FACILITATING CREATIVE PROBLEM SOLVING GROUPS

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Introduction

If you were asked to name the inventors of the telephone, airplane or lightbulb, you would probably experience little difficulty in recalling the names of Bell, the Wright brothers or Edison. In contrast, many people experience difficulty in naming the "inventor" of the 747 jumbo jet, the 800 inward watts number or the silicon chip. Aside from the major differences in level of inventiveness and how much more current the latter three products are, a major difference between these two categories is that the more recent products have been the result of group creativity.

The growing importance of group creativity is being recognized by all types of organizations (Freedman, 1988; Kuhn, 1988). The need for organizations to be competitive and deal with increasing levels of complexity and change has forced managers, administrators and others who are concerned with the future viability of our places of work to deal with innovation and creativity. Although many think of creativity as primarily an individual affair, there is a need to examine the application of this personal power within the context of groups. Creativity in groups and in individuals is not an either/or affair. When you are concerned with facilitating group creativity you must simultaneously be able to address the issue of promoting individual creativity.

Groups have been defined in many different ways. Most definitions point out that a group is something more than the simple sum of its members. The following definition, provided by Johnson and Johnson (1982), will be used for this paper:

A group is two or more individuals in face-to-face interaction, each aware of his or her membership in the group, each aware of the others who belong to the group, and each aware of their positive interdependence as they strive to achieve mutual goals.

Hanson (1981) indicated that "as society becomes more complex and organizations become multi-faceted, decisions that affect many lives are rarely made by individuals alone. More and more decision making is done within the context of a group." This emphasis upon group creativity need not diminish the significance of individual creativity. Indeed, there are many occasions which call for the application of individual skills and abilities toward the development of creative solutions. This changing emphasis does, however, call for more involvement on the part of individuals working together to achieve efficiency and innovation. Lawrence and Dyer (1983) reviewed the abilities of organizations to structure themselves for
Innovation. They "found no instance of an organization's having a record of high efficiency and high innovation without evidence of active involvement throughout the organization."

Change, complexity and competition provide the impetus for increased creative collaboration. Gray (1989) indicated:

Finding creative solutions in a world of growing interdependence requires envisioning problems from perspectives outside our own. We need to redesign our problem-solving processes to include the different parties that have a stake in the issue. Achieving creative and viable solutions to these problems requires new strategies for managing interdependence.

Leaders and managers concerned with the most productive means and guidelines for using groups have frequently attempted to gain some clear indications from research in the social and behavioral sciences. It is beyond the scope of this paper to review the relevant empirical literature on the use of groups in problem solving and planning for organizational change (see Bass, 1981; Hackman, 1990; Hackman & Morris, 1975; Hare, 1976; Hare, 1982; Hoffman, 1979; and Lippitt, Langseth, & Mossop, 1985, for more comprehensive treatments). However, it is important to recognize that the current status of this literature does not shed significant light on the subject. For example, Hackman and Morris (1975) indicated:

In sum, there is substantial agreement among researchers and observers of small task groups that something important happens in group interaction which can affect performance outcomes. There is little agreement about just what the "something" is—whether it is more likely to enhance or depress group effectiveness, and how it can be monitored, analyzed and altered.

Despite the lack of clear direction from research, groups continue to be important factors in organizational decision making and problem solving. Frequently, the necessary information for solving a problem is scattered in a group. In addition, the acceptance and comprehension of a decision by others is frequently as important as the actual quality of that decision.

If the empirical literature does not provide clear direction for those interested in the effective management of group problem solving, it will be important to identify alternative useful sources. There are a variety of developments which can provide some productive information and assistance. In a recent examination of the basic skills employers seek to be more competitive and to develop successful employees and organizations. Carnevale, Gainer, & Meltzer (1990) found:

Increasingly, employers have been discovering that their work forces need skills that seem to be in short supply, skills over and above the basic academic triumvirate of reading, writing and computation. The skills that employers are looking for include problem solving, personal management, and interpersonal skills as well as the abilities to conceptualize, organize and verbalize thoughts; to resolve conflicts; and to work in teams — all of these skills are critical but often lacking.

Their book provides a wealth of information on the sixteen clusters of skills they found employers demanding. A strong theme through all these clusters was the ability to work and solve problems effectively with groups. Employees need to
develop skills which help them meet new challenges and make productive contributions when working in teams.

The movement to develop skills and abilities of teamwork, creative thinking and problem solving is not restricted to U.S. industrial or organizational settings. The movement is occurring on an international level (Colemont, Grøholt, Rickards, & Smeekes, 1988; Grønhaug & Kaufmann, 1988), throughout our educational institutions (Deal, 1990; Isaksen, 1988b; Isaksen & Parnes, 1985; Tuerck, 1987) and within the public sector (Merritt & Merritt, 1985). This increased attention on group creative problem solving has a high degree of relevance for school improvement initiatives, organizational effectiveness, as well as the quality and continuous improvement movement within organizations.

The purpose of this paper is to provide useful information for facilitators of Creative Problem Solving, in other words those interested in using groups to understand problems and challenges, generate ideas and plan to put these ideas into action. This information will include a brief description of Creative Problem Solving; the roles of facilitator, client and resource-group member; as well as a variety of group management issues. The paper will close with some suggestions for those who have recently learned Creative Problem Solving and would like to facilitate its use with others.

**Creative Problem Solving**

One of the ways to promote group creativity is through the effective facilitation of Creative Problem Solving (CPS). CPS is a broadly applicable process that provides an organizing framework or system for designing or developing new and useful outcomes. CPS enables individuals and groups to recognize and act on opportunities, respond to challenges, and overcome concerns.

CPS is not merely "problem solving." The creative aspect to CPS means the focus is on facing new challenges. It means seeing these new challenges as opportunities; dealing with unknown or ambiguous situations and productively managing the tension caused by gaps between your vision of future reality and actual current reality. A few of my colleagues prefer to use the terms "Creative Opportunity-Finding" as opposed to CPS, but I feel the "creative" modifier means that we are not concerned with the reproductive, menial or mundane kind of problem solving (Isaksen, In preparation). Learning and applying CPS is a means towards understanding and nurturing the creativity residing in each of us.

CPS is a broadly applicable process providing an organizing framework for specific thinking techniques to help design and develop new and useful outcomes for meaningful and important challenges, concerns and opportunities (Isaksen, Dorval & Treffinger, 1994). CPS is an operational model for a particular kind of problem solving where creativity is applicable for the task at hand.

There are many creative problem-solving procedures designed to assist groups to solve problems and meet goals effectively (Egan, 1988; Isaksen & Treffinger, 1985;
VanGundy, 1981). It is beyond the scope of this paper to review these procedures (see Isaksen, 1988a, Price, 1985, and Stein, 1975, for more information). Rather, this paper focuses on the notion that these procedures can assist the group in being more deliberate and explicit in better understanding the nature of challenges, opportunities and problems; generating options; and analyzing, evaluating and implementing them. These creative problem-solving techniques have been used in business and industrial settings (Basadur, Graen & Green, 1982; Basadur & Finkbeiner, 1985; Gryskiewicz, 1981) as well as educational organizations (Isaksen & Parnes, 1985). There are also many training programs in creative problem solving available through the Center for Creative Leadership, the Center for Studies in Creativity, the Creative Education Foundation, the Center for Creative Learning as well as a host of other organizations.

