

Shaping the Future

STF-Student Manual

3rd Edition, 1st Printing-September 2015



FEMA

**FEMA/USFA/NFA
STF-SM
September 2015
3rd Edition, 1st Printing**

Shaping the Future



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Shaping the Future

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TABLE OF CONTENTS

	PAGE
Table of Contents	iii
Acknowledgments	v
Course Goal	vii
Audience, Scope and Course Purpose	vii
Course Evaluation Plan/Grading Methodology	vii
Schedule	ix
Firefighter Code of Ethics	xi
A Student Guide to End-of-course Evaluations.....	xiii
UNIT 1: REDEFINING THE PRESENT	SM 1-1
UNIT 2: FINDING SOLUTIONS IN THE QUALITY ENVIRONMENT.....	SM 2-1
UNIT 3: JUSTIFYING DECISIONS	SM 3-1
UNIT 4: MANAGING CHANGE IN YOUR ORGANIZATION.....	SM 4-1
UNIT 5: COURSE CONCLUSION.....	SM 5-1

Acronyms

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ACKNOWLEDGMENTS

The development of any National Fire Academy (NFA) course is a complex process aimed at providing students with the best possible learning opportunity we can deliver.

There are many players in course development, each of whom plays an equally important part in its success. We want to acknowledge their participation and contribution to this effort and extend our heartfelt thanks for making this quality product.

The following people participated in the creation of this course:

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COURSE GOAL

At the completion of this course, the students will be able to:

1. Employ creative approaches to identify trends that have an impact on their organization.
2. Apply creative group problem-solving methods to modern organizational problems and describe the importance of continuous improvement within fire and emergency services.
3. Quantify problems and solutions and use the information to justify a recommendation.
4. Explain why employees resist change and develop strategies for implementing change within the fire and emergency service environments.

AUDIENCE, SCOPE AND COURSE PURPOSE

Audience:

- First- and second-level supervisors and Company Officers (COs) who are upwardly mobile within their organizations and whose department head wishes to prepare them for increased managerial responsibility.
- Administrative officers who are responsible for significant staff functions within the organization and who report directly to top management.
- Emergency service workers assigned to positions with decision-making responsibilities.

Scope: This course presents a contemporary approach to organizational problem-solving.

Purpose: The purpose of this course is to provide fire service personnel who aspire to management roles with the skills they need to identify, prioritize and solve organizational problems.

COURSE EVALUATION PLAN/GRADING METHODOLOGY

The required performance to successfully complete the course is attained by completing the examination with a “C” or by answering correctly a minimum of 21 out of 30 questions.

The following course grading plan should be used to determine the assigned course grade for each student in the class.

Minimum Number of Questions Answered Correctly	Number of Incorrect Answers	Letter Grade to be Assigned to Student
27	3	A
24	6	B
21	9	C
20 or fewer	10 or more	F

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SCHEDULE

TIME	DAY 1	DAY 2
8:00 - 9:00	Introduction, Welcome and Administrative	Unit 3: Justifying Decisions (cont'd) Activity 3.3: Selecting Data to Support Decisions in Your Organization
9:00 - 10:00	Unit 1: Redefining the Present Activity 1.1: Environmental Scanning	Unit 4: Managing Change in Your Organization Activity 4.1: Identifying Future Changes
10:00 - 10:15	<i>Break</i>	<i>Break</i>
10:15 - 12:00	Unit 1: Redefining the Present (cont'd) Activity 1.2: Fire Service Paradigms	Unit 4: Managing Change in Your Organization (cont'd) Activity 4.2, Part 1: Trust-Orientation Profile
12:00 - 1:00	<i>Lunch</i>	<i>Lunch</i>
1:00 - 2:15	Unit 1: Redefining the Present (cont'd) Activity 1.3: Reframing the Present Unit 2: Finding Solutions in the Quality Environment Activity 2.1, Part 1: Inventory of Creative Thought and Innovative Action	Unit 4: Managing Change in Your Organization (cont'd) Activity 4.2, Part 2: Trust-Orientation Profile Activity 4.3: Managing Change
2:15 - 2:30	<i>Break</i>	<i>Break</i>
2:30 - 5:00	Unit 2: Finding Solutions in the Quality Environment (cont'd) Activity 2.1, Part 2: Inventory of Creative Thought and Innovative Action Activity 2.2: Divergent Thinking and Problem-Solving Activity 2.3: Benchmarking the Classroom Unit 3: Justifying Decisions Activity 3.1: Writing Goals Activity 3.2: Writing Specific, Measurable, Achievable, Relevant and Time-Oriented Objectives	Unit 5: Course Conclusion Activity 5.1: Review Objectives

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FIREFIGHTER CODE OF ETHICS

Background

The Fire Service is a noble calling, one which is founded on mutual respect and trust between firefighters and the citizens they serve. To ensure the continuing integrity of the Fire Service, the highest standards of ethical conduct must be maintained at all times.

Developed in response to the publication of the Fire Service Reputation Management White Paper, the purpose of this National Firefighter Code of Ethics is to establish criteria that encourages fire service personnel to promote a culture of ethical integrity and high standards of professionalism in our field. The broad scope of this recommended Code of Ethics is intended to mitigate and negate situations that may result in embarrassment and waning of public support for what has historically been a highly respected profession.

Ethics comes from the Greek word ethos, meaning character. Character is not necessarily defined by how a person behaves when conditions are optimal and life is good. It is easy to take the high road when the path is paved and obstacles are few or non-existent. Character is also defined by decisions made under pressure, when no one is looking, when the road contains land mines, and the way is obscured. As members of the Fire Service, we share a responsibility to project an ethical character of professionalism, integrity, compassion, loyalty and honesty in all that we do, all of the time.

We need to accept this ethics challenge and be truly willing to maintain a culture that is consistent with the expectations outlined in this document. By doing so, we can create a legacy that validates and sustains the distinguished Fire Service institution, and at the same time ensure that we leave the Fire Service in better condition than when we arrived.



FIREFIGHTER CODE OF ETHICS

I understand that I have the responsibility to conduct myself in a manner that reflects proper ethical behavior and integrity. In so doing, I will help foster a continuing positive public perception of the fire service. Therefore, I pledge the following...

- Always conduct myself, on and off duty, in a manner that reflects positively on myself, my department and the fire service in general.
- Accept responsibility for my actions and for the consequences of my actions.
- Support the concept of fairness and the value of diverse thoughts and opinions.
- Avoid situations that would adversely affect the credibility or public perception of the fire service profession.
- Be truthful and honest at all times and report instances of cheating or other dishonest acts that compromise the integrity of the fire service.
- Conduct my personal affairs in a manner that does not improperly influence the performance of my duties, or bring discredit to my organization.
- Be respectful and conscious of each member's safety and welfare.
- Recognize that I serve in a position of public trust that requires stewardship in the honest and efficient use of publicly owned resources, including uniforms, facilities, vehicles and equipment and that these are protected from misuse and theft.
- Exercise professionalism, competence, respect and loyalty in the performance of my duties and use information, confidential or otherwise, gained by virtue of my position, only to benefit those I am entrusted to serve.
- Avoid financial investments, outside employment, outside business interests or activities that conflict with or are enhanced by my official position or have the potential to create the perception of impropriety.
- Never propose or accept personal rewards, special privileges, benefits, advancement, honors or gifts that may create a conflict of interest, or the appearance thereof.
- Never engage in activities involving alcohol or other substance use or abuse that can impair my mental state or the performance of my duties and compromise safety.
- Never discriminate on the basis of race, religion, color, creed, age, marital status, national origin, ancestry, gender, sexual preference, medical condition or handicap.
- Never harass, intimidate or threaten fellow members of the service or the public and stop or report the actions of other firefighters who engage in such behaviors.
- Responsibly use social networking, electronic communications, or other media technology opportunities in a manner that does not discredit, dishonor or embarrass my organization, the fire service and the public. I also understand that failure to resolve or report inappropriate use of this media equates to condoning this behavior.

Developed by the National Society of Executive Fire Officers

A Student Guide to End-of-course Evaluations

Say What You Mean ...

Ten Things You Can Do to Improve the National Fire Academy

The National Fire Academy takes its course evaluations very seriously. Your comments and suggestions enable us to improve your learning experience.

Unfortunately, we often get end-of-course comments like these that are vague and, therefore, not actionable. We know you are trying to keep your answers short, but the more specific you can be, the better we can respond.



