

## PLS 308 – Public Administration

### Topic: Decision Making

#### Decision Making

- Decision making involves choosing between two or more alternatives
  - Remember that not making a decision is a decision
  - It has four major elements
    - *Problem definition*: clearly there are more issues, questions, and problems than individuals or society has the time or resources to confront.
      - Problems are plentiful; attention is scarce.
      - In order for problems to get attention they have to first get on the policy agenda
      - As the problem emerges and gains attention, it also tends to gain focus and take shape
      - See problem definition notes below.
    - *Information search*: The definition between problem definition and information is never sharp. When we are vaguely aware of some problem, our first step is often to learn more about it. This learning process often gives the problem focus.
      - Time is often a big factor in information search. When time is short we often *satisfice* rather than *optimize* (see discussion on bounded rationality below).
    - *Choice*: Weighing options and selecting among alternatives are often the visible part of decision-making processes.
      - However, choices are rarely clear and when clear alternatives are known, the consequences of these actions is often poorly understood.
      - Similarly, our preferences are rarely clear or constant when viewed over time.
    - *Evaluation*: Decisions do not end with a choice among alternatives. Few choices are final and most are continually reconsidered in light of new information.
      - Even if choices are not repeated, current choices become precedents for future decision
      - Most difficult aspect of evaluating choices is to establish criteria for evaluation and to not fall victim to common decision-making problems like cognitive bolstering (discussed below) where you search for information to justify rather than scrutinize past decisions.
- Constraints on decision making
  - Upper Limits of a Decision: Limitations on how far a decisionmaker can go
  - Lower Limits of a Decision: Minimum that must occur for problem to be solved
  - Strategic Limiting Factors: Factor whose availability in the right form, at the right place and time will establish a new system of conditions
- Individual differences: individuals have different decision-making styles
  - *Different ways of thinking* (e.g., some are logical, some process information serially, some are intuitive or creative, some view interconnections better than others, etc.)
  - Some are more *tolerant of ambiguity*

- Combination of these two factors creates four styles
  - *Directive* style have low tolerance for ambiguity and seek rationality
  - *Analytical* types accept ambiguity and seek rationality
  - *Conceptual* style tend to be intuitive and accept ambiguity
  - *Behavioral* styles work well with others, are intuitive and have a low tolerance for ambiguity
- Organizational constraints
  - Managers are strongly influenced by the criteria that they will be evaluated on
  - Reward systems influences decisionmakers by suggesting to them what choices are preferable in terms of a personal payoff
  - Organizations often impose time constraints
  - Organizations often give preference to historical precedents and decisions are often made in the context of a stream of decisions
- Decisionmakers tend to rely on heuristics, judgmental shortcuts, when making decisions
  - *Availability heuristic*: the tendency for people to base their judgments on information that is readily available to them
  - *Representative heuristic*: Decisionmakers tend to assess the likelihood of an occurrence by trying to match it with a preexisting category
  - *Escalation of commitment*: is an increased commitment to a previous decision in spite of negative information
- Improving Creativity
  - *Direct instruction*: ask people to be creative. It works because people tend to accept obvious solutions and this often prevents people from exploring creative solutions
  - *Attribute listing*: list attributes of alternatives and examine them fully to generate new alternatives or eliminate them
  - *Lateral thinking*: instead of thinking beginning to end, other avenues are explored – perhaps starting with the solution and working towards the beginning
- Cultural differences
  - People from different cultures often make decisions in different ways by giving different importance to rationality, their belief in the ability of people to solve problems, and emphasis on solving problems

### **Rational Decision Making Process**

- Ration decisionmakers are value maximizers that try to reach an optimum decision given a set of constraints
  - Model of decision making is commonly attributed to economists who have a clear and consistent system of preferences, knowledge choices, and computation tools that permit the selection of the optimum choice
- Six steps in the rational model
  - Define the problem
  - Identify decision criteria
  - Weight the criteria
  - Generate alternatives
  - Rate each alternative on each criterion
  - Compute the optimal decision