Throughout this paper, the words "creative problem solving" will sometimes appear with capital letters. When you see these words in lower case letters, they refer to efforts made by individuals or groups to think creatively in order to solve a problem; when the words appear as Creative Problem Solving or CPS, I'm referring to the specific problem-solving framework discussed in this paper.

There is an abundance of models and approaches to creative problem solving (Costa, 1985; Gordon & Poze, 1981; Kepner & Tregoe, 1981; McPherson, 1968; Prince, 1970; Sampson, 1965). Some models are rather prescriptive in that they attempt to give the user a detailed map with a particular pre-planned route highlighted for use. Other approaches tend to be descriptive in that they will provide the user a map or framework he or she can use to find their own way. Whether the model is prescriptive or descriptive all models attempt to outline the stages of thinking or problem solving and provide some indication of the techniques which might be utilized along these stages.

![Figure One: Components of CPS](image)
Our current componential view of CPS (Isaksen, Dorval & Treffinger, 1994) describes three main components for CPS (see Figure 1). Understanding the Problem includes seeking opportunities and establishing goals for problem-solving efforts, examining the present status of a context or situation from many different perspectives, and considering many possible problem statements to identify the possible pathways to pursue for solving the problem. Generating Ideas includes generating many, varied and unusual ideas and identifying those ideas which seem promising or have interesting potential. Planning for Action is concerned with transforming ideas into action. Criteria for analyzing and refining promising possibilities are identified and then used to select, strengthen and support the promising tentative solutions. In addition, emphasis is placed on considering possible sources of assistance and resistance, as well as formulating and implementing a specific plan of action. These three components are used in any order or sequence to best help the client develop an understanding of the program, generate alternatives or transform ideas into action.

CPS is a flexible model that's components and stages can be used in any sequence—but it is not a panacea, it must be used on tasks that are appropriate. Therefore, before CPS can be most effectively applied, two activities, Task Appraisal and Process Planning, must take place. Task Appraisal is concerned with making sure CPS is appropriate to the task; during Task Appraisal, the key players, the desired outcome, the characteristics of the situation, and the possible methods for handling the task are considered. During Process Planning, the goal is to clarify how each of the key players will be involved in solving the task and identify the most effective entry point into the CPS framework for problem solving.

The important point is that there are many methods and techniques which can be used by a group facilitator to help the group be more effective in balancing creative and critical thinking to provide a more effective type of group problem solving. Our current approach to CPS requires the use of both creative (divergent) and critical (convergent) thinking to generate and communicate meaningful new connections as well as to analyze, select and develop new possibilities. Knowing and applying these group procedures is a significant challenge for the trainer, teacher, manager, facilitator, supervisor, executive or anyone interested in utilizing group resources.

There are many factors for the facilitator of CPS to consider when planning to productively utilize groups. Knowledge of the actual procedures and how they work is the primary set of competencies upon which to build. This knowledge and personal experience in applying the techniques can strengthen the facilitator's understanding of why certain methods may result in certain types of outcomes. Over time, this facilitation expertise can be expanded upon and shared more deliberately with others.

CPS provides a unique context within which to examine leadership and group dynamics. Hackman (1990) sets forth three basic attributes which must be present if the label, "work group," is to be applied. Groups using CPS are real groups in that they are intact social systems with boundaries, interdependence and differentiated roles among members. They have specified tasks to perform and responsibility to produce outcomes. CPS groups operate within a larger social context in that there is usually clientship for challenges and opportunities on which
CPS is applied. These clients have responsibility to implement and use the outcomes provided by the group. Although effective application of CPS is not limited to groups, some of the most powerful benefits of using CPS can be materialized with small-group application. Consideration should be given to readiness of the group to use various techniques.

**The facilitator role: Group-oriented leadership**

There are many views and approaches to understanding the concept of leadership. One of the earliest was to focus on the attributes, traits and characteristics of effective leaders. Another approach examined the style of leadership or the balance between concern for task and concern for people. Recently, we have been searching to understand the situation and contingencies for the productive application of leadership. Whatever your approach to studying leadership one thing is clear: leadership is related to followership. Gardner (1990) indicated:

> Leadership is such a gripping subject that once it is given center stage it draws attention away from everything else. But attention to leadership alone is sterile—and inappropriate. The larger topic of which leadership is a sub-topic is the accomplishment of group purpose, which is furthered not only by effective leaders, but also by innovators, entrepreneurs and thinkers; by the availability of resources; by questions of morale and social cohesion; and by much else...

Clark and Clark (1994) indicated that taking a leadership role involves a conscious choice and commitment to lead. In describing this choice, the Clarks also outline a few of the tasks that come with the commitment:

> In every case, leadership occurs only when one chooses to lead. To make that choice means that the leader mobilizes the talents and energies of the total group to address a problem, complete a task, or achieve a mission. The leader facilitates. The leader clarifies. The leader inspires. The leader resolves conflicts. The followers of such a leader comment that they exert more effort for the leader, that the leader clarifies the importance of each person's role and is concerned that each person will develop and grow as a result of the experience, and that the organization will improve and prosper (page vii).

If a decision is made to involve a group in CPS, it is helpful if the style of the leader is consistent with the notion of group participation. It would be counterproductive if the leader were to autocratically order all group members to participate and to insist that they enjoy it. It is also important to understand the unique style and skills necessary for effective facilitation. This special type of group-oriented leadership role focuses on the release and effective utilization of group resources.
During a typical CPS session, there are three roles present: client, resource group members and facilitator (see Figure 2). Clients are responsible for managing the content direction of the session. They are the problem owners responsible for addressing the task and use their knowledge and expertise to guide the content in the desired direction to create specific outcome(s). Resource-group members take part in a CPS session when clients need help with dealing with a task. They use their diverse knowledge and varying perspectives to provide clients with many, varied and unusual alternatives.

The facilitator is the person who takes primary responsibility for the process and procedures with which the group will be involved. The facilitator structures and prepares the environment, acts as a catalyst for releasing and focusing the efforts of group members, uses appropriate methods and techniques, and is sensitive to the variety of group dynamics. For more information regarding the role and responsibilities of the facilitator, see Firestien & Treffinger (1983a), Isaksen (1983) and Treffinger & Firestien (1989).

The responsibilities of the facilitator are rather complex. An effective CPS facilitator must also be an excellent trainer or teacher, as well as a situational leader. When groups first get together to use CPS some energy must be invested in helping them understand the basic ground-rules, roles and specialized "language" associated with CPS. As the group members become competent and committed, the facilitator can move them into the application of CPS. It is when the group is actually working on a specific task where the facilitator has a highly complex challenge. When the group is actually working in context, it becomes very difficult to keep the focus on process; the group will naturally focus a great deal of attention on the content of the situation. The facilitator will need to be the one person (perhaps along with a "process-buddy") who is committed to focusing on the process in which the group is engaged.
Characteristics of an effective CPS facilitator

There are many attributes of the effective facilitator of CPS. Parnes (1985) used the term facilitator to identify:

the leader who draws out, reinforces and facilitates the creative learning, development and problem solving of the people with whom he or she is working. The person facilitating creative behavior is aware of the creative process and first understands it in himself or herself, and then is able to help others see and strengthen it in themselves.

The word "facilitator" means a variety of things to different people. Facilitators can often be viewed negatively—as nothing more than meeting planners responsible for managing logistics, passive supporters who respond to emergent needs, or flipchart secretaries who record the content of what is discussed during a meeting. In worst-case scenarios, facilitators can be used as "scapegoats" for blame when a meeting is not productive or simply as cheerleaders who are on the side with no real purpose.