Actual quotes from student evaluations:	Examples of specific, actionable comments that would help us improve the course:
1 "Update the materials."	<ul style="list-style-type: none"> The (ABC) fire video is out-of-date because of the dangerous tactics it demonstrates. The available (XYZ) video shows current practices. The student manual references building codes that are 12 years old.
2 "We want an advanced class in (fill in the blank)."	<ul style="list-style-type: none"> We would like a class that enables us to calculate energy transfer rates resulting from exposure fires. We would like a class that provides one-on-one workplace harassment counseling practice exercises.
3 "More activities."	<ul style="list-style-type: none"> An activity where students can physically measure the area of sprinkler coverage would improve understanding of the concept. Not all students were able to fill all ICS positions in the exercises. Add more exercises so all students can participate.
4 "A longer course."	<ul style="list-style-type: none"> The class should be increased by one hour per day to enable all students to participate in exercises. The class should be increased by two days so that all group presentations can be peer evaluated and have written abstracts.
5 "Readable plans."	<ul style="list-style-type: none"> The plans should be enlarged to 11 by 17 and provided with an accurate scale. My plan set was blurry, which caused the dotted lines to be interpreted as solid lines.
6 "Better student guide organization," "manual did not coincide with slides."	<ul style="list-style-type: none"> The slide sequence in Unit 4 did not align with the content in the student manual from slides 4-16 through 4-21. The instructor added slides in Unit 4 that were not in my student manual.
7 "Dry in spots."	<ul style="list-style-type: none"> The instructor/activity should have used student group activities rather than lecture to explain Maslow's Hierarchy. Create a pre-course reading on symbiotic personal relationships rather than trying to lecture on them in class.
8 "More visual aids."	<ul style="list-style-type: none"> The text description of V-patterns did not provide three-dimensional views. More photographs or drawings would help me imagine the pattern. There was a video clip on NBC News (date) that summarized the topic very well.
9 "Re-evaluate pre-course assignments."	<ul style="list-style-type: none"> The pre-course assignments were not discussed or referenced in class. Either connect them to the course content or delete them. The pre-course assignments on ICS could be reduced to a one-page job aid rather than a 25-page reading.
10 "A better understanding of NIMS."	<ul style="list-style-type: none"> The instructor did not explain the connection between NIMS and ICS. The student manual needs an illustrated guide to NIMS.

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UNIT 1: REDEFINING THE PRESENT

TERMINAL OBJECTIVE

The students will be able to:



- 1.1 *Employ creative approaches to identify trends that have an impact on their organization.*

ENABLING OBJECTIVES

The students will be able to:

- 1.1 *Use an environmental scanning process to identify existing or potential organizational issues and trends.*
 - 1.2 *Analyze the effect of paradigms on creative problem identification.*
 - 1.3 *Identify specific emergency service paradigm shifts that would improve future organizational effectiveness.*
-

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**UNIT 1:
REDEFINING THE PRESENT**

Slide 1-1

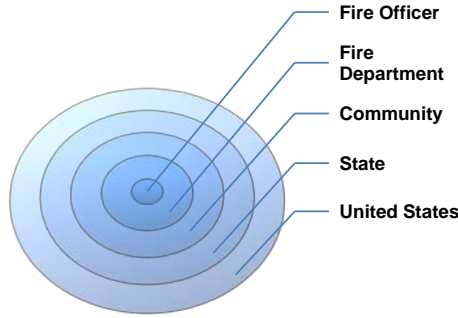
ENABLING OBJECTIVES

- Use an environmental scanning process to identify existing or potential organizational issues and trends.
- Analyze the effect of paradigms on creative problem identification.
- Identify specific emergency service paradigm shifts that would improve future organizational effectiveness.

Slide 1-2

I. VISION: THE POWER TO SHAPE THE FUTURE

THE BIG PICTURE



Fire Officer
Fire Department
Community
State
United States

Slide 1-3

A. Global perspective — where are we in the big picture?

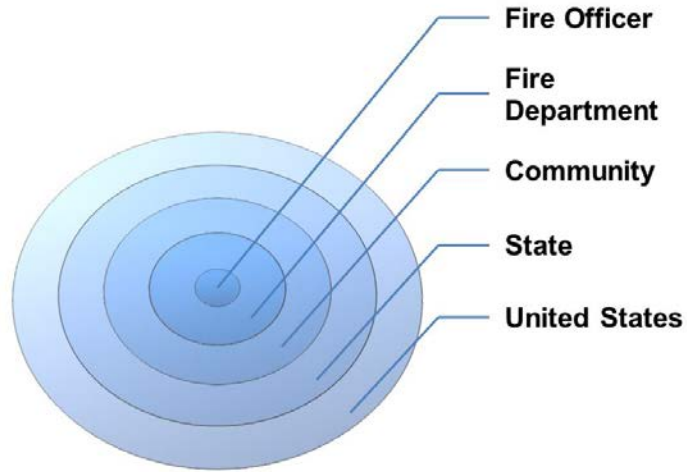
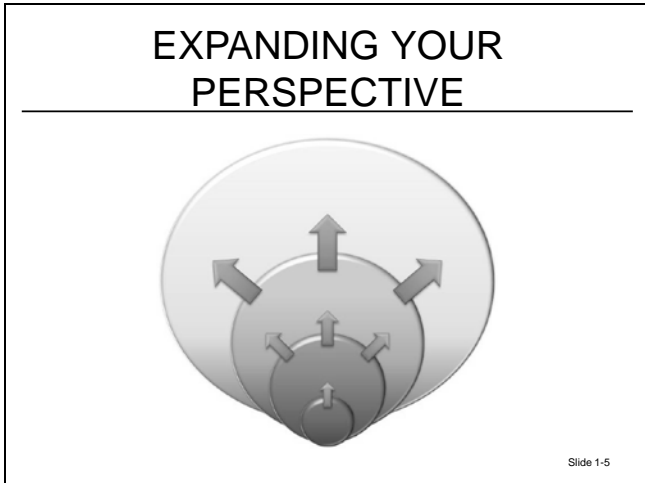


Figure 1-1

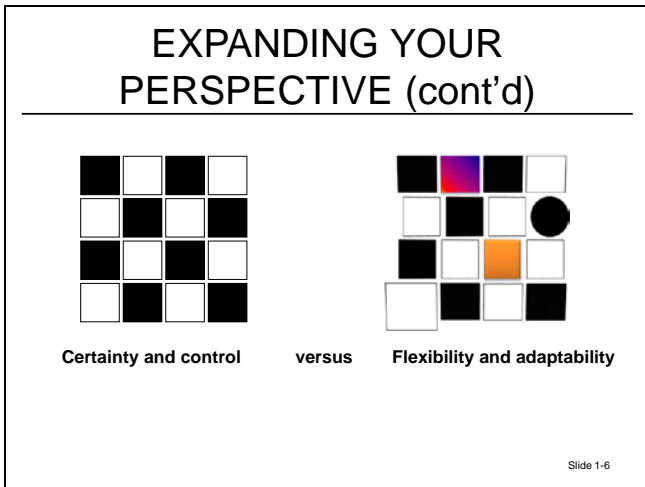
B. Coping with ambiguity.

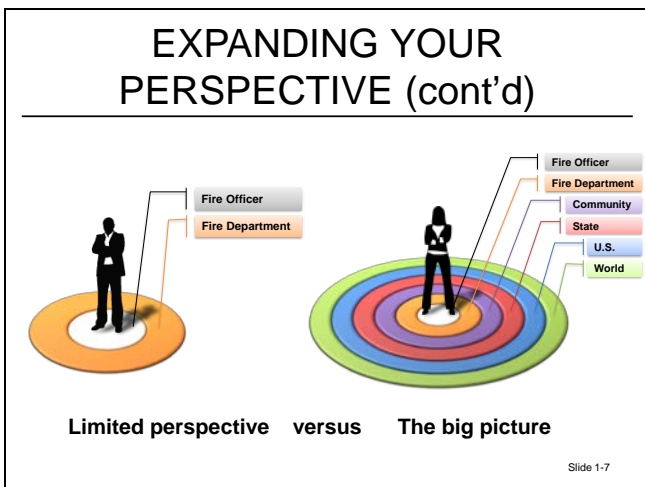
Can you list out in your Student Manuals (SMs) some causes and sources of ambiguity that you have seen in your departments and organizations?

