfaction of group members with the group as a whole and their willingness to work with the group in the future.

Bui and Sivasankaran (1987) investigated a GDSS environment that allowed groups to generate solution criteria, establish decision weights, and aggregate inputs for a final outcome. A human facilitator was also available to help manage the process. Decision quality in the computer-augmented groups was superior to the traditional groups for high complexity tasks, while researchers found no difference for lower complexity tasks. The computer-augmented groups reported lower satisfaction with low complexity tasks than did the traditional groups.

Sharda et al. (1985) investigated the use of GDSS with tasks of medium complexity and uncertainty, while Steeb and Johnston (1981) investigated tasks of high complexity and uncertainty. Both found that GDSS increases the confidence in decisions and the quality of decisions.

A set of studies carried out by Vogel, Nunamaker, Martz, Grohowski, and McGoff (1990) in conjunction with IBM investigated both the process of using a GDSS and the outcomes of that process in terms of effectiveness, efficiency, and user satisfaction. These studies showed that the GDSS equalizes participation and that users found it to be a better method of idea generation, issue identification, and goal achievement than a non-augmented method.

Vogel et al. also found that the GDSS saved time and was more efficient than a non-augmented method. The studies also indicated that the users of the GDSS were satisfied with its use.

On the other hand, studies by Bui and Sivasankaran (1987) and George et al. (1988) found that the use of GDSS had no effect on satisfaction, while Watson (1988) found a negative effect. GDSS's effect on Task/Group outcomes can be summarized as follows:

1. GDSS increases decision quality as task complexity increases.
2. GDSS increases group participants' satisfaction and confidence in decisions.
3. GDSS increases participants' satisfaction with the group process.

Conclusions

The research into the impact of GDSS on meetings is both substantial and spotty. Researchers are unsure of the effects of GDSS in many areas, while in other areas, they have clearly outlined those effects. Figure 2 is designed to summarize some of those effects. The chart defines the effects of some of the tools on significant variables in group decision making. If there is a known positive effect by one of the tools (brainstorming, voting, electronic bulletin board, local area network, or wide area network), a plus (+) is recorded in that cell. If the tool is known to have a negative effect, a minus (-) is recorded. If there is no substantiated effect, then the cell remains blank.

Figure 2

	TOOLS				
EFFECTS	**Brainstorming Tool**	**Voting System**	**Electronic BBS**	**Local Area Network**	**Wide Area Network**
Task Focus	+	+	+		
Task Effort	+	+	+		
Satisfaction with Task		+	+		–
Consensus Building		+	+		
Quality of Decision		+	+		
Quality of Analysis					
Task Oriented Communication			+	+	
Single Member Domination	+		+	+	+
Participation	+		+	+	+
Decision Time			+		–
Satisfaction with Decisions			+	–	–
Confidence in Decision			+	–	–
Satisfaction with Group			+	–	–
Size of Group Allowed	+		+	+	+

As the figure shows, there are far more known positive effects on group decision making than there are known negative effects. The brainstorming and voting system tools can help in creating better task focus and better task effort on the part of participants. The use of an electronic bulletin board and the voting system help in consensus building, the quality of decisions, and the quality of analysis. The main negative effects seem to emerge when groups are geographically or locally dispersed, as can be seen in the effects of local and wide area networks. In conclusion, technology can be an ally in conducting more efficient, effective, and satisfying meetings if its use is carefully planned and monitored.

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Meetings in an Academic Setting

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"Committee—a group of men [sic] who keep minutes and waste hours."

—Milton Berle

There is probably little difference between the frequency and the length of time spent in meetings in academia and in the corporate world. Because of an increased need for participation and productivity in both arenas, the opportunity is ripe for the application of procedures that will result in effective and efficient decision making.

Like those in business and industry, members of the university community cannot ignore Poole's premise in this monograph that following appropriate procedures or following the spirit of those procedures will increase the value of meetings. It is not that universities ignore established or typical meeting procedures, but rather it is that they are challenged to fit the appropriate procedure to the necessary task.

The Positive Side of Procedures

Poole (see this publication), in his review of the literature, provides evidence that procedures help groups perform better and that adopting the right procedure can influence meeting effectiveness. He further discusses the short-comings and tendencies that groups display when no conscious effort is made to establish and accept procedures. To understand the implications of proper procedural applications to meetings in a university setting, a list of formative outcomes that will result if meeting managers implement appropriate procedures is offered. These outcomes can lead to a measurable difference in the quality of the results in meetings at all levels.

A good match between procedures and the type of meeting or task does the following:

1) Coordinates the thinking of group members,
2) Provides a set of ground rules perceived as "objective,"
3) Protects groups against their own bad habits,
4) Capitalizes on the strengths of the group,
5) Provides balance to members' participation,
6) Allows conflicts to surface and become more manageable,
7) Fosters a sense of closure,
8) Encourages groups to reflect on their meeting process, and
9) Tends to empower the group.

Unfortunately, the power of the positive thinking generated in this list does not eliminate all of the barriers to addressing procedures adequately. The pressures of time, the level of confidence in a leader, the comfort participants may have with prior meeting patterns, and impatience with "undue complexity" of procedures all work against the application of new procedures. Whether these barriers exist in greater proportion in academia or industry may be debated, but there is little doubt that they exist in good measure within the university environment.

Walker (1979) made some helpful observations about general procedures and the effectiveness of committees at the time he was president of Southeastern Massachusetts University. He encouraged that, early in the problem-solving process, committee members be polled about their willingness to tackle a problem. He believed that this should be a priority, second only to clarifying the problem and establishing some expectations, all of which are critical elements of procedures. Walker also cautioned about the possibility of a committee developing an artificial sense of sovereignty. Committee members need to consult with others during the process to counteract the effects of isolation.

A Traditional Structure of Meetings in Academia

Participative governance in academia is preferable to the abdication of leadership and development responsibilities to a benevolent or purely consultative administration. Participative governance is founded in the belief that those who perform the work understand it best and want to have a role in shaping their own destiny while contributing productively to the mission of the university.

As an example, the faculty at Bowling Green State University (BGSU) function much like faculty in other colleges and universities—when they are not teaching or writing, they are often in meetings. The faculty at BGSU is not unionized, and a three-decade tradition of a strong participative governance model has resulted in a representative Faculty Senate. This Faculty Senate operates from an Academic Charter (Bowling Green State University, 1988), and there is one elected senator for every ten full-time faculty members on campus. The Faculty Senate has divided the committee structure of the university into 28 standing committees. These range in name from "Academic Facilities Utilization & Planning" to "University Union Advisory," and in size from three to twelve members.

Collegiate and departmental/school standing committees, as well as ad hoc committees, reflect a similar size. Committees in academia are often set up to have "several" members, or "representatives," many of whom have diverse points of view. By charter, the minimal size of a university-level committee at Bowling Green is three. The average standing committee is five. This restriction is not incumbent upon colleges, departments, or other organizations.

Borrowing from Robert (1970) and others, one can identify five types of groups that exist in a typical university:

- Deliberative assembly
- Coordinative group
- Standing committee
- Ad hoc committee
- Emergent group.

Poole discusses eight common procedures that meeting managers can use, and he states that "procedures show decisive benefits, yet many groups are reluctant to use them." He adds that although procedures improve meeting effectiveness, following them often makes people uncomfortable. This is not surprising, as conventional meetings allow a person to "opt out" in a variety of unobtrusive ways. Many people become adept at surviving meetings rather than contributing in productive ways. And so, if the goal is to increase productivity and participation during meetings, it is essential that appropriate procedures be used to increase meeting effectiveness. The following matrix (Figure 1) focuses on the five types of groups inherent in academia and rates the eight procedures according to their applicability to the type of group.

Figure 1

APPLICATIONS OF PROCEDURES IN RELATION TO GROUP CONTEXT

PROCEDURES / TYPICAL UNIVERSITY GROUPS	Robert's Rules of Order	Brain-storming	NGT	MDA	Hall's Consensus Rules	Devil's Advocate	Synectics	Delphai Technique
DELIBERATIVE ASSEMBLY	H	L	NA	L	L	L	L	L
COORDINATIVE GROUP	M-H	M	L-M	M	M	L-M	L	L-M
STANDING COMMITTEE	L-M	M	M-H	H	M-H	M	L-M	L-M
AD HOC COMMITTEE	L	M	H	H	H	M	M	L
EMERGENT GROUP	NA	H	M	L	H	M	L-M	L-M

H = High M = Moderate L = Low NA = Not applicable

Deliberative Assembly

This term was used to describe the English Parliament in the mid-1770s. Just one hundred years later, General Henry M. Robert submitted his manuscript for the "Pocket Manual of Rules of Order for Deliberative Assemblies" to a Chicago publisher. The publisher called this *Robert's Rules of Order.* The result was the applica-

tion of parliamentary law outside of congressional halls to societies and assemblies of any size. Four primary types of deliberative assemblies are described in *Robert's Rules of Order:*

1) The mass meeting of an unorganized group called together for a particular purpose with a view to appropriate action;
2) The assembly of an organized society, particularly at the unit or local level;
3) The convention of delegates conducting periodic business of an organized state or national society; and
4) The legislative body of a public law-making body. (Robert,1970)

The operations of faculty governance have been influenced heavily by the underlying principles of parliamentary law and the convenient application of Robert's Rules of Order. The application of Robert's Rules of Order that increases the effectiveness and efficiency of the deliberative assembly of the university (Faculty Senate) actually has the potential of limiting the efficiency of other meetings in which the business of the university is conducted. Poole reiterates a common view that Robert's Rules are too complex and are easily manipulated. Nevertheless, Robert's Rules of Order appear to be the default mode of procedures in most university meetings.

In many cases the flexibility that is inherent in smaller committees is not fully realized when they follow Robert's Rules of Order. Robert's Rules of Order makes a general exception for groups smaller than a dozen people for the purpose of increasing efficiency. For example, motions need not be seconded in a small committee (p. 28). Although meeting leaders are often reluctant to appoint sub-committees or micro-groups, in reality, the common dictionary definitions of committee, as well as the Robert's distinction, recognize the legitimacy of a committee of one.

The most visible deliberative assembly in the Bowling Green setting is the Faculty Senate. However, when

larger departments or colleges meet to conduct business, they also fall into the category of deliberative assembly. Robert made the general distinction that as groups become smaller (with fewer than 12 members), the flexibility within the rules is appropriately increased.

By definition, a deliberative assembly should be most effective when using a procedure like Robert's Rules of Order. However, the group might also improve its productivity if a conscious effort is made to apply structured procedures at the standing committee level. Chairs of these operational committees could be encouraged to use more appropriate methods, such as the Nominal Group Technique, Multiattribute Decision Analysis, and Hall's Consensus Rules. This would tap the expertise of committee members and foster more participation without the reliance on Robert's Rules of Order.

Coordinative Group

Typical examples of a coordinative group in academia include a university board of trustees, a steering committee, an advisory committee to a degree program, or a foundation or development board. Such groups have advisory or direct responsibility for coordination, control, supervision, and direction of staff or other structured sub-groups, including operational committees.

To be most effective, coordinative groups should first look to Robert's Rules for a basic structure but then agree to be highly flexible, especially if the group is small and manageable (12 or less). At every opportunity the group should move to a consensus basis. If matters are less than routine, the group should experiment with brainstorming and other structured procedures. Such procedures often result in broader member participation and a sense of thoroughness and confidence in the decisions and recommendations the group makes.

Operational Committees

Operational committees are part of the formal structure of both the educational system and the professional associations within that system. The category of opera-

tional committees is more easily pictured as being comprised of both *standing committees* and *ad hoc committees,* sometimes referred to as task forces.

The standing committee can involve such areas as research, ways and means, strategic planning, finance, or literally dozens of operational and personnel operations in a university. This type of committee reflects the governance structure of the larger group (either coordinative or deliberative) that it serves. It often has a representative, democratically elected membership.

Because of the makeup and small size of the committee membership, a meeting manager would want to rely even less on Robert's Rules except for the recording of final actions. The use of consensus techniques can also be particularly efficient with a very small group here. Experimentation with procedures that allow members to share input and deliberately consider ideas can be of value. Consequently, the meeting manager should be open to a variety of methods, including judicious use of the Devil's Advocate. Nominal Group Technique is certainly applicable for many agenda items in operational committees.

The ad hoc committee, or task force, is designed to solve a problem or complete a project and then be disbanded. The committee has a more diverse structure and is often appointed with the sanction of a standing committee or a coordinative group. Often, the ad hoc group is a subcommittee of the standing committee, a coordinative group, or, on occasion, a deliberative body. The ad hoc committee can be augmented, however, with appointees chosen for their talents related to a particular task or because they are an essential communication link with another academic unit.