For those of us concerned with the teaching and application of CPS, however, the concept of facilitation has a special meaning. One of the best ways to describe the concept is to identify those important attributes or qualities it contains. The following characteristics have been identified as key abilities and skills associated with effective facilitation of CPS; the list is in no particular order of importance, nor as it is presented, complete.

Has process awareness and expertise

Aside from all the other abilities and skills that would help the facilitator communicate and effectively manage the interaction between a variety of individual roles, the awareness of a variety of methods and techniques for use during a creative problem-solving session is an important attribute of a CPS facilitator. Having the ability to use a diversity of tools provides the facilitator with an efficient means of meeting the needs of a client by fully utilizing the resources of the group.

The CPS facilitator possesses a clear and productive understanding of the conceptual framework of CPS. This would include knowing the specialized CPS terminology and guidelines, the subtle differences among the concepts of the CPS framework, components, stages, phases and tools. In addition, the facilitator will need to make decisions about the effective application of the many CPS tools. It is also quite helpful to have a number of other process languages at your disposal. For example, it is very helpful to be able to make connections between CPS and Targeted Innovation, Synectics, or Kepner-Tregoe. Some people may not have had direct training in CPS, but have had some experience with another process model.

While the group is learning about CPS, preparing to apply the tools and actually engaged in problem solving, the facilitator must be able to maintain an awareness of the group process and dynamics as well as keep an eye on the time, energy, and client's needs. In short, the facilitator must be able to juggle quite a few issues at once. The major expertise necessary for CPS facilitation is the ability to set an appropriate environment by removing barriers to effective use of personal and
group creativity and accelerating progress toward the end in view. Having awareness and expertise with the Creative Problem Solving process helps to remove barriers and improve the environment for creativity.

Is clear about role

The facilitator also has the responsibility of managing productive interaction with both the client(s) and the resource-group members. In theory, there is a sharp and clear difference among the three social roles of facilitator, client and resource-group. However, when groups are engaged in CPS, these roles become less clear and manageable. The role of the CPS facilitator encompasses teaching and leading as well as managing the other social roles of client and resource group.

In a sense, the facilitator must function as a "participant-observer" within the group. When needed, the facilitator provides the necessary process intervention from a content and CPS perspective, but must always have the clear awareness of the purpose and goal of the session.

Has people skills

The CPS facilitator must feel comfortable with a social role which involves a great deal of interaction with other people. Facilitators need to be able to deal effectively with group dynamics, interpersonal skills and communication. Handling those sudden changes of course which groups often provide offers a constant source of challenge to those who choose to work with others. An effective facilitator knows how to observe and utilize the interest and motivation of others toward productive outcomes.

Manages content-process balance

It is important for the facilitator to be able to listen to a client and understand the context enough to comprehend the nature of the problem or challenge. In a sense this means being a "quick study" for the main ideas and key data within the domain of the client. It is probably quite helpful for the facilitator to have a broad background and a good general vocabulary to help acquire knowledge from a variety of contexts. More importantly, managing the balance between becoming an expert within the specific problem domain and offering appropriate process interventions is a major area of judgment for the CPS facilitator.

Leverages personal experience

The effective CPS facilitator can draw upon a wealth of personal experiences which illustrate key learnings about the process. Some of the most learnable moments occur when a CPS facilitator can share with others specific interactions and events and the rich key learnings they provide. These actual examples really help others learn the value and most productive use of CPS technology. Providing these examples illustrates that it is necessary to have trust in the process. Sharing these experiences also provides a role model of healthy intellectual competence coupled with genuine and personal disclosure.
Not only is it necessary to have access to past experiences, making good use of current learning opportunities is one of the best ways to insure future productivity. It is possible to learn from current programs and process interventions provided by the facilitators.

**Manages divergence-convergence balance**

A central dynamic to manage when facilitating CPS is knowing how to diverge as well as how and when to stop diverging. Bringing divergence to a close is not synonymous with convergence. Making the transition to productive application of convergent thinking is a key challenge. Having a deep understanding of the guidelines for generating options as well as analyzing, developing and refining options is a key initial step.

If there is one technique which is the most widely known, it surely is brainstorming. However, it is also quite clear that many people equate brainstorming with the entire CPS framework. It is important to maintain conceptual as well as practical balance when learning and applying CPS. It is nearly unbelievable that many creativity practitioners are still hung up with equating creativity with divergence! Most organizations with which I am familiar have no shortage of ideas, they do have tremendous needs for focus and follow-through.

**Has appropriate personal qualities**

There are a wide variety of specific personal qualities associated with effective CPS facilitators. I am certain that there is no particular mold from which all excellent CPS facilitators will be formed. However, there are some broad personal characteristics which are likely to be held in a diversity of individuals and in unique ways. Some include: being able to show enthusiasm and having a genuinely-optimistic attitude; having positive beliefs about creativity; having enough belief-in-self to be able to ask the group for help (self-confident enough to indicate how much you don't know!); having a sense of humor; and a high degree of personal integrity.

**Manages logistics**

A major responsibility of the facilitator is the establishment and management of a productive learning and thinking environment. Being able to manage the planning of a wide range of details is very helpful. Some of these logistical issues include: having a variety of available resources; arranging the sitting so that there is adequate eye contact; preparing people to dress casually (where appropriate); demonstrating to those involved in the training and group sessions that their needs have been considered and many others.

Dealing with logistics is often minimized as an important quality of effective CPS facilitators. The larger issue is maintaining an appropriate balance between strategy and tactics. There have been sessions that have not worked as productively as they might have because no one was concerned with making sure
there was a flipchart or markers or had the ability to hold an effective planning meeting.

**Can teach and train**

Before CPS facilitators engage individuals or groups in CPS, they must be certain that they are as prepared as possible to help the people benefit from the process interaction. One of the most important roles a facilitator can perform is that of educator—bringing out that which is within.

It may be necessary for groups who are in a position to apply CPS to know it’s language, guidelines and tools. This may mean providing individualized opportunities for people to develop the necessary understanding for effectively applying CPS. It can mean designing and providing very explicit large-scale training programs to prepare for CPS. It can also mean providing brief instructions related to language and tool use during a CPS session.

**Matches style to situation**

The facilitator must be able to manage the transition from teaching and training to actual engagement on a real challenge. This requires that those involved know enough about what they need to do and are ready to apply CPS. This requires a series of assessments regarding the competence and commitment of group members to effectively use CPS. One of the worst mistakes to be made is to assume that because everyone knows how to brainstorm, that they are ready for effective application of CPS technology.

A situational approach to providing leadership is absolutely necessary. Moving individuals and groups from a learning mode to a doing mode, and then reflecting on that which was done takes a special level of expertise and lots of practice.

**Managing the client**

It is important for group members to know that their efforts have some meaning and relevance. This can be achieved only if someone within the group has a sincere interest in implementing the solutions the group generates. Thus, the facilitator interacts with a client. This is the individual who has decision-making authority or ownership over a particular situation or challenge. The role of client in CPS groups supplies content-related expertise and provides convergence and decision making during the group’s session. The client helps to keep the group on track by clarifying the situation, choosing directions and approaches, and participating in the group’s session. In the final analysis, it’s the client who needs to have a problem solved or an opportunity reached. Therefore, the role of client is an important one in determining the effectiveness and productivity of the group’s effort. (For more information on the client’s role see Firestien & Treffinger, 1983b.)

