



# Team Development

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# Classical Role of Statisticians

◆ **A statistician is often a critical member of a statistical team**

◆ **Teams ask:**

- What problem are we trying to address?
- What questions are we trying to answer?
- What data do we need to collect?
- How do we interpret the data?
- How do we turn data analysis into information?

# Team Approach

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## **Useful in this and other classes**

- ◆ When studying in a group
- ◆ In a work environment
- ◆ In dealing with colleagues

# Overview

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## ◆ Purpose:

- Introduce team concepts
- Explain how team members develop team-related skills & understanding

## ◆ Objectives:

- Describe how organizations use team approach
- Identify characteristics of effective teams

# Overview (cont'd)

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## ◆ Objectives:

- Demonstrate effective team meeting techniques
- Identify when consensus is appropriate
- Understand how to use a six-step problem solving model
- Assess conflict management style
- Develop an action plan and a team action plan

# Teams

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## ◆ What is a Team?

- A group of individuals who:
  - ◆ Work together toward a common goal
  - ◆ Need to interact regularly
  - ◆ Depend on each other to get things done

# Teams

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- ◆ How do we know that teams work?
  - Numerous benefits cited by both public and private sectors over past two decades:
    - ◆ Improved quality and productivity
    - ◆ Increased buy-in & common commitment to goals and values
    - ◆ Proactive approach to problems; innovative & effective problem solving
    - ◆ Improved communication

# Teams

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- ◆ How do we know that teams work?
  - Benefits (cont'd)
    - ◆ Effective sharing of work load and increased flexibility in task assignments
    - ◆ Skill development of staff; cross-training in roles and responsibilities
    - ◆ Early warning system for problems

# Teams

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- ◆ What are the different types of teams?
  - Task force
  - Project team
  - Process improvement team
  - Management team

# Teams

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- ◆ Do we *have* to work in a team?
  - Not always; some work is done independently
  - Everyone interacts with other people
  - Team skills are useful for even the most independent employee

# Some Questions:

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- ◆ Which country is the most productive in the world today?
- ◆ Why do you think American industry and government have adopted a team approach?



# Myers Briggs Type

# Working out your Myers Briggs Type

- ◆ Where is your primary source of energy?
- ◆ How do you prefer to take in information?
- ◆ How do you prefer to make decisions?
- ◆ How do you prefer to organize your life?

# Where is your primary source of energy?

## Extrovert Vs. Introvert

◆ Social

◆ Expressive

◆ Many

◆ Broad

◆ Interaction

◆ Outward

◆ Private

◆ Quiet

◆ Few

◆ Deep

◆ Concentration

◆ Inward

# How do you prefer to take in information?

## Sensing Vs. Intuitive

◆ Facts

◆ Details

◆ Present

◆ Practicality

◆ Realism

◆ Possibilities

◆ Overview

◆ Future

◆ Innovation

◆ Idealism

# How do you prefer to make decisions?

## Thinking Vs. Feeling

- |                  |                  |
|------------------|------------------|
| ◆ Analyzing      | ◆ Sympathizing   |
| ◆ Objective      | ◆ Subjective     |
| ◆ Logical        | ◆ Personal       |
| ◆ Criticism      | ◆ Appreciation   |
| ◆ On-looker      | ◆ Participant    |
| ◆ Long term view | ◆ Immediate view |