Because of this, ad hoc groups face their own unique challenges. Using the most efficient methods to address specific problems and issues calls for a results-oriented approach. One of the sins of academia is naming an ad hoc committee and never witnessing its closure. If Hall's Consensus Rules will facilitate closure, then the group should apply them without delay. A variety of methods can work with ad hoc groups under the direc-

tion of even the most moderately talented and experienced meeting manager. Formal rules of order are insignificant in meeting most challenges of a task force. Instead, the group should be willing to experiment with other structures in order to complete their task. As in all cases, the group should agree on the procedures in advance and then at least adhere to the spirit of the agreement. As a generalization (always dangerous), one can observe that the techniques of meeting management most appropriate for a large deliberative assembly may have less opportunity for appropriate application in small task oriented groups.

Emergent Groups

Emergent groups are not connected with any formal line or staff relationships to other group structures within an organization, but they must be recognized, especially in academia. Educational systems and professional associations have members who detect developing problems with an acute sense of responsiveness sometimes not existent within the formal group structure. "Professionals who sense problems to be solved and tasks to be accomplished seek out colleagues for debate and support in clarifying issues and proposing tentative solutions. This is the level where proposals are born and assessments are made" (Horton, 1983). Examples of emergent groups include participants of mentoring sessions or breakfast discussion groups, a group of advisors, or a group of concerned faculty. Emergent groups are as important in the academic setting as a "skunk works" or any relatively unrestricted team of innovators is to the corporate world. They provide spawning beds for change and the opportunity for creative leadership.

Because of their innovativeness, emergent groups can use face-to-face meetings, as well as electronic interchange. All methods, with the exception of Robert's Rules of Order, are potentially effective. Meeting managers should remember, however, that some structure yields more dividends than no structure. As meeting managers shift from the traditional formal mode of deliberative assemblies to the creative mode of emergent groups, they increase the opportunity to suggest, encourage, and facilitate the use of more appropriate structures to meetings.

Opportunities for a University

In the contemporary setting, faculty members want a visible influence in the governance system. Traditionally, they have been most involved in the curriculum building and approval process, as well as with the peer review aspects of tenure and promotion decisions. Increasingly, there are opportunities for involvement in other personnel decisions and operations within the university. The result will be more faculty time being devoted to committees and meetings. Administration is involved continually in meetings. If classes were included in an operational definition of meetings, then the essential business of a university truly would be meetings.

The accepted roles of contract responsibility for faculty are teaching, research (scholarly productivity), and service to the university community and profession. Most meetings fall in the service area. One of the complicating factors for faculty members is that the service area demands an increasing proportion of time (especially for the smaller academic units), yet faculty members are rewarded proportionally less for service. Consequently, a system of meeting procedures that takes planning time, results in greater personal discomfort, is potentially more expensive and even slower, in an area of activity that promises fewer rewards, will likely meet glowing resistance. Indeed, the strategic barriers to acceptance of change in planning and procedures for the conduct of business in the academic arena are formidable.

Long Term Scholarly Potential

In spite of potential resistance, addressing the barriers to improving the procedures of meetings can be rewarding to the academic community. The topic does not have the surface appeal of a new technology, political issue, or economic bonanza, but in the long run it could contribute heavily to the effectiveness of human interaction and the quality of life. There will be a continued need for both basic and applied research on theories of communication systems and techniques of decision making. This is not in the exclusive domain of any single discipline, but certainly specialized programs of organizational communication, psychology, management information systems, organization development, and human resource management, among others, will take leadership roles in research and development. Yet,

the practice of improved effectiveness and efficiency of meetings is one in which all disciplines have a vested interest. This includes the applied sciences and technologies, as well as a variety of professional degree programs. In the quest for effectiveness and efficiency of meetings, there should be ample opportunities for research at all levels of sophistication from undergraduate, through graduate, faculty, and interdisciplinary teams. As the potential benefits gain more visibility, the occasion of funded research grants will be more likely.

Development

If one can make a useful distinction between research and development, a university with professional schools in business, education, human services, and other areas can produce practical knowledge in the development and testing of systems and materials used to convert theory into practice. The computer software, manuals, visual communication media, and references, and the marketing of such materials and devices is appealing to many university faculty.

Service and Application

As universities become more aware of emerging roles in economic development of the broader community, a new set of opportunities arises. Universities, communities, and private enterprise are all collaborating to enhance economic development. Universities are now involved in establishing industrial and business parks. Not making a purely altruistic gesture, universities jump on the chance to define "laboratory" in an unlimited context. When a university provides land for economic development with one of the stipulations being that there will be opportunities for faculty and students to participate in research, development, internships, cooperative education, practicums, training and the like, there are obvious, strong implications for programs that delve into effective meeting management. The importance of improving the productivity and the quality of results becomes especially important when academia and private enterprise collaborate.

In the Classroom

Many class settings can be easily conceptualized as a form of meeting. The greatest implications for applica-

tion of appropriate meeting procedures are in classes that employ seminar types of discussion or a problem-solving and team-consulting approaches. Both are particularly common in graduate programs. The following premises discussed by Poole are appropriate here:

- Tailor the process of interaction to the needs of the group;
- Make sure the class understands the agreed upon format of input, discussion, and clarification;
- Get the class interested in its own processes; and
- Set reasonable expectations for outcomes.

Application of practice with the potential for higher quality of results in consensus and decision making in groups establishing appropriate procedures is certainly germane to the delivery of instruction if the class is viewed as a structured meeting. The lesson of example is not to be lost. Students are sensitive to process and will benefit from experiencing appropriate procedures in both the classroom and the laboratory setting.

Experienced professors usually recognize the importance of conveying to students the interaction processes that are expected in a class. The novice instructor can benefit from professional development that points out that the time spent on such processes is less important in the classroom than the value it adds to the educational experience. Too often, the inexperienced instructor feels the pressure to "cover the content," regardless of clarification and comprehension needs. Individual thinking and adherence to the spirit of procedures will enhance the quality of the products resulting from the classroom experience. Improved learning as a product of applied meeting procedures is a worthy university goal.

In Student Services

Although students are in formal classes for only a few hours per week, they are usually involved in many activities and work-related affairs that are heavily affected by meetings. This is especially true of students who reside on campus. The infrastructure of student affairs is often an element foreign to faculty. However, the residence hall

system; Greek life; intramural sports; student governance; professional, social, cultural activities; and many more elements demand more meeting time than the salaried professional realizes. In fact, since the late 1960s, universities have placed additional responsibilities of meetings on the students by requesting (and valuing) student positions on groups ranging from curriculum committees to search committees to boards of trustees. Learning in a university has never been isolated within the classroom. The question of what students are learning about effectiveness and efficiency of meetings in the total context of the university remains to be answered.

Clearly, there will be an increasing opportunity to apply new communications technology to the increasing demands of meetings in an academic setting. The continuing application and research in group decision support systems (GDSS), which combine computer, communication, and decision support technologies, will bear close attention. GDSS research and development continues at centers in places such as the University of Minnesota and the University of Arizona. At Minnesota the Software Aided Meeting Management (SAMM©) system promotes participative decision making in groups of 3 to 16 persons. At the University of Arizona, PLEXSYS™ has other variables and can be applied with larger groups and a facilitator (see Poole, this publication). Electronic meeting systems (EMS), which some researchers view as a more generic term, are addressing applications much broader than problem solving and decision making. These systems focus on communication and transcend time and space.

An academic setting is more than a place to conduct research and development about increasing the effectiveness of decision making and the efficiency of meetings; it is a place to experiment with applications of systems and technology which may improve productivity and services. The university provides a unique opportunity to research, develop, apply, and practice the latest and

most appropriate systems and supporting technologies, as well as the procedures that have existed for many years. The commitment to improve quality and productivity remains a formidable challenge, but the goal is compatible with sound educational practices.

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Section 3

Changing Organizations and Meetings

One Hundred Percent Participation: Key to Team Effectiveness

by Timothy R. McClernon, Technologies and Resources for Management

Many companies are turning to self-directed work teams to perform work as units rather than using more traditional hierarchical and individualized work designs. These teams create results and respond to change more effectively and productively than people working in the traditional structures (Orsburn, Moran, Musselwhite, & Zenger, 1990). Members of successful teams and the leaders of those teams require different skills than people involved in traditional work structures; they must find new ways to make decisions and delegate work assignments.

Team operations involve issues such as the speed of decision making, the ability to change course mid-stream, the documentation of decisions and outcomes, decisions about whom to include on the team, and ways of handling team members who are separated by large distances. The key to effective teams is the full participation of each member in the team process. Consequently, management's role changes from one of being a traditional manager to being a process leader. Effective team management focuses on the team process as much as on the team results. As a result, the degree to which a process leader is focused on how results happen may be critical to a team's effectiveness.

Recent advances in information technology applications for meetings represent a new resource to team leaders. This technology has been defined in a variety of ways, e.g., as Group Decision Support Systems (GDSS) (see Poole, this publication) or Electronic Meeting Systems (EMS) (Dennis, George, Jessup, Nunamaker, & Vogel, 1988). GDSS frequently refers to integrated computer-based systems that are used to facilitate group processes with groups involved primarily in decision making. EMS is a broader term involving any application of information

technology used to enhance team process, including not only decision-making tools associated with GDSS, but also the broader spectrum of communication systems that link team members together across time and space. EMS is defined as

> An information technology-based environment that supports group meetings, which may be distributed geographically and temporally. The IT environment includes, but is not limited to, distributed facilities, computer hardware and software, audio and video technology, procedures, methodologies, facilitation, and applicable group data. Group tasks include, but are not limited to, communication, planning, idea generation, problem solving, issue discussion, negotiation, conflict resolution, systems analysis and design, and collaborative group activities such as document preparation and sharing (Dennis, George, Jessup, Nunamaker, & Vogel, 1988).

As with Poole, the term *GDSS* will be used to include decision-making technologies, as well as all aspects defined within the term *EMS*. GDSS can influence various factors affecting participation of members in the team process, thus moving work design closer to one in which there is indeed full participation of each member.

Why Is Participation Important?

Effective participation may increase members' commitment, their effectiveness in making decisions, the speed with which they recognize and solve problems, the satisfaction they have with the decision-making process, and their understanding of the process through which decisions are made.

Increased Commitment

When team members contribute to a project's outcomes, they are more committed to its success than if the project were thrust upon them and the outcomes determined without their full involvement. The outcomes become their own creation, a result of their own work. In contrast, when a leader tells the team what to do or dictates the decision, the team members may or may not buy in.

If the decision later proves unsuccessful, it is not their fault, but that of the other people who actually made the decision.

Increased Effectiveness
Another belief is that better decisions will be made if more people are involved, or, as the adage goes, "Two heads are better than one." In complex decisions requiring more perspectives and expertise than any one person might have, a team effort is more likely to create a successful outcome. One person working alone might overlook an important aspect of a decision. A team has multiple people who can readily respond to various contingencies and catch oversights, allowing the team to make appropriate corrections during the decision-making process.

Increased Speed/Efficiency
When people actively participate in the decision-making process, problems can be identified earlier. Instead of important information being concealed, it is readily brought to the attention of the team as a whole. This allows a team to determine a workable solution faster. In addition, members can assist the team in addressing the most important problems first and in finding and implementing more timely solutions to those problems without being sidetracked by less important problems.

Increased Satisfaction
When people participate in the decision-making process, they are likely to experience a sense of satisfaction with the process. When a member makes a suggestion that is incorporated into the team's final outcomes, the member feels more important and valued. On the other hand, when a member participates in a meeting where certain members don't allow all the people to speak, there may be a dissatisfaction with the fact that the non-speaking members were not listened to or encouraged to participate in the meeting.

Increased Learning
When people participate in teams, they learn the process by which decisions are made. At the first level, members are performing the work of the team. At the same time, at the second level they are learning the process of working as a team. If the team were to disband, they

would know more about operating on another team or perhaps how to start and facilitate another team. This "second-loop learning" increases the team's effectiveness in dealing with future challenges. The best process leaders do not just solve immediate problems, but they develop and train the people around them to solve future problems on their own.

What Is Participation?

Participation, as defined here, is the behavioral involvement of someone in a team process. As such, it does not include the cognitive activities of team members. A participant may have a wonderful idea about a project, but until that idea is communicated to someone else, there is no participation. Members participate by certain observable behaviors that are interpreted as active participation, e.g., speaking, nodding, responding, or generating a report. Participation is communication and involves two parts: the sending of messages (speaking and writing) and the receiving of messages (acknowledging and listening).