Clients need guidance from the facilitator for making choices and judging at appropriate times, and they need to have support for permitting, encouraging and participating in the divergent activities of the group. Clients must demonstrate
sincere interest in working with the group and process to bring about change. For clientship to be present, there must be room for a new approach or fresh idea which the client is willing and able to implement. The client must also have enough clear influence to implement the outcomes of the CPS process. This type of ownership builds commitment to the group process and helps in the development of effective groups.

The role of client helps to provide the group access to a clear definition of the task at hand. The client shares the most important background data and provides other information the group needs to know before proceeding. Elements of the client’s task must be specified and have clear connection to his or her responsibilities. In short, the client provides much the expertise necessary for productive problem solving.

Many times it is possible to identify one clear client. At other times, the ownership is distributed among a group. More broadly, there are some challenges and opportunities that have widely distributed ownership. For example, all of us are currently concerned about global warming or the threat of nuclear destruction. Managing group clientship provides the facilitator an even more complicated challenge. Usually, group clientship requires special attention to the convergent aspects of CPS. It may be necessary to modify the process technology, the time-frame within which the group will work, and other factors when working with more than one client.

Characteristics of an effective client

First, a distinction must be drawn between client and clientship. A client is a person who has a particular social role before, during and after a CPS session. Clientship is synonymous with ownership. Ownership implies that there is: sufficient motivation or interest to work on the problem or challenge; there is sufficient authority, responsibility or influence to take action; and there is a need to consider novel approaches which require the use of imagination. In addition to ownership, there are a number of other characteristics held by many of the most effective clients with whom we have worked. A few of the more important of these characteristics are described below.

Genuinely interested in taking action

Effective clients are interested and motivated to deal with the problem situation. They display a positive attitude and commitment by attending all and actively participating in planning meetings and group sessions as well as by taking action on the outcomes of meetings. They actively seek involvement and contribution from others.

Has authority and responsibility for problem situation

Effective clients have the authority and responsibility to take action on the problem situation. They are able to engage in CPS, see value in its use and take action on its outcomes. It is possible for a client to be a "sole proprietor" as well as a "stake-
Ownership may be closely held or widely distributed. In either case, the actual level of responsibility and breadth of accountability for implementation must be clearly identified.

**Willing to change or modify paradigms**

Effective clients are willing to change or modify existing ways of doing tasks. They consciously seek novel and imaginative outcomes. They promote the involvement of "outsiders" as resources to assist in providing a diversity of novel perspectives.

**Committed to the use of CPS**

Effective clients understand the value of CPS and are willing to provide the time, energy and planning necessary for productive outcomes. They see value in all three CPS roles (client, facilitator and resource group) and take the responsibilities associated with their role seriously. They actively collaborate with facilitators to plan, deliver and debrief the CPS session.

**Trusts CPS process**

Clients often become involved in CPS activities with which they may not be familiar. Effective clients trust the process in that they follow the guidelines and principles necessary to provide the desired outcome or result. They remain open to the generation of novel and unusual perspectives and tolerate the ambiguity which might accompany the use of certain CPS principles and techniques.

**Flexible in thinking and perceptions**

It is often necessary to "shift gears" and pursue new avenues or directions. Effective clients remain open to the changes in direction. They listen and accept different approaches taken during various stages and phases of CPS. They stay open to the fact that they might "change their mind."

**Has good people skills**

Effective clients have the ability to make others feel at home and supported. They "read" the facilitator and resource-group members and know when and how to respond. They maintain an appropriate level of eye contact with others, listen carefully to options, their non-verbal behavior matches the purpose of the session as well as their verbal comments; and they provide an appropriate level of encouragement without smothering or controlling the session.

**Has integrity**

Effective clients have a strong set of beliefs in the value of diversity and the importance of unleashing human creativity. They see value in working with people to identify and solve problems. They see people are part of the solution, not the
problem. They are honest in dealing with others and themselves. When the possibility of a "hidden agenda" emerges, they are able to identify it openly and find productive alternative approaches.

**Has expertise in the problem area**

Productive CPS outcomes can often be influenced by the knowledge level and experience of the client. Effective clients are knowledgeable in the problem area to the point that they can communicate the nature of the situation in a simplistic and understandable manner. In effect, they know their area so well that they could describe it to an eight-year-old child. The client's knowledge and expertise is often necessary for making some sense out of the novel perspectives generated during CPS. There may be special applications of CPS with groups of experts within a particular content domain. Generally, however, if there must be an expert in most CPS sessions, it should often be the client.

**Has process awareness**

Effective clients are willing to learn and understand the CPS process. They have a general level of awareness of the roles of a CPS session, how the techniques will operate, and can effectively communicate with the facilitator and the resource group using CPS language. After applying the process, they often engage in a post-session meeting designed to provide feedback about the general level of productivity, identify the outcomes which were most useful and intriguing, how the techniques generated the variety of outcomes, and able to identify if and how the application of the CPS process added value.

Effective clients often take the responsibility for communicating these learnings to the facilitator and the resource-group participants. They see the entire affair through a systems approach. They actively seek out productive learning from the investment everyone has made in the CPS session.

**Prepare for CPS**

One of the most effective ways a facilitator can manage a client to help ensure the successful application of CPS is to engage in Task Appraisal and Process Planning. The purpose of conducting Task Appraisal is to determine whether or not CPS is appropriate for a given task. To answer this question, the key people involved in the task, the situation or context in which the task exists, and the desired outcomes resulting from the intervention are all examined. The purpose of Process Planning is to determine, if appropriate, how CPS should be used. During process planning, specific clientship (ownership) is confirmed; CPS roles (client, facilitator and resource-group member) are clarified; a process starting point (a particular CPS component or stage) is located; and preparations are made for applying CPS
(individually or with a group). It may be helpful to consider the following suggestions when engaging in Task Appraisal and Process Planning.

**Task Appraisal**

The initial interaction between the client and facilitator is very important to insure a match between the CPS process technology and the actual task upon which the client wants to work. If the results of Task Appraisal suggest CPS is inappropriate for a task, then it may be necessary to suggest alternative methods for dealing with the task such as checking available literature, using existing or previous solutions from history, or hiring a consultant to address the task. There is no magic to the productive application of CPS. Task Appraisal provides an opportunity to make sure, before you begin applying CPS, that the application fits the problem-solving need. The following activities will be helpful in conducting Task Appraisal (see Figure 3).

![Figure Three: Task Appraisal](image)

**Identify and examine who is involved in the task**

To determine if CPS is appropriate for a given task, it is important to identify and examine the key individuals and groups involved in the task. This is more than simply identifying who is involved in the task. It includes understanding how they are involved and their impact on the task.
• The facilitator and client work together to identify and understand who the key players are and what they are like.

• The facilitator and client examine the nature of the clientship and determine its depth and breath.

• The facilitator asks questions to determine the client’s level of ownership.

• The facilitator determines with the client whether those involved have enough knowledge and expertise.

**Identify desired outcomes**

Task Appraisal also provides the opportunity to become familiar with the client’s desired outcome or intended results of their problem-solving efforts. The nature of the outcomes will help determine if CPS should be used. For example, if the client does not want anything new or novel, then CPS should not be used and another methodology suggested.

• The facilitator asks the client to describe the desired outcome and identify its key qualities.

• The facilitator asks the client to describe the kind of novelty desired (short-term continuous improvement vs. long-term paradigm shift).

• The facilitator and the client discuss the importance and immediacy of the task.