# How do you prefer to organize your life?

## Judgment Vs. Perception

◆ Close

◆ Decide

◆ Structure

◆ Organize

◆ Firmness

◆ Control

◆ Open

◆ Explore

◆ Meander

◆ Inquire

◆ Flexibility

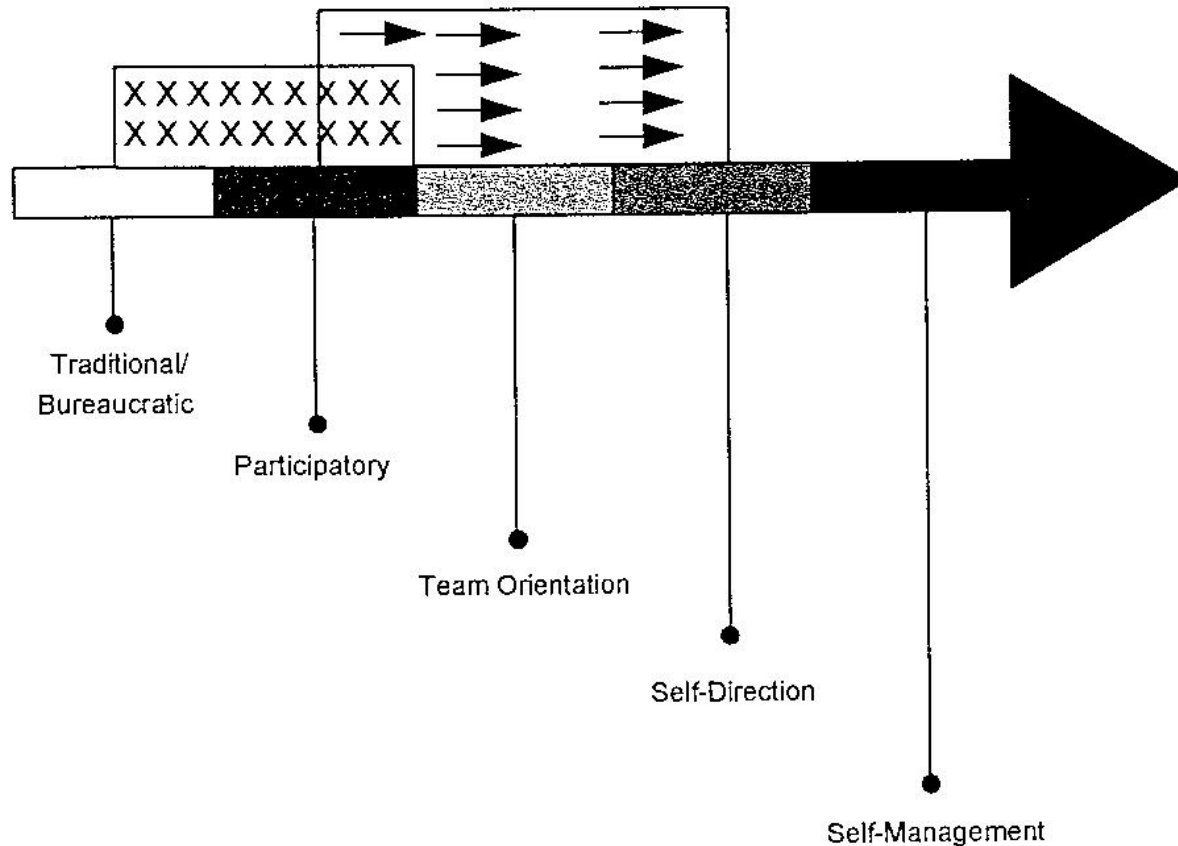
◆ Spontaneity

# Summary

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- ◆ Appreciate and enjoy the differences among people
- ◆ People approach problem solving differently based upon their Myers Briggs Type:
  - Take advantage of the different approaches
- ◆ It makes sense to listen to every member of the team

# Introduction to Teams in the Business World



**Which direction are we going?  
How far will we take it?**

# Use of Teams in the Business World

- ◆ During the 1970's and '80's, American organizations were facing multiple problems:
  - Waning quality
  - High labor costs
  - Decreasing productivity
  - Poor relations between management and employees

# Use of Teams in the Business World

- ◆ Management began to experiment with new solutions such as:
  - **Quality Circles:** A team-oriented quality improvement approach
  - **Job enrichment:** A broadening of skills and a move away from “that’s not my job”
  - **Participative management:** Organization of employee committees for safety, social events, suggestions, etc.
  - Use of **flex time, job sharing,** and **flexible benefits** to give employees greater control over their work life

# Use of Teams in the Business World

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*There is a vast continuum between bureaucratic behavior and entrepreneurial behavior, and government can surely shift its position on that continuum.*

-David Osborne and Ted Gaebler, Reinventing Government (22)