Slide 1-4

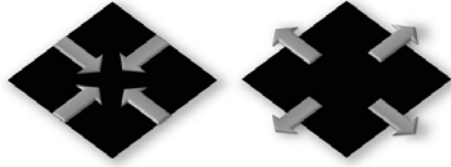


C. Expanding your managerial perspective.





EXPANDING YOUR PERSPECTIVE (cont'd)



Internal focus versus External focus

Slide 1-8

EXPANDING YOUR PERSPECTIVE (cont'd)



Looking for the right answer

versus



Asking the right question

Slide 1-9

EXPANDING YOUR PERSPECTIVE (cont'd)



Eliminating or avoiding conflict

versus

Accepting conflict as healthy

Slide 1-10

EXPANDING YOUR PERSPECTIVE (cont'd)

Being uncomfortable with ambiguity

versus

Finding meaning and pattern amid the clutter and confusion



Slide 1-11

II. ENVIRONMENTAL SCANNING

ENVIRONMENTAL SCANNING

- Monitoring and tracking what's happening.
- Current and future.
- Internal and external.



Slide 1-12

A. Definition.

1. Monitoring and tracking what is occurring, or is about to occur, in our operating environments (both internal and external).
2. Necessitated by a rapidly accelerating rate of change and inability to control our own destiny.
3. Attempting to visualize environmental factors (internal and external) that have an impact on our ability to manage effectively.
4. A continuous process — not just a temporary ad hoc reaction to an unexpected crisis.

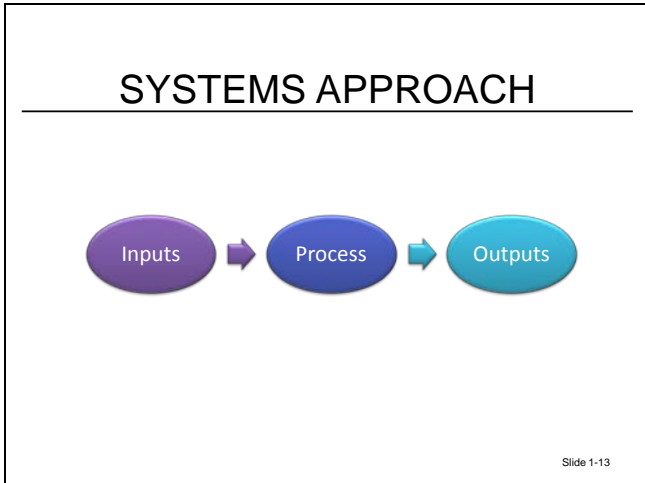




Figure 1-2

5. The environmental scanning process is a fundamental part of a “systems approach” to organizational management.
 - a. Organizations have a symbiotic relationship with their external environment.
 - The organization depends on the environment to provide what’s needed for survival (inputs).
 - The organization then transports these inputs in various ways for the purpose of creating and/or delivering expected products/services (outputs).
 - The environment is enriched by the organizational outputs.
 - b. Shifts in the environment cause changes within the organization.

PURPOSES OF ENVIRONMENTAL SCANNING

- Understand and manage the present.
- Predict the future.
- Develop strategies.

Slide 1-14

- B. Purposes.
1. To understand and manage the present situation better.
 2. To predict future events/issues that are likely to have an impact on the organization.
 3. To develop strategies for adapting to, learning from, and influencing our internal and external environments.

C. Outcomes.

KNOWN VERSUS UNKNOWN

As **first responders**, most of us are problem-solvers. As **managers/leaders**, we must constantly scan the horizon to identify what challenges or obstacles will be coming our way. **How are the two different?** The known versus the unknown.

Slide 1-15

As **first responders**, most of us are problem-solvers. We gather and analyze facts and data to reach an answer or a solution to a problem that faces us. As **managers/leaders**, we must constantly scan the horizon to identify what challenges or obstacles will be coming our way in the upcoming days, weeks, months and years. **How are the two different?** The known versus the unknown.

EXTERNAL ISSUES AND TRENDS

- Information and technology.
- Economic and financial.
- Governmental/Political.
- Human resources.
- Service delivery.



Slide 1-16

D. Issues and trends to monitor in the external environment:

1. Information and technology.
2. Economic and financial.
3. Governmental and political.
4. Human resources.
5. Service delivery.

INTERNAL ISSUES AND TRENDS

- Changing employee values.
- Organizational culture shifts.
- Responsiveness/Effectiveness of the organizational structure.
- Relevance/Clarity/Acceptance of the mission or philosophy.

Slide 1-17

E. Issues and trends to monitor in the internal environment:

1. Changing employee values.
2. Organizational culture shifts.

3. Responsiveness and effectiveness of the organizational structure.
4. Relevance/Clarity/Acceptance of the stated organizational mission or philosophy.

F. How to monitor.

SWOT ANALYSIS

- **S**trengths.
- **W**eaknesses.
- **O**pportunities.
- **T**hreats.

Slide 1-18

For each environmental factor or influence, conduct a SWOT analysis.

1. **S**trengths.
2. **W**eaknesses.
3. **O**pportunities.
4. **T**hreats.

SAMPLE “SWOT” ANALYSIS

Trend: Customer Service Improvement

Your organization has observed an increasing trend among other city organizations to institute customer service programs within their organizations. Your organization does a “SWOT” analysis to try to determine whether or not to “join the crowd.”

STRENGTHS: What strengths do we now have that would help in implementing a customer service program?

- A culture that thrives on service.
- A value for quality. (What does quality look like?)
- Excellent technical abilities throughout the work force.
- An excellent training division.
- Highly educated, progressive managers.

WEAKNESSES: What weaknesses do we now have that might hamper efforts to implement a customer service program?

- Lack of a quantitative database for assessing the quality of service delivery.
- Lack of a quantitative database for comparing customer expectations to customer satisfaction.
- Lack of knowledge about the process.
- Lack of an established tradition of analytical problem-solving.

OPPORTUNITIES: What new opportunities might go along with implementation of a customer service program?

- The city manager is a real customer service fanatic — we’ll score points with her!
- It will make us look good in the eyes of the public.
- It’s a great way to let the public know we really care.
- It will be a great opportunity to empower individuals throughout the organization.

THREATS: Is the implementation of a customer service program likely to pose a threat to anyone?

- We may discover that we’re not as good as we thought!
- It will probably require a shift in resource allocation.
- Poor preparation can ruin the whole program and make us look bad.

Conclude the discussion by asking for possible benefits of doing a “SWOT” analysis. Expected responses include:

- Clear picture of what you can expect.
- Objective data on which to base decision-making.
- Solid, factual information that you can use to convince others to go along.

ACTIVITY 1.1

Environmental Scanning

Purpose

Identify specific ways in which present **external trends** are likely to have an impact on the future management of fire service/Emergency Medical Services (EMS) organizations.

Directions

1. In your small group, complete one of the worksheets on the following pages, as assigned by the instructor.
2. For each trend listed on your assigned worksheet, brainstorm and list probable organizational impacts — both positive and negative. Use an easel pad to record these impacts.
3. If time permits, identify other present trends in your assigned category and list probable organizational impacts.
4. Designate a representative to report group findings to the rest of the class.

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ACTIVITY 1.1 (cont'd)

Worksheet 1: Information and Technology Trends

Trend	Likely Impacts
Telecommunication advances	
Office automation	
Robotics	
Computer technology	
Social networking sites	
Web-based training	

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ACTIVITY 1.1 (cont'd)

Worksheet 2: Economic and Financial Trends

Trend	Likely Impacts
Revenue sources (from taxes, limitation on taxes, ability to create more revenue sources)	
Less federal support	
Global competition	
Downsizing	
Consolidations	
Privatization	

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ACTIVITY 1.1 (cont'd)

Worksheet 3: Government/Political Trends

Trend	Likely Impacts
Citizen involvement	
Special interest groups	
Regional problem-solving	
"Right to Know" laws	
Equal opportunity	

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ACTIVITY 1.1 (cont'd)

Worksheet 4: Human Resource Trends

Trend	Likely Impacts
Cultural diversity	
Workforce migration	
Increased education	
Aging population	
Quality of work-life demands	
Employee empowerment	

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ACTIVITY 1.1 (cont'd)

Worksheet 5: Service Delivery Trends

Trend	Likely Impacts
Innovative program and services	
Focus on customer satisfaction	
Alternative delivery mechanisms: <ul style="list-style-type: none">• Privatization.• Consolidation.• Regionalization.	
Incident Command System (ICS)	
More EMS/Less firefighting	
Less firefighting/More of everything else	


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III. FORMING AND SHIFTING PARADIGMS

FORMING AND SHIFTING PARADIGMS

A paradigm is a:

- Point of view.
- Frame of reference.
- Set of rules.




Slide 1-20

- A. What is a paradigm?
1. A personal framework containing all of the commonly accepted views about a subject.
 2. A point of view, frame of reference, and set of rules.
 3. Example:

Said the customer, “That doesn’t look anything like a sunset.” Pondering his painting, the artist responded: “Then you don’t see sunsets the way I do.”

