

# Some Thoughts on Leadership

by

Don C. Bramlett, PE, SMIEEE  
IEEE Region 4 Director 2009-2010  
Southeastern Michigan Section  
DTE Energy - Project Engineer

# Workshop Content

## Introduction

- **Definition of Leadership**
- **Interpersonal Effectiveness**

## Leadership

- **Attributes of a Leader**
- **Differences between management skills and leadership skills**
- **Being a Leader**
- **Holistic Communications**

# Workshop Content

## Interpersonal Communications

- **Personal Interactive Skills**
- **Jungian type personality indicators**
- **Self Evaluation**
- **Motivating**
- **Maslow's Hierarchy of Needs**
- **Team building**
- **Coaching**

# Workshop Content

## Conflict Management

- **Thomas-Kilmann Conflict Styles**
- **Self Evaluation**
- **Situations to use conflict styles and consequences**
- **Confronting Conflict**

# Workshop Content

## **Problem Solving and Decision Making**

- **Formal Techniques, eg. KT, Alamo, Cause Mapping, etc**
- **Brainstorming**
- **Synergistic Decision Making**

# Definition of Leadership

**Leadership, according to Peter DeLisle, is the ability to influence others, with or without authority.**

**All successful endeavors are the result of human effort; thus, the ability to influence others is a derivation of**

- Interpersonal Communications**
- Conflict Management**
- Problem solving**

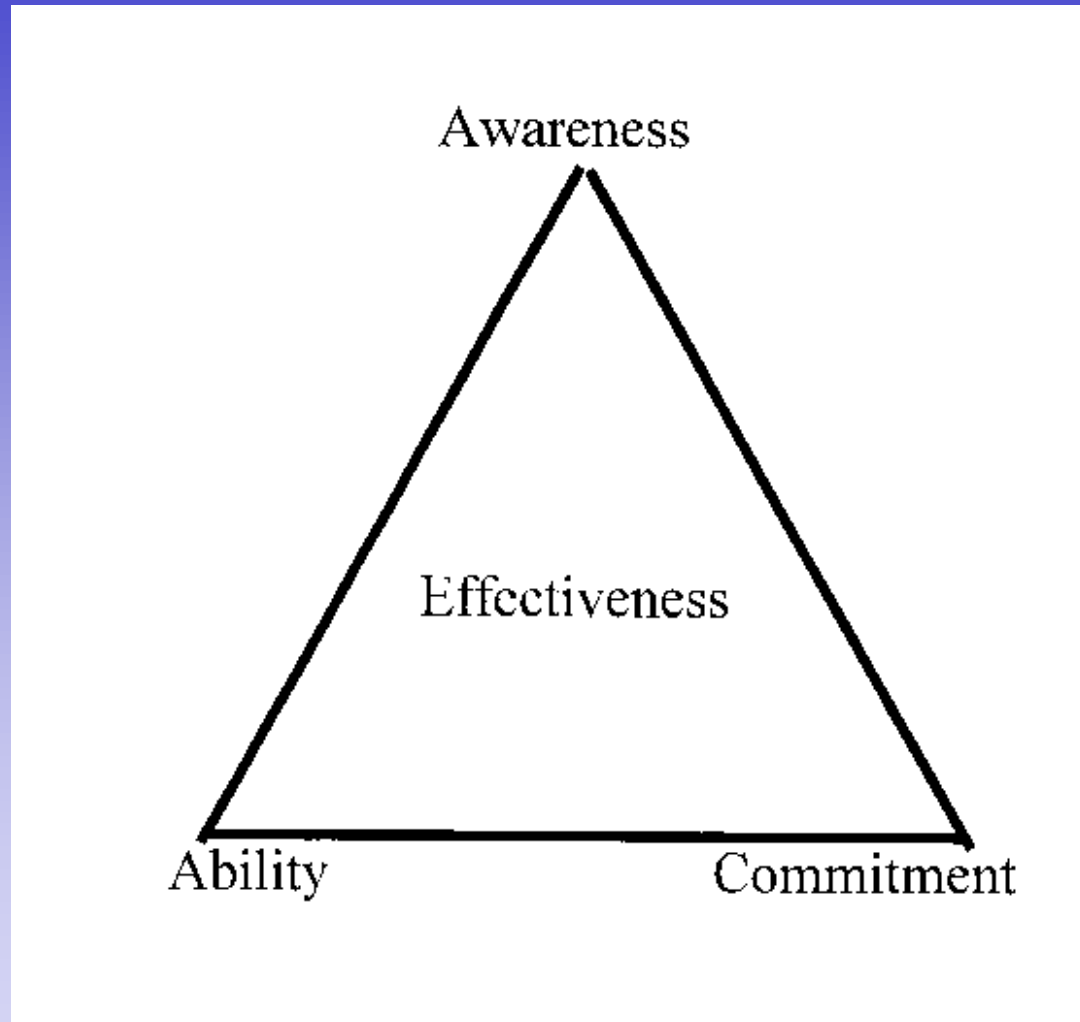
# Interpersonal Effectiveness

**Interpersonal effectiveness is the capability of an individual to do this, influence others, competently.**

**Leadership is a direct function of three elements of interpersonal effectiveness**

- **Awareness**
- **Ability**
- **Commitment**

# Interpersonal Effectiveness





# Awareness

**Awareness is a state of consciousness.**

**It is the ability to recognize yourself, others, events and situations in real time.**

**It is the ability to assess the impact of actions on situations and others, and be critically self-reflective.**

**It is a development process that is a function of experience, communication, self discovery and feedback.**

# Ability

**Ability to learn and understand technical issues is the basis of our careers.**

**Ability to lead is a function of influence:**

- **Ability to communicate**
- **Ability to resolve conflicts**
- **Ability to solve problems and make decisions**

**As a member of a team, we influence others in a collaborative effort to find better ideas or solve problems.**

# Commitment

**For leaders, the “one thing” that leads to maturity is the fully aware recognition that one’s decisions make a difference, both positively and negatively, in the lives of others, and that any attempt to solve a problem might have a decided negative impact on some, while helping others.**

**In no-win scenarios, one must still make a hard decision.**

# Commitment

**Movie example – Untouchables**

**Moment of truth for Elliott Ness**

**Jimmy O’Neil asks**

**“What are you prepared to do?”**

**Ness replies**

**“Anything I have to do to make this thing right.”**

**O’Neil says**

**“Everyone knows where the problems are, but no one is willing to do anything. You said you would do anything you had to, to make it right. Now, I’m willing to help you. You made the commitment.”**