A common complaint about working together is, "If we could only communicate better, we could accomplish so much more." Communication is the key component of participation in work teams. When team members communicate their knowledge and concerns in a meeting, they participate. The team uses the ongoing communication of team members to move the team ahead.

Participation can focus on *how* work gets accomplished, as well as on *what* must be accomplished. Member participation can be equal or unequal in terms of the quantity of involvement: the number of words members uttered, the number of times they spoke, how clearly and succinctly they stated what they had to say. These are process issues. Participation can also be viewed in terms of quality: how valuable members' input was in terms of moving the team toward its objectives or how accurate the data the member provided was. These represent content/task issues.

Ideal Levels of Participation

Most participation in meetings is far from ideal. The norm in virtually every meeting is unequal participation. One way to consider various levels of participation might be across two dimensions of quantity and quality. Quantity involves the amount of communication given by a member of a team relative to the other members. Quality of participation is based on the importance of a member's communication in terms of moving the team toward its objectives. As such, the participation of members of a group can be represented by the following figure.

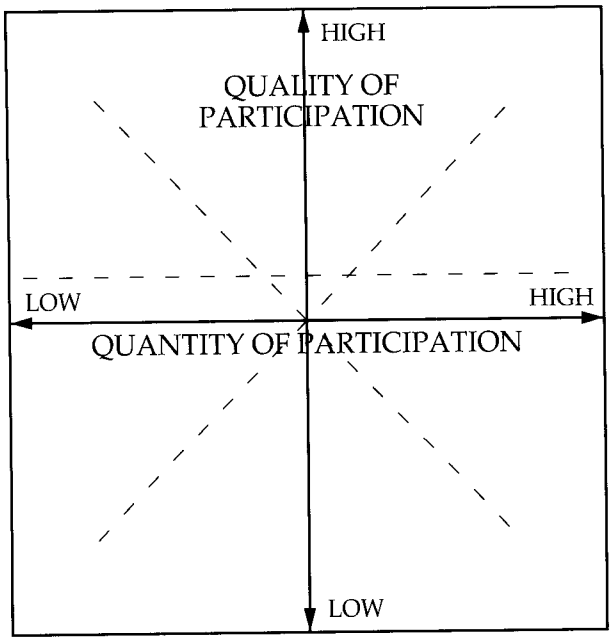


Figure 1
Levels of Participation

The various types of members in a team now could be identified as follows:

1. The upper right quadrant would be members who over participate in a meeting. The quality of their contributions, however, is higher than average. Examples of an individual who may end up in this quadrant are a high involvement team leader or an

individual who dominates the conversation but has good ideas.

2. In the upper left quadrant would be members who clearly have something of value to contribute, but who, for whatever reason, do not maintain a proportionally active role in the group process. Members who may end up in this quadrant are shy, unassertive members, as well as the manager who lets the team process continue without his or her input and then pronounces an effective solution to the issue at hand.
3. In the lower left quadrant are the members who have less of value to contribute to the team and who also participate less. These members may be hard to separate from those in the quadrant above. After all, the wisdom of silence is that no one knows how much you don't know.
4. In the lower right quadrant are the individuals who do not necessarily have much of quality to contribute, but who are overly involved in terms of the quantity of their participation.

An interesting question about this classification of meeting participants is, "What would the ideal meeting look like?" Is the ideal meeting one in which everyone contributes equally, regardless of value, so that everyone would be represented on a vertical line along the y-axis? Or would the ideal meeting be represented by a diagonal line from the upper right to the lower left quadrant? In this case, those individuals with the highest quality contribution would participate the most and the individuals with the lower quality contributions would stay out of it. And would the opposite line, one going from the upper left quadrant to the lower right quadrant, then represent the worst kind of meeting? Examples of this line would be the bosses who make their own decisions after all members have had their say, or the meeting that is overrun by a few dominating members who lack resources critical to moving the team's efforts forward.

In theory, the ideal team would allow for every person having equal participation in the team process. Although there may be disproportionate abilities among members, a team may only be as strong as its weakest link. Allowing every member to participate equally in

the process would develop the weaker members of the team, increasing the long-term effectiveness of the team. At the same time, more experienced members of the team could influence the outcome of the process based on their proportionate participation in the process. It is doubtful they would require a greater quantity of participation, but because the quality of their participation would be higher, better outcomes would result.

Barriers to Participation and Potential Impact of Group Decision Support Systems

What causes people to participate differently on teams? Why do some people participate naturally and fully, while others hold back and need to be drawn out? Personal, interpersonal, and structural factors that influence how people participate have been identified. Personal and interpersonal factors are the people issues that influence team members' levels of participation. These issues arise out of the members themselves, or arise out of the interaction between members. Structural factors are those aspects of the team meeting that are not personal in nature, but arise out of physical and technical aspects of the team meeting.

All of these factors can work to influence team effectiveness (Figure 2). Fortunately, the use of electronic meeting technologies, identified as Group Decision Support Systems (GDSS), can affect each factor. The technology will either help the team to overcome the limitation of the factor, or it will actually work against the team's effectiveness by accentuating the factor.

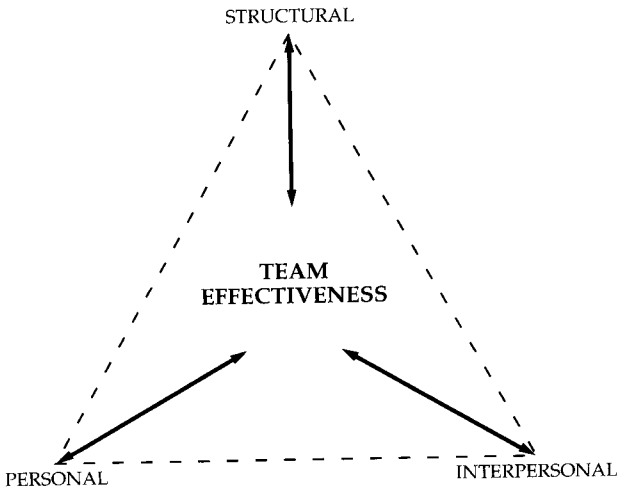


Figure 2
Overview of Key Factors Influencing Team Effectiveness

Personal and Interpersonal Factors

Personal barriers that affect team participation include the personal style and characteristics of members, as well as their personal motivation. Interpersonal factors include such things as fear of other members' judgments (social chastisement), cognitive inertia, and status differentiation (Jablin and Seibold, 1978).

Personal Style and Characteristics—"I normally don't say anthing."

Certain personal styles are more conducive to effective team behaviors than others. Indeed, the research indicates that for a group task such as brainstorming, members with characteristics such as high sociability and low communication apprehension are generally more effective. These individuals contribute more to a team's performance than do individuals working without such characteristics (Jablin & Seibold, p. 358).

GDSS might affect the importance of personal style in several ways. Individuals who are less outgoing and sociable would have a different format for providing input to the team process. GDSSs that require a keyboard to generate input to the group, for example, allow individuals to contribute to the team process without the need to express themselves with spoken words. In some systems, the input is anonymous, further reducing the potential communication apprehension that may exist in some individuals. Anonymous comments may be picked up by other mem-

bers of the team, making it easier for low sociable and high communication apprehensive members to become involved with the verbal discussion. In effect, the negative fears would be overcome by the need to explain, clarify, or promote the comments made anonymously through the use of the GDSS.

Personal Motivation—"What's in it for me?"
If individuals are personally motivated about a team issue, they are more likely to participate in the group process. On the other hand, if they are not personally motivated to ensure that the problem is solved, then they will be less likely to participate and to contribute to the team process in a constructive way. In a team situation, it is easier to let others carry the discussion and not respond proactively to the issue. GDSS changes the game. At times in the group process, everyone is forced to provide some input to questions directed toward the group. Certain systems are programmed to wait until every member of the team has responded to a question before proceeding. Because of the technology, it becomes imperative that each member participate actively in the group process. The results of each person's response may be shown on a screen in front of the room either anonymously or by name.

Personal Commitment—"I wasn't really committed anyway."
At the end of many team meetings, participants leave secretly uncommitted to the team's decisions. They end up saying something like "Well, they (the elusive they) decided what they are going to do, but they didn't really ask me what I thought or listen to me, so what could I do? If the program fails, I can always speak up and say I never really thought it was a good program in the first place but that no one would listen to me."

Because team members are involved in the process continuously throughout a GDSS meeting, they are more likely to own the outcome personally and have a commitment to it. If the meeting was recorded, it becomes less likely that any particular member will be able to contradict the team's decision later on. The record would show that the member did or did not voice agreement or concern at the time of the decision. Also, the

possibility of providing anonymous feedback during the meeting makes it more likely that minority opinions and concerns will be addressed during the meeting.

Team Politics—"I wouldn't say that if I were you." Every team exhibits behavior that gets labeled as political behavior. Two of the key related political behaviors are what researchers have termed "fear of social chastisement" and "social facilitation" (Jablin and Seibold, 1978). Because of the presence of other people, team members experience a heightened awareness that results in moderating their participation: a social facilitation effect (Street, 1974). This heightened awareness or arousal increases the likelihood of less creative, well learned responses rather than more unusual, higher risk responses. Team members experience the social facilitation effect whenever they think something and don't say it during the team meeting because of a concern about how other members would interpret the comment or judge them as a result of the comment.

Fear of social chastisement creates some members of the team who are more expert than other members. During the team meeting, covert and overt judgments about each person's status or competence are being made. Members perceived as experts or as having a higher status are allowed to contribute more than members who are perceived to have lower status or less expertise. This happens because of outside factors, such as past history or credentials or because of a "self-weighting effect" (Kelly and Thibaut, 1954) in which members personally downplay their own ability to contribute to the team process (Collaros and Anderson, 1969).

Social facilitation also works in the opposite direction. Members perceived as having more competence may not risk saying certain things for fear they will lose their team members' respect. So-called experts involved in a team may feel a sense of disapproval from other team members, resulting in inhibitions that lower the team's overall performance (Collaros and Anderson, 1969). An example to illustrate this might be a team meeting to make a decision concerning a new technology. Technical specialists, whose perceived value to the group is often based primarily on their technical expertise, might

not understand the basic aspects of the new technology. Rather than asking what might be perceived as a simple or stupid question and losing their status as technical experts, they let other members of the team discuss the situation. The reverse also may occur. Because certain team members are technical experts, and the decision involves technical issues, the non-technical members let them make the decision.

GDSS has a direct impact on the dynamics that create fear of social chastisement. By allowing anonymous responses to questions, the status of the person making the response is removed, allowing the team to focus on the response itself. When the technology forces everyone to respond to a question, "lower status" members no longer have a choice about participating. Because responses may show up on the screen in front of the room apart from the individual making the response, the response is more likely to be considered on its own merit rather than because of the contributing member's status within the group.

Energy Required to Disagree—"It's just too much trouble to say what I really mean."
Psychologically, agreement is more comfortable than disagreement. This is called the concept of cognitive inertia. In comparing the responses of individuals working alone with the responses of individuals working as a team, researchers have found that individuals working alone created more ideas, as well as ideas with more variability or diversity. This suggests that there is a self monitoring phenomenon operating in a team atmosphere that discourages more creative solutions (Vroom, Grant, and Cotton, 1969). Whereas the social facilitation and fear of social chastisement factors mentioned above deal with the interpersonal nature of disagreement, cognitive inertia deals with the inner aspect of disagreement.

The anonymity available in GDSS would allow more creative responses to be suggested without having to deal with the psychological energy associated with disagreement. At the same time, a new pressure is created, one in which members wonder if other people won't somehow find out that they were the one who made the remark appearing on the screen over which there is dis-

agreement. Overall, however, by forcing people to respond, allowing them to respond anonymously, and having them respond simultaneously to a question allows the consideration of more diverse options. In addition, the diversity is disclosed more quickly than with more conventional methods. With emotionally charged questions, undesirable truths and concerns are more likely to surface in the group process. This reduces the likelihood of faulty team interactions that lead to disastrous outcomes such as "groupthink–the desperate drive for consensus at any cost that suppresses dissent among the mighty in the corridors of power" (Janis, 1971) or "the Abilene paradox" in which a team agrees to a plan of action that none of the members truly want, but because of distrust, deceit, fear of risk-taking in the team process, along with an unspoken belief that other members wanted the plan, the team creates and puts into action the totally unacceptable plan (Harvey, 1988).

Judging Status Based on Level of Participation—"The other people know more than I do."
Because some people talk more than others, researchers have suggested that a higher status is attributed to team members who participate more in team discussions. They conclude that members who participate more perceive themselves as having a higher status in the group, probably higher than other members would attribute to them. Members who participate less perceive themselves as having a lower status, less status than the more productive members would attribute to them. Even though these judgments about status are inaccurate, they have an inhibiting effect upon team productivity (Jablin and Sussman, 1976, referenced in Jablin and Seibold, 1978).