- Assumptions
  - *Problem Clarity*: problem is clear and unambiguous
  - *Known options*: decisionmakers can identify all of the alternatives and relevant decision criteria. Decisionmakers must also be aware of all of the possible consequences associated with each alternatives
  - *Clear preferences*: criteria and alternatives can be ranked and weighted to reflect and analyze their importance
  - *Constant preferences*: specific decision criteria and the weights remain stable over time
  - *No time or cost constraints*: rational decisionmakers can obtain full information about the criteria and alternatives because there are no time or cost constraints
  - *Maximum payoff*: the rational decisionmaker will choose the alternative producing the highest payoff
- Strengths
  - Focuses on the need to translate lofty goals into concrete action
  - Priority setting
  - Structure follows strategy
  - Design organization after goals have been established
  - Recognizes the need to analyze, experiment, or evaluate to see what works
  - Highlights the role of feedback throughout the process
  - Recognizes that you must periodically scan the environment for new threats and opportunities
  - Requires rigorous communication about goals, alternatives, and resource allocation
- Weaknesses
  - Announcement of goals and policies can centralize and freeze an organization
  - Goals and policies provide a focal point for organizing opposition
  - Goals and policies can be very difficult to change
  - De-emphasizes role of politics, bargaining, human behavior, and other subjective factors
  - Assumes that the planner can peer into the future
- Limits to strict rationality
  - Typically there is uncertainty about both means and ends
  - Can almost never clearly determine the risks and payoffs associated with each alternative
  - Rarely are all alternatives and their consequences known
  - Preferences are often unformed and changing
  - Rarely have the time, resources, energy, or mental capacity to evaluate all alternatives and their consequences
  - Too mechanical an approach to what is a much more complex process

### **Bounded Rationality**

- When most people are faced with complex problems, people often respond by reducing the problem to a level that is readily understood
  - When faced with a choice, most decisionmakers do not struggle to find the best, or optimal, solution, most stop when they find the first acceptable solution – a concept Simon (1947) calls *satisficing*

- Model recognizes the inherent limitations of the rational model
  - Problem is often not clearly defined
  - Values and goals are not always clearly defined
  - Knowledge of consequences is always fragmented, incomplete, or totally unavailable
  - Lack of information on the problem, the alternatives, the criteria, and the impact of choosing certain alternative seriously limit the judgments of decisionmakers
  - Time and cost constraints seriously limit the search for full information
  - Imperfections in humans also limit the acquisition and analysis of information
- Concept of *satisficing* or *bounded rationality* was developed by Simon (1947)
  - For large-scale decisions there is too much information and uncertainty which overloads the cognitive capacities of managers
  - Managers are intendedly rational in that they strive for rationality
  - They do not optimize, they *satisfice*: they search for solutions that are both satisfactory and sufficient
  - list of criteria is far from exhaustive and are looking for a solution that is good enough or will achieve an acceptable level of performance
  - A satisficing choice is the first acceptable one a decisionmaker encounters
- Advantages of Bounded Rationality
  - Theories of decision making should be based on human capacities
  - Even if the thorough search and deliberate choice associated with strict rational choice were possible, the effort might not be worth the reward due to the high decision costs it would impose
  - If the information is not immediately or readily available, adhering to the canons of strict rationality will only encourage delay
- Steps are the same as the rational model, but there is only a limited search and evaluation of alternatives and decisionmakers “satisfice” instead of optimize

### Incremental Model

- *Incremental model* is generally associated with politics and the political approach to public administration. Dual argument for its use:
  - It is the approach most characteristic of American public administration
  - It is the model that *should* be used
- Lindbloom (1959, 1980) and others view the policy-making process as a response to short-term political conditions, by small increments, according to events and developments, and not according to rational, information-based analysis
  - Agrees with the notion of bounded rationality
- Incremental decisionmaker is more concerned with reaching an agreement on a final outcome than making an “optimal” decision
- Assumptions
  - Model does not assume a clear definition of goals (objectives) of decisions
- Steps
  - Approach begins with an existing situation where means and ends are often intermixed
  - Analysis is limited and focused on alternatives that can be agreed upon or accepted
  - Decision-making process is pragmatic and concerned with reaching agreement among the parties involved