# Attributes of a Leader

- *Guiding vision: Effective leaders know what they want to do, and have the strength of character to pursue their objectives in the face of opposition and in spite of failures. The effective leader establishes achievable goals.*

# Attributes of a Leader

*Passion: Effective leaders believe passionately in their goals. They have a positive outlook on who they are, and they love what they do. Their passion for life is a guiding star for others to follow, because they radiate promise!*

# Attributes of a Leader

- *Integrity: Because they know who they are, effective leaders are also aware of their weaknesses. They only make promises they can follow through on.*
- *Honesty: Leaders convey an aura of honesty in both their professional and their personal lives.*
- *Trust: Effective leaders earn the trust of their followers and act on behalf of their followers.*

# Attributes of a Leader

- *Curiosity: Leaders are learners. They wonder about every aspect of their charge. They find out what they need to know in order to pursue their goals.*
- *Risk: Effective leaders take calculated risks when necessary to achieve their objectives. If a mistake is made, the effective leader will learn from the mistake and use it as an opportunity to explore other avenues.*



# Attributes of a Leader

- *Dedication: The effective leader is dedicated to his or her charge, and will work assiduously on behalf of those following. The leader gives himself or herself entirely to the task when it is necessary.*

# Attributes of a Leader

- *Charisma: This may be the one attribute that is the most difficult to cultivate. It conveys maturity, respect for your followers, compassion, a fine sense of humor, and a love of humanity. The result is that leaders have the capability to motivate people to excel.*
- *Listening: Leaders Listen! This is the most important attribute of all, listen to your followers.*

# Leader vs Manager

*Leader n, 1. A person who is followed by others.*

*Manager n, 1. A person controlling or administering a business or a part of a business. 2. A person regarded in terms of skill in household or financial or other management.*

# Leadership

- **Leadership is the ability to develop a vision that motivates others to move with a passion toward a common goal**

# Management

- **Management is the ability to organize resources and coordinate the execution of tasks necessary to reach a goal in a timely and cost effective manner**

# Leadership vs Management

- **Management seeks stability & predictability**
  - *(order)*
- **Leadership seeks improvement through change**
  - *(disorder)*

# Leader vs Manager

**Leaders:**

**Do the right thing**

**Manager:**

**Do things right**

# Leadership & Management Skills

## **Leadership – soft skills**

- **Communications**
- **Motivation**
- **Stress Management**
- **Team Building**
- **Change Management**

## **Management – hard skills**

- **Scheduling**
- **Staffing**
- **Activity Analysis**
- **Project Controls**



# Managers have the following attributes , they

- *Consider alternatives to design*
- *Estimate costs involved*
- *Establish risks to the organization*
- *Develop a schedule for the project*
- *Include decision steps*
- *Manage change in an orderly fashion*
- *Keep the team motivated and informed*
- *Review responsibilities and goals with each team player*
- *State clearly the basis for evaluation and where each person fits into the organization*

# Managers have the following attributes , they

- Monitor progress*
- Set directions; set expected achievements for each individual within the next work period. Show the team members where they fit in achieving unit goals.*
- Perform administrative tasks*
- Report to senior management*
- Money and job security play a major role in management effectiveness. They act as deficiency motivators.*

# Being a Leader

- If you want to get ahead, be a leader, you must assume:
  - *That everything that happens to you results in a situation that is in your control*
  - *That the attitude you convey is what you are judged on*
  - *That what you think and do in your private life is what you will reap in your public or corporate life*
  - *You are what you think and believe*
  - *If you never meet a challenge you will never find out what you are worth*

# Recipe for being a Leader

- **Take control of your life**
- **Assume responsibility for who you are**
- **Convey a positive and dynamic attitude in everything you do**
- **Accept blame: learn from your own mistakes as well as those of others. Take blame for everything that happens in your unit**
- **Give credit wherever it is due**
- **Be compassionate when you review your team members' progress or lack thereof**

# Recipe for Being a Leader

- **Think great thoughts. Small thinking is why companies go broke**
- **Turn disasters into opportunities. Turn every obstacle into a personal triumph**
- **Determine your "real" goals then strive to achieve them**
- **When you want to tell someone something important, do it personally**
- **Don't be afraid to get your hands dirty doing what you ask others to do. Make coffee**

# Recipe for Being a Leader

- **Listen effectively**
- **Encourage teamwork and participation**
- **Empower team members**
- **Communicate effectively**
- **Emphasize long-term productivity**
- **Make sound and timely decisions**
- **Treat each person as an individual**
- **Know yourself and your team**
- **Protect your team**
- **Have vision, courage and commitment**

# Holistic Communications

**image (noun)**

- 1. Form, semblance; counterpart as regards appearance (That person is the image of an engineer.)**
- 2. simile, metaphor; mental representation; idea, conception; character of thing or person as perceived by the public.**

**Image includes everything: the way you talk and dress, the way you act, your attitude to others at work and play.**

# Holistic Communications

- **Do you give warm fuzzies? Do you smile a lot? Do you feel dynamic and energized, and show it? Do you feel comfortable in a group?**
- **Or: do you hand out cold pricklies? Do you frown a lot? Do you feel tired and drained of energy, and show it? Do you feel uncomfortable in a group?**
- **When people think about you, do they equate your image with a dynamic, interested, competent person? Are you the sort of a person who makes things happen, at home, at work, or at play?**
- **Or: do people think you are merely occupying a spot in the universe? That you are waiting for the next millennium? Are you the sort of person who waits for someone else to make things happen?**



# Holistic Communications

**What are your personal career objectives?**

- 1. to identify problems and create winning solutions to solve them?**
- 2. to lead effectively, with inspiration; to motivate?**
- 3. to be in control of your world; to make things happen for you?**
- 4. to manage your personal resources effectively?**
- 5. to be president of your own company?**
- 6. to be a millionaire, if you aren't already?**

# The way you stand or sit

- indicates whether you are an open person, easily approachable
- says whether you are friendly
- tells others whether you could be a good team player
- suggests that you are frank and honest
- tells others what you really think of them
- shows whether you are a part of the team

# The way you dress

- indicates whether you have conventional ideas or whether you are a radical
- shows how neat you are
- suggests whether you will fit in with the company's image
- makes a statement about whether or not you care enough to find out about the company, its image and its objectives
- shows indirectly whether you are confident, whether or not you believe in yourself.