Again, GDSS balances participation levels between members, reducing the tendency for judging status based on unequal levels of participation. In addition, the procedures built into the GDSS technology may actually keep the focus of the meeting on the issues of the team, rather than on the differences in status or judging among members.

Structural Factors

In considering barriers to team participation, an area often overlooked by the leader/manager is that of structure. Structure refers to the systems and frameworks in which a team operates, as well as the structure of the team itself. While personal and interpersonal factors influence team effectiveness and efficiency, structural barriers may actually be critical to the overall outcomes. Are the right people on the team? Do they have the right tools and environment to be effective? Do they have the authority to implement solutions to problems and create the outcomes for which they are accountable. Even the culture of the organization is a structural component of a team's effectiveness. Is the culture supportive of the team's efforts? How does the organization's culture fail to support the team's success? Inherent in the traditional team process are structural barriers which are so much a part of the way team members think about meetings that they are unaware of them. Some of these structural barriers include rate of speech, documentation, time and space factors, availability of pertinent information, complexity of decision-making procedures, and team norms and culture.

Rate of Speech (Production Blocking)

Most procedures do little to increase the quality of words that comprise a meeting, in the sense that meetings basically run at the speed of one person talking. The amount of participation in actual quantity of words that comprise the meeting is limited, regardless of whether traditional procedures are used or not. One team of researchers concluded that "the most important source of the inferiority of groups (compared with individuals in brainstorming results)...is the operation of the implicit rule that only one group member speaks at a time" (Lamm and Trommsdorff, 1973, p. 381). While written material may be introduced into the meeting, it is often an interruption to the meeting and not viewed as a means of improving participation but as a hindrance to the meeting process.

Procedures moderate participation–that is, they allow more people to participate in a more structured, ordered, and equal manner than would naturally occur without the use of procedures. Certain procedures allow more than one participant to have input in the pro-

cess at the same time: writing down ideas on a piece of paper or breaking participants into sub-groups. However, for the most part, the implicit rule that only one person can actively participate in a meeting at any one time still holds true. The inability of most procedures to increase the quantity of participation is a serious limitation that is only now being overcome. What is required are methods for using procedures that increase participation and do not just moderate it.

Research indicates that Group Decision Support Systems balance or moderate group participation (see Poole, this publication). Far more important, these technologies can actually increase the amount of participation. No longer are teams bound by the limitations of how fast one person can speak or how much information fits onto a flip chart or an overhead transparency. Because the GDSS uses multiple media sources, reading and typing of words is integrated more effectively into the team process, increasing the amount of active participation. GDSS not only changes the flavor of the pie, it creates a larger pie altogether. Suddenly, 100% participation, 100% of the time is possible.

Although a less sophisticated GDSS technology that allows only voting on a numeric pad might not effectively increase the amount of participation, more sophisticated technologies that use individual work stations and keyboards could greatly increase the total amount of participation in a meeting. By allowing participants to type information, ideas, or concerns via a terminal or keyboard, all members participate simultaneously. By using screens on the wall, team members read data and information, thus incorporating the information into the team process much faster than the rate of speech. This increases the size of the pie; it doesn't just redistribute the pieces. Each member of the group contributes more without limiting other members. No longer is the speed with which people can speak the structural limitation for the input of real time data into the team process.

Documentation

Certain procedures such as assigning a member to take minutes have been developed over the years to record the outcomes of the meeting, as well as to share the meeting

events with people who were absent. The use of GDSS provides a new level of recording events in the team process. Information entered on the screen can be saved to the disk. Video cameras can even be linked to the data output, allowing others to review key parts of a meeting based on a review of the data. This allows the absent members of the team to have access to more levels of the decision-making process used by the team. This is more effective than a superficial view of what happened with a statement of the outcome (as in who made a motion, who seconded the motion, and what the vote was).

Another documentation factor of meetings is how quickly follow-up documentation can be created. For example, in action planning meetings in which specific tasks are defined, a person assigned, and a time frame created, it may take several days to create the documentation for each member of the group. With a GDSS technology, the plan could be available at the end of the meeting. Because of the report generation capabilities of computers, follow-up and implementation issues are more likely to be addressed and documented during the meeting process. This increases the likelihood that meeting outcomes will actually be implemented and followed through in a timely fashion.

Time and Space Factors

GDSS expands the traditional dimensions of time and space associated with meetings. A meeting may be repeated using the technology but incorporating a different set of participants to build on the previous session. This output can then be repeated as many times as possible. Another option is to run two similar sessions and then compare or combine the information to create a better outcome than in either single session. Certainly the increased ability to record a meeting and replay it in the future, making changes or additions from a new audience, would be a way for the technology to allow an iterating process of continuous improvement.

In a sense the team, like the organization, is a conceptual phenomena, independent of time and space (Davis, 1987). The traditional structural limitations of time and space are evolving because of the emergence of new technologies such as GDSS. People operating on the

same team no longer need be in the same room when they meet. Using GDSS in the iterative manner discussed above means that team members no longer even have to meet at the same time. Even relatively unsophisticated technologies such as electronic mail and computer bulletin boards allow for team discussions across time and from multiple locations.

Another aspect of time in groups is the movement from a linear sense of time in which change occurs in major steps to a real-time mode in which change occurs in incredibly small increments creating almost a constant sense of movement. Davis defines real time as meaning "that responses to inputs are fast enough to affect subsequent inputs and to guide the process" (1987, p. 23). An analogy might be the advancement from photographs to movies. Likewise, GDSS changes a team's sense of time from taking snapshots in a meeting-to-meeting scenario to an ever evolving, movie-like, real-time system of continuous change and development. As action is agreed upon, organizational systems simultaneously move to create the changes. Results of each step become available for the team to determine its next step. Traditional limitations of time and space on team operations are changing in fundamental and fascinating ways as a result of GDSS.

Availability of Pertinent Information

Much has been written about the age of information. Yet the amount of information that a team can effectively address in most situations is limited. Presentation of information is often simplified to conceptual overviews and summaries. Specific data that could be entered into the team decision-making process is limited to what can be foreseen and prepared before the meeting. Through the use of GDSS, data stores of knowledge can be readily accessed through the computer network and the information entered into the team process immediately, without having to wait for a member to prepare a report and another meeting to respond to the issue at hand.

Not only does GDSS make information available within the team process, it allows the team to focus on the process of how the information is best put to use. In a world of rapid technological change, "the ability to think

and reason logically and coherently is the new basic skill" (Naisbitt & Aburdene, l985, p. 147). Many teams get caught up in the creation and structuring of information without moving into action. GDSS could help a team restructure information quickly during the team process to suggest solutions and actions.

Complexity of Decision-making Procedures

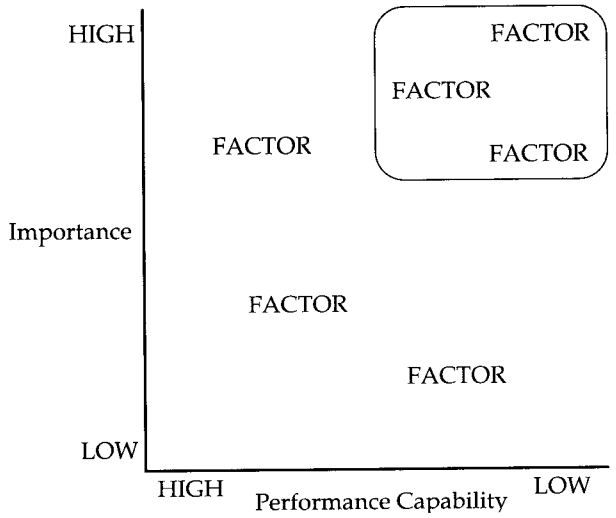
The human mind has certain limitations in the amount of information it can adequately deal with at any one time. Certainly a team can assess a list of items according to one dimension, for example, the key factors critical to their success and how effectively they address each factor. When a second dimension such as the importance of each factor in relation to the overall objective is added to the team process, the human mind and most group procedures can no longer keep the information in order. Thus, decisions are often simplified and the true depth of knowledge available to evaluate alternatives and create plans is not available to support the team process.

GDSS makes available an increased level of complexity for decision making. As information is presented, more complex procedures can be used to evaluate and process the information. A simple example of this ability to handle increased amounts of information would be the creation of a two dimensional map out of the example started above. A list of key factors for the team's success is created. These factors are now assessed according to two dimensions: importance and ability to perform (Figure 2). The human mind and most traditional group procedures begin to break down at this level of complexity or require an inordinate amount of time to calculate an outcome. With GDSS a computer almost simultaneously generates a map showing how the factors rate against the two dimensions. Most likely the key area on which to focus would be the factors that are both very important and in which the team does not perform well. The team can now immediately began taking action to maximize its efforts.

This example is simply the first step into an arena of more complex team procedures that can be used to create better decisions allowed by the use of computers in team processes. A less sophisticated GDSS system would allow

for this procedure of mapping a set of factors against two dimensions. More sophisticated systems have software to perform complex decision trees or evaluate potential negative outcomes in future scenarios. GDSS allows software that was previously available primarily for an individual to be used by a team.

Figure 3
Map Rating Key Success Factors Against Two Dimensions – Importance and Performance Capability



Team Norms and Culture

One of the greatest problems in facilitating a team process, is that certain members may check out of the meeting, without leaving. Because in the past the norm was that only one person actively participated at a time, passive participation in the form of active listening was a key skill required in meetings. Procedures that require everyone's response in order for the process to continue will, in effect, unobtrusively force all members to actively participate. The skills of active listening may be easier to use because members will be more involved in the process.

The introduction of GDSS technologies actually changes the focus of the game, shifting the traditional team norms. Participation in a team generally requires a certain risk in terms of such issues as when to speak up,

how other members of the group will respond, or how information should be interjected into the process. The game behind many meetings is how to look good and win politically. With the new technologies, how one goes about looking good and winning politically will change. The focus will shift to using the equipment and learning new processes to improve team productivity. The technology makes it the norm to actively participate. What will become anti-cultural is failure to participate actively. Some systems will not continue until everyone has entered a response. Although the content of responses is still an issue, GDSS will change the nature of meetings from the foundation up.

Conclusion

Participation is important to the success of teams. It includes the observable communication behaviors of members and can be rated as to quality and quantity of participation. The benefits of participation are based on the assumptions that when members are participating fully, they will experience increased commitment to team objectives, be more effective at implementing decisions, implement decisions with greater speed and efficiency, feel more satisfied with the process, and learn more about the process by which decisions are made. All of this should result in a synergistic, high performance team.

Process leadership is concerned about the effects of personal, interpersonal, and structural factors that influence members' levels of participation. Recent advancements in the information technologies applications to team processes, including GDSS, influence many of these participation factors in positive ways. Many of the inherent limitations of traditional procedures can be overcome with the addition of computer-aided technologies to team processes. Most importantly, meetings can be redesigned to unobtrusively force participation from reluctant members, moderate excessive participation of overly zealous members, and increase the amount of active participation in a meeting. GDSS allows a glimpse of team operations in the near future.

Process leadership asks the question, "What kind of structures and processes are needed for our team to be successful in the white water environment in which we operate? In reality, things are not going to settle down. New values are not going to replace old values. Technologies are not going to 'shake down.' Nor will meeting goers descend on the learning curve to a mode where they are smoothly performing whatever the new activity is" (Vail, 1989, p. 28). Nevertheless, teams will cope with seemingly insurmountable difficulties and obstacles.

GDSS represents the technological breakthrough in the structures and processes available to facilitate teams required to achieve seemingly impossible goals. Teams are no longer as limited by the boundaries of time or space as they once were. By expanding the traditional limitations of time and space, GDSS technologies allow for 100% participation, 100% of the time, anywhere in the world, now.

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Chaos or Communication: Technical Barriers to Effective Meetings

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In every aspect of life, people continually face barriers as they attempt to communicate with others. According to a recent study of a cross section of American business, the typical employee of a large firm spends 1 hour and 42 minutes each day in meetings (Monge, McSween, & Wyer, 1989). Poole reported in his chapter of this monograph, on the estimate of Doyle and Straus (1976), that as many as 11 million meetings may occur daily in the United States. These include business meetings at work, as well as those involving families, schools, churches, communities, clubs, etc. Why do people spend so much of their time in these meetings? Because the majority of the tasks they want to accomplish in life cannot be achieved in a vacuum. If people are interested in working with others to achieve some goal, they must overcome most of the barriers to effective communication.