PARADIGM DISADVANTAGES

- Blind spots.
- Paradigm paralysis.



Slide 1-21

- B. How paradigms affect problem-solving.
 - 1. Our paradigms create the lenses through which we see our present realities and future possibilities.
 - 2. Formation of personal/organizational blind spots — because a way of seeing is also a way of not seeing!
 - 3. Eventually, the more entrenched our paradigms become, the less we are able to change.

- C. Paradigm paralysis.
 - 1. Inability to shift one’s point of view.
 - 2. Being stuck in one specific frame of reference.
 - 3. Becoming incapable of seeing that things are no longer the way they used to be.

SHIFTING YOUR PARADIGM

“Flexpertise”

- Continually adapt, innovate and change.
- Unfreezing and refreezing paradigms.

Slide 1-22

- D. The cure: shifting your paradigm.
 - 1. The willingness to be open-minded helps you redefine your paradigm.
 - 2. Having the ability to continually adapt, innovate and change.
 - 3. Being able to abandon existing paradigms in favor of newer, more appropriate paradigms.
 - 4. Unfreezing and refreezing beliefs, knowledge and attitudes.

SHIFTING YOUR PARADIGM (cont'd)

“Making up one’s mind, an essential skill of the past, may now be no more important than a new essential skill of the future — learning how to change one’s mind.”

— Gelatt

Slide 1-23

E. The pioneer versus the settler mentality (Barker, 1993).

SETTLERS VERSUS PIONEERS

- Settlers.
 - Accept status quo.
 - Resist change.
 - Low risk-takers.
 - Rely on the numbers.
 - Want to be safe.
- Pioneers.
 - Challenge status quo.
 - Seek out change.
 - High risk-takers.
 - Rely on intuition.
 - Make it safe for settlers.

Slide 1-24

1. Settlers.
 - a. Accept the status quo.
 - b. Resist change.
 - c. Are low risk-takers.
 - d. Rely on the numbers.
 - e. Want assurance that it is safe to move in.
2. Pioneers.
 - a. Challenge the status quo.

- b. Seek out change.
- c. Are high risk-takers.
- d. Rely on intuition.
- e. Make it safe for settlers.

ACTIVITY 1.2

Fire Service Paradigms

Purpose

Become aware of typical fire service paradigms that limit our ability to see the world as others see it.

Directions

Brainstorm and list paradigm shifts that have occurred in the fire service over the past 10 or 15 years. The first line is filled out as a sample for your use.

Old Paradigm	New Paradigm
Firefighting is our primary mission.	We are now an all-hazards organization.

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IV. THE REFRAMING PROCESS: PRELUDE TO A PARADIGM SHIFT

**THE REFRAMING PROCESS:
PRELUDE TO A PARADIGM SHIFT**

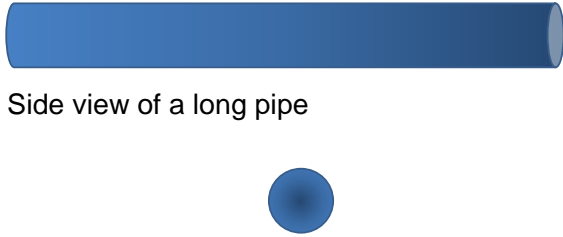
- Changing the lens.
- Altering our perspective.
- Using a different vantage point.
- Refocusing.

Slide 1-26

A. Reframing defined.

1. Changing the lens by which we're viewing the world.
2. Altering our perspective — looking at the same situation through a variety of lenses.
3. Deliberately looking at the present situation from a different vantage point.
4. Refocusing.

REFRAMING



Side view of a long pipe

Front view of a long pipe

Slide 1-27

B. Example of reframing.

If you look at a pipe from the side, it looks quite large. However, if you look at a pipe head-on and only see the small diameter, it looks quite small. You must reframe your approach to get a bigger perspective.

C. Purpose.

1. To generate a creative approach to problem identification.
2. To suggest possible paradigm shifts needed to improve the organization.
3. To identify specific things that are presently impossible which, if they became possible, would significantly alter the way you do business.

ACTIVITY 1.3

Reframing the Present

Purpose

Use the reframing process to assist in creative problem identification and in determining potential paradigm shift requirements.

Directions



1. In your small groups, brainstorm and list on an easel pad responses to the following question:

What is it that you cannot do today which, if you could do it, would significantly alter the way you do business?

2. Record your list on an easel pad.
3. You have 20 minutes for small group work. Be prepared to share your list with the class.

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V. SUMMARY



SUMMARY

- Environmental scanning.
- Paradigms.
- Adapt, innovate and change.

Slide 1-29

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ANNOTATED REFERENCE LIST

Books

Gelatt, H. B. "Future Sense — Creating the Future." *The Futurist*, September-October 1993, pp. 9-12.

Gelatt says it's important to **create** our future, not just try to predict it. But to do so, we need to overcome four "neuroses" that may get in our way (Future Phobia, Paradigm Paralysis, Infomania and Reverse Paranoia).

International City/County Management Association (ICMA). "Future Challenges, Future Opportunities: The Final Report of the ICMA Future Visions Consortium." *Public Management*, July 1991, Center Insert.

In 1988, the ICMA launched the Future Visions Consortium, a group of 65 local government managers whose charge was to identify developments likely to affect local government and develop strategies for coping with them. The report summarizes the consortium's final predictions on observed critical trends and their implications for local government in the coming decade.

Pfeiffer, J. William, Leonard D. Goodstein, and Timothy M. Nolan. *Applied Strategic Planning: A How to Do It Guide*. San Diego: University Associates, Inc., 1986.

Pfeiffer has long been recognized as an excellent source of information on the strategic planning process. This text is a comprehensive, easy-to-follow guide for anyone interested in getting started.

Videos and Films

Barker, Joel A. *Discovering the Future* (three-part video series: "The Business of Paradigms," "The Power of Vision," and "Paradigm Pioneers"). Burnsville, MN: Charthouse International Learning Corp.

Video 1, "The Business of Paradigms" helps answer the question: "Why is it so difficult to anticipate the future?"

Video 2, "The Power of Vision" tries to answer the question: "Why should we take the time to think about the future?" The premise is that creating a positive vision of the future is profoundly empowering.

Video 3, "Paradigm Pioneers" explains the risks of a "settler mentality" and emphasizes the importance of "paradigm pioneers" — those who drive new paradigms from rough concept into practicality.

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UNIT 2: FINDING SOLUTIONS IN THE QUALITY ENVIRONMENT

TERMINAL OBJECTIVE

The students will be able to:

- 2.1 *Apply creative group problem-solving methods and describe the importance of continuous improvement within fire and emergency services.*

ENABLING OBJECTIVES

The students will be able to:

- 2.1 *Define three types of problem-solving approaches.*
 - 2.2 *Identify personal barriers to creativity.*
 - 2.3 *Define the concept of continuous improvement.*
 - 2.4 *Define the term “benchmarking.”*
 - 2.5 *Identify three advantages realized through benchmarking.*
-

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UNIT 2: FINDING SOLUTIONS IN THE QUALITY ENVIRONMENT

Slide 2-1

ENABLING OBJECTIVES

- Define three types of problem-solving approaches.
- Identify personal barriers to creativity.
- Define the concept of continuous improvement.
- Define the term “benchmarking.”
- Identify three advantages realized through benchmarking.

Slide 2-2

I. WHAT IS A PROBLEM?


What is a problem?



Slide 2-3

THREE TYPES OF PROBLEMS

- Tame.
- Complex.
- Wicked.



Slide 2-4

A. Three common types of problems (Tracy, 2014):

1. Tame.
 - a. Solution requires more information.
 - b. Example: A fire is reported on Central Avenue. There are five separate sections of Central Avenue throughout the community.
2. Complex.
 - a. Solution requires a rearrangement of information or restructuring of information or resources.
 - b. Example: The fire department wants to implement a comprehensive building inspection program to inspect all commercial occupancies annually, with no additional budget increases.
3. Wicked.
 - a. Solution is blocked or hidden by present success.
 - b. Example: A successful organization wants to discover ways to improve customer satisfaction in the community proactively, to avoid possible budget cuts.

FINDING HIDDEN SOLUTIONS

- Emphasis of this unit.
- Important to modern organizational functioning.
- Successful approach used in Japan.
- Private sector examples.
- Fire and emergency service examples.