# The way you write

- Conveys whether you are warm and friendly or appear cool and reserved
- Tells whether you are dynamic and energetic or whether you are lethargic and procrastinate
- Conveys an image of you as either intuitive in solving problems, or logical, solving problems step by step
- Says whether you want to communicate with others or not
- Says whether you try to avoid conflict or seek it
- Says whether you are materialistic or idealistic

# Holistic Communications

## Conclusions

- **Communication is a holistic concept; everything we do conveys something about ourselves**
- **If you want to achieve greatness in your chosen objectives you must communicate holistically. It is not enough to write well or to know a lot of big words. You must be able to project an image that will lead to success**
- **You can change the way you appear to others by changing your behavior pattern**
- **If you want to change your behavior pattern, you must change everything about yourself.**

# What is the bottom line for you?

- **You are in control of your environment. You can make every setback an opportunity for success**
- **You can be anything you can be! Whatever you want to be is entirely up to you**
- **You can become the person you want to be. Dress like that person, talk like that person, act like that person, write like that person, and that will be you.**

# Interpersonal Communications

**Carl Jung was a Swiss born psychiatrist, and a colleague of Sigmund Freud, who practiced in the first half of the 20th century.**

**Jung formulated a classification of personality in terms of types of characteristics, such as introvert and extrovert**

# Personal Interactive Skills

**On the basis of Jung's classification of personality, Katherine Briggs and her daughter, Isobel Briggs-Myer, developed a procedure for evaluating personality characteristics.**

**A number of tests exist for giving Myers-Briggs type indicators.**

**The types are divided into four pairs of preferences.**



# Personality Indicators

- **Extraversion: type E, sociable, about 75%,  
expends energy  
interacts with others freely**
- **Introversion: type I, territorial, about 25%  
conserves energy  
reads meditates  
solves problems**

# Personality Indicators

- Are you energized around people? Do you like to meet people and seek opportunities to do so? Do you think out loud? Do you talk to plants and discuss problems with animals? This is Extrovert behavior.
- Alternatively, do you find you would rather work alone, without interruption. Does meeting too many people tend to tire you out? Would you sooner not answer the phone - let the answering machine do it for you. Would you rather have a problem written down for you than stated verbally? This is typical Introvert behavior.

# Personality Indicators

- **intuitive: type N, creative, about 25% ingenious, future-oriented, fantasizes, imaginative**
- **Sensing: type S, practical, about 75% experience-oriented, utility, sensible**
- **Do you see the world in terms of your senses? Do you like the facts before starting work? Do you like dealing with the details of a project rather than the overall plan? You are likely Sensing.**
- **Or do you think in terms of the big picture, in terms of concepts and ideas, rather than the information involved? Put down intuitive.**

# Personality Indicators

- **Thinking: type T, impersonal, 50% (however, 60%M) objective judgments, logical orientation, rules, laws, justice, firmness**
- **Feeling: type F, personal, 50% (however, 60%F) emotional judgments, value-oriented, persuasion, sympathy, devotion**
  - **Note: both types can react with the same emotional intensity.**
- **Do you tend to follow the rules regardless of how you feel? Do you hide your feelings and get on with the job? That's Thinking.**
- **Or do you inject a personal note into things you do, even let your emotions take over, sometimes. That's Feeling type behavior.**

# Personality Indicators

**Judging: type J, closure, concluding, 50% settled, decided, work comes first, plan ahead, urgency, deadline, get-it-done.**

**Perceptive: type P, get more data, 50% pending, flexible, adaptable let-it-happen, open-ended, tentative, wait-and-see.**

**Note: both types are equally "judging" and "perceptive."**

- Do you like to set up a schedule to meet deadlines, make lists, make quick decisions in order to get onto the next job? That's Judging behavior.**
- Or are you really adaptable, you like collecting more information so your decision will be really informed. That's Perceptive.**

# Personality Indicators

		Sensing Types		Intuitive Types	
		Thinking	Feeling	Feeling	Thinking
Introverts	Judging	ISTJ Trustee 6 %	ISFJ Conservator 6 %	INFJ Author 1 %	INTJ Scientist 1 %
	Perceptive	ISTP Artisan 5 %	ISFP Artist 5 %	INFP Defender 1 %	INTP Engineer 1 %
Extroverts	Perceptive	ESTP Promotor 13 %	ESFP Performer 15 %	ENFP Journalist 5 %	ENTP Inventor 5 %
	Judging	ESTJ Administrator 13 %	ESFJ Vendor 13 %	ENFJ Teacher 5 %	ENTJ Fieldmarshall 5 %