The problems faced by any group in effectively communicating are analogous to those faced by the designers of a multiprocessing computer system. Without the appropriate system control software (operating system), little or no useable results will be achieved. In group interaction, procedures can be compared to the computer's operating system software. As with computing systems, the simplest techniques are adequate in relatively well-ordered environments. The personal computer upon which this paper was prepared has a relatively simple structure, and only a small amount of memory is consumed by the basic operating system (in this case, MS-DOS) which interfaces with the keyboard and the screen used by the word processing program. Likewise, if only two people are involved in a meeting, then frequently a simple dialogue will suffice. (It should be noted here, however, that if the problem is very complex, then a structured approach may be required, even when only two people are involved.)

As the number of "processors" increases beyond two, it becomes imperative that a more highly structured interaction be utilized. In the case of computing systems, the largest and most complex program executed in the IBM 3090 processors that Texaco uses in its business applications is usually the control program for controlling the coordination and management of the operating system tasks among the multiple processors (MVS/ESA). It is not surprising then that in many meetings, a large investment is often made in the "overhead" associated with meeting dynamics.

Much of the time spent in group meetings is ineffective because of participants' failure to recognize the need to use appropriate procedures. Without an effective "operating system" the group is dysfunctional or at least inefficient. Earlier in this book Poole refers to the tendency for discussions in unstructured meetings to regress into a "cocktail conversation" mode in which very little listening is accomplished. One of the major values of group discussions is lost if there is not a development of composite solutions to problems that are better than any of the individually conceived solutions. This requires all members of the group to communicate effectively with one another. One major task of management in any organization, then, is to remove barriers to effective communication in order to empower every member of the organization.

What Are the Barriers to Effective Communication in Meetings?

The application of procedures to specific situations has been more of an art than a science. Poole provides some insight into what makes a particular procedure work. The five dimensions he proposes for differentiating procedures —scope, restrictiveness, comprehensiveness, group control, and member involvement—can be applied to the communication barriers in order to design an appropriate procedure to overcome them. With good planning and the proper use of procedures, the major criticisms of meetings can be avoided or at least managed.

Failure to prepare properly for a meeting seems to be the major cause of unsatisfactory results. The findings of Monge, et al. (1989) indicate that the typical meeting

is called with only 2 hours' notice, a written agenda less than half the time, and complete coverage of the agenda only half the time. Little wonder that many participants leave such meetings with a strong sense of dissatisfaction. Although the application of a procedure will not substitute for the lack of preparation, if meeting leaders are trained in the fundamentals, the application of the appropriate meeting "software" in the form of one or more of the procedures can help to achieve more satisfactory meetings. It is an unfortunate phenomenon reported by Poole that many groups resist the use of these tools because they perceive them to be "too complex" or "too time consuming." In the study reported by Monge, et al. (1989), the satisfaction that participants reported in a meeting correlated with the amount of individual participation in the meeting, the amount of time spent talking about irrelevant issues, and the satisfaction with the decision—all areas directly influenced by the effective use of an appropriate procedure. They also reported that one third of meeting participants felt that they had little or no influence on the outcome of decisions.

Recent efforts to apply computer and communications technology to more effectively incorporate appropriate procedures into meetings were reviewed earlier in this book. Poole argued that the discomfiture generated by procedures may be the very key to their effectiveness. Although this may be the case, an effective implementation of "electronic meeting software" should remove many of the initial barriers faced by groups desiring to use the more complex structured group techniques. Depending on the particular group involved, any resistance may be to the use of computer terminals, rather than to the use of the procedure. As these systems develop, more acceptable, user-friendly interfaces will make their use less intimidating and will enhance their value as effective tools for meeting support.

Nadler, Hackman, & Lawler (1979) developed a framework to describe organizational behavior in which organizations are viewed as collections of individuals and groups who perform tasks through both formal and informal structures. They identify certain critical functions served by groups in an organization both for the

organization and for the individuals. Critical functions for the organization include the following:

- Accomplishment of tasks that could not be done by individuals working alone.
- Bringing multiple skills and talents to bear on complex tasks.
- Provision of a vehicle for decision making that permits multiple and conflicting views to be aired and considered.
- Provision of an efficient means for organizational control of individual behavior.
- Facilitation of changes in organizational policies or procedures.
- Increased organizational stability by transmitting shared beliefs and values to new members.

The following are functions for the individuals:

- Aid in learning about the organization and its environment.
- Aid in learning about one's self.
- Help in gaining new skills.
- Valuable rewards that are not accessible through individual initiative.
- Direct satisfaction of important personal needs, especially needs for social acceptance.

It is important to realize the existence of these sometimes divergent goals between the members of the group and the organizational leadership desiring to utilize the group dynamics to accomplish an end. An effective meeting will allow the individuals who make up the group to accomplish some of their individual goals while achieving the organization's objective.

It is imperative that the use of meeting procedures be understood in the overall light of the fundamentals of good meetings. No meeting should be held that would result in no better result than could be achieved via an alternative, less expensive communication method (telephone or memorandum). Procedures never can substitute for effective leadership, i.e., good leaders will use procedures effectively, but good procedures will not overcome poor leadership. To be really effective, a

procedure must be understood and accepted by the group. To the extent feasible, electronic meeting software should be used to furnish more complex procedures with greater ease.

An excellent checklist of fundamental qualities for a good meeting is presented by The 3M Meeting Management Team (1987). It includes the following:

- A purpose all participants understand.
- An agenda organized to achieve that purpose.
- People at the meeting who need to be there.
- Adherence to the agenda.
- Visual presentations used when possible.
- Prepared participants who make contributions.
- A summary of accomplishments by the chair.
- An organized post-meeting follow-up.

If two more items were added to the list—the effective utilization of an appropriate procedure and appropriate utilization of technology—meeting managers would have a ready checklist that might be called "How to have meetings where communication, rather than chaos, prevails." With careful planning, use of the appropriate procedures, and rapid follow-up documentation about the results of the meeting, meeting managers will be better able to avoid chaos and the resulting frustration of those who attend their meetings.

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The Leader's Impact on Meeting Success

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One does not have to look very far in contemporary management literature to discover the "new" leader. Such a leader has been described as transformational by Burns (1978), Tichy and Devanna (1986), and others. Bennis (1989) has written about the increasing importance of a new kind of leader, and Kanter (1989) has said that the post entrepreneurial corporation will need limber, nimble, athletic leadership that can take the organization through the perils and pitfalls of the '90s. There seems to be widespread agreement that for such a transformation to occur in the corporate world, leaders must empower the people who do the work.

Teamwork and group problem solving will be "givens" in this new organization. Many writers advocating the empowerment of workers agree that one of the most effective ways to do that is to develop teams (Lawler, 1986; Littlejohn, 1982; Kilmann, 1989). If teamwork is one way for corporations to thrive and prosper in the '90s, what are the implications for meetings? Here the importance of the word *team* and the obvious analogy to a sports team becomes clear. A winning team must practice. Coaches cannot have a successful team if they only work one-on-one with the quarterback, the center, or the wide receiver during the week but then expect the team to play a game on Saturday. Granted, individuals must practice their particular skill, but the team must ultimately come together and meld into a unit. To what does practice equate in the corporate world? Meetings.

This idea can be quite a jolt to managers who insist they want a team but scoff at the necessity of having regular meetings. If meetings equate to team practice, they take on a different connotation altogether. Meetings are not only chalkboard sessions in the locker room where information is disseminated and debriefing is done,

but they are also the practice sessions where decisions are made, problems are solved, and the team comes together.

Many meetings seem to be a waste of time because they are used as a place to dump information that could be disseminated through memos or electronic mail. In contrast, meetings that build teams and empower employees are those that involve decision making and problem solving. These are the challenges for the leaders of today. They must learn how to use meetings as a key factor in the transformation to a new kind of company. Leaders must learn a new role in order to make meetings the practice sessions they need to be.

The Leader as Facilitator

Mintzberg (1973) has written about the many roles managers must play. For example, he describes the Negotiator, the Liaison, the Entrepreneur, and the Disseminator, among others. One role he does not describe is that of the Facilitator. That is the role discussed here—the manager as a facilitator of meetings. The word *facilitator* comes from "facile," "to make easy." It does not imply "to take charge." Unfortunately, most managers have not been trained as facilitators. In fact, other roles they play call for decisiveness, quick problem solving, being the person with the answers. As a result, many managers do not know how to back off, listen, and allow others to work through a process such as a meeting. The good news, however, is that managers can be trained to conduct meetings in a facilitative mode. One merely needs to get them to "buy into" this skill as one that will move them along the road to a more participative work force. Meetings, then, are one very powerful tool in the kit of transformational leaders—provided, of course, the meetings are successful.

What Is a Successful Meeting?

A successful meeting has the following characteristics:

- Outcomes are well defined up front.
- There is a clear agenda.
- Meeting procedures are established.
- Attention is paid to both task and process.
- Everyone actively participates.
- Some action will be taken as a result of the meeting.

Leaders who examine each characteristic are likely to find their jobs easier.

Outcomes Are Well Defined Up Front

A sure road to the failure of a meeting is to begin it without clearly establishing outcomes and then verifying that participants either have the same outcomes in mind or are clear about the leader's expected outcomes. This is sometimes easier said than done. An inability to articulate outcomes, or desired results, manifests itself in more than just meetings. For example, many people in the workplace can readily recite what they do **not** want in a situation, but when pressed for what they **do** want, simply cannot tell you.

Thus, a key factor for leaders is to know what they want to accomplish in a meeting. Perhaps all the leader wants is for team members to have an opportunity to work together and provide input for a decision the leader ultimately has to make. Whatever the expected result, it must be clear in the leader's mind and then adjusted, if required, after input from participants. An example of a clearly stated outcome would be: "I want us to go away from this meeting with a plan of action for managing the change process when we move to our new facility. I want clearly defined tasks with names and accountabilities spelled out." Then, with feedback from the team, the outcome can be altered to reflect the collective thinking of the group.

There Is a Clear Agenda

The agenda should be visible to everyone at the meeting, preferably shown on an easel or white board. A need to adjust the agenda may arise after the discussion about outcomes. Two chief reasons exist for identifying and publishing the agenda. The first is to clearly indicate the

nature and scope of the meeting. The second is to be able to show at the end of the meeting that the group achieved success. If all agenda items have been addressed, participants sense that the meeting was effective. If some of the items have not been covered, then the leader needs to address that issue and work with the group to determine how to cover the missing items.

Meeting Procedures Are Established

The need for meeting procedures has been addressed by Poole in this monograph. He describes procedures as "recipes for how to run a meeting." Since facilitating participatory meetings is charting new territory for many managers, they could well use a "cookbook" that explains step by step the most effective way to run a meeting. They also need to be trained to understand the various procedures, such as brainstorming, consensus rules, and nominal group technique. After understanding the procedures, managers can learn which procedures are most effective in various situations.

Such training and preparation is critical. A little learning can be a dangerous thing. For example, corporate leaders have been exposed to just enough information about brainstorming to be dangerous. Perhaps you have seen a meeting leader attempt to lead a brainstorming session only to see it quickly disintegrate because the leader allowed censure, either verbal or nonverbal, or the meeting leader winced or otherwise nonverbally indicated an opinion about an idea that was presented. There is nothing wrong with the brainstorming technique itself. It can be highly effective in certain situations, but it must be taught as a skill like any other.

Attention Is Paid to Both Task and Process

When a group meets for decision making and problem solving, the meeting is clearly task-oriented. In business, which is also task-oriented, this function of the meeting is rather obvious. Furthermore, if procedures are established and the agenda is clear, the group can reach a comfort level about the task. This is the rational approach. However, a group that works together does not always or even frequently function with rationality. Human dynamics come into play, including competition for the leader's attention, a desire to look good, a fear of

looking foolish, and hidden agendas. Thus, if the leader can find successful ways to manage a team's group process, the chance of reaching the desired outcomes greatly increases.

What are some recipes for process that a leader needs to know? You can look at groups in at least two ways: 1) The stages of group development and 2) The essentials of good groups. A simple way to look at group development is to examine it from the perspective of the three stages presented by Schutz (1978). These stages are Inclusion, Control, and Affection. Meeting leaders need to understand that every group cycles through these stages, and the ultimate goal for a group (team) is to reach the affection stage.

During stage one, **Inclusion**, the facilitator needs to understand that when a group is in its beginning stages of formation, issues circulating through peoples' minds are such things as "Where do I fit in this group?"; "Are people going to accept me?"; "What are my boundaries?"; "What are my and others' roles?" Some behavioral characteristics at this stage are talking too much, withdrawing, questioning goals, and telling war stories. An effective meeting leader will provide opportunities and activities that motivate group members to **move** through this stage rather than just hoping they will somehow **get** through it.