Slide 2-5

- B. Finding hidden solutions.
 - 1. This third type of common problem will be the emphasis of this unit.
 - 2. Important to modern organizational functioning.
 - a. Citizen expectations for quality service.
 - b. Only way to improve service in a proactive way.
 - c. First responders **must** provide customers **more** than they were expecting.

- C. Private sector examples.
 - 1. Green technology such as hybrid vehicles.
 - 2. Time.
 - a. Checking a watch.
 - b. Checking a cellphone.
 - 3. Communication.
 - a. Email.
 - b. Text message.
 - c. Social media.
 - d. Calling versus texting emergency numbers.

- D. First responder examples.
 - 1. Incorporating community risk reduction.
 - 2. Changes in health care delivery.
 - 3. Community paramedicine.
 - 4. Hazardous materials response.
 - a. Prior to 1980 — virtually none.
 - b. 1990s forward — some provided full response; most did not, but opted for less expensive defensive operations.
 - 5. Other collateral assignments that first responders have accepted as their own:
 - a. Confined space rescue.
 - b. Trench rescue.
 - c. Water (swift and calm) rescue.
 - d. Weapons of mass destruction (WMD).
 - e. Preventive medicine (blood pressure checks and vaccinations).
 - f. Disaster preparedness.

II. THINKING AND PROBLEM-SOLVING

THINKING AND PROBLEM-SOLVING OVERVIEW

- Creativity and ability to innovate.
- Barriers to creative thought.




Slide 2-6

A. Creativity and innovation ability (Martin, 1990).

**ABILITY TO BE CREATIVE
AND INNOVATIVE**

- Critical for modern problem-solving.
- Dependent on internal psychological factors.
- Dependent on external environmental factors.



Slide 2-7

1. Ability to be creative is critical for modern problem-solving.
2. Ability to be creative is dependent on internal factors over which we have personal control.
 - a. Willingness to take risks.
 - b. Being open to new experiences.
 - c. Willingness to think flexibly about issues.
 - d. Ability to deal with conflicting information.
 - e. Lack of fear of failure.
 - f. Unhindered by criticism or praise.
3. Ability is dependent on external factors which may not be under our own control.
 - a. Atmosphere.
 - b. Empathetic surroundings.
 - c. Managerial style of supervisor.
 - d. Feeling safe and secure in making decisions.
 - e. Being free to think and feel.
 - f. Being free from strict scrutiny.

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ACTIVITY 2.1, PART 1

Inventory of Creative Thought and Innovative Action

Purpose

Identify barriers to creative thought.

The six categories that you will examine are:

1. Barriers related to concept of self: self-esteem, self-confidence, handling of rejection and ability to confront differing opinions.
2. Barriers related to need for conformity: inclination to break away from pattern, to take risks, to express one's ideas, to scrutinize traditional views and to challenge standard practices.
3. Barriers related to ability to abstract: tendency to use the unconscious mind, to view things in holistic or visual ways and to rely on intuition.
4. Barriers related to ability to use systematic analysis: tendency to use the conscious mind, to apply logic, to think sequentially, to organize ideas and to rely on facts or data.
5. Barriers related to task achievement: work patterns, persistence, attitudes toward others and resourcefulness.
6. Barriers related to physical environment: variables associated with physical surroundings, distractions, personal space and privacy.

Directions

1. The instrument is not a test. Rather, it is a tool by which you may understand your capabilities to approach problems creatively.
2. No one will see your individual responses. The instrument is for your personal use and feedback.
3. You should not spend a lot of time pondering each response — the first guess is usually the best choice. Above all, be honest with yourself.

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ACTIVITY 2.1, PART 1 (cont'd)

Inventory of Creative Thought and Innovative Action

Strongly Agree 1	Agree 2	Agree Somewhat 3	Disagree Somewhat 4	Disagree 5	Strongly Disagree 6
	1.	I evaluate criticism to determine how it can be useful to me.			
	2.	When solving problems, I attempt to apply new concepts or methods.			
	3.	I can shift gears or change emphasis in the abstract.			
	4.	I get enthusiastic about problems outside my specialized area of concentration.			
	5.	I always give a problem my best effort, even if it seems trivial or fails to arouse enthusiasm.			
	6.	I set aside periods of time without interruptions.			
	7.	It is not difficult for me to have my ideas criticized.			
	8.	In the past, I have taken calculated risks and I would do so again.			
	9.	I dream, daydream, and fantasize easily.			
	10.	I know how to simplify and organize my observations.			
	11.	Occasionally, I try a so-called “unworkable” answer and hope that it will prove to be workable.			
	12.	I can, and do, consistently guard my personal periods of privacy.			
	13.	I feel at ease with colleagues even when my ideas or plans meet with public criticism or rejection.			
	14.	I frequently read opinions contrary to my own to learn what the opposition is thinking.			
	15.	I translate symbols into concrete ideas or action steps.			
	16.	I seek many ideas because I enjoy having alternate possibilities.			
	17.	In the idea-formulation stage of a project, I withhold critical judgment.			
	18.	I determine whether an imposed limitation is reasonable or unreasonable.			
	19.	I would modify an idea, plan, or design, even if doing so would meet with opposition.			
	20.	I feel comfortable expressing my ideas even if they are in the minority.			

Strongly Agree 1	Agree 2	Agree Somewhat 3	Disagree Somewhat 4	Disagree 5	Strongly Disagree 6
	21.	I enjoy participating in nonverbal, symbolic, or visual activities.			
	22.	I feel the excitement and challenge of finding a solution to problems.			
	23.	I keep a file of discarded ideas.			
	24.	I make reasonable demands for good physical facilities and surroundings.			
	25.	I would feel no serious loss of status or prestige if management publicly rejected my plan.			
	26.	I frequently question the policies, objectives, values, or ideas of an organization.			
	27.	I deliberately exercise my visual and symbolic skills in order to strengthen them.			
	28.	I can accept my thinking when it seems illogical.			
	29.	I seldom reject ambiguous ideas that are not directly related to the problem.			
	30.	I distinguish between the trivial and the important physical distractions.			
	31.	I feel uncomfortable making waves for a worthwhile idea if it threatens the inner harmony of the group.			
	32.	I am willing to present a truly original approach even if there is a chance it could fail.			
	33.	I can recognize the times when symbolism or visualization would work best for me.			
	34.	I try to make an uninteresting problem stimulating.			
	35.	I consciously attempt to use new approaches to routine tasks.			
	36.	In the past, I have determined when to leave an undesirable environment and when to stay and change the environment (including self-growth).			
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Go no further until instructed to do so!

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ACTIVITY 2.1, PART 1 (cont'd)

Scoring Sheet

Directions

Transfer your inventory responses to the appropriate blanks provided below. Then add the numbers in each column and record the total at the bottom of each category.

A		B		C		D		E		F	
1.		2.		3.		4.		5.		6.	
7.		8.		9.		10.		11.		12.	
13.		14.		15.		16.		17.		18.	
19.		20.		21.		22.		23.		24.	
25.		26.		27.		28.		29.		30.	
31.		32.		33.		34.		35.		36.	
Total											

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II. THINKING AND PROBLEM-SOLVING (cont'd)

BARRIERS TO CREATIVE THOUGHT

Blocks can be:

- Perceptual.
- Cultural.
- Emotional.
- Environmental.




Slide 2-9

B. Barriers to creative thought.

PERCEPTUAL BLOCKS

The way a person misreads a problem or fails to view it correctly.



Slide 2-10

1. Perceptual blocks: the way a person misreads a problem or fails to view it correctly.
 - a. Failure to use all senses in observing.
 - b. Failure to investigate the obvious.
 - c. Making too quick a decision without getting all the information.
 - d. Inability to define terms.
 - e. Failure to see cause and effect.
 - f. Paradigm paralysis.

CULTURAL BLOCKS

The tendency of a person to conform or act according to expectation.



Slide 2-11

2. Cultural blocks: the tendency of a person to conform or act according to expectation.
 - a. Desire to conform to pattern.
 - b. Pressured by competition or pressured to cooperate.
 - c. Belief that fantasy is a waste of time.
 - d. Driven to be practical or economical above all else.
 - e. Personal values.

EMOTIONAL BLOCKS

The way a person perceives his or her feelings and self-confidence.



Slide 2-12

3. Emotional blocks: the way a person perceives his or her feelings and self-confidence.
 - a. Fear of making a mistake.

- b. Distrust of others.
- c. Grabbing the first idea.
- d. Fear of rejection.
- e. Avoidance of conflict.

ENVIRONMENTAL BLOCKS

Physical elements and distractions that hinder creativity.