# Use of Teams in the Business World

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- ◆ 1971: trained problem-solving teams were implemented at the GM Assembly Plant in Tarrytown, NY
  - Productivity soared and grievances were cut
- ◆ 1973: Secretary of Health, Education, and Welfare Elliot Richardson publishes Work in America
  - Criticized current management practices and sparked new debate about the need for strong employee involvement

# Use of Teams in the Business World (Cont'd)

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- ◆ 1979: NYC Dept. of Sanitation Bureau of Motor Equipment creates a labor committee of employees to report to management
  - \$2 million in reporting savings over 2 years
- ◆ 1980's: Use of teams expands across the country

# Use of Teams in the Business World (Cont'd)

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- ◆ 1982: Tom Peters and Bob Waterman write In Search of Excellence
  - Strong employee participation emphasized
  - Over 5 million copies of the book are sold
- ◆ 1989: Major studies begin to emerge
  - 80% of Fortune 1000 companies installed 'employee improvement' or 'team' systems

# Use of Teams in Government

Some examples:

## ◆ Tactical Air Command

- Placed plane mechanics in squadrons during the 1980's; productivity nearly doubled in five years

## ◆ FAA, Airways Facilities Division

- Used teams to adjust to massive downsizing

## ◆ OSHA

- A committee of employees and managers met and reduced its 400-page field manual to 100 pages

# Use of Teams in Government

- ◆ US Peace Corp
  - Task force designs and develops a worldwide programming manual
- ◆ EPA Region 8, Water Division
  - Develops teams of 8-10 with rotating leader role, weekly meetings, and regular activity reports
  - Reported that two years are needed for teams to reach maturity
- ◆ EPA Office of Underground Storage Tanks
  - Despite time needed for organization, the staff response is positive to team structuring

# Current Status of Teams

- ◆ Team approach facilitates employee involvement
- ◆ American businesses in the early 1990's are more competitive, more productive, and more quality conscious than in the previous 3 decades
- ◆ Various team approaches in use
  - Project teams, cross-functional teams, problem-solving teams, task forces, high involvement work teams, etc.

# The Mission Statement

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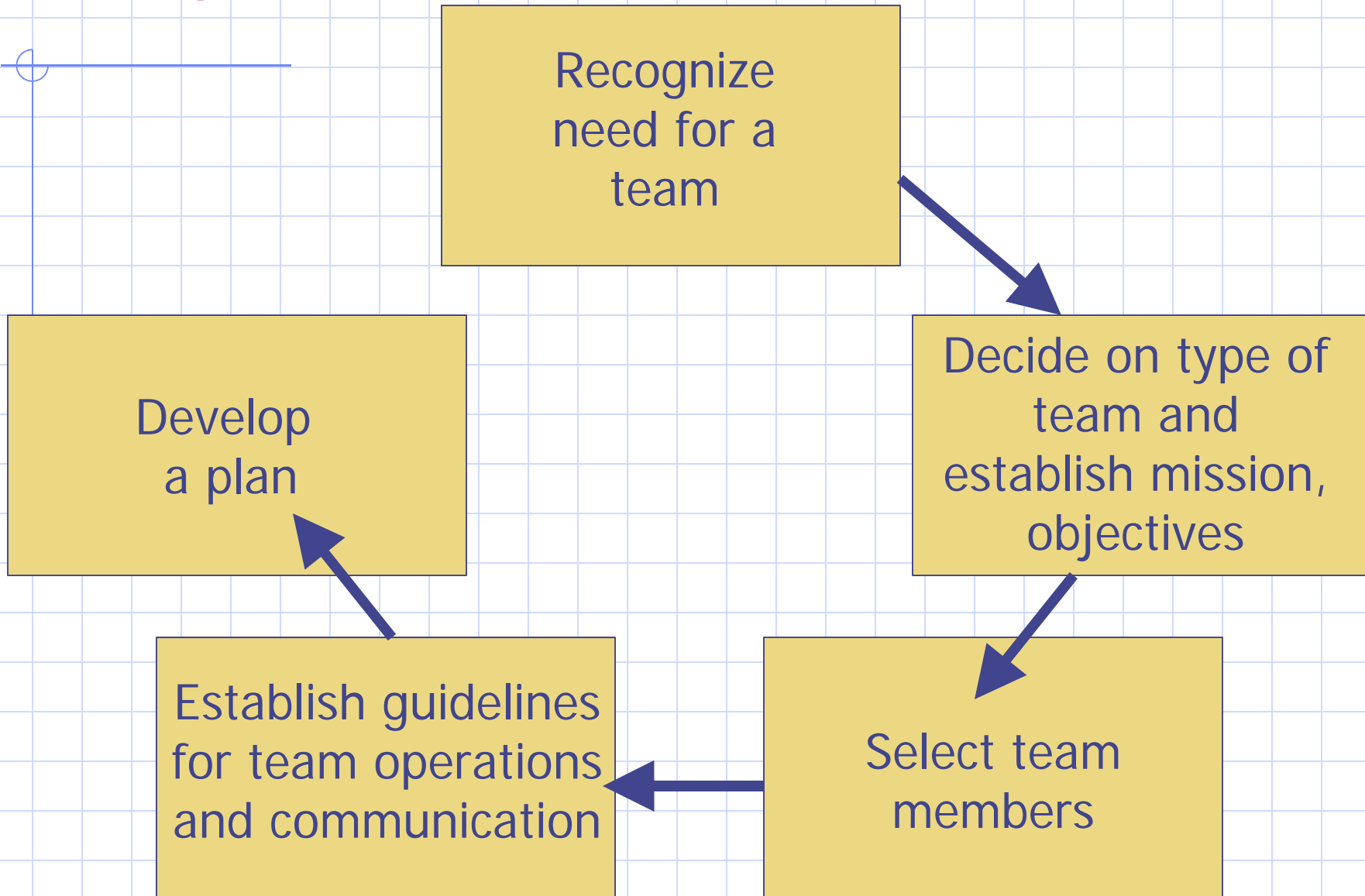
- ◆ Represents the work that a company does and requires the input of management and team members
- ◆ Spend only a reasonable amount of time in development
- ◆ Need not be formal or written