- The decisional tools and calculations are less objective and less systematic than the rational model
  - Tends to use bargaining and compromising techniques that provide for the proportional representation of interests, minimize conflict, and lead to agreement
  - Administrators strive for satisfactory decisions after examining a rather limited set of alternatives
- Limitations of the rational model are not necessarily the strengths of the incremental model.
  - It undermines many of the traditional values of public administration such as economy, efficiency, and effectiveness
  - Often results in political alliances and power centers that dominate decision processes in organizations.
  - Often criticized for its inherent conservative outlook that seeks adjustments to the status quo and avoids radical departures
  - It is based on a bargaining concept, which often doesn't work well when resources are limited. Bargaining also obscures the real desires of participants in the decision making process. Accordingly, it can get too wrapped up in political gamesmanship
  - Incrementalists often downplay the use of models which provide clear information and delineate alternatives
  - There is a lack of imagination in that there is no way to do something “new”. Only a little more or less of the same. It is inherently conservative

### **Nonrational Theories of Decision Making**

- Attempt to explain seemingly chaotic decision processes and are fundamentally different from rational models
  - However, rational and nonrational approaches are not inherently contradictory in that subscribing to one framework does not require rejecting the other
  - Differences between rational and nonrational models are based, in part, on focusing on different aspects of the complex social processes we call choice or decision making
- Basics of nonrational models
  - Choices are made, but they do not result from a deliberate balancing of pros and cons or costs and benefits
  - Choices are generally described as decision outcomes resulting from the interaction between two structures or sets of rules
  - *Decision structures* are sets of rules that determine what problems and solutions will be allowed for discussion and how disagreements will be resolved
    - Rules-based on majority vote, consensus, or arbitrary authority will obviously yield different results
  - *Access structures* are sets of rule that define which individuals or groups have standing and are allowed to participate in decision making
  - Nonrational models suggest that decision outcomes result from the interaction of *decision* and *access* structures rather than by the calculation of expected utility or maximizing objectives
- Nonrational models suggest that determining and enforcing rules of the game is more important to the decision-making process than is careful analysis
  - Accordingly, nonrational models are inherently political in nature

- Decision outcomes (choices) are the result of the mix of actors, problems, and solutions

### **Garbage Can Model**

- It gives a sense for how decisions are made when decisionmakers have pervasive differences of opinion. Accordingly, it is primarily an organizational model -- organized anarchies
  - Goals are unclear and often conflict
  - Participation in decision-making is unpredictable and fluid
  - An agency is more or less a loose collection of ideas and proposals rather than a well ordered structure
  - Information comes into play at multiple points in the decision-making process and is interpreted in various ways
  - Organization is a collection of choices looking for problems, issues and feelings looking for decision situations in which they might be aired, solutions looking for issues to which they might be the answer, and decisionmakers looking for work
  - Decisions are made in when different streams come together
- Organized anarchies have three characteristics
  - Members of the organization do not define their preferences about policies and goals very precisely. In those rare occasions when they are defined precisely, they often conflict with each other. Organization is a “loose collection of ideas” instead of a coherent structure. It discovers its preferences through action more than it acts on the basis of preferences.
  - Technology is as unclear as the preferences. Many members do not understand what all aspects of organization do.
  - Participation in decision making is extremely fluid and even erratic. Participants drift in and out of the decision making process. Sometimes a member will attend critical meetings other times they will not.
- Organizations tend to be “loosely coupled” in that the members have loose control and communication with one another. It is often unclear who has the authority to make certain decisions. Remain loosely engaged, even for important issues, because other matters will preoccupy them
- Decision-making process is composed of four separate streams
  - Problems
    - Problems arise and disappear, change shape or significance, and are combined and separated over time - Issues come to be defined as problems and become the focus of government action
  - Solutions
    - Policymakers draw their solutions to problems from a standard “tool kit” or entrepreneurs may advocate and win approval for innovative solutions that define new ways of responding to problems on the agenda
  - Participants
    - Participants move in and out of situations in which choices are made termed “choice opportunities” in which they look for chances to promote their ideas or themselves. Ideas, analyses, arguments, persuasion, and less visible participants (Bureaucrats, congressional staff, lobbyists, and think tanks) may influence the most.
  - Choice opportunities

- Problems, political, and policy streams rarely connect. When they do connect - “Coupling” - policy entrepreneurs take advantage of these windows of opportunity to make major policy changes.
- When the four streams do connect with each other, the result is often a major decision. Connecting up these four streams is described as the “garbage can model”.
  - Decisions are the function of a mix of problems, solutions, participants, and participants resources (i.e., the garbage can) and how that mix is processed
  - “Choice opportunity” is the mix that occurs within the garbage can
- Effectiveness hinges on the ability to reach consensus on matching a problem with a solution
- This model appears to have great utility in public organizations
- Implications of the garbage can model for understanding government decision making
  - Turf battles and other struggles over who has access to deliberations and who has the right to make choices are a central element of decision making
  - Solutions and problems may arise independently
    - At times, decisionmakers invent novel solutions for problems
    - Other times, decisionmakers have solutions and look for problems in which to use them, or advance their use
    - It describes how decisions are guided and manipulated. The particular mix of problems, solutions, and actors is not necessarily accidental