Slide 2-13

- 4. Environmental blocks: physical elements and distractions that hinder creativity.
 - a. Distracting noise and/or temperature.
 - b. Lack of space or environment to think and explore.
 - c. Lack of time to think.
 - d. Rigid supervision: lack of privacy.

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ACTIVITY 2.1, PART 2

Inventory of Creative Thought and Innovative Action

Purpose

Identify barriers to creative thought.

Directions

1. Read the directions for completing the Profile Sheet.
2. After you have read the directions, complete the Profile Sheet individually.

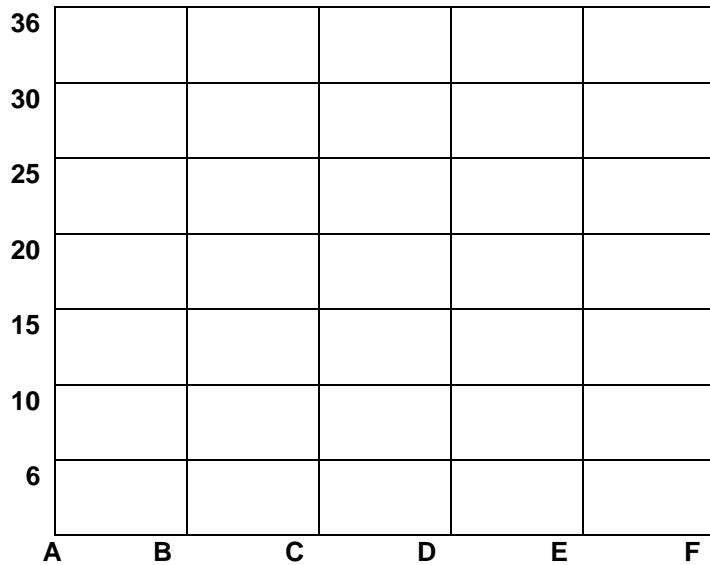
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ACTIVITY 2.1, PART 2 (cont'd)

Profile Sheet

Directions

Plot the scores from your scoring sheet onto the following graph. The vertical axis, which represents your numbered scores, ranges from 6 to 36. The horizontal axis, which represents the columns on your scoring sheet, ranges from A to F. The key at the bottom of this page identifies the barriers in each column. Connect the points you have plotted with a line. The high points represent your barriers to creativity.



Key to Barriers

- A = Barriers related to concept of self: self-esteem, self-confidence, handling of rejection and ability to confront differing opinions.
- B = Barriers related to need for conformity: inclination to break away from pattern, to take risks, to express one's ideas, to scrutinize traditional views and to challenge standard practices.
- C = Barriers related to ability to abstract: tendency to use the unconscious mind, to view things in holistic or visual ways and to rely on intuition.
- D = Barriers related to ability to use systematic analysis: tendency to use the conscious mind, to apply logic, to think sequentially, to organize ideas and to rely on facts or data.
- E = Barriers related to task achievement: work patterns, persistence, attitudes toward others and resourcefulness.
- F = Barriers related to physical environment: variables associated with physical surroundings, distractions, personal space and privacy.

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III. PROBLEM-SOLVING STYLES WITHIN A PROBLEM-SOLVING MODEL

PROBLEM-SOLVING STYLES

- Divergent thinking. **EXPANSIVE**
- Convergent thinking. **REDUCTIVE**

Slide 2-15

DIVERGENT THINKING

Viewing the problem:

- In various forms.
- Through an expanded view.
- From different perspectives.
- With questioning and inquiry.
- Expansive — creating a bigger picture.

Slide 2-16

- A. Divergent thinking.
 1. States the problem in various forms.
 2. Expands the picture of the problem.
 3. Looks at the problem from different points of view.
 4. Questions and re-questions basic facts and opinions.
 5. Expansive — creates a bigger picture.

CONVERGENT THINKING

Viewing the problem:

- By focusing in on key factors.
- Toward closure.
- By eliminating useless options.
- Within a more manageable size.
- Through reduction.

Slide 2-17

B. Convergent thinking.

1. Opposite of divergent thinking.
2. Zeros in on key factors.
3. Works toward closure.
4. Eliminates useless options.
5. Narrows problem to manageable size.
6. Reductive — creates a smaller picture.

OVERCOMING PROBLEM-SOLVING PARADIGMS

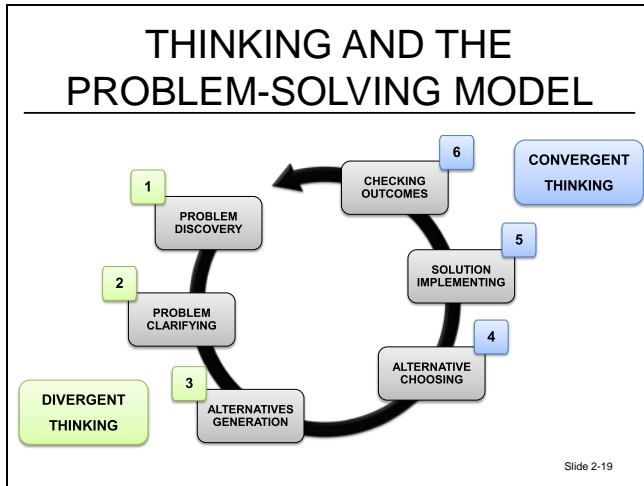
- Divergent thinking is required.
- Being systematic and analytical is valued.
- Creativity is “suspect.”
- Both divergent and convergent thinking are a must in today’s world.

Slide 2-18

C. Overcoming problem-solving paradigms.

1. Solving the problem requires divergent thinking — going outside the dots to solve the problem.

2. The paradigm we impose on ourselves is that the solution must be found inside the dots.
3. Most of us have been raised and educated to think analytically. Being systematic and analytical is valued while being “creatively weird” is not valued.
4. Yet both divergent and convergent thinking are required for effective problem-solving in the modern age.



D. Thinking and the problem-solving model.

Trace the diagram to show where divergent and convergent thinking styles complement the problem-solving model. Emphasize and differentiate the expansion (divergent thinking) phase and the closure (convergent thinking) phase.

1. Problem discovery.
 - a. You find the problem.
 - b. The problem finds you.
2. Problem clarifying.
 - a. May be a conscious choice or reaction.
 - b. Various points of view.
 - c. Expand perspective.

3. Generation of alternatives: major focus of this unit.
 - a. Divergent idea production.
 - b. Use of idea production techniques.
 - c. Brainstorming.
4. Alternative choosing.
 - a. Begin convergent thinking phase.
 - b. Choose among known options.
 - c. Dependent on a good option-finding step.
5. Implementing.
 - a. Putting decision into effect.
 - b. Involves clear definition of action.
 - c. Involves specific measure of action accomplishment.
6. Checking outcomes.
 - a. Determining the extent to which you solved the problem.
 - b. Evaluation — usually overlooked.

TAKING ACTION

- Many people believe that deciding or taking action is the end of the problem-solving process.
- The problem is **not** solved until the state of affairs that you wanted to change actually **is** different.

Slide 2-20

E. Paradigms versus divergent thinking.

DIVERGENT THINKING IS HINDERED BY PARADIGMS

- Blinding us to new ideas.
- Inhibiting creative options.




Slide 2-21

1. Divergent thinking is hindered by paradigms.
 - a. We tend to “blind” ourselves to creative ideas.
 - b. Creative options do not evolve easily.

SHIFTING PARADIGMS

- Assist expansive thinking.
- Stimulate ideas.
- Facilitate the process away from sequential thinking.



Slide 2-22

2. Shifting paradigms.
 - a. Assist expansive thinking.
 - b. Stimulate many ideas.
 - c. Facilitate the process away from sequential thinking.

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ACTIVITY 2.2

Divergent Thinking and Problem-Solving

Purpose

Challenge your paradigms and illustrate that you need to force yourself past the paradigms to think creatively.

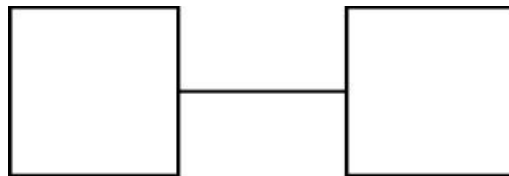
Individual Directions

Individually for each object shown below, list as many ways to describe the figure as you can think of. Be creative.

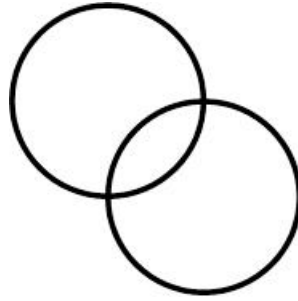
Group Directions

In small groups assigned by your instructor, discuss individual findings and then combine them into a group list. If possible, discover more descriptions for the objects. Select a group representative to present your list to the class.