# Identifying Issues Facing a Team

Consider:

- ◆ What prevents the team from making the progress it needs to make?
- ◆ What key concerns or problems does the team need to address?
- ◆ How should the issues be prioritized?

# Stages of Development



# Roadblocks to Team Success

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- ◆ Lack of management support
- ◆ Lack of training
- ◆ Unrealistic expectations
- ◆ Mismatched team membership
- ◆ Lack of team discipline

# Roles Within the Team

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Questions to ask:

- ◆ What roles do the members of the team play?
- ◆ Are individuals who play the roles chosen, assigned, or voluntary?
- ◆ Do people rotate in their roles or not?
- ◆ Does the team need to make any decisions regarding roles?

# Roles Within the Team (Cont'd)

## ◆ Team Leader

- Coordinator; not supervisor or ultimate decision-maker
- Primary liaison with those outside the team
- Follows up with team members to encourage completion
- Obtains support and resources for the team
- Provides structure and process suggestions
- Helps the team stay focused and address tough issues

# Roles Within the Team (Cont'd)

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## 1. Meeting Facilitator

- Keeps the cycle of communication going
- Moderator of team meetings; keeps discussions on the agenda
- Ensures that everyone is involved
- Assists the team leader

## 2. Convener

- Schedules meetings and notifies team members

# Roles Within the Team (Cont'd)

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## 1. Time Keeper

- Makes sure that the team knows when the allotted time is up for each topic
- Does not pressure the group to start or stop, but keeps it informed; encourages group to readjust the agenda if necessary
- Assists the team leader

# Roles Within the Team (Cont'd)

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## 1. Recorder

- Keeps an accurate record of meeting content
- Uses a flip-chart or white board so that participants can observe progress
- Uses participants' words without editing as much as possible
- Takes and distributes meeting minutes and agenda
- Assists the team leader