**Examine the situational outlook**

The needs and general context in which the task is located will provide you with important information to consider before involving yourself in the task. Examining the context helps you understand the likelihood of action resulting from your efforts and the application of CPS. It also provides an understanding of the opportunities that exist for CPS application.

• The facilitator has the client discuss the situation surrounding the task.

• The client shares information about the availability of adequate resources, information and support for dealing with the task.

• The facilitator asks the client to describe the general working climate involved in the task arena.

• The client shares the strategic priorities surrounding the task.

**Determine the appropriate methodology**
With a better general understanding of the people, the situation and the desired outcome, you are in a better position to determine whether or not CPS is appropriate for the task. You may find that you have the right people, who want a new and useful outcome, in a situation that requires change. This situation may be appropriate for CPS. However, the results of your Task Appraisal may show that the people you are dealing with do not have the appropriate level of ownership, that a solution is readily available, or that priorities in the task situation suggest no action will be taken on the task. In these cases, CPS may not be appropriate and a different methodology suggested.

• The facilitator asks the client to identify what methodologies are currently being used to deal with the task.

• The facilitator and client discuss the costs and benefits of using CPS.

• The facilitator and client determine if they know enough about CPS to effectively apply it.

• The facilitator determines if CPS is appropriate for the given task or are other methodologies besides CPS recommended.

**Process Planning**

If CPS is determined to be appropriate for a given task, it is necessary to develop an effective plan for its application. Since CPS is a broad and flexible framework, it is necessary to tailor its use for the task. The following activities are helpful when conducting Process Planning.

**Confirm specific clientship**

Although the nature of clientship may have been examined during Task Appraisal, it may be helpful and necessary to confirm that the task owner has appropriate levels of interest, influence and need for imagination. If the client does not have sufficient levels of these three things, it may be necessary to modify the task to create ownership or to work with a different person, one who has the appropriate levels of interest, influence and need for imagination.

• The facilitator confirms that the client has the appropriate level of interest, motivation or passion for working on the task.

• The facilitator confirms that the client has enough clout or leverage to implement and take action based on the results of the CPS application.

• The facilitator confirms that the client has a need for engaging in the imagination to develop new or unique approaches to dealing with the task.

**Clarify roles for applying CPS**
When preparing to apply CPS, particularly in a group setting, it is important that all those involved understand their role and related responsibilities. For example, the client needs to know that when applying CPS the facilitator will not be contributing content suggestions or making decisions about content. The client needs to understand that he or she is primarily responsible for making content-related decisions and determining the direction and flow of the session's content. If CPS is applied using a resource group, then they need to be informed of their responsibilities related to supporting the client during the session. Although resource-group members do not necessarily need to be experts in the task content, they do need to know enough about the task to be helpful.

- The facilitator and the client meet to discuss their respective roles and responsibilities.
- Client and facilitator work together to identify and select resource group members if CPS is applied in a group setting.
- A plan is made to brief the resource group on the results of the Task Appraisal and Process Planning prior to the session.

**Locate your CPS process starting point**

It's important to use the client's expertise on the task to develop the most productive CPS process intervention. This includes identifying the most effective starting point on the CPS process. There are three components and six stages where you can enter, depending upon the needs of the task. For example, if the need is for identifying a future direction for change, understanding current reality or identifying pathways to move an existing situation into something new, then the Understanding the Problem component is most appropriate in which to start. If the need is to gather ideas for solving a specific problem, then the Generating Ideas component may be most appropriate. If the need is to make decisions about options, strengthen promising alternatives or develop an effective implementation plan, then the Planning for Action component may be most appropriate.

- The facilitator asks the client questions to determine which component to enter in the CPS process.
- The facilitator works with the client to determine and design the meeting agenda based upon the process needs.
- The facilitator and client work together to determine the appropriate utilization of a resource group in the process design.
- A plan is devised to communicate the results of the session with resource-group participants (memos, videos, graphics, samples).

**Plan for session and logistics**

There are many additional things you can do to increase the likelihood of a productive CPS session. One of the most tangible ways to prepare for the session is
to think about the actual physical arrangements for the meeting. This is especially important if you will be using group resources. A convenient way to deal with these concerns is simply hire a meeting planner. If this is not an option for you, consider the following information.

- The facilitator helps the client prepare for the actual session (include the use of audio-visual aids, charts or pictures).

- The facilitator and the client discuss the criteria for group membership and the appropriate limits for diversity of perspectives.

- The facilitator coaches the client regarding the appropriate behaviors to be used during the CPS session.

- The facilitator briefs the client on the CPS technology to be used during the session.

- Resource-group members are invited and informed of the purpose, time and location for the session. The invitation memo may also provide a brief summary of the client’s task, desired outcome for the session and rationale for using CPS.

- Room arrangements should be made to be conducive to the purpose of the session (visibility of flipcharts, eye contact with group members).

- Support materials should be arranged (including technique handouts, Post-it® pads, markers).

- Facilitator and client should establish and agree upon an appropriate time line.

**Plan to debrief the session**

One of the most productive ways to learn from the investment of time, energy and other resources which were used during the CPS session is to plan to capture the key learnings and identify the most and least productive aspects from the experience. This will be very helpful in your future work with that particular client and with many future clients.

- Check points for monitoring and evaluating the outcomes of the session should be prearranged between client and facilitator.

- Goals for the session should be made explicit in order to determine if the session was a success.

- A plan should be developed for handling the output of the session.

- The issue of giving feedback to participants is discussed. If required, a plan to deliver feedback is developed.
• An actual debriefing session is planned to identify key strengths and areas for improvement.

**Tips for Conducting Task Appraisal and Process Planning**

• **Listen Carefully** - This is your opportunity to check out the client's perception of the challenge and insure their comprehension of the planning process. Encourage your client to say back in their own words what you are sharing.

• **Be willing to "just say no"** - Negotiate the session very carefully. Sometimes the best thing you can do is identify that CPS is not the most effective approach for the client. It is often helpful to build in some incubation time after conducting Task Appraisal and Process Planning to enable you to determine if CPS is appropriate, if you are working with the appropriate client, and if you are the person to facilitate the session.

• **Make it deliberate and explicit** - Task Appraisal and Process Planning should be considered an explicit and deliberate step in the effective planning and use of CPS. A Task Appraisal and Process Planning meeting should not be sandwiched between two more important meetings or given a lower priority than the typical stream of work that confronts any busy professional. After conducting a number of Task Appraisal and Process Planning activities, you may find it helpful to develop your own personal protocol including a special form to be filled out or a checklist to share with the client. Keep it deliberate and explicit.

• **Be prepared** - Be ready to share some examples of successful sessions and identify what you think made them work so well. You may also find it helpful to have a few worst-case examples to show what can happen if certain aspects of planning are not dealt with successfully. It may also be useful to provide your client a list of references of the actual clients in these examples. (This is another reason for the importance of debriefing and making this kind of arrangement with your clients.)

• **Use a process buddy** - It can be very important, especially for the first few times, to ask a more experienced (or equally experienced) facilitator to join you for the planning meeting. Just having another pair of eyes and ears can help avoid some of the pitfalls and maximize the value of time invested.

• **Bring support materials** - You may find it very helpful to have some key handouts you used when learning about or applying CPS. Do not consider this cheating, just excellent evidence of preplanning. Key handouts or graphics can help you make your point and help to keep you on track. Try assembling your own personal facilitator survival kit.