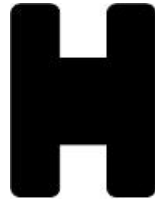
Object 1



Object 2



Object 3



IV. CONTINUOUS IMPROVEMENT

**CONTINUOUS
IMPROVEMENT**

Examples of continuous improvement processes:

- Kaizen.
- Lean.
- Six Sigma.

Slide 2-24


A. Examples of continuous improvement include:

1. Kaizen.
2. Lean.
3. Six Sigma.

B. Today, effective planning means continuous improvement.

KAIZEN

The never-ending quest to be just a little bit better, every day, in every activity.



Slide 2-25


C. “Kaizen” is the never-ending quest to be just a little bit better, every day, in every activity.

1. Refers to a commitment to constant improvement.
2. Has become a culturally engrained principle in Japanese business.

3. Kaizen came from a Japanese philosophy that our way of life (work, social, home) deserves to be constantly improved.

LEAN

Continuously improving any process through the elimination of waste in everything you do.




Slide 2-26

- D. Lean is the process of continually improving any process through the elimination of waste in everything you do.
1. Considers the effect of waste through overburden and waste through unevenness in workloads.
 2. Relies on client perspective to make decisions.
 3. Focuses on the areas that add obvious value.

SIX SIGMA

Continuously seeking to improve the quality of outputs by identifying and removing the causes of defects and minimizing variability.




Slide 2-27

- E. Six Sigma is the process of continually seeking to improve the quality of outputs by identifying and removing the causes of defects and minimizing variability.
1. Developed by Motorola.

2. Relies very strictly on data and methodical approaches to remove defects.
3. Depends on statistics and quantitative evaluations.

MAINTAINING STATUS QUO MEANS

- Not keeping up with the world.
- Society is passing you by.
- Loss of position in community, which could be fatal.




Slide 2-28

F. Maintaining the **status quo** means:

1. You're not keeping up with the changing world.
2. Society and its service needs are passing you by.

SHARED RESPONSIBILITY

Three groups share responsibility for continuous improvement.



Slide 2-29

G. Three groups have responsibility:

1. Employees.
2. Senior managers.
3. Midmanagers.

EMPLOYEES' ROLES

- To deliver value-added service.
- To read customers' needs.
- To give citizens more than they expect (value added).

Slide 2-30

H. Employees' roles in continuous improvement.

1. To deliver value-added service.
2. To read customers' needs.
3. To give citizens more than they expect — value added.

MANAGEMENT'S ROLE

- To allow service-level decisions.
- To facilitate process improvement.
- To act as pioneers.




Slide 2-31

I. Senior management's role in continuous improvement.

1. To allow service-level employees to alter and improve services.
2. To become facilitators of the process rather than inhibitors of it.
3. To visualize their newly important role as pioneers.
 - a. Identifying potential value-added options.

- b. Assisting and guiding the service level to the “gold.”
- c. Leading the service level away from canyons and sinkholes.

Do you think middle management positions could be reinforced by continuous improvement?



Slide 2-32

- J. Middle management.
 - 1. There is little doubt that some midmanagement staff positions are threatened.

Large organizations are downsizing and rightsizing by cutting deputy and midlevel staff positions.
 - 2. Organizations will still require middle managers to act as the webbing that holds upper and lower management together.
 - 3. They are the pioneers.
 - 4. If middle managers disappear:
 - a. The settlers (service-level) will not venture out from the **status quo**.
 - b. Outlying hazards will not be seen until it is too late (reactionary management).
 - 5. Middle managers skilled at facilitating continuous improvement are the “key draft choices” of the future since they act as a link in a chain.
 - a. Facilitating the vision of management to the service level.
 - b. Ensuring the empowered service level is supplied and supported.

BENEFITS OF CONTINUOUS IMPROVEMENT

- Generates process-oriented thinking.
- Involves the whole organization in problem-solving.
- Creates lateral networking.
- Creates responsive service-delivery capability.
- Implants process of change in the organization.

Slide 2-33

K. Benefits of continuous improvement.


1. It generates process-oriented thinking.
 - a. Focuses on the way things are done as a value to the customer.
 - b. Bridges the gap between the process and the results.
 - c. Is people-oriented.
2. It involves the whole organization in ongoing problem-solving.
 - a. Group oriented.
 - b. Demands creativity.
 - c. Focused toward divergent thinking.
3. It creates lateral networking of the organization.
 - a. Service level no longer only looks above to receive guidance and tools to deliver service.
 - b. Fire stations with different shifts may have members begin to talk with each other.
 - c. Networking opens the lines of communication.
4. It creates citizen-driven, responsive service-delivery capability.
 - a. Measured by customer satisfaction.

- b. Altered by customer expectations.
 - c. Guided by midlevel managers — focused on process.
5. It firmly implants the process of change in the organization.
- a. Eliminates the **status quo** as an acceptable level of performance.
 - b. Change is a way of life.
 - c. Constant learning is expected, not the exception.

V. BENCHMARKING

BENCHMARKING

Learning about the best practice from others.



Slide 2-34

A. Definition: learning about the best practice from others.

BENCHMARKING HISTORY

- Xerox Corp., 1979.
- Japan sells copiers more cheaply.
- Xerox lost nearly 50 percent of market share.
- Xerox looks for Japan's best practices.
- Robert C. Camp (Xerox) — benchmarking founder.

Slide 2-35

5. The department or organization adopts the innovation, and an attempt is made to incorporate the “benchmark” into the organization, thus improving it.

BENCHMARKING EXAMPLES

- Use of jet engines to extinguish Kuwait oil well fires.
- Use of digital technology to transmit data via fax, computer, etc.
- Redesign of crew cabs on apparatus — quiet, large.

Slide 2-37

D. Historical fire service benchmarks.

1. Use of jet engines to assist in the extinguishment of the Kuwait oil well fires.
2. Use of digital technology to transmit information to the emergency scene via fax, computer, etc.
3. Redesign of apparatus to enlarge crew cabs — rear-mount engines.
4. Use of assessment centers — promotion, hiring.
5. In-context training.

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ACTIVITY 2.3

Benchmarking the Classroom

Purpose

Raise a problem to the class and allow you to provide a “better practice” example as a possible solution.

Directions

1. Think of a problem facing you or your organization. List it below.
2. Exchange problems with other members of your group. If you can suggest detailed help with a problem, make arrangements to follow up after class.
3. With your group, discuss and list up to six benefits of benchmarking to you and your organization.
4. Be ready to share with the class your ideas about the benefits of benchmarking and suggestions to improve on other students’ ideas, particularly if you can suggest a “best practice” example (benchmarking).

Problem Area: _____

Suggested Improvement(s): _____

Benefits of Benchmarking: _____

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V. BENCHMARKING (cont'd)

<p style="text-align: center;">BENEFITS OF BENCHMARKING</p> <hr/> <ul style="list-style-type: none">• Clarifies customer needs.• Identifies relevant goals.• Identifies measures of performance.• Creates competitive gain.• Organizational acceptance easier.• Ensures continuous improvement. <p style="text-align: right; font-size: small;">Slide 2-39</p>
--

- E. Benefits of benchmarking:
1. Clarifies customer needs or values.
 - a. If another organization is doing it, then the customer probably wants it.
 - b. Best practices would not exist if they were not preferred by users.
 2. Identifies relevant goals.
 - a. Proven practice means we ought to be doing it.
 - b. Ensures that such goals are realistic and attainable.
 3. Identifies accurate measures of performance.
 - a. Levels of service, effectiveness and efficiency are shown — before initiating the practice.
 - b. The benchmark becomes the starting point for further improvement.
 4. Creates competitive gain.
 - a. By challenging the **status quo** way of operating.
 - b. In private sector, the leading companies generate new products up to 2.5 times faster than the industry average.

5. Acceptance more easily gained.
 - a. The risk of implementation is minimized — it already has worked elsewhere.
 - b. Implementation likely, even if more costly, because it's proven.
6. Ensures continuous improvement.
 - a. By finding solutions to visible programs.
 - b. By improving, through best practice, that which you already do well.

VI. SUMMARY



SUMMARY

- Modern problems require creative thinking.
- Internal and external barriers inhibit thinking.
- Personal awareness can overcome most barriers.
- Continuous improvement.
- Benchmarking.
- Effort is required for creativity.

Slide 2-40

ANNOTATED REFERENCE LIST

Books

Albrecht, Karl G. *Brain Power: Learn to Improve Your Thinking Skills*. New York: Prentice-Hall, 2009.