**Figure 1: Type classifications for the general population.**

# Self Evaluation

**What is my personality type?**

**Take the test.**

**Be as honest as you can, only you will see the results.**

**List the answers on the chart.**

**Evaluate the results.**

**Do you concur?**

**Do you understand yourself?**

# Motivating

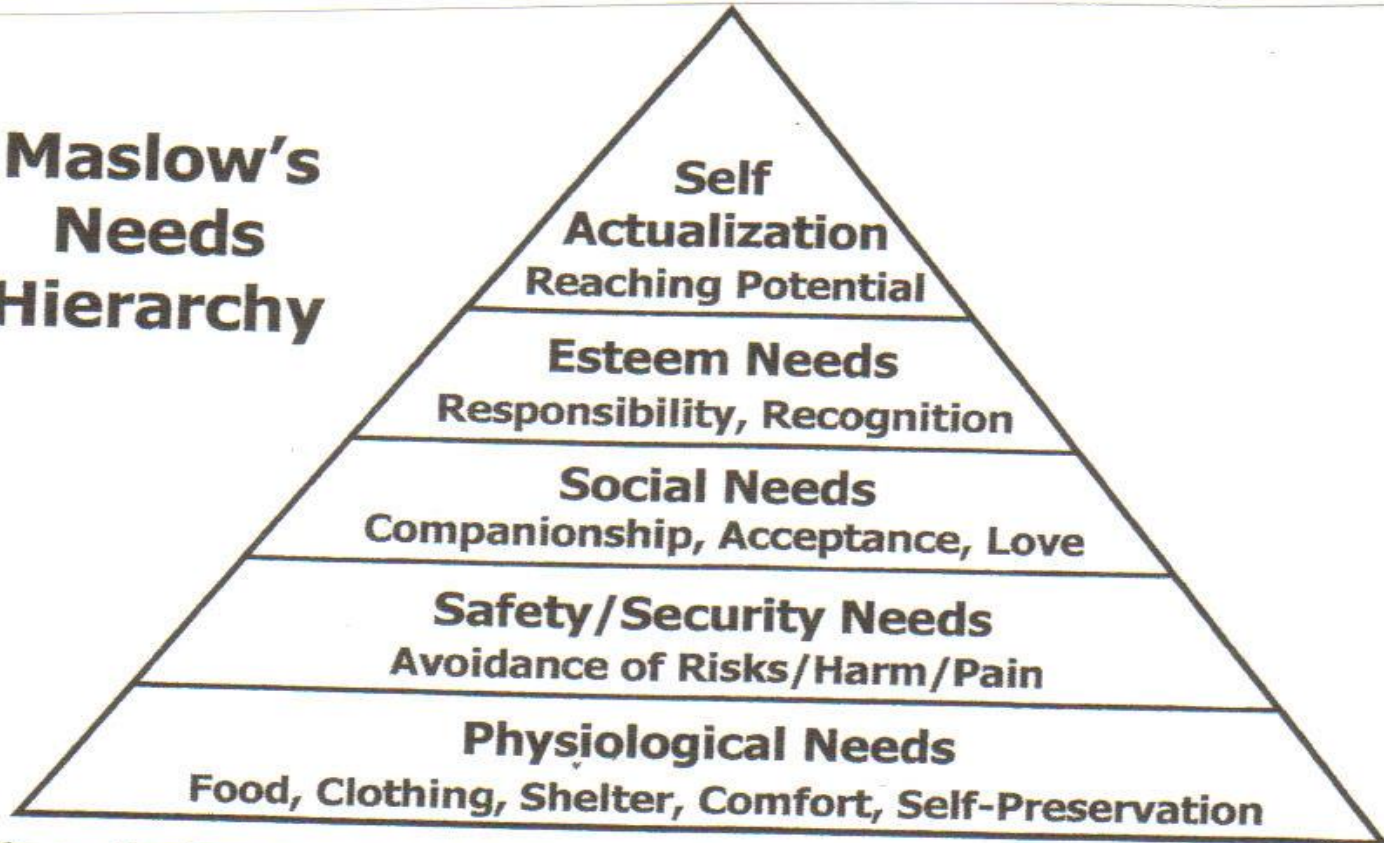
**Abraham Maslow was an American born psychologist, researcher and educator who practiced during the middle third of the 20<sup>th</sup> century.**

**Maslow created his now famous hierarchy of needs based on his observations that some needs take precedence over others.**



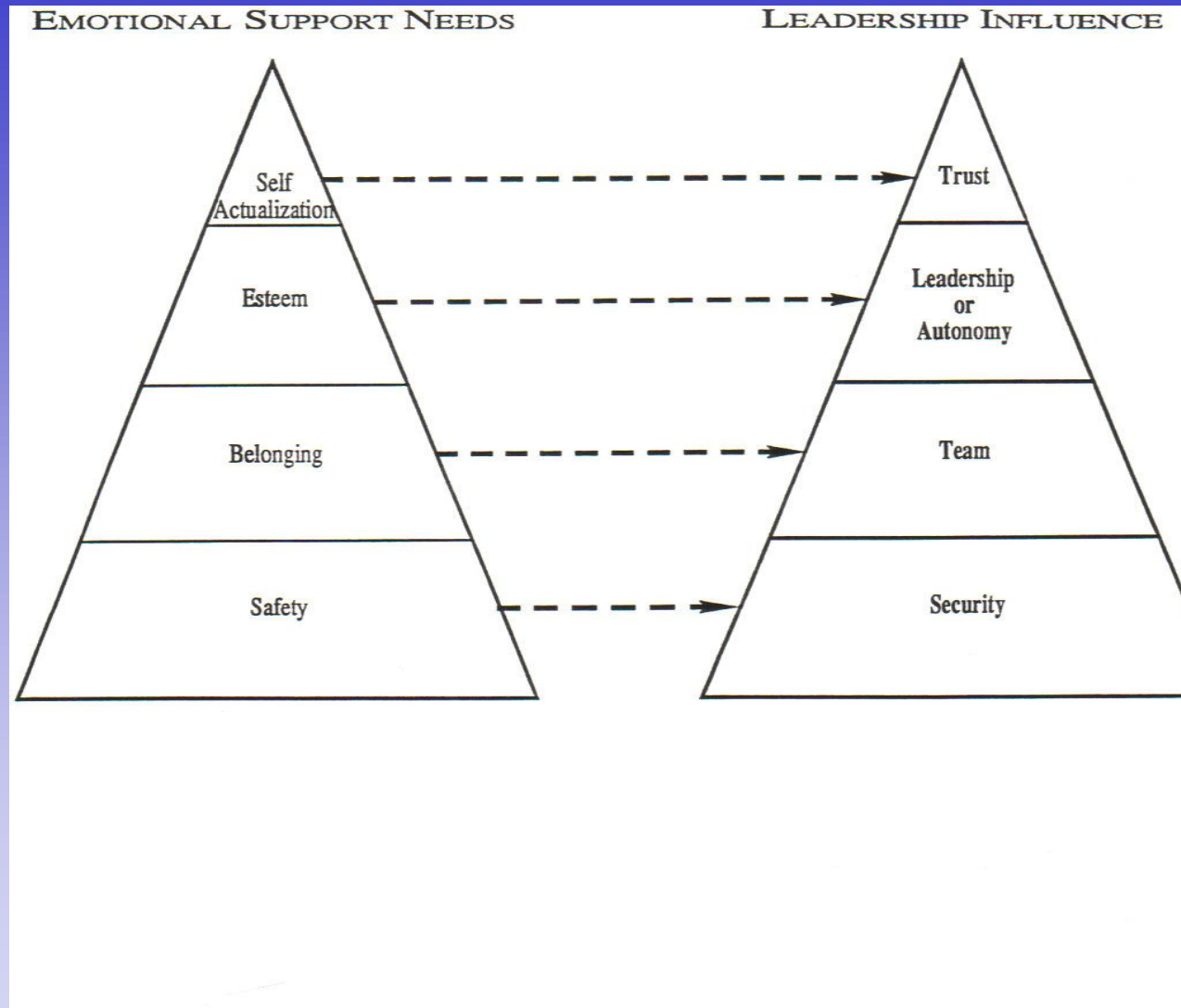
# Motivating

## Maslow's Needs Hierarchy



Adapted from: Abraham Maslow. *Motivation and Personality*:  
New York, NY: Harper and Brothers, 1954.