**General tips for managing clients**

• **Keep the ownership where it belongs** - Sometimes clients may want to share the actual problem with you. Watch out for the monkey being placed on your back. Although clients can be very desperate and need to use CPS very much, care
needs to be taken that they do not use you to "whip the group into shape" or "do the dirty work."

- **Do not be afraid to call a "time-out"** - If your client presented a false front during your planning activities and pulls out a few major surprises during a CPS session, you may need to create the opportunity for an honest revisit of the expectations you set. Calling a "time-out" is infinitely better than trying to run the wrong session.

- **Check the credibility of your client** - Almost anyone can present a facade for an hour or so. It may be very helpful to check your perceptions with a few savvy insiders prior to the session. The client may play favorites with the selection of the resource group, may be known for certain inappropriate behaviors which you would want to prepare for, or could be known to be uninterested in self-awareness and couldn't have prepared you for these planning aspects.

- **Check, check and recheck ownership** - If there is one most important factor in a successful CPS session is that it must be real. If your client has a list of things that would never work, does not appreciate "soft science," or has no intention of acting or responding to the outcomes of the session you may need to walk away, postpone or re-negotiate.

- **Stay down to earth** - A client can sometimes see your process expertise as magic and treat you like a magician. This can often give you quite an ego lift. Watch out for playing into this one! Although it may be hard and you may have a great deal of charm, charisma or other talent, try to keep your work in the arena of what is natural, deliberate and repeatable. I remember a session where I was talking about God's creativity and while I was talking (in a tall observation tower) I told the group that I reserved the number ten for the kind of creativity that God provides. At that very moment, the lightening struck and thunder roared. A few people in the group asked me if I could do that again! It would have been very sad if I had actually tried!

- **Try to reward good client behavior** - In building an effective relationship with your client find opportunities to:
  - Say thank you: write thank-you notes, just say thanks, have their boss send thank you letters or memos.
  - Remember their needs: send them articles or resources as follow up to your session, practice some networking to connect others to your client, etc.
  - Talk about them to other groups: spread the work about their productivity.
  - Drop in for an informal visit to just say "hi."

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**The Resource Group**
The other members of a CPS group are called participants and they function collectively as the resource group. These resource-group members suggest options and provide a wide range of alternatives during a CPS session. Effective resource-group members show an interest in the client’s content, but do not make decisions for the client. They support the decisions the client makes and provide a divergent range of possibilities from which the client can choose. In short, they practice effective listening strategies and find ways to make productive contributions to the problem-solving session.

Resource-group members provide energy, diversity of experience, and a variety of viewpoints. The facilitator’s challenge is to capitalize on the group’s assets and limit their liabilities by providing the necessary balance of creative and critical thinking processes in meeting the needs or goals of the client. Effective use of CPS requires a dynamic balance between using deferment of judgment to diverge and generate options and using affirmative judgment to converge, analyze and develop options.

Another major challenge to the CPS facilitator is to effectively balance and reinforce the roles of facilitator, client, and resource group. Part of this responsibility includes making these roles explicit for all group members so that everyone knows what is expected of them. Although it is beyond the scope of this paper to thoroughly examine the functional roles of group members (see Benne and Sheats, 1948; Isaksen, 1983), these three roles provide the basic interpersonal framework for facilitating CPS in groups.

Deciding to use a group

Many people who have attempted to use groups for developing novel and useful alternatives find out that using groups is not always easy, pleasurable or effective. Using groups has both positive and negative aspects.

In considering whether or not to use a group for obtaining a better understanding of the situation, generating options, or making a decision the facilitator needs to pay attention to a number of key factors. These factors include: aspects of group development; the skills and styles of leadership; the roles of client and resource group; group orientation, composition and size; process technology; and the structure of the environment. In addition, the facilitator may need to consider the required quality of the outcome as well as the needed level of acceptance from group members.

Table 1, describing assets and liabilities of using groups, has been developed by weaving together the work of Maier (1970), Vroom (1974), Van Gundy (1984):
Table One: Potential Assets and Liabilities of Using a Group

When considering the use of small groups for CPS the facilitator needs to evaluate the existence of the liabilities and assets. The goal is to maximize the positive aspects of group involvement while minimizing the liabilities. For example, as the facilitator can increase the productive use of diversity the likelihood of individual dominance should decrease. In general, if there is a need to provide for participation to increase acceptance, if the information is widely held, if there is a need to build on and synthesize the diverse range of experiences and perspectives or if it is important to develop and strengthen the group’s ability to learn, you may choose to involve a group in CPS.

Group Development

Once the group leader has decided that the resources of a group should be convened, there are a number of dynamics to consider. One of the first of these is the notion that groups go through certain phases of development (Bales & Strodtebeck, 1951; Lacoursiere, 1980; Tuckman, 1965). Groups are not static. Like individuals, they are unique, dynamic, complex living systems, capable of learning and development. Figure 4 depicts the Jones (1983) model for group development. According to this model, the stages a group goes through while moving toward some desired goal are relatively predictable and controllable. In reality, it is quite clear that in practice these stages are not necessarily linear and sequential. Some groups seem to skip stages, others will approach them in reverse order. Still others will reach a level and need to begin all over again because a new member has joined the group. One of the classic leadership dilemmas is getting the work done while at the same time
maintaining positive human relations. It is this essential tension which is nicely displayed below within the context of group development.

**Figure Four: A Model for Group Development**

Understanding where groups are and where you want them to be can be helpful in planning for maximum effectiveness and productivity. The two dimensions of the model are personal relations and task functions. In other models these dimensions go by other names, but a number of people involved in group development have identified these two dimensions as being central to the process. The classic leadership dilemma is getting the work done while at the same time maintaining positive human relations. Some balance is sought between concern for people and concern for task (Blake & Mouton, 1964).

The personal relations dimension refers to the development of the "human side" of the activity that occurs in the group. Whether it is a task group or a growth group, people progress in development from individuals to group members. They move to become people who feel some attachment to each other and finally, to people who are able to link up in creative kinds of ways. Personal relations involve how people feel about each other, how people expect each other to behave, the commitments that people develop to each other, the kinds of assumptions that people make about each other, and the kinds of problems people have in joining forces with each other in order to get work done. The assumption is that the kinds of groups that are referred to here are all organized for the purpose of achieving goals, tasks,
production, etc. and that personal relations refers to the human component in the accomplishing of this purpose.

The other dimension is task functions. Characteristic behaviors can also be identified in the different stages of group development with regard to task. A group comes together, learns what the task is, mobilizes to accomplish the task, and does the work. So the two dimensions, personal relations and task functions, form a matrix in which there is an interaction between characteristic human relations and task-oriented behaviors at the various stages of group development. Of course, no two-dimensional model can completely subsume all the data of group interaction without a loss of some precision. The purpose of looking at group development in this relatively simplistic way is to underline the importance, not only of the two dimensions — human and task — but also to provide a common language whereby group members can explore the emerging characteristics and parameters of the group.

Stage one: Forming

In the initial stage, called forming, personal relations are characterized by dependency, and the major task functions concern orientation. In the beginning of the group’s life, the individual members must resolve a number of dependency problems and characteristic behaviors on the personal relations dimension. They tend to depend on the leader to provide all the structure: the group members lean on the facilitator, chairman, or manager to set the ground rules, establish the agenda, and to do all the "leading." The parallel stage in the task function to be accomplished is the orientation of group members to the work that they are being asked to do. The issues have to be specified. The nature of the work itself has to be explored so there is a common understanding of what the group has been organized to do. Common behavior at this point is questioning why we are here, what are we supposed to do, how are we going to get it done, and what are our goals?