In stage two, **Control**, members' concerns are "How much influence do I have?"; "Who is running the show?"; "Are my needs being met?"; "Are my values being respected?" Behavioral characteristics include the formation of subgroups (this frequently happens), jockeying for the power seat at the table, arriving late, and holding side conversations. Issues of conflict, control, and confrontation must be addressed and dealt with overtly. Subgroupings are particularly insidious, undermining a group's ability to function as a team.

In the third stage, **Affection**, a team can function successfully in meetings as well as on the job. Another word for *affection* is *openness*. Groups in this stage are more successful at accomplishing a task. Common characteristics that are exhibited by group members at this

stage are the expression of positive feelings, joking, challenging, providing feedback, laughter, and "groupthink." Most of these are positive, but "groupthink" can be dangerous. Janis (1972) coined the term to describe groups so far into the affection stage that no one wants to be a nay sayer or devil's advocate. Consequently, a group might make bad decisions because nobody will speak up for fear of disturbing the good feelings the group is experiencing. If leaders are aware of the pitfalls of this stage, they can capitalize on the team's positive energy, and meetings can become not only productive but fun.

Another way to look at group dynamics is to be aware of some basic essentials that every group must have to function well. Freedman (1983) suggests that there are five of these essentials:

1) Security—A group needs to feel secure from three perspectives: physical, psychological, and political.
2) Participation—All team members need to be active players who have a role to play and who play it to the best of their ability.
3) Effectiveness—People want to know that they are spending their time on something that will be important and successful. The leader/facilitator must learn how to manage the process in such a way that this sense of effectiveness comes about.
4) Spontaneity—Procedures and an agenda are important, but if leaders are so bound to these that they cannot allow for flexibility and spontaneity, the team will soon find its meetings to be drudgery and will lose interest in attending. The meeting leader must be willing to respond to what is happening in the here and now.
5) Recognition—Good coaches recognize both individual and team play publicly. They also reinforce the kind of play (behavior) they want to see. A group meeting is an ideal place to do this.

There Is Active Participation by Everyone

A frequent lament among managers is their inability to get people to participate in meetings. Yet, participation in meetings is the most critical of the five characteristics

of a successful meeting. Chances are managers with problems in this area are either making errors of commission, omission, or both.

Errors of commission include familiar scenarios such as a manager spending 95% of a meeting telling or selling. Then in the last few minutes, the leader asks, "Are there any questions?" Many managers are unaware of their power to enhance or inhibit participation. For example, during a meeting if the manager portrays the slightest hint of disapproval, it can be enough to shut down participation. Managers may not like or agree with everything that is said, but they must listen and project acceptance, verbally and nonverbally. After all, if someone gets "jumped on" for an idea, how likely are others to be as creative as they might normally be?

Errors of omission are even more frequent. These occur because the meeting leader does not understand what it takes to facilitate participation. Techniques to foster involvement can be taught to leaders so they are comfortable and proficient in cultivating individual contributions to the group. For instance, think of meetings that involve ongoing groups or teams. What about the seating? Do people have regular places at which they invariably position themselves time after time? Does the leader always sit in the same place? The sameness of seating patterns promotes a sameness of thinking that stays with the group meeting after meeting. Participants can become rigid in their patterns of reacting and participating. Creativity and flexibility are stifled as people enter each meeting with preconceived opinions from the last gathering. Changing seats causes people to approach things from a different perspective.

Meeting leaders should understand that their meetings are really metaphors for change. People resist change for many good reasons, but today's workers are going to have to become more comfortable with change, to accept it, and even to embrace it. If members of a group are encouraged to be more flexible by the simple act of sitting in a different place every week, the message about change will become a part of their thinking.

Another way the leader of a group can encourage participation is to rotate meeting leadership from meeting to meeting. Where is it written that the manager must always run the meeting? Many managers fear that if they're not in charge of the meeting, they are not in charge. Managers who are secure enough to allow their people to grow and develop through the process of learning to conduct team meetings will reap the benefits of increased involvement and ownership of the meeting's outcome. Meeting leaders must also remember that participation means different things to different people. The ways that an extrovert and an introvert participate, for example, are starkly different. Because extroverts "talk to think," they are usually going to be much more willing to speak without having to think through exactly what they want to say. Thus, if the meeting leader does not manage the process, extroverts in the group will totally dominate the meeting. Meanwhile, introverts with important things to contribute can't get their thoughts on the table because by the time an introvert "thinks to talk," some extrovert has jumped in.

How do leaders manage this process? Once they recognize the differences between extroverts and introverts, they can use procedures that require everyone's participation. For example, leaders can use a round robin or nominal group technique. They must also remember to **ask** introverts in the group what they are thinking. If leaders do not know what extroverts are thinking, they are not listening because extroverts will tell them. If leaders do not know what introverts are thinking, they didn't ask. Introverts frequently have profound things to say because they have been busy thinking things through before speaking.

Furthermore, leaders can boost participation and creativity through the use of language. Most managers have been trained in active listening and, thus, are familiar with the concept of open and closed questions. Yet amazingly, the transfer of this knowledge to meeting leadership seldom occurs. Consequently meeting leaders might ask questions such as "Do you agree...?, Don't you think that...?, or Do you have any questions?"—all questions that can be answered with a simple yes or no. Instead, the leader can be trained to ask open-ended questions such as "What do you think?" and "What questions do you have?"

Meeting leaders also must consider how language can stifle the ability to solve problems creatively. For example, groups create limits to their capability to accomplish things when they ask, "Is it possible to reach our target number?" Instead, the question can be worded, "How would it be possible to reach our target number?" This way of asking the questions assumes it is possible to accomplish the goal; it is just a matter of finding a way to make it happen. By asking questions in this manner, people stretch their thinking beyond the limits they tend to impose on themselves. Gaining active participation at meetings is at the very heart of developing a work group into an energized, motivated team.

Some Action Will Be Taken as a Result of the Meeting
Very few things are as irritating as leaving a meeting knowing that nothing was accomplished and time was wasted. The meeting leader must manage the process to avoid that situation. This can be done in two ways. First, the group should review the agenda at the close of the meeting and determine which items have been addressed. If topics were not covered, the group should acknowledge this and decide what they can do to make sure these matters are addressed. Second, clear follow-up steps must be established and understood. What is to be done after the meeting? Who is accountable? What is the time frame? When do members report back about their tasks? Taking care of such loose ends makes group members feel they have been effective and that their time has been well spent.

Conclusion

To keep pace in the '90s, corporations will require leaders who can transform them into lean, limber, agile organizations. Such leaders will have to empower their people to get the job done, and one of the most effective ways to do that is to mold workers into cohesive teams. Teams must practice, and in the workplace, practice equates to meetings. If the "new leader" can learn to facilitate meetings in such a way that the team feels successful, gains energy, and has fun, meetings will no longer be the burden they have been perceived to be in the past, and everyone in the organization will end up a winner.

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Business Meetings of the 1990s: Characteristics & Compositions

by Christopher J. McGoff
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For most business people, an invitation to a meeting implies that a number of people travel to a common place at a specific time to focus on a common agenda. Once assembled, meeting attendees typically have an opportunity to talk to, listen to, and touch each other. They often experience common smells and tastes (e.g., the coffee service, lunches, and dinners). Their close proximity enables them to interact with each other using the full range of their senses. Nonverbal communication, such as body language and facial expressions, adds a richness to the more obvious forms of communication. Business meetings like these are very common today.

With the exception of the "white board" replacing the "blackboard," the typical business conference room in which these meetings take place has not changed much over the last few decades. It is safe to say that if a person needs refuge from the high technology revolution, the nearest conference room will provide it. Or at least that was the case until recently. Today's conference room and the meeting process in general are undergoing some changes. New technologies promise increased effectiveness and efficiency of meetings.

Changes affecting meetings can be examined in four contexts: content, composition, leverage, and connectivity. Content and composition refer to the people involved and the issue at hand, while leverage refers to advantages afforded the meeting by the use of information technology and processes. That technology can range from a single microcomputer to state-of-the-art advanced technology rooms equipped with a microcomputer for every participant, multiple screen projection, and software productivity applications. Connectivity also refers to technology but focuses on the proximity and the availability of communication "channels." These channels allow group members, separated by

Figure 1
How Meetings Are Changing

space and time, to share video, audio, and data signals. Figure 1 provides an overview of the ways in which meetings are changing within those four dimensions.

	From	To
Content	• Presentations and pitches by a few • One person talks; all others listen • Considered a point-in-time event • Designed to support existing structure	• Equal participation and involvement • Considered part of an overall process • Designed to create ownership and empowerment
Composition	• Single culture • Single departments • Single level • Leadership established by edict • Intra-enterprise by design	• Many voices and cultures • Many levels of the hierarchies represented • Leadership established by consensus • Inter-enterprise design
Leverage	• Minimum use of technology • Manual process • Serial communication • Limited reach and range to company-wide information	• Robust information technology platform • Software productivity tools • Parallel communication • Deep reach and long range to company-wide information
Connectivity	• Little or no ability to query extended information • Requires close proximity of attendees • All participants attend at the same time • Results are recorded, edited, and distributed manually	• Direct access to corporate and commercial data bases • Can be held any time, any place • Meeting content is captured, formatted, analyzed, and distributed instantaneously

How Will the Content of Meetings Change in the Future?

Business meeting content relates to the topics being discussed by the participants. Two exciting trends in business and industry are going to affect the content of meetings profoundly. The first trend is the movement from a production-oriented workforce to a service-oriented workforce. In an effort to get the best return on its largest investment—its employees—service businesses must

share experiences, knowledge, recently realized insights, and winning strategies and methods throughout the organization, both laterally and vertically. For this reason, more and more meetings will be called to allow people across the organization to share information about situations that might have applicability in other parts of the organization. Thus, lateral and vertical information-sharing meetings will become an increasingly integral part of American business as they move collectively toward a more service-oriented economy.

At the same time the economy shifts toward service, the internal and external forces that influence the future direction of any given company are changing faster and becoming more complex with each tick of the clock. In addition to constantly having to share information, business people will be called together more frequently to devise, evaluate, implement, monitor, and adjust plans. The cycle of these planning activities will not be biannual (i.e., spring and fall planning), but, rather, whenever the environment, both internal and external, dictates the need for change. The universal principle of entropy (Rifkin, 1980), whereby an organization goes from order to disorder at an ever increasing rate with an ever increasing amount of energy being required to maintain a fixed structure or order, dictates that all businesses change in increasingly shorter intervals. To compensate for the accelerating pace of change, business managers in vertical positions within a company need to be involved when ideas are first presented in order to comprehensively and concurrently assess the viability of an opportunity. These empowered meetings will shorten the cycle time for evaluating opportunities, thus enabling the company to take maximum advantage of shrinking windows of opportunity. This will be a matter of survival. The company that makes these decisions and changes fastest with the best timing, most comprehensive evaluation of alternatives, and most complete stakeholder buy-in, will eventually dominate the market in which it competes. The assessment of current status and planning, both strategic and tactical, will occupy more and more meeting time.

How Will Changes in an Organization's Structure Affect Meeting Composition?

The composition of business meetings refers to how the meeting attendees are related to each other. Three aspects of today's environment will affect meeting composition. They are the shift away from matrixed management toward process management, the efforts to flatten the organizational hierarchies, and the shifting demographics of the work force (*Total Quality Management Master Plan*, 1988).

In an effort to increase employees' sense of ownership, responsibility, and accountability, some companies are moving toward process management. Whereas today's typical corporate hierarchical matrices invite intra-organizational strife between the autonomous lines of business such as research, development, manufacturing, marketing, and field support organizations, a process management corporate model establishes full ownership of the entire process in one individual. Essentially, process management has five steps: identification of a process, assignment of a person to own that process, documentation and measurement of that process by the owner, and changes in that process whenever the measurements indicate that change is necessary. The process owner has responsibility for the integrity of the overall process (*Total Quality Management Master Plan*, 1988).

The act of documenting a process invariably illuminates the fact that not only does the typical process require the involvement of many organizations and levels within the company, but in today's corporate culture, the process also depends on suppliers, vendors, subcontractors, and other external resources. In some organizations process management also serves as a foundation for concurrent engineering. For example, after close examination of the process by all parties, the process owner typically realizes a need to gear up field support immediately, as an example, even though the prototypes have not been passed from R&D to manufacturing yet. In addition, the process owner keeps manufacturing personnel aware of and contributing to the efforts of R&D to minimize surprises. Consequently, before the products are halfway down the manufacturing line, the market support material has been printed and marketing is out qualifying the market. This parallelism is essential because these jump

starts allow individual organizations to overcome their current inertia in order to be fully positioned when their piece of the new process is needed.