# Motivating



# Building a Team

**Why would someone want to become part of a team?**

**An effective team helps one feel they are:**

- **Doing something worthwhile for themselves and the organization**
- **Enjoying a more satisfying work life**
- **More in control of their jobs**
- **Making contributions which are well used**
- **Learning new skills**
- **Recognized and respected**

# Building a Team

**When a team is operating well the leader and the members:**

- Are clear on team goals and are committed to them**
- Feel ownership for problems rather than blaming them on others**
- Share ideas**
- Listen to and show respect for others**
- Talk more about “we” and less about “I” and “me”**

# Building a Team

- Understand and use each others know-how
- Know about each other's personal lives
- Give each other help and support
- Show appreciation for help received
- Recognize and deal with differences and disagreements
- Encourage development of other team members
- Are loyal to the group, its members, the leader and the organization

# Building a Team

- **Make decisions based on facts not on emotion or personalities**
- **Play a variety of roles – serve as leader, teacher or coach**

# Coaching

**The goal of coaching is not to provide direction, but to enable team members to work together to help one another find direction.**

**Coaching is the foundation for continuous improvement.**

**Coaching is a practical skill anyone can learn.**

# Coaching

1. **Identify an opportunity to help someone expand on his or her skills, knowledge and abilities**

**Coaching is a chance to help someone enhance his or her performance and add value to the organization/team. Sometimes, people may ask for coaching, but don't wait for that to happen. Act on opportunities for coaching at any time.**



# Coaching

**2. Confirm that the person is ready for coaching.**

**Before trying to coach, make sure the person is open to it. If a person seems hesitant, try explaining the benefits, but don't insist on coaching someone who simply isn't receptive. To ensure a win-win situation, find out if the person is willing before proceeding to coach.**

# Coaching

3. Ask questions and offer information to help clarify the situation.

Much of coaching involves helping people clarify situations in their own minds. Often, the best way to do this is by asking open-ended questions that encourage them to think through the situation aloud. Begin questions with words like *what*, *when*, *where*, *who* and *how much*.

# Coaching

4. **Help the person identify possible actions.**

**The best coaching enables people to think and act on their own. As you help someone identify immediate actions, you're also preparing the person to work through similar issues without your help. Offer guidance as he or she develops a plan.**

# Coaching

## **5. Gain agreement on a course of action.**

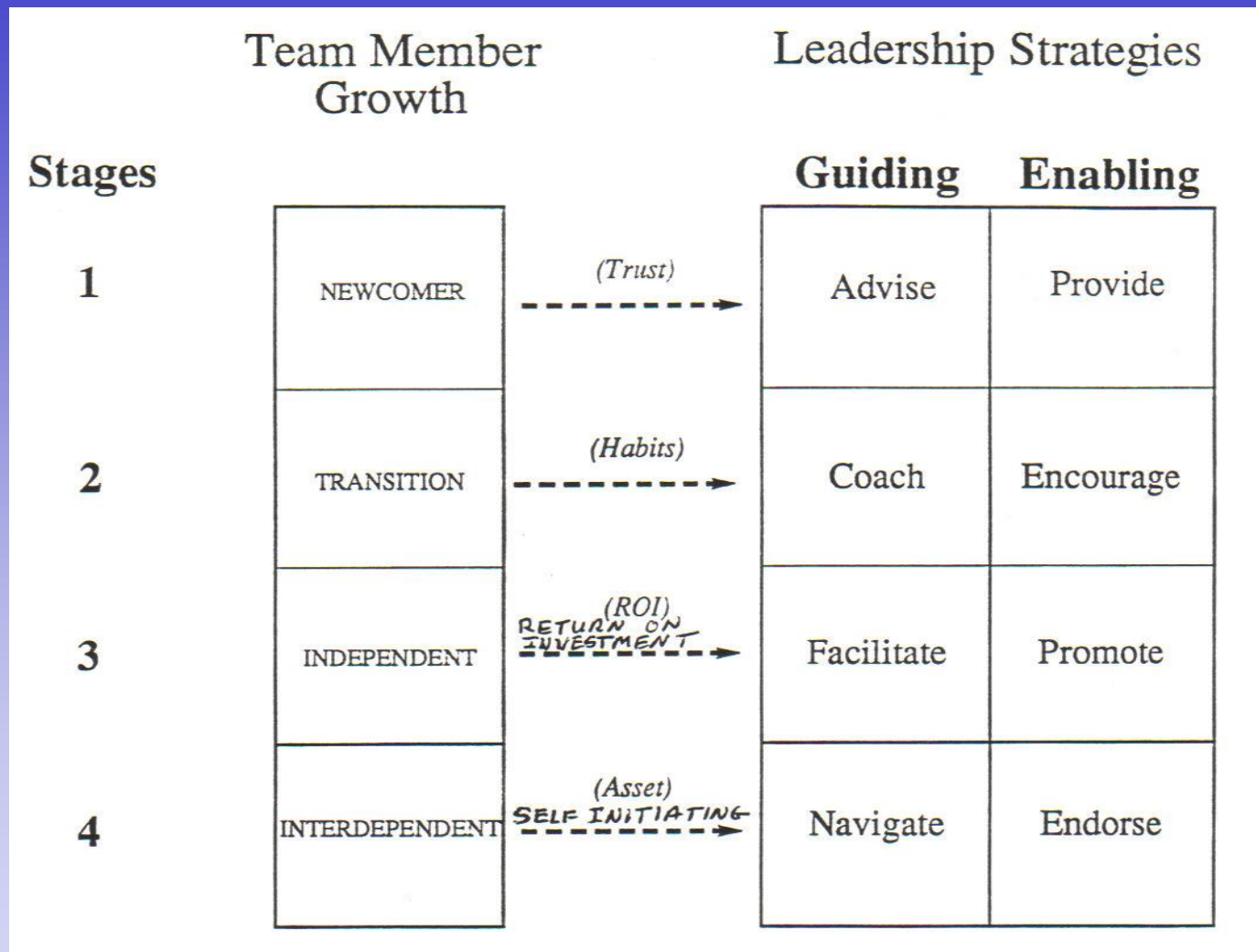
**In coaching, you help someone plan how to handle a situation. To be certain that the session results in positive action, you need to gain the person's commitment to a specific plan of action.**