# Another View of Team Roles

## Informal Roles:

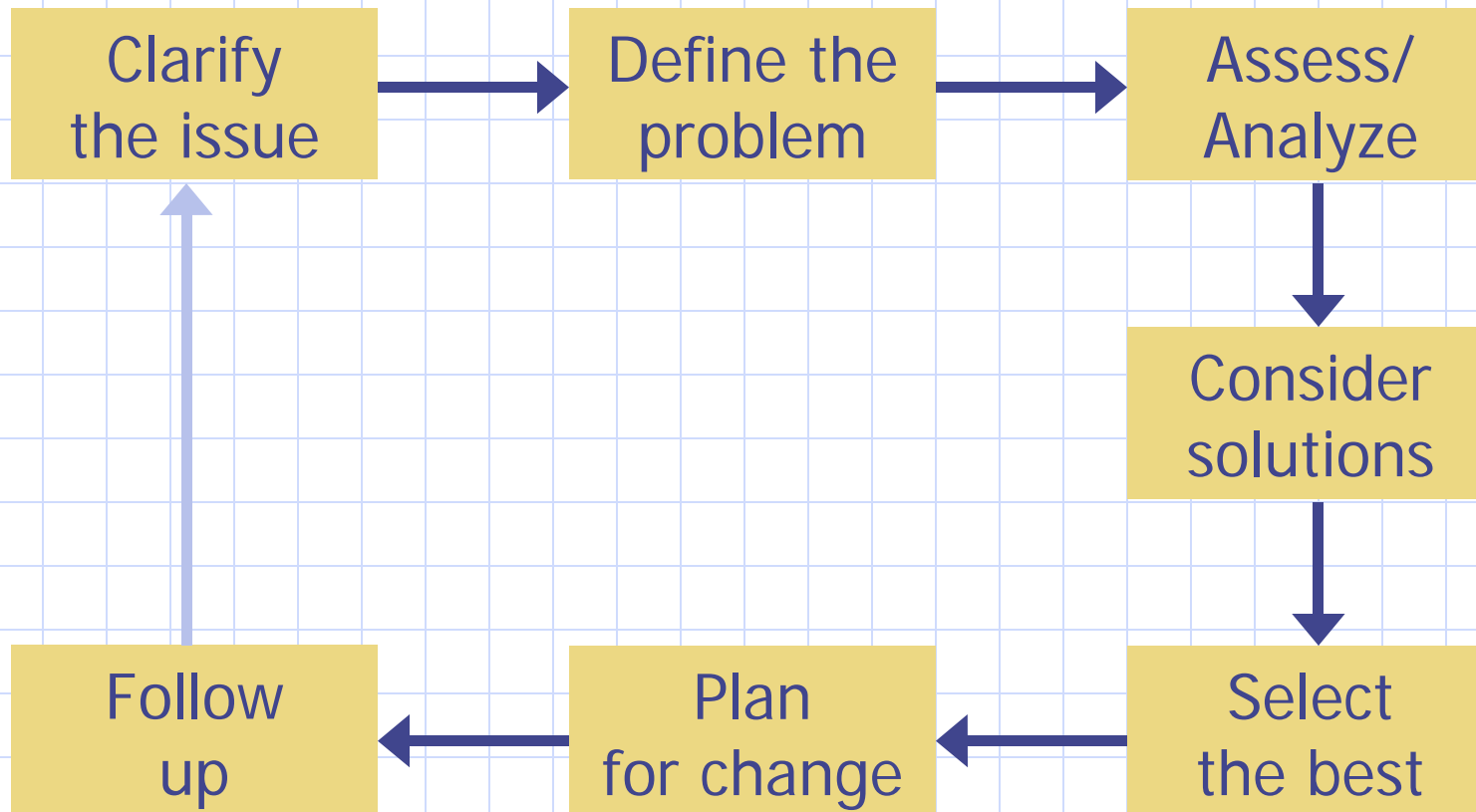
- *Voice of reason*: Can look at all sides of a situation
- *Energizer*: Encourages progress
- *Fact finder*: Calls for facts before making decisions
- *Consensus builder*: Encourages cooperation
- *Devil's advocate*: Makes the team think, question, and even argue; prevents hasty decision-making
- *Tension breaker*: Eases tension; adds humor

# Role of Management

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- ◆ Every team, even a top-level management team, has to answer to someone else
- ◆ As teams are developed, there are times when a team is ready for greater empowerment, but management is not, or vice-versa

# Problem Solving



# Problem Solving

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- ◆ Clarify the issue
  - Can it be divided into logical parts?
  - Which part needs to be addressed first?
  - Who is involved, and who should be involved in problem solving?
  - Is the problem for the team to address, or an individual?
  - Who needs to be notified of what is happening?