There are clear implications for the CPS facilitator when the group is at this stage of group development. This is the stage where the skills associated with training and teaching are critical. The CPS facilitator must take charge long enough to provide a basic orientation for the group and lay out basic ground-rules for operating together.

Stage two: Storming

Stage two is characterized by conflict in the personal relations dimension and organization in the task functions dimension. It is referred to as "storming" because interpersonal conflict inevitably ensues as a part of small group interaction. It may be that the conflict remains hidden, but it is there. We bring to small group activity a lot of our own unresolved conflicts with regard to authority, dependency, rules, and agenda, and we experience interpersonal conflict as we organize to get work done. Who is going to be responsible for what; what are going to be the rules; what are going to be the limits; what is going to be the reward system; what are going to be the criteria? The variety of organizational concerns that emerge reflect interpersonal conflict over leadership structure, power, and authority.
When learning and applying CPS, members of groups will often have different perspectives on the use of techniques or guidelines. Often questions are put forward regarding the value or appropriateness of CPS. On the one hand, it is important for this type of disagreement or questioning to occur. On the other hand, it must be met with effective answers, explanations and modeling. The CPS facilitator must be able to respond effectively to this kind of storming. Identifying the three roles, having a good understanding of the needs of the client and selecting the group members carefully can often pay dividends during this stage of group development. Managing interpersonal tension regarding options or ideas is critical at this stage. Keeping this kind of tension separate from personal tension where individuals might attach the person to the idea is also important. Groups must often be helped through this stage or they will not form into a more cohesive unit capable of high-level performance. This is the stage at which effective application of situational leadership is needed. Some members will be done with storming at different times.

**Stage three: Norming**

In stage three, the personal relations area is marked by cohesion, and the major task function is data-flow. It is during this "norming" stage of development, assuming the group gets this far, that the people begin to experience a sense of "groupness," a feeling of clarification at having resolved interpersonal conflict. They begin sharing ideas, feelings, giving feedback to each other, soliciting feedback, exploring actions related to the task, and sharing information related to the task. This becomes a period during which people feel good about what is going on; they feel good about being a part of a group, and there is an emerging openness with regard to task. Sometimes during stage three there is a brief abandonment of the task and a period of play that is an enjoyment of the cohesion that is being experienced.

When CPS groups reach this stage, it will be important for the facilitator to provide some recognition and celebration of the success of the group. It would be analogous to the feast following the hunt or the song after successfully managing a boat through the white water. A major challenge for the facilitator is to channel this positive energy onto the client's task. It is often at this stage that facilitators begin to feel the energy and weight of the group whereas at earlier stages the goal structures were more individualistic and competitive. Now the group may want to cooperate on every task and get hung up when they can't be "...all for one and one for all." Maintaining the focus on the CPS process while encouraging the meeting of the client's need is the major task for the facilitator. The challenge is to let the celebration of consensus last long enough to recharge and refocus the group, but not too long so as to invest unnecessary energy in managing the group for the group's own sake. CPS groups are not formed necessarily or solely as social support systems.

**Stage four: Performing**

Stage four is rarely achieved by most groups. This fourth stage is called "performing" and is marked by interdependence on the personal relations dimension and problem solving on the task functions dimension. Interdependence means that members can work singly, in any sub-grouping, or as a total unit. They are both
highly task-oriented and highly person-oriented. The activities are marked by both collaboration and functional competition. The group’s tasks are well defined, there is high commitment to common activity, and there is support for experimentation and risk-taking.

This is the stage at which the CPS facilitator can "push the boundaries" on applying the process. In a sense, if the dynamics have been managed well, the CPS framework ought to help more groups get to this stage of development. The performing stage is what really fits the effective application of CPS. This is the stage where the facilitator's challenge will be more focused on selecting the appropriate techniques to "ride the wave." Observing the energy of the group, keeping them focused on the task while understanding the reactions of the client become significant challenges for the facilitator.

It is during the performing stage where individual members are both empowered and aligned. They have a shared vision for why they are together and how they are operating. It is at this point where it is appropriate to use the label "team." It is important to remember that groups will not stay at this stage forever (nor should they). During the norming process, the group has very probably formed around an implicit set of assumptions. Occasionally, the facilitator will need to test the boundaries or even question their existence.

**Applying the model of group development**

When applying the model it is important to remember that this is not a static description of how groups develop. In other words, it is highly unlikely that a particular group would work their way through this process in a systematic manner. Groups will continually develop. Each time a new member joins or a new task is introduced, the development process begins anew.

Understanding some of the dynamics and patterns that occur within groups is essential if a leader wants to diagnose and describe the current status of any group; predict what might occur in the future; and provide behavior and influence which might help the group move on to a more productive level of development. For the leader of CPS activity, it is important to provide appropriate leadership strategies to move the group beyond learning basic skills and how the CPS techniques can be organized around components and process. The aim is productively applying these learnings to real challenges and opportunities. Group development combined with an appropriate understanding and application of leadership strategies can help CPS groups reach higher levels of application (Carew, Parisi-Carew & Blanchard, 1984).

**Managing groups**

There are many challenges to the effective management of groups. We have all seen groups that have "gone wrong." As a group develops, there are certain aspects or guidelines which might be helpful to keep them on track. Hackman (1990) has identified a number of themes relevant to those who design, lead and facilitate groups. In examining a variety of organizational work groups, he found some "trip
wires" that could lead to major mistakes when managing groups. In addition, from our own experience, we have identified a number of key contingencies to consider when managing CFS groups. These are identified below.

**Group versus team**

One of the mistakes that is often made when managing groups is to call the group a team but to actually treat it as nothing more than a collection of individuals. It is important to be very clear about the underlying goal structure. Organizations are often surprised that teams don't function too well in their environment. Of course, they often fail to examine the essential ingredient of competition in their rating or review process.

If a team is important, then a cooperative goal structure will be more appropriate. The group must be accountable for its outcomes. Reward and recognition systems need to be built around different perspectives. If one wants the benefits of teamwork, then teams must be built and developed.

**Ends versus means**

Managing the source of authority for groups is a delicate balance. Just how much authority can you assign to the team to work out its own issues and challenges? For the CPS facilitator, the authority issue is handled primarily by the charge given by the client. The outcome of the client-facilitator planning meeting ought to be a clear direction for the problem-solving efforts of the group.

The group should not be told exactly the kinds of problem statements to generate or the precise qualities of the ideas to be generated. However, group members should be given a clear understanding of the general direction in which the client needs to move. The end, direction or outer limit constraints ought to be specified, but the means to get there ought to be within the authority and responsibility of the group.

**Structured freedom**

It is a major mistake to assemble a group of people, tell them in general terms what needs to be accomplished and let them work out the details. At times, the belief is that if groups are to be creative, they ought not be given any structure. It turns out that most groups would find a little structure quite enabling if it were the right kind. Groups generally need a well-defined task, they need to be composed of an appropriately small number to be manageable but large enough to be diverse, and they need clear limits to the group's authority and responsibility.

In terms of facilitating CPS, the well-defined task can be the result of client-facilitator planning and the preparation of the group to deal effectively with the process technology. We generally recommend that group size be no fewer than five and no more than seven. The extent to which resource-group members need to be diverse depends greatly on the nature of the task. Finally, the roles within the
group insure an adequate understanding of the expected behaviors and responsibilities of the group members.