### Consensus Models

- Involves more than one decision strategy and may use various decision rules
- Decision structures include
  - Voting
  - Agreement of a small group of people who are generally experts who act in a jury-like process
  - When the group of experts deliberates a decision, relies upon a consultant, and follows certain steps, it may be following a simplified form of Delphi technique which helps refine group judgment by
    - Establishing a clear, operational question or problem for the group to work on (often the consultant’s job)
    - Generate ideas in writing from all participants about the question/problem before discussion begins to maximize the variety of views
    - Conduct discussions in an environment that does not inhibit the diversity of ideas and opinions, but does discourage lobbying for any part of a decision
    - Involves carefully controlled feedback that establishes the outcome in clear, specific, and manageable numbers of prioritized items
    - Merges judgments of people with computational techniques
  - Individual initiative is another widely used strategy where the leading manager makes decisions with the support of senior staff

**Administrative Routine**

- The garbage can model and consensus models describe a level of fluidity and change that often does not exist in government decision making. Especially when attention shifts from major issues to minor administrative matters
- Decision and access structures are much more rigid and fixed. Participation and decision making become more rule bound
  - Overtime, rules will become accepted as givens, simply the way things are done
- Two step process called institutionalization
  - Involves first codifying the rules of access and decision making in the form of both written directives and unwritten norms, and then internalizing the rules to the point that they are no longer seen as choices to be reconsidered
  - As the decision process becomes rule bound, major choices begin to be based not on rational analysis nor on the fluid mix of solutions, problems, and participants, but instead rely on what March and Olsen (1984) call the *political structure*
- The institutionalized political structure often precludes many problems from consideration and many groups from influence

**Reasonable Choice Models**

- Both rational and nonrational models while providing well articulated theories of decision making, but both types of models tend to be somewhat impersonal
  - Taken to extremes, both rational and nonrational models reduce human judgment to computation
  - Nonrational models portray decision outcomes as the result of forces beyond individual control
- A less clearly articulated, but emerging view of decision making places a stronger emphasis on value statements and interpretations of history
  - Values enter rational decision models in the form of preferences, but these preferences are generally defined in terms of self-interest
  - Both the rational and nonrational models attempt to be value neutral models of choice
- Underneath our analysis of problems, alternatives, and desired outcomes are beliefs and values that we may not be entirely aware of, but they invisibly guide our decisions
  - The criterion of reasonable choice is the combination of bounded rationality and values
- One of the clearest ways values shape decision making is in our reliance on history
  - Our recollections, both personal and learned, have a strong grip on our perceptions
  - To ignore history disregards the successes and failures of our predecessors and our heritage of values.
  - However, to assume that future events will repeat the past (e.g., the next war will be like the past) overlooks contemporary changes in the nature of the problem and the situation
- Richard Neustadt and Ernest May (1986) in *Thinking in Time: The Use of History for Decision-Makers* examine the positive uses of history in decision making is examined
  - They argue that history guides choices by altering how problems and solutions are perceived
  - History guides decision making primarily through analogy
    - When ever we see an event we immediately compare it to some similar event
  - Choice of analogies is rarely the conscious and not subject to critical analysis



- Historical analogies enter deliberations as interpretations of events based on personal and institutional histories
- Uses of history reflect our values. Therefore, use of analogies can be improved if they are more closely scrutinized
  - They suggest a closer examination of the similarities and differences between the current situation and our choice of historical analogies