# Problem Solving (Cont'd)

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## 1. Define the problem

- Begin with the part of the issue that needs be addressed first
- Can you state the problem in a clear sentence? Be specific.
- Reach agreement in the team on what the problem is.
- Take problems one at a time

# Problem Solving (Cont'd)

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## 1. Assess/Analyze

- What is causing the problem?
- What are the symptoms?
- How long has it existed?
- What are some examples of the problem?
- When does it occur?
- Who is involved? (Important!)

# Problem Solving (Cont'd)

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## 1. Consider solutions

- Spend some time listing all the solutions that the team can think of
- Be creative
- Analyze the solutions:
  - ◆ Which ones might work?
  - ◆ How can you combine solutions?

# Problem Solving (Cont'd)

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## 1. Select the best solution

- Make a decision! Commitment is necessary
- Get as much team support for the solution as possible
- If support for a solution is in the majority but is not strong, consider trying it out as a test case or reconsider other solutions

# Problem Solving (Cont'd)

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## 1. Plan and implement the change

- Will you test your solution before using it widespread?
- Who needs to be involved/informed?
- What steps will you take to implement the solution?
- Who will take responsibility for each step?  
Make sure everyone knows

# Problem Solving (Cont'd)

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## 1. Follow up

- Did it work?
- How do you know? By observation, test, survey, etc.?
- Do you need to start over on the problem solving process?
- If successful, who needs to be informed of the success?
- How is the team going to celebrate?

# Techniques for Problem Solving

## Affinity Diagram

- ◆ Groups items that are naturally related to help generate major themes
- ◆ Use Post-Its with ideas from each person, then group them

## Charts and Graphs

- ◆ Methods to collect, analyze, and present data

# Techniques for Problem Solving (Cont'd)

## Brainstorming

- ◆ Spontaneous contribution of ideas from all members of a group
- ◆ Main principle: Criticism hinders creativity
- ◆ Rules:
  - Record *all* ideas on a flip chart
  - Everyone must participate at least once
  - No one may criticize
  - Whatever comes to mind is okay

# Techniques for Problem Solving (Cont'd)

## Criteria Matrix

- ◆ Sometimes it is necessary to identify and agree upon the criteria which the solution must meet
- ◆ Matrix provides an organized, visual way to evaluate each alternative solution against the criteria
- ◆ Allows quick comparison of alternative solutions by reviewing total scores

# Techniques for Problem Solving (Cont'd)

## Mini-Teams

- ◆ Divide the team into small groups of 3 to 5
- ◆ Each group addresses the problem or part of the problem, then reports back to the larger team
- ◆ Encourages participation

# Techniques for Problem Solving (Cont'd)

## Rank Order

- ◆ Used to assist in making selections
- ◆ List alternatives on a flip chart
- ◆ Each individual ranks the alternatives by assigning numbers
- ◆ Add together individual rankings, then place the total in a summary column
- ◆ Lowest summary number is the first choice of the group

# Communication Channels

## ◆ Ask:

- What is the *primary* means of communication within the team? When is each method used?
- How effective is communication within the team?
- What changes should the team make in communication methods? Why?

## ◆ Repeat these questions for communication with people outside the group

# Styles of Communication

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- ◆ Our individual styles affect the way we interact with one another
- ◆ Our styles either enhance or inhibit effective communication
- ◆ Recognizing how we communicate is the first step in developing the positive parts of our individual styles
- ◆ We all have room for improvement

# Communication Skills

Check for your strengths and weaknesses:

## ◆ Listening

- Really focusing on the other person, tuning out distractions, asking questions, being able to repeat key points, not interrupting

## ◆ Demonstrating respect

- Showing interest in others' ideas, asking for others' opinions, remembering and using their names, avoiding negative behaviors

# Communication Skills

- ◆ Using “I” instead of “you”
  - Using statements that describe how you feel about an issue (“I think,” “I believe,” etc.) rather than placing blame on another (“You always say,” “You really don’t,” etc.)
- ◆ Paying attention to non-verbals
  - Recognizing the benefits of a smile, using good eye contact, appearing open to others’ views, avoiding eye-rolling, look of disgust, etc.