Because of the ever increasing pace of the process, the organization cannot tolerate dwell time. And if anything goes wrong with the process, no matter where the problem is or who caused it, it is the responsibility of the process owner. Process management is a circular model. Because of the continuously shrinking product life cycle, R&D will begin working on the next generation of the prototypes before the initial version even gets all the way through the process and out the door.

As the process management model gains wider acceptance in American corporations, a wider range of cultures and voices will attend meetings together. Field engineers will routinely sit with R&D people. Marketing will collaborate with production and maintenance personnel even before research has released the project to manufacturing. In addition, associates from other enterprises will be attending these meetings. This melting pot of corporate culture, left unregulated, can create a great deal of discord. It takes strong meeting facilitation to keep the eloquent tongues of marketing from lashing out against a junior production employee struggling to comprehend the problems the development group is having with the information the research organization presented. Cross organizational, cross cultural, and inter-enterprise barriers must be overcome.

The second trend affecting meeting compositions is the shift by U.S. companies to flatten organizational hierarchies. By eliminating middle management and increasing the span of control, more and more meetings will be comprised solely of peers as opposed to bosses and workers. This is not to say that meetings will be leaderless. Rather, the authority to edict will be less apparent. Leaders will market and debate their positions and opinions. The decision process will shift to collaborative consensus and cohesion born of shared vision, values, and goals. Communication sessions of this type can potentially have a positive effect on the degree of stakeholder buy-in by enhancing each participant's sensitivity to the positions of others. However, group convergence will

be a function of effective group communication, participation, and meeting discipline. The time it takes the group to reach cohesion and convergence, assuming an appropriate number of viable alternatives have been reviewed, will be the great differentiator—the fundamental source of competitive edge.

Finally, the shifting demographics of the U.S. workforce will affect composition. More and more women, Hispanics, and other non-white, non-male, non-English speaking minorities are joining the work force (*Workforce 2000*, 1987). Recognizing and embracing this diversity and orchestrating these many voices into a synchronized chorus is an American challenge similar to the one that will no doubt present itself in Europe with the European consolidation.

As meeting content becomes more complex, meeting composition becomes more diverse. Corporate survival will depend on how fast these multiple voices and cultures can collaborate to form cohesive and comprehensive perspectives on an increasingly complex set of issues. And all this must be accomplished in an environment of urgency because of the accelerating cycles of innovation and change. If the nature of meetings were to remain as it is today, dealing with the changes that organizations face would be disconcerting if not downright frightening. Fortunately, recent advances in technology show tremendous potential for improving the process of meetings.

Will New Technologies Increase the Leverage of Meeting Goers?

Innovative meeting processes established footholds in corporate American in the late seventies and early eighties (Harrington, 1981). Quality Circles (QCs), Quality Improvement Teams (QITs), Process Analysis Techniques (PAT), Joint Application Review and Development (JAR/JAD), and countless other methodologies became popular in corporate USA. Meeting facilitators were trained in the Delphi technique, brainstorming, nominal group technique, cause and effect diagramming, and a host of processes designed to tune and refine serial group communication. These facilitators provided discipline and process to meetings. As a rule, the

methodologies proved valuable. New processes, such as Total Quality Management (TQM) and Quality Functional Deployment (QFD) are designed to accommodate a more complex set of issues and groups. TQM, QFD, and similar processes continue to rely on facilitators.

If the seventies and the eighties were the decades of innovative group processes, the nineties will be the decade of innovative group technologies. Research at the University of Arizona, the University of Minnesota, the University of Georgia, the University of Michigan, MIT, Georgia Tech, Clairmont, The London School of Economics, and others has already demonstrated that meeting outcomes can be improved substantially through the use of information technology (Nunamaker, 1989). Significantly, corporations including IBM, Texaco, the IRS, Procter and Gamble, DuPont, General Motors, and EDS have invested in this area.

Describing the technology is difficult because it is dynamic and really needs to be experienced to be fully understood. Most of the principle researchers have started in different places, and it is still early to speculate on where all the activities will converge. Penetration of technology ranges from a single computer operating by one individual in the meeting to each member of the group entering data on a small keypad connected to a single computer to each meeting participant having his/her own dedicated microcomputer with a full keyboard and innovative software applications designed to support groups. Single workstation applications like the *Idea Machine*™ from Virginia Tech allow meeting participants to conveniently reach out of the physical meeting room into extended and external information databases. Using a networked computer with an innovative user interface, meeting participants can query vast amounts of information stored in electronic memory in a variety of media in order to seek real-time answers to questions raised in the meeting. Another single workstation, meeting support approach features a personal computer outfitted with text and graphic tools, connected to a large screen projector and operated by a highly specialized meeting chauffeur. As the meeting progresses, the work products of the meeting are generated in real time. These services are currently provided mostly by special-

The Idea Machine *is a registered trademark of Virginia Polytechnic Institute and State University.*

ized consulting firms for special, or high profile, corporate meetings. Each of these types of approaches not only affords groups a more robust way to express themselves, but they also contribute to group retention as the meeting's activities are captured on the computers in useable form.

Other single workstation innovations, like IBM's Advanced Technology Center (ATC), not only bring seamless multimedia to the conference room but they also allow the participants to interact via a local network. Meeting facilitators can access and reveal information from laser disc, compact disk, tape, floppy, or satellite which they can download to the large public screens located in the front of the room. A microcomputer makes the operation of all these media as easy as striking a function key on a microcomputer. In addition, all participants can cast ballots on topics and issues via specialized participant response keypads. They can see the results of the votes in graphic format in real time. *Option Finder*™, from Option Technologies, is another exciting meeting technology that features the use of small keypads designed to collect votes from participants using microcomputers. Both of these systems are currently being used by several U.S. corporations.

The *SAMM*© project at the University of Minnesota and the *GroupSystems* project at IBM are two examples of applications that provide each meeting participant with a complete and dedicated microcomputer. Connected by a local area network, these micros form the platform for specialized applications designed to support group work. Prototypes of the *GroupSystems* software application were ported to IBM in late 1987. After successful alpha and beta tests throughout 1988, IBM began to construct specialized meeting rooms called Decision Support Centers (DSCs). To date, IBM has conducted more than 1000 meetings across some 22+ DSCs in the United States and Canada for customers, business associates, and internal groups. Over 10,000 people have used this new generation of conference rooms at IBM between the fourth quarter of 1987 and the second quarter of

1990. Published research by IBM (McGoff, 1990) has documented substantial savings not only in time and money but in the participants' sense of involvement and overall satisfaction with the meeting process. IBM is currently marketing the concept under the name *TeamFocus*™.

The major benefits of applications such as *SAMM*© and *TeamFocus*™ are that they support parallel communication, they allow participants to autonomously and anonymously contribute opinions, they force participants to evaluate information based on content versus its source, and they transparently capture the entire meeting record. Although it's hard to envision parallel communication, imagine that upon arriving at a meeting, you are instructed to plug your ears and gag your mouth. Instead of listening, you are directed to read. Talking is replaced with typing. Now imagine that your computer begins to serve you little bits of intellectual popcorn and invites you to add your opinions to what is presented. You have no idea who wrote the bits of wisdom that appear on your personal screen, and you are guaranteed that no one will ever know how you responded. You are encouraged to react any way the spirit moves you. You glance around the conference room and see your peers pumping data into the system and reacting to what they see. You begin to submit your opinions and eagerly wait to see what your comments will prompt others to say.

Such a process is called electronic brainstorming, and it is not only incredibly productive (14 participants will generate 1000 lines of ideas in 35 minutes) (McGoff, 1990; Nunamaker, 1989), but it's almost too much fun. After a divergent brainstorming session, the group can employ tools that assist in convergent collaboration. They use additional integrated tools to distill the key elements of the information generated in the electronic brainstorm. Once key elements of the electronic brainstorming data have been distilled and categorized, the group can then use prioritization tools to determine the degree of consensus against a set of criteria. There are literally dozens of exciting research projects focusing on the research domain of information technology that supports the meeting process.

Will New Technologies Affect the Connectivity of the Group?

It is even more exciting to realize that once the network-based tools exist to support group work in the same time and the same place, the act of coming together may not always be necessary. It is a logical conclusion to extrapolate from these early results and conclude that face-to-face meetings may no longer be necessary. The experience at IBM indicates, however, that the American culture is a long way from completely eliminating the need for traditional face-to-face meetings. Rather, the need to come together is a function of the degree of trust developed between the group members. In the early stages of group or team building, people will naturally want to be close physically. As time goes on and trust is established, the group members will grow more and more comfortable with working over the electronic network. As the task draws to a conclusion, the group will want to come together again for recognition and camaraderie.

Applications like *SAMM*© and *TeamFocus*™ will support the group throughout the entire process. A research team at IBM's Systems Integration Division in Bethesda, Maryland has successfully conducted a meeting in which half the participants were in North Carolina and the other half were in Maryland. In addition to having the leverage of *TeamFocus*™ software for parallel communication, the groups could see each other and hear each other via the integration of full motion video and a duplexed audio link. Participants reported a high degree of satisfaction with the experimental process, and plans are now being put in place for the full scale integration of these two technologies.

Meetings of the Future

So how will all of these changes come together? What will meetings be like in the year 2001? Perhaps your meeting notice will direct you to a local room at a specific time. Upon arrival you will be introduced to several peers from your geographic area. Some of them you know; some are complete strangers. You will exchange cordials and then take a seat at a semi-circular, arched table. The open ends are pushed up against what appears to be a window. The lights dim and the front glass produces an image of two other curved tables that, when viewed along with the table that is physically in

front of you, complete a circle. By simply looking at the image, it is hard to recognize that two thirds of the people sitting at this "table" are physically located in Germany and China. Your meeting attendant, located who knows where, will direct your attention to your individual monitor where you will begin to converse using systems like *TeamFocus*™ or *SAMM*©. At times you will draw from extended information bases to make your point and even put a pertinent chart, picture, or text up on the public screen for all to see. During breaks you will be able to talk with the attendees in Germany or China much as you would if you were all in the same place physically. At the conclusion of the meeting, you will be given a soft copy of the meeting record and the electronic mail addresses of all attendees.

The technology needed to accomplish this type of meeting exists today. Naturally, it will take time for the human element of the meeting process to accept these type of innovations. But the need for shorter decision cycles, a greater dependence on people to complete corporate activities, and the spiralling costs of travel are going to force people in business and industry to seek ways to work smarter, accomplish more, and save money. Although the predictions for the technologies presented in this book may seem overwhelming, it should be comforting to realize that these changes will be affecting all organizations equally. Taking advantage of the opportunities to enhance group work can give an organization an obvious advantage in the marketplace. By focusing on how people work together and making tools and processes available to them to help them work together more effectively, corporations not only have an opportunity to distinguish themselves as innovators, but they can also start to achieve better solutions more quickly with less trial and error in a more cost effective manner.

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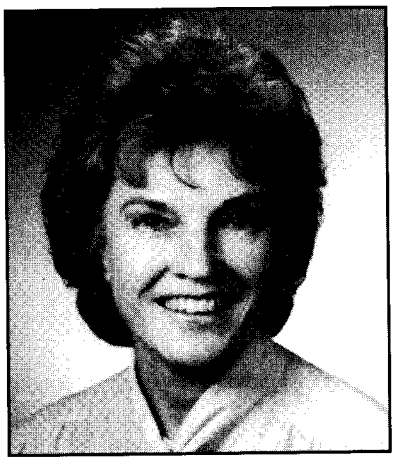
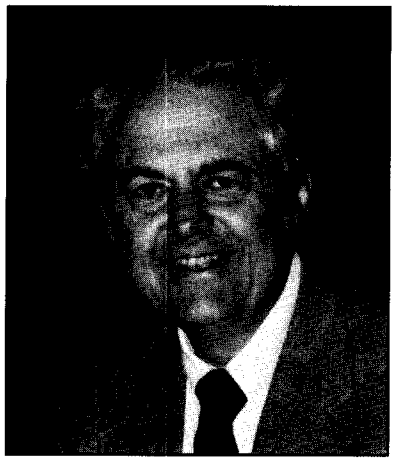


Ann G. Depta is the owner of Meridian Consulting Group, a company specializing in leadership development, team building, and communication skills. She is also a professional meeting facilitator and has worked with numerous Boards of Directors, task forces, and business units. Before forming her own business, Ann was a Vice President and Senior Consultant at First Union National Bank in Charlotte, North Carolina, where her primary responsibilities included organization development, executive development, and coaching for individual managers. Ann also worked in similar positions at Prudential Insurance Company and CPT Corporation in Minneapolis.