### **Group Decision Making Techniques**

- **Nominal group Technique**
  - Ensures every group member has equal input in the process by restricting interpersonal communication during the decision-making process
    - Work alone and write down ideas to solve a problem
    - No discussion until all ideas presented
    - Open discussion to clarify, no criticism
    - Secret ballot on preferred solution to rank order options
    - Repeat steps if necessary
- **Devil's Advocate**
  - Challenge the assumptions and assertions of the group
- **Brainstorming**
  - Generate ideas without criticism
- **Dialectical Inquiry**
  - Assign groups with a role to play
- **Electronic meetings**
  - Can blend techniques like brainstorming and nominal group technique using new software technology
  - Allows for anonymity, honesty, and speed. Moreover, participants do not have to be physically present at the same location
- **Collaborative, Consensus Decision Making**
  - Collaboration = the pooling of ideas and/or resources (e.g., information, money, etc.) by 2 or more stakeholders to solve a set of problems which neither can solve independently
    - Ranges from discussing problems to reaching agreement on binding actions
    - Decisions are made by consensus. In other words, all parties more-or-less agree to decisions. Very different than majority rule
    - Collaborative, consensus-based decision-making effort may use some of the other group decision-making techniques as well
    - Emerging process - It is unclear to what extent it improves natural resource management
  - Implications of using collaborative/consensus-based decision making
    - Requires new skills as you go from expert opinion role to an empowerment role as a mediator, catalyst, or broker
    - Requires lateral decision-making instead of hierarchical
    - Need to conceptualize problems from organizational perspectives
    - Need a domain perspective where an agency is just one of many actors joined by a common set of interests or problems
    - Need more flexible organizational procedures

- Examples: Standing committees, associations, friends groups, open decision-making
  - All emphasize sustained dialog between stakeholders to resolve differences and to advance a shared vision
- Public input must be tailored to the unique demands of a situation rather than using the same approach in all situations or for all issues
- Advantages to Consensus Decision-Making
  - Ensures that affected interests are part of the decision-making process
  - Encourages participants to work towards mutually acceptable solutions
  - Considers diverse perspectives and interests
  - Encourages the cooperative systematic analysis of technical information
  - Process results in mutually acceptable decisions while improving relationships among diverse and competing interest groups
- Obstacles to Collaborative and Consensus Decision Making
  - Institutional
    - Culture may hinder collaboration, may be resistant to decentralized decision making, lack the necessary flexibility in agency procedures
    - Advocacy groups may resist collaboration because they view compromise as watering down of their principles
  - Relational factors
    - Organizations that have been bitter adversaries in the past often find it difficult to reach consensus on anything
    - Attempts at collaboration could actually deepen divisions by encouraging parties to “protect their turf” and find other avenues to achieve their desired outcomes
  - Power differences
    - Collaboration may be hindered when power differences exist between parties.
    - Some participants may not be perceived as having a legitimate right to participate in consensus based forums which tend to view participants as equals
- Obstacles may be difficult to overcome when:
  - Conflict is rooted in basic ideological differences
  - One stakeholder has the power to take unilateral action
  - Constitutional issues or legal precedents are sought
  - Past interventions have been unsuccessful
  - Issues are too threatening because of historical antagonism
  - A legitimate convenor can’t be found
  - These instances are likely to result in litigation or limited collective action.
  - Negotiators and convenors need to make a realistic assessment of their ability to overcome these obstacles
- Nominal group technique, dialectical inquiry, and devil’s advocate tend to produce more information and greater range of choices. However, participants tend to feel better about decisions made using a collaborative consensus based process

**When to Use Group Decision-Making**

- Problem is uncertain, complex, and has potential for conflict
- Problem requires interagency/intergroup cooperation
- Problem and solution have important personal/organizational consequences
- Significant, but not immediate, deadline pressures
- Widespread acceptance and commitment are critical to successful implementation

**Advantages and Disadvantages of Groups**

- Advantages
  - Can bring in more knowledge, information, approaches, and alternatives and thus leads to a broader perspective for defining problems
  - Assist diagnosing underlying cause and effects
  - Participation can increase the organizational members' understanding and acceptance of decisions
  - More complete knowledge and information tends to be generated
  - Greater diversity and thinking leads to innovative solutions
  - Members have a better idea of what the group decided and why and can carry this information back to others in the organization
  - Easier to implement in that it can lead to greater acceptance of decisions
- Disadvantages
  - Time-consuming
  - Expensive
  - Results in compromise solutions
  - Hard to assess responsibility for decisions
  - Social pressures can bolster majority decisions regardless of their quality
  - Aggressive members can stifle more capable members
  - Groups may press for conformity and move toward solutions too rapidly by stifling dissent
  - Some members concentrate only on winning from their own individual or unit's perspective
  - Groups may make riskier decisions by creating an environment which disperses responsibility for a decision