# Coaching

## 6. Offer your support.

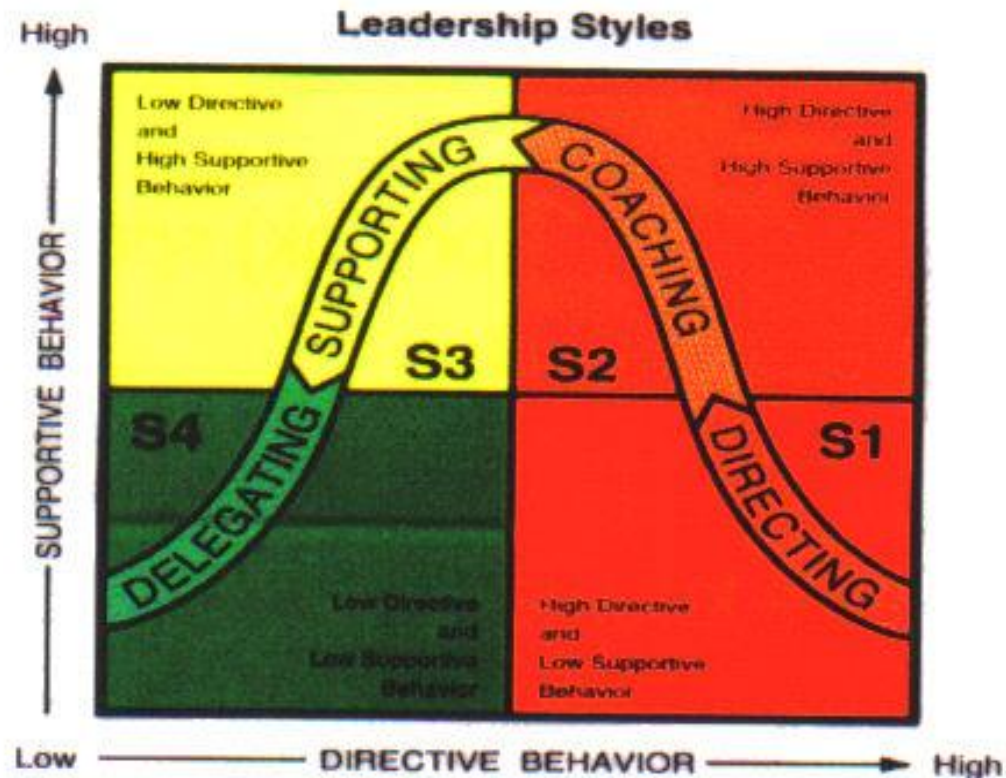
The ultimate goal of coaching is to enable a person to act independently. Most people need assurance and support before they can reach that goal. As a coach, you need to let the person know you're available to give further assistance – or further coaching- when it is needed. Coaching isn't a quick fix or a one-time shot, it's an extended relationship.