Ann holds a master's degree in instructional systems from the University of Minnesota and a B.A. in English from Columbia College. She is a member of the American Society for Training and Development, the Association for Psychological Type, and the National Speakers Association.



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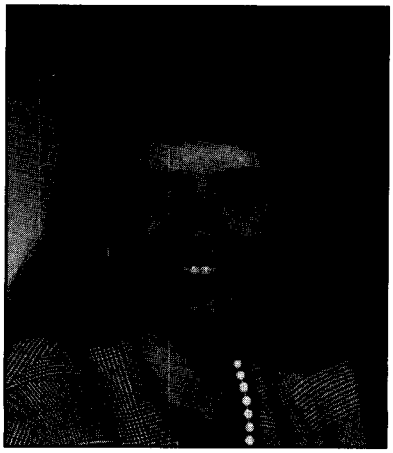
Dick Horton coordinates the training and development concentration for the Master of Education degree at Bowling Green State University. His thirty-six year career has spanned public school teaching, university teaching, administration, and consulting. In addition to being a professor, he directs the Graduate Student Professional Development Program for BGSU. Horton served on the Board of Directors of Epsilon Pi Tau, the international fraternity for education in technology, for nineteen years. He has made numerous presentations and published in professional journals and yearbooks. In 1989, Horton received university recognition for teaching excellence in the College of Technology.

Horton's expertise includes communication, organization development, job and task analysis, training systems, and evaluation. His clients have included Westinghouse Electrical Systems Division, Eprad Corporation, Bank One, Onan Corporation, and the Employers Association of Toledo.

He is a graduate of Ohio University and earned both the masters and doctorate at The Ohio State University. In 1983, he spent a professional development leave at the University of Minnesota – St. Paul.



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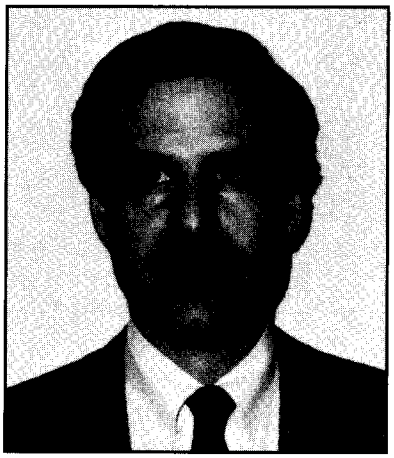

John Lazar is a Performance Technologist for the Corporate Education and Training (CET) organization in AT&T. His customers are the course developers who write instructional materials for the engineers, technicians, and technical support supervisors who maintain the electronic switching systems used by local exchange companies and AT&T. Prior to joining AT&T, Lazar held positions as a curriculum developer and an instructional designer for consulting firms. His responsibilities included performance and organizational analysis, as well as the design of instructional materials and job aids.

Lazar earned a B.A. in psychology and an M.A. in clinical psychology from the University of Illinois at Chicago. He has been active professionally in the performance improvement field, as an author and an officer in professional societies. He is currently president of the Chicago Chapter of the National Society for Performance and Instruction. He has made presentations on data collection, front end analysis, cost benefit analysis, and leadership at national conferences of the Organization Development Network, the National Association of Neurolinguistic Programming, and the national Society for Performance and Instruction.

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Michael Leimbach is Director of Program Research and Measurement for Wilson Learning Corporation, an international provider of training programs and materials. Leimbach's primary focus has been in the development and implementation of measurement systems in sales, management, and organization development. Among the instruments he has developed at Wilson Learning are a team effectiveness feedback instrument, customer feedback systems, a quality orientations organizational assessment, an organizational values survey, and numerous international adaptations. Leimbach has managed research and

measurement projects for a wide variety of organizations, including DuPont, IBM, United States Navy, Securex (Belgium), GEA (Italy), General Motors (Brazil, Canada, USA), Morgan Bank, and Metropolitan Life.

Dr. Leimbach received a Ph.D. in developmental psychology from the University of Minnesota, has published a number of professional articles, and has made presentations for numerous professional organizations such as ASTD (Management, Customer Service, Sales and International Divisions), Japanese Management Association, University of Minnesota, and the Minnesota Council for Quality.

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Tim has worked as a management consultant in training and development for the past four years with clients such as AT&T, Cox Cable, Michigan Bell, and Group Health. In 1987, he created Technologies and Resources for Management (TRM) as a breakthrough management consulting and training firm. TRM is a leading edge resource for developing, researching, writing, and producing high quality training seminars for change interventions. His work experience includes three years with Wilson Learning Corporation and time with Control Data Corporation (Minneapolis, MN) and GenRad (Boston, MA). His primary areas of expertise include marketing, customer service, sales, quality improvement, and team building.

Tim has a masters degree in training and development at the University of Minnesota and is presently researching the use of computers in groups for a Ph.D. dissertation.

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Ed McDonald is currently responsible for the computer and communications utility services for Texaco's U.S. operations. He began his career at Texaco in 1964 as a programmer in the scientific applications area. He progressed through a variety of positions, including Systems Programming, as well as commercial applications development until 1974 when he was named as the first Data Base Administrator for Texaco. In 1979 he was appointed Assistant to Management in the Office of the President in corporate headquarters in Harrison, N.Y. Upon completion of this training assignment, he returned to Houston and joined the Strategic Planning Group of the U.S. Petroleum Products Department. He was named Manager of the Up-stream Planning Group when Texaco U.S.A. was formed in 1982. He returned to the Computer and Information Systems Department in 1984 and assumed his current position in 1985.

McDonald earned a B.S. in physics/math in 1962 and an M.S. in physics in 1964 from Rice University.

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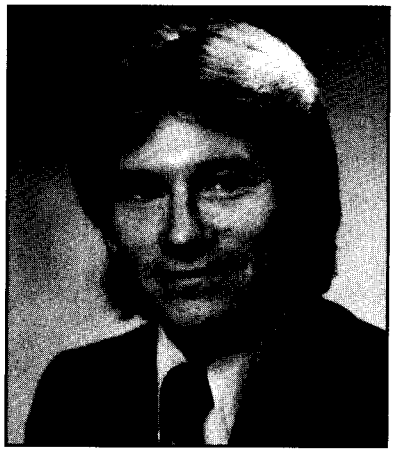

Through the mid-eighties, Chris McGoff led the IBM team that created and implemented the pioneering group decision support systems (GDSS) program now serving IBM executives and employees. In ensuing years he has helped dozens of organizations use and implement GDSS programs. In his work as an IBM consultant, he has used GDSS while facilitating group sessions for executives from organizations including General Motors, Southern New England Telephone, Procter & Gamble, DuPont, Boeing, Mobil, the U.S. Army, Navy, Air Force, and Coast Guard, and the White House Task Force On Education.

McGoff attended the University of Scranton and Texas Tech University where he studied biophysical chemistry and ergonomics. He has published several papers in the field of GDSS focusing primarily on their application and intergration into business environments. During his career at IBM he has held positions in chemical and manufacturing engineering, software product development, and marketing. His current research interests bridge the gap between GDSS, executive information systems (EIS), and the shift in U.S. business to process management.

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Marshall Scott Poole is Associate Professor of Speech-Communication at the University of Minnesota. He has conducted research and published extensively on the topics of group communication, computer-mediated communication systems, conflict management, and organizational innovation. Scott has coauthored or edited four books including *Communication and Group Decision-Making* (Sage Publications), *Working Through Conflict* (Harper and Row), and *Research on the Management of Innovation* (Ballinger). Scott is one of the principle developers of a computerized meeting support system, *Software Aided Meeting Management (SAMM)*[1]. The *SAMM*© system has recently become commercially available and has been implemented in several government agencies and corporations. Scott has consulted for over fifteen years on organizational communication and conflict management and recently has specialized in training organizations to use new computerized communication technologies to improve teamwork.

[1]Software Aided Meeting Management *is copyright Regents of the University of Minnesota*

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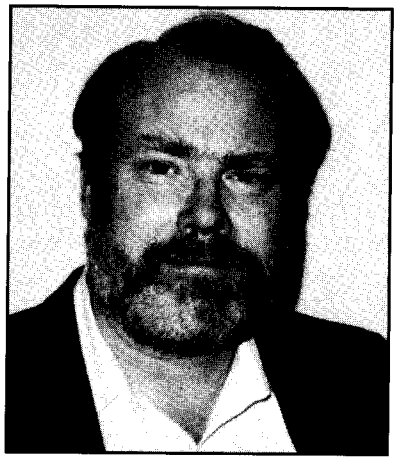

Richard Scudder designs and teaches courses in Management Information Systems at the University of Denver. Those courses have been as divergent as managerial communications in the Executive MBA program and database design for graduate MIS classes. Before coming to the University of Denver, Dick was the Manager of Management Training in the Personnel Department of Manville Corporation where he provided training and consultation in general management techniques, business communications, performance appraisal, and computerized instruction.

Dr. Scudder is also a consultant to public and private organizations on a wide range of topics. He has consulted with both public and private organizations as the designer and manager of numerous database systems, including membership, accounting, and personnel systems for such agencies as the Colorado Association for Commerce and Industry and the Bilingual Department of the Denver Public Schools. He has also worked with large organizations such as Coors and Citicorp Diners Club to design and develop MIS productivity measures and Systems Development Life Cycles.

Dr. Scudder earned his B.A. in political science, his M.A. in educational media, and his Ph.D. in educational technology from the University of Colorado.

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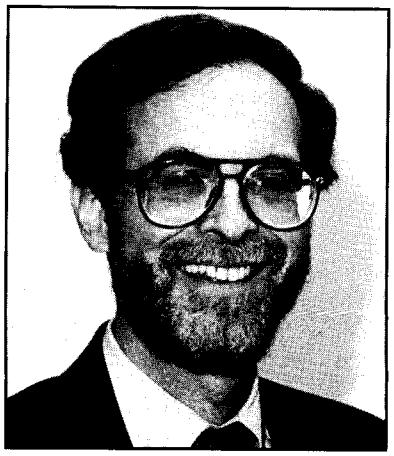
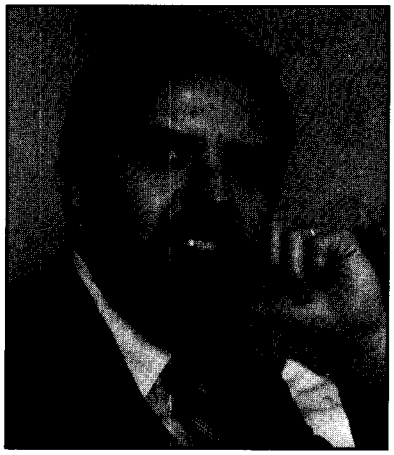


Stuart M. Smith is Senior Vice President of Human Resources for Mount Carmel Health, a multi-hospital health system, in Columbus, Ohio. He has over 20 years of professional experience. His areas of expertise include strategic planning, organizational productivity improvement, organizational development, compensation and benefits, team building/ conflict management, and survey research. He has become increasingly involved in managing cultural diversity.

Smith holds a Ph.D. in organizational behavior and masters

degrees in group dynamics/interpersonal relations and health services planning and evaluation from the University of Pittsburgh. He previously taught in the Human Organization Science Graduate Program, Villanova University.

Smith was president of the Philadelphia chapter of the Society for Human Resource Management (SHRM) and chair of the Advisory Board, Center for Research and Education the Work Place at the University of Pennsylvania. He is also a member of the Editorial Board of the *CPA Personnel Report*, a monthly publication addressing human resources and management issues affecting accounting and business consulting firms.



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Dr. Swanson is Professor and Director of the Training and Development Research Center at the University of Minnesota. Swanson is a nationally recognized authority on human resource development, the analysis and evaluation of work behavior, forecasting the financial benefits of human resource development, and trainer training. He has consulted with many corporations, including 3M, Kellogg, Citicorp, AT&T, Honeywell, Control Data, and Pemex. His doctoral degree was earned from the University of Illinois.

Swanson has published more than 130 works related to human resource development. He is coauthor of the 1986 Wiley book, *Performance At Work: A Systematic Program for Analyzing Work Behavior;* the 1987 ASTD monograph, *Human Resources and Organizational Change;* the 1988 Jossey-Bass book, *Forecasting Financial Benefits of Human Resource Development*; and the 1990 ASTD monograph, *Performance Appraisal: Perspectives on a Quality Management Approach.* He is presently the editor of the *Human Resource Development Quarterly.*