**Common Flaws in Decision Making**

- Stereotyping
  - Stereotyping reduces complex choices to simplistic formulas
  - When faced with complex problems, people tend to simplify the problem. While this can help determine the important outlines of a problem, these simplifications can become one-dimensional caricatures of people and problems that can place blinders on decisionmakers. This can limit decision making
  - Examples are numerous
    - People who receive government aid are lazy welfare cheats
- Cognitive Bolstering
  - The information search process is often narrowed by the need to justify or explain previous choices

- Cognitive bolstering involves magnifying the value of chosen action and denigrating the value of rejected alternatives
  - Achieved by exaggerating favorable consequences, minimizing unfavorable consequences, denying adverse feelings, minimizing personal responsibility, and other means
- It represents the abandonment of critical evaluation of information which is increased by stress
  - When individuals are forced to make rapid decisions based on uncertain information and are held accountable for results, they spend considerable effort highlighting information supporting their views and suppressing information that raises doubts
- Defensive Avoidance
  - Defensive avoidance occurs when individuals commonly avoid making decisions which have unpleasant choices or entail risk
  - One form of defensive avoidance is similar to cognitive bolstering it involves suppressing or ignoring information which could require action
  - Often involves avoiding decisions by obsessional mulling over information and options
  - Gathering more and more information becomes a means of avoidance
  - Not making a decision is a choice with consequences just as making a decision has consequences
- Entrapment (Escalation of Commitment)
  - Negative side of commitment. In most cases, commitment to groups and decisions is positive. Unfortunately, individuals can become committed to failures as well as successes
  - When individuals publicly announce their commitment to a course of action it becomes difficult for them to change their minds. Their prestige and careers may be associated with its success or failure
  - Once commitment is made, we make every attempt to make it work. This can result in the “escalation of commitment” hoping that additional effort will make it work
    - The throwing good money after bad money scenario
  - As a result, commitment can restrict the evaluation of information or the choice of alternatives
  - This course of action is particularly likely when evidence of success or failure is unclear.
  - When there is even the faint hope of successes prior commitment will encourage future commitment
- Groupthink
  - All of the above problems can be amplified in group settings, while groupthink is primarily a group problem
  - Groups tend to seek and enforce unanimity. Dissent is suppressed and conformity of behavior is suppressed
  - Irving Janis (1972) calls the extreme suppression of minority or dissenting views groupthink. Groupthink occurs when the pressures for conformity are so extreme that the group acts as if it had only one mind. This robs the group of one of its primary assets -- the critical, evaluative faculties of the group members

- Groupthink has eight symptoms. Note how they include the four problems above. The end result of these eight symptoms is the loss of critical evaluation of information and options
  - The group shares an illusion of its own superiority and invulnerability. Members see themselves as the “best and brightest”
  - The group collectively avoids and discounts information that calls into question either its choices or its own superiority. members engage in collective cognitive bolstering
  - The group believes in the inherent morality of its goals. This is especially common in groups working for a specific cause or an elected official. Members equate their views with the public interest.
  - The group develops negative stereotypes of other groups and of dissenters. These stereo types allow the group to dismiss out-of-hand legitimate challenges
  - The group attempts to silence internal dissenters. Dissenters are often the brunt of jokes that emphasize their disloyalty
  - Group members censor their own self-doubts. They internalize group pressures to conform.
  - Even though overt and self-censorship is prevalent, the group perceives the lack of dissent as unanimity.
  - Certain members of the group take on the role of “mind guards” or watchmen who protect leaders and the group from dissenting views
- *Groupshift* is a special case of groupthink. The decision of the group may be riskier or more cautious than individual decisions. The greater occurrence is to shift towards risk
- Examples of disasters attributed in part to groupthink include President Kennedy’s Bay of Pigs fiasco and the Challenger Disaster
- Steps you can take to avoid groupthink
  - encourage members to act as critical evaluators and impartial decisionmakers
  - Accept criticisms of your own actions
  - Invite outside experts to join the discussion and criticize conclusions
  - Require members to discuss the matters with others outside the group
  - Assign two or more groups to work on a problem separately
  - Assign a member to play devil’s advocate
  - Break the group into subgroups at key points
  - Set aside time to review threats to the groups decisions and possible weaknesses in them
  - At major decision points hold last chance sessions in which members can air their reservations