**Structures and systems supportive of teamwork**

Often challenging team objectives are set but the organization skimps on support to make that objective a reality. In general, high performing teams need a reward system which recognizes and reinforces excellent team performance. They also need access to good quality and adequate information as well as training and educational support. Good team performance is also dependent on having an adequate level of material and financial resources to get the job done.

**Assumed competence**

Many organizations have a great deal of faith in their selection systems. Facilitators cannot assume that the group members have all the competence they need to work effectively as a team. Often it has been a technical set of skills and abilities which has put someone in a position for inclusion within a CPS group. Members will undoubtedly need explicit coaching on skills they need to work well in a team. Coaching and other support interventions are best done during the launch, a natural break in the task or at the end of a performance or review period. It appears that the start-up phase is probably the most important time-frame to provide the necessary coaching or training.

**Group orientation**

All group members need to have some basic information regarding what they are expected to do. Agreement is necessary regarding the procedures and methods used for group activity. It is also very helpful for group members to be aware of their strengths and limitations in using various process technologies, as well as the kinds of personal and situational blocks to creative thinking which may surface during the session.

**Composition**

Some deliberate decisions need to be made regarding the number and type of human resources to be a part of the session. Heterogeneity of perspectives and experiences as well as homogeneity of levels of power should be considered. Generally, CPS groups should be informed of the criteria used in member selection.

**Group size**

Depending on the purposes of the session, a certain number of participants should be specified (generally 5-7). Larger groups should provide additional facilitators to allow an equivalent ratio. The facilitator may also want to consider the levels of expertise necessary in dealing with the client's task and insure adequate input and deliberation during the planning meetings prior to group sessions.

**The structure of the environment**
The climate or environment within which the task occurs needs to be conducive to creativity. Group members need to have a certain degree of trust and safety to make contributions and engage in open communication. The facilitator has a special challenge to establish a social climate which is characterized by psychological safety and encourages the participants to obtain an internal or intrapersonal climate which overcomes barriers to effective problem solving.

Some attention must be focused on assuring that the necessary equipment and resources are assembled for the session. This means setting up visuals, flipcharts with plenty of paper and markers, and a means for affixing these papers in a prominent place for all to see. In addition, the group should be assembled in a place where it is possible to be comfortable to share ideas and engage in effective communication.

The purpose of the session, as well as the amount of time to be scheduled, should be explicitly identified for all group members. Is the purpose of the group meeting to identify the initial statement of the problem, to generate ideas, or to develop and evaluate options? A specific process task should be identified and an appropriate amount of time should be set aside for the accomplishment of that task.

The environment may provide some indications regarding the level of quality needed for the decision, as well as the level of acceptance required for implementation. If the leader lacks the necessary information and other group members have that information, the leader can increase the quality of the outcome by involving a group. The same is true if the leader does not know what type of information is required or where it is located.

Involving group members in problem-solving sessions that affect them increases acceptance of the outcome or solution. The facilitator who can analyze the environmental considerations to structure the appropriate climate can be assured of a greater degree of success in utilizing group resources.

Conclusions

This paper has attempted to present some key considerations for facilitators interested in effective utilization of group resources during creative problem solving. The paper should be considered only a beginning point in discovering the various aspects of group-oriented leadership for creative problem-solving groups. Facilitating CPS is an activity which can draw upon the knowledge and expertise of a wide array of disciplines and areas of work. The challenges of facilitating CPS are of high future value in that they deal with a new frontier of human understanding: how we use the human imagination to improve the quality of our existence.

General Suggestions for Applying CPS
There are many opportunities to learn about the effective facilitation of CPS. There are also some "trip wires" to avoid and some suggestions which might be productive. One of the first things to avoid is calling the group together and identifying them as a "problem-solving team" but failing to adequately distinguish their special roles and responsibilities to the group. Group leaders need to encourage team members to accept responsibility and accountability for their roles and tasks. The CPS facilitator does this by ensuring real clientship for tasks on which the group works. Also, the facilitator does not assume that all group members understand all that they need to know regarding their roles and the process procedures to be employed. Some deliberate time and energy must be invested in teaching the participants their roles and a few basic process guidelines and techniques. Organizations that demonstrate the effective application of CPS usually have a strong emphasis on learning.

The following suggestions may be helpful for those who attempt to facilitate CPS sessions after learning some basic approaches and techniques.

**Use personally to show effectiveness**

Convince yourself first of the value and effective use of the techniques. Participants who go out and practice the use of the tools usually feel more confident in their use and are more effective at sharing with their colleagues. It really helps to have a variety of personal examples from which to draw!

**Demonstrate benefits**

It is helpful if you are able to document the benefits of using methods and techniques which add value to you, your team and your organization. A participant who was able to record the cost savings on her job was able to attend more training sessions paid for by the management.

**Use soon after training**

You are probably better off if you make specific plans to apply your learning early, rather than delay use for "the perfect opportunity." Participants report that it has usually been better for them to use the tools soon after the training experience while their memories are still fresh.

**Continue your learning**

Usually, these courses are very brief in duration compared with an entire semester or program of structured learning which can last a few years. Such programs are good opportunities for general exposure and some limited application. It makes sense to continue learning through reading, attending additional coursework and personal study. In short, consider it a challenge to extend your knowledge base!

**Debrief your use of CPS**
Many excellent facilitators of CPS use a process journal or notebook in which they make notes about their learning and application. They are able to review their progress and clarify their learning accomplishments and needs. They are able to consider the things they seem to be doing well and the questions they have for self improvement.

**Use process flexibly**

Although you may currently see CPS as a general system which contains three components and six stages, the most appropriate use of CPS is flexible and dynamic. Participants who search for the opportunity to use all three components and all six stages may never find the perfect chance to use the CPS process. CPS is designed to be personally helpful in meeting challenges, attaining goals and overcoming problems. Use pieces or parts of the process where you think they may be useful. Perhaps it may only be necessary to use one technique with a group; or even use the tool personally and share only the outcomes with the group.

**Use on low-risk challenge**

Many participants have reported that it is helpful to initially try using CPS on something that does not mean life or death, or is job threatening for you or others. It may be helpful to be in the position to be playful or at least to freely explore novelty for early application of learning.

**Integrate its use**

One of the strongest messages participants have shared is how important it is to weave CPS tools into the work they do. Rather than establish a special learning or application situation, it seems to be important to use CPS on every day challenges and tasks. This is an effective way to show how CPS relates to real business or organizational needs.

**Find a sponsor**

It is helpful to identify an important client or someone who is really interested in improved productivity (or for that matter anyone in a position of providing support who is dissatisfied with the current reality). Offering the application of CPS on something this sponsor wants to change or improve can be very helpful in gaining support.

**Find a safe group**

Many participants have indicated that it was helpful to have a small group of people to work with who were personally supportive for their initial attempt to use these strategies. Sometimes it was a matter of offering to share a technique with this group and then experiencing a small degree of success that made the difference!

**Team up**
Many people have been trained in CPS. You may find support by teaming up with alumni of this course or facilitators or others in the network of those who know and use CPS. Having someone else in your group who knows the language and can offer you support can increase your effectiveness and learning.

**Use outside experts**

Many participants have found it helpful to bring in a few outsiders to get the ball rolling. These people, just because they come from somewhere else, seem to offer a low risk way to get some attention focused on using CPS and may "prime the pump."

**References**