# Communication Skills

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## ◆ Giving feedback

- Providing honest, tactful, and helpful suggestions which focus on another's work rather than his or her personality; recognizing and complimenting good work

## ◆ Holding your temper

- Keeping your temper in check even when a discussion gets heated; maintaining a professional attitude

# Communication Skills

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- ◆ Expressing yourself clearly
  - Putting your thoughts into clear statements without taking too long

**Are you lonely?**  
**Don't like working on your own?**  
**Hate making decisions?**

**THEN CALL A MEETING!**

You can...  
SEE people  
DRAW flowcharts  
FEEL important  
IMPRESS your  
colleagues  
All on company time!



# MEETINGS

The practical alternative to work.

# Team Meetings

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- ◆ Teams have to meet
- ◆ Different types of meetings:
  - Teleconference
  - Videoconference
  - Electronic
  - Face-to-Face

# Techniques for Improving Meetings

- ◆ Spend a few minutes at the end of a meeting assessing what went well and what did not
- ◆ Ask why you are having a meeting; if there is no reason, cancel it
- ◆ Decide who should attend meetings and set ground rules for attendance
- ◆ Ask if meetings are being held at an appropriate time and place

# Techniques for Improving Meetings (Cont'd)

- ◆ Develop an agenda at the end of one meeting for the next one, so that everyone has input
- ◆ Develop guidelines to keep the meeting productive and organized
- ◆ Accomplish the *purpose* of the meeting
  - Consider deadlines, and whether a simpler means of communication could have replaced the meeting
  - Just because a meeting sticks to its agenda does not mean that any work was accomplished

# Techniques for Improving Meetings (Cont'd)

- ◆ Assign roles to keep the meeting on track and productive
  - Meeting Facilitator: Moderator who manages guidelines and keeps the meeting moving
  - Time Keeper
  - Recorder: Takes and distributes minutes
  - Convener: Schedules meetings and notifies members
  - Team Member: Makes productive use of time; moves towards objectives

# Techniques for Improving Meetings (Cont'd)

- ◆ Define your decision making process:
  - Is your team charged with making recommendations or final decisions?
  - Which decisions will you make and how will you reach them?
  - Which decisions will the Team Leader make? Which can be decided by majority?
  - Will you defer to content experts on certain issues?

# Techniques for Improving Meetings (Cont'd)

- ◆ Practice consensus building
  - Remember the guidelines:
    - ◆ Everyone has a chance to express his/her opinion
    - ◆ Everyone listens
    - ◆ The team works for a good decision rather than one that will keep everyone happy
    - ◆ Everyone supports the final decision

# Techniques for Improving Meetings (Cont'd)

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- ◆ Start on time, end on time, and work to make meetings shorter
- ◆ Develop a written Action Plan
  - Who is responsible for what? When?
  - Make sure everyone has a copy and bring it to the next meeting

# Conflict Management

- ◆ What type of conflict management style do you typically use?
  - Avoidance; Collaborative; Combative
- ◆ Assess your style honestly
  - Conflict does not have to be negative; it can produce creativity and enthusiasm
  - Not everyone is able to manage conflict constructively
- ◆ When involved in a conflict, assess the situation before reacting

# Conflict Management

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- ◆ Consider possible resolutions to the conflict
  - What are the consequences of each approach?
- ◆ Take appropriate time to solve the problem
  - Focus on the problem rather than the differences of opinion
  - Fit the time and energy devoted to the complexity and importance of the issue

# Conflict Management

- ◆ Make steady progress
  - Look for points of agreement
  - Use techniques such as brainstorming or criteria matrix
- ◆ After the conflict is resolved, assess the process
  - What should you have done differently and what did you do well?