# Leadership Strategies

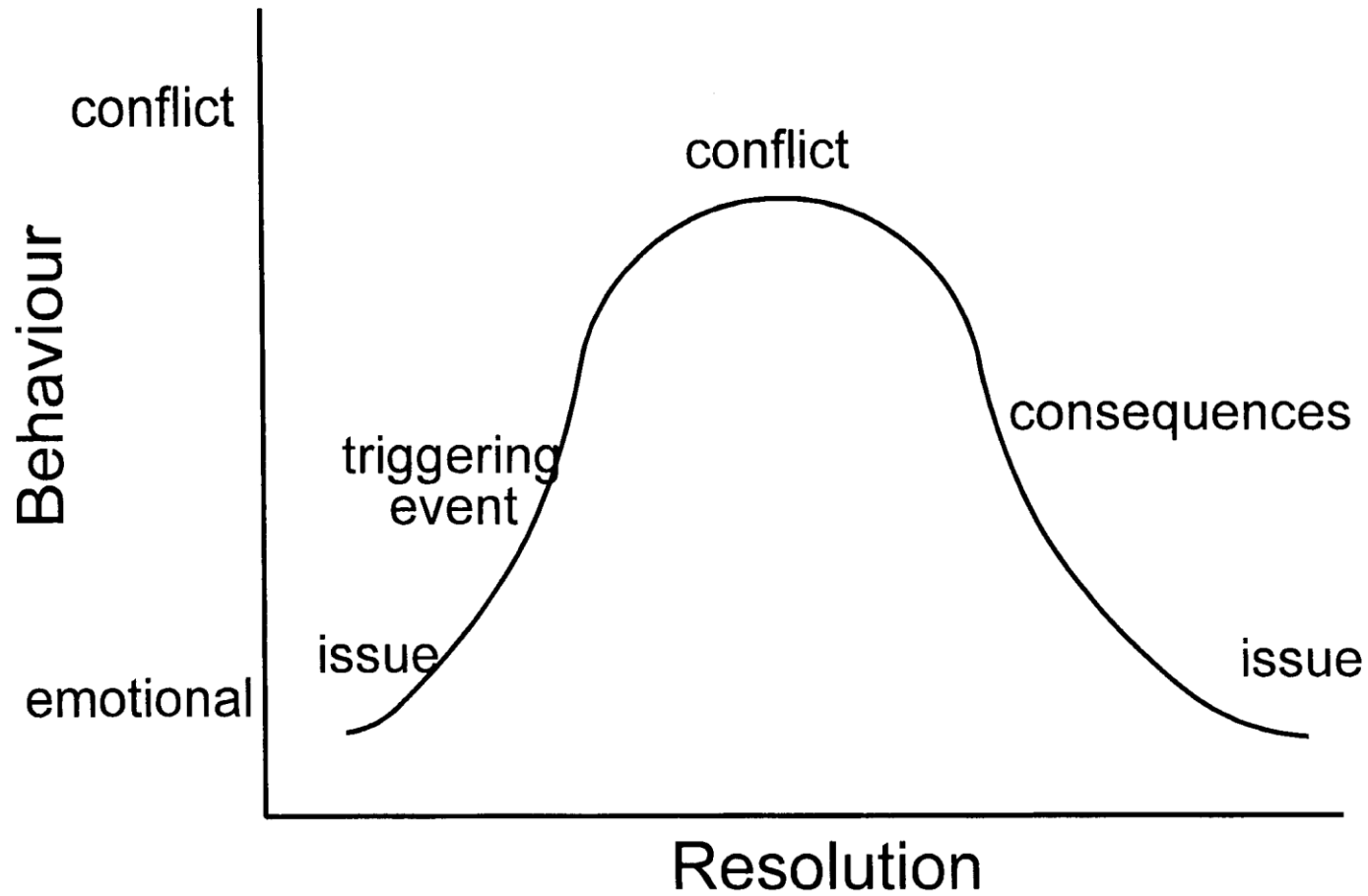


# Leadership Styles

## Situational Leadership® II **The Model**



# Conflict Cycle



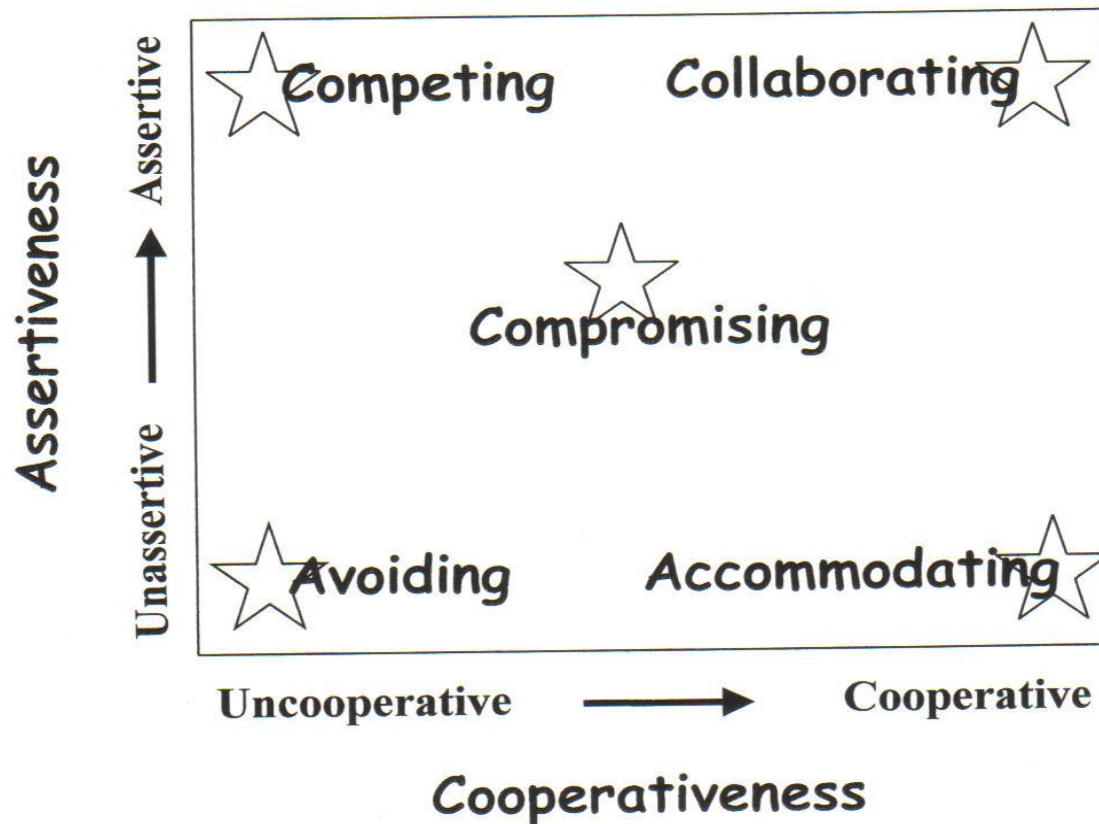


# Conflict Management

**Kenneth Thomas and Ralph Kilmann developed a model of five (5) conflict handling modes or styles**

# Thomas-Kilmann Conflict Styles

## The Five Conflict Handling Modes



# Thomas-Kilmann Conflict Styles

- **Avoiding (Uncooperative and unassertive)**  
Neglects own concerns as well as those of other parties: does not raise or address conflict issues.
- **Accommodating (Cooperative and unassertive)**  
Seeks to satisfy other person's concerns at the expense of own.
- **Competing (Uncooperative and assertive)**  
Opposite of accommodating. Uses whatever seems appropriate to win.

# Thomas-Kilmann Conflict Styles

- **Collaborating (Cooperative and assertive)** Opposite of avoiding. Works with other party to find a solution that satisfies both own and other party's concerns.
- **Compromising (Middle ground)** Seeks to find a middle ground to partially satisfy both parties.

# When to Avoid

- **When an issue is trivial.**
- **When there is no chance of getting what you want.**
- **When the potential damage of confrontation is greater than the benefits if resolution.**
- **When you need to gather more information.**
- **When others can resolve the conflict more effectively.**
- **When you need to cool down, reduce tension, and regain perspective or composure.**

# When to Accommodate

- **When you realize you are wrong.**
- **When the issue is much more important to the other person than you.**
- **When you need a future favor (credit).**
- **When continuing the competition would damage the cause.**
- **When subordinates need to develop - to learn from our mistakes.**

# When to Compete

- **When quick, decisive action is necessary.**
- **On important issues for which unpopular courses of action need implementing.**
- **On issues vital to the group welfare, when you know you are right.**
- **When protection is needed against people who take advantage of noncompetitive behavior.**

# When to Collaborate

- **When both sets of concerns are too important to be compromised.**
- **When it is necessary to test your assumptions or better to understand the viewpoint of the other party.**
- **When there is a need to combine ideas from people with different perspectives.**
- **When commitment can be increased by incorporating the concerns of everyone into the proposal.**
- **When there is a history of bad feeling.**



# When to Compromise

- **When goals are important but not worth the effort of potential disruption from more aggressive players.**
- **When two opponents with equal power are strongly committed to mutually exclusive goals.**
- **When temporary settlements are needed on complex issues.**
- **When expedient solutions are needed under time pressures.**
- **As back-up when collaboration or competition fail.**

# Negative Consequences of Competing

- Eventually being surrounded by "yes people."
- Fear of admitting error, ignorance, or uncertainty.
- Reduced communication.
- Damaged relationships.
- Lack of commitment from others.
- More effort during implementation to sell the solution.

# Negative Consequences of Collaborating

- **Too much time spent on insignificant issues.**
- **Ineffective decisions can be made by people with limited knowledge of the situation.**
- **Unfounded assumptions about trust.**

# Negative Consequences of Compromising

- **No one is completely satisfied.**
- **Solutions tend to be short-lived.**
- **Cynical climate: perception by both parties that it is a "sellout."**
- **Larger issues, principles, long-term values and the welfare of the company can be lost by focusing on trivia or the practicality of implementation.**

# Negative Consequences of Avoiding

- **Decisions made by default.**
- **Unresolved issues.**
- **Self-doubt created through lack of esteem.**
- **Creative input lost.**
- **Lack of credibility.**
- **Anger and hostility generated in subsequent discussions.**

# Negative Consequences of Accommodating

- **Decreased influence, respect, or recognition by too much deference.**
- **Laxity in discipline.**
- **Frustration as own needs are not met.**
- **Self-esteem undermined.**
- **Best solution may be lost.**

# Conflict Control

- **Use avoidance to ignore the issue.**
- **Use accommodating style to allow the other person to resolve the issue.**
- **Structure the interaction so that a triggering event is unlikely to occur.**
- **Strengthen the barriers that inhibit the expression of conflict.**
- **Avoid dealing with the person with whom you are in conflict.**

# Steps for Confronting Conflict

- Explain the situation as you see it.
- Describe how it is affecting your performance or the performance of others.
- Ask for the other viewpoint to be explained, and listen to the response.
- Agree on the issues independent of personalities.
- Explore and discuss the issues, without reference to the problem.



# Steps for Confronting Conflict

- **Agree on what each person will do to resolve the issues.**
- **Try to agree on the problem. If there is no agreement, discuss issues some more.**
- **Explore possible solutions.**
- **Agree on what each person will do to solve the problem.**

# Problem Solving & Decision Making

**A number of formal, structural problem solving and decision making techniques are taught in organizational management courses. Examples:**

- Kepner-Tregoe (KT) Technique**
- Alamo Technique**
- Cause Mapping**
- etc**

# Brainstorming Process

- **Everyone must be involved**
- **Call out ideas to scribe**
- **Build on ideas**
- **No idea is too trivial or silly**
- **There is no criticism nor judgment on any idea**
- **Get as many ideas as possible in the time**
- **Objective: solve problems and enjoy doing it**

# Objectives of Brainstorming

- Identify the issues rapidly
- Reach consensus on the most important issues rapidly
- Determine possible solutions to issues
- Select the most promising action to solve the problem
- Agree on who does what
- Get a commitment
- Sell the process

# Synergistic Decision Making

**Based on the premise that when people are supportive of one another and follow a rational sequence of activities in dealing with a problem, they can perform beyond the sum of their individual resources.**

**Synergistic decision making requires participation in effective interpersonal and rational processes.**

# Synergistic Decision Making

**Interpersonal Processes – involves skills we use when working with others.**

- **Listening to others**
- **Supporting their efforts to do well**
- **Differing with others when necessary in a manner that is constructive rather than defensive**
- **Participating equally in group discussions**

# Synergistic Decision Making

**Rational Processes – involves the skills we use in thinking a problem through to a solution.**

- **Analyzing the situation**
- **Identifying objectives (ie., aims or goals)**
- **Considering alternative strategies**
- **Discussing adverse consequences**

# Synergistic Decision Making

Reaching a consensus is the hallmark of “acceptance” in the effective decision equation:

**Effective Decision = Quality X Acceptance**

Lack of agreement regarding a decision places acceptance of the decision and its execution in jeopardy.



# Synergistic Decision Making

## Survival Exercise

# Synergistic Decision Making

— ITEMS —	STEP Your Individual Ranking <b>1</b>	STEP The Team's Ranking <b>2</b>	STEP Survival Expert's Ranking <b>3</b>	STEP Difference Between Step 1 & 3 <b>4</b>	STEP Difference Between Step 2 & 3 <b>5</b>
Magnetic Compass					
Gallon Can of Maple Syrup					
1 Sleeping Bag Per Person <small>(arctic type, down-filled with liner)</small>					
Bottle of Water Purification Tablets					
20' x 20' Piece of Heavy Duty Canvas					
13 Wood Matches <small>(in a metal screwtop, waterproof container)</small>					
250 ft. of ¼ Inch Braided Nylon Rope, 50 lb. test					
1 Operating 4 Battery Flashlight					
3 Pairs of Snowshoes					
Fifth of Bacardi Rum (151 proof)					
Safety Razor Shaving Kit with Mirror					
Wind-Up Alarm Clock					
Hand Ax					
1 Aircraft Inner Tube (for a 14 inch tire — punctured)					
Book Entitled <i>Northern Star Navigation</i>					
<b>TOTALS</b> <i>(The lower the score the better)</i>					

**YOUR SCORE** **TEAM SCORE**  
*(Step 4)* *(Step 5)*

# Synergistic Decision Making

— Items —	Step 1 Individual Ranking	Step 2 Team Ranking	Step 3 Experts' Ranking	Step 4 Difference Between Steps 1 & 3	Step 5 Difference Between Steps 2 & 3
Magnetic Compass			13		
Gallon Can of Maple Syrup			5		
1 Sleeping Bag Per Person (arctic type, down-filled with liner)			4		
Bottle of Water Purification Tablets			15		
20' x 20' Piece of Heavy Duty Canvas			3		
13 Wood Matches (in a metal screwtop, waterproof container)			1		
250 ft. of ¼-Inch Braided Nylon Rope, 50 lb. test			6		
1 Operating 4-Battery Flashlight			10		
3 Pairs of Snowshoes			7		
Fifth of Bacardi Rum (151 proof)			11		
Safety Razor Shaving Kit with Mirror			9		
Wind-Up Alarm Clock			12		
Hand Ax			2		
1 Aircraft Inner Tube (for a 14-inch tire – punctured)			8		
Book entitled <i>Northern Star Navigation</i>			4		
			<b>TOTALS</b>		

(The lower the score the better)

YOUR SCORE  
(Step 4)

TEAM SCORE  
(Step 5)



**IEEE**

# Synergistic Decision Making

Please complete the following steps and insert the scores under your team's number.		TEAM NUMBER					
		1	2	3	4	5	6
STEP 6	AVERAGE INDIVIDUAL SCORE — Add up all the individual team member's scores (Step 4) and divide by the number on the team.						
STEP 7	TEAM SCORE (Step 5 above)						
STEP 8	GAIN (LOSS) SCORE — The difference between the Team Score and the Average Individual Score. If the Team Score is lower than Avg. Ind. Score, gain is "+"; if higher, gain is "-".						
STEP 9	PERCENTAGE CHANGE — Divide the gain (loss) by the Average Individual Score.						
STEP 10	LOWEST INDIVIDUAL SCORE — on the team.						
STEP 11	NUMBER OF INDIVIDUAL SCORES — lower than the team score.						

Finally

**The End**