This book is easy to read and contains delightful insights into the problems arising from our inability to think creatively. Dr. Albrecht breaks a complexity of subject areas into small, quickly read segments, all of which are filled with depth and illustration. The book defines how the brain works and gives practical approaches to logical thinking and mental flexibility. A companion video, “Brain Power,” brings the book’s principles to the screen.

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This book contains the best and earliest writing regarding our approaches to thinking. The book is written for teachers to use in the classroom. It is filled with examples and guidelines for stimulating the lateral thinking processes that are so needed for creative problem-solving.

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McNair, C. J. and Kathleen H. J. Leibfried. *Benchmarking: A Tool for Continuous Improvement*. Essex Junction, VT: Oliver Wight Publications, Inc., 1993.

This book is part of the Coopers and Lybrand Performance Solutions Series. It thoroughly explains the process of benchmarking, its origins, and the possibilities that are presented by its use. The text is filled with actual examples where benchmarking has, and is, being used successfully. The book has a chapter on implementing the benchmarking process as defined by its founder, Robert Camp.

Videos and Films

“Idea Power.” (15 minutes, with accompanying workbook.) Northbrook, IL: MTI Film and Video.

This video is based on the work of Dr. Albrecht in his book “Brain Power: Learn to Improve Your Thinking Skills.” It is a humorous summary of some of the major principles in the book, providing a good visual companion to the subject matter.

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UNIT 3: JUSTIFYING DECISIONS

TERMINAL OBJECTIVE

The students will be able to:

- 3.1 *Quantify problems and solutions and use the information to justify a recommendation.*

ENABLING OBJECTIVES

The students will be able to:

- 3.1 *Explain the relationship between an organization's mission, goal and objectives.*
 - 3.2 *State problems using the **Specific, Measurable, Achievable, Relevant and Time-oriented (SMART)** approach for well-written objectives, in terms of their impact on service levels to the community.*
 - 3.3 *Describe the use of objectives in the evaluation function.*
 - 3.4 *Use a cost/benefit analysis to make a rational, fact-based justification for choosing among alternatives.*
-

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UNIT 3: JUSTIFYING DECISIONS

Slide 3-1

ENABLING OBJECTIVES

- Explain the relationship between an organization's mission, goal and objectives.
- State problems using the **S**pecific, **M**easurable, **A**chievable, **R**elevant and **T**ime-oriented (SMART) approach for well-written objectives, in terms of their impact on service levels to the community.

Slide 3-2

ENABLING OBJECTIVES (cont'd)

- Describe the use of objectives in the evaluation function.
- Use a cost/benefit analysis to make a rational, fact-based justification for choosing among alternatives.

Slide 3-3

I. QUANTIFYING THE DECISION-MAKING PROCESS

TRADITIONAL EVALUATION:
ACTIVITIES

- Number of hours trained.
- Number of fire inspections performed.
- Number of public education presentations made to schools and community groups.



Slide 3-4

A. Evaluation.

1. Differences between activities and outputs.
2. Historically, the fire service has evaluated itself on things over which it had absolute control — its activities.
 - a. Number of hours it trained.
 - b. Number of fire inspections it performed.
 - c. Public education presentations made to schools and community groups.

BETTER EVALUATION
CRITERIA: RESULTS

- Amount of fire loss.
- Number of heart attack victims saved.
- Number of fires.



Slide 3-5

3. The fire service rarely looked at the results produced by those activities.
 - a. Amount of fire loss that occurred. (Most fire departments and some states keep data on fire loss. The variable that is not constant is how that estimate is derived — and how accurate it is.)
 - b. Number of heart attack victims saved.
 - c. Number of fires that occurred.
4. The key to making the right decisions, and being able to justify those decisions, is knowing what outcomes (results) are important.
5. The best method for categorizing and managing the outputs is to use a system for formalizing and tracking the results. The results are objectives.
6. Objectives are crucial to the fire service, both to the firefighters/emergency medical technicians (EMTs) and to the community. They help to focus on the outcome, not the activity, and to separate the means from the end.
7. To understand objectives, we must see them as part of a larger system. This system starts with the mission statement.

MISSION STATEMENT

- The role of the department.
- The functions to achieve that mission.



Slide 3-6

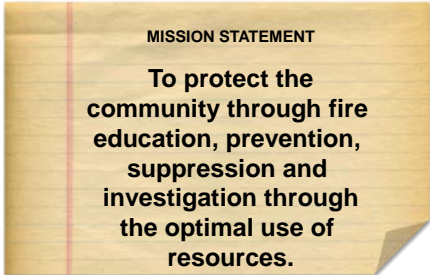
- B. Mission statement.
1. The mission statement describes the role of the department in the community and the specific functions or tasks it performs to achieve that mission.
 2. Simply put, the mission statement answers the question, “Why does the fire department exist in your community?”

Example: Prevent harm, survive, be nice!

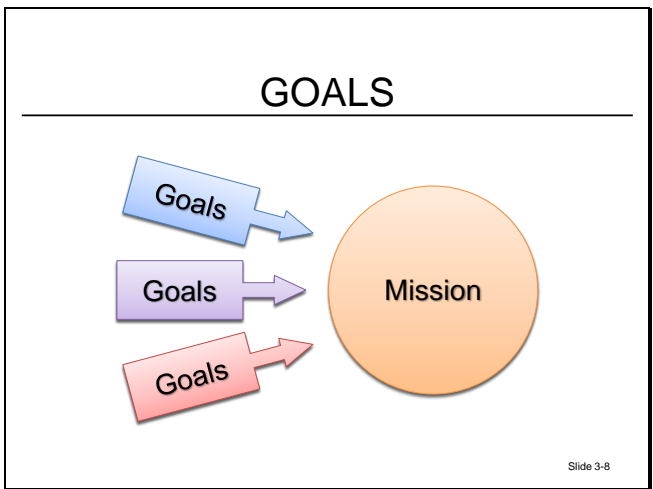
3. The mission statement defines the areas in which the department will formulate goals.
 - a. Example: Respond quickly, solve problems, be nice!
 - b. Note the difference between the mission statements in the two examples.
4. It is important to note the difference between a mission statement and a vision statement. A mission statement describes the current present purpose and capabilities of an organization. A vision statement describes the future purpose and capabilities of an organization.

MISSION STATEMENT (cont'd)

- Example:



Slide 3-7



- C. Goals.
1. Goals are the next link in the chain toward the objective.

2. A department writes goal statements to define how it will accomplish the mission and to establish the priorities to reach the mission.
3. Goals are the general statements of department intent. They address results, not activities, and are used to:

BENEFITS OF GOALS

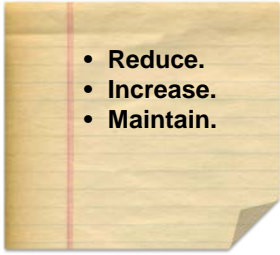
- Establish priorities.
- Force clear choices.
- Focus resources on critical needs.

Slide 3-9

- a. Establish priorities.
 - b. Force the department to make clear choices.
 - c. Focus resources on the critical areas of need.
4. Goals are set annually to define priorities for the year.

GOAL STATEMENTS

Limit goal statements to three verbs.



- Reduce.
- Increase.
- Maintain.

Slide 3-10

5. Limit goal statements to three verbs to define those priorities.
 - a. Reduce.

- b. Increase.
- c. Maintain.
- 6. Goal setting is used to sort these areas into categories as an intermediate step.
- 7. Goals deal only with impact areas.
- 8. Goals are the second step of the strategic model.

EXAMPLE

MISSION

To protect the community through fire education, prevention, suppression and investigation through the optimal use of resources.

GOAL

To reduce fire loss.


Slide 3-11

- 9. Once goals are in place, it is possible to construct the objectives.
- D. Defining objectives in general.
 - 1. There is confusion between objectives and goals.
 - 2. The words are used interchangeably, but they are misused as being synonymous.

II. **SPECIFIC, MEASURABLE, ACHIEVABLE, RELEVANT AND TIME-ORIENTED OBJECTIVES**

SMART OBJECTIVES

- **S**pecific.
- **M**easurable.
- **A**chievable.
- **R**elevant.
- **T**ime-oriented.



Slide 3-12

A. **S**pecific, **M**easurable, **A**chievable, **R**elevant and **T**ime-oriented (SMART) objectives are:

SPECIFIC

- Answers “What is to be done?”
- Describes the results.
- Observable.

Slide 3-13

1. **S**pecific.

Clear statement of exactly what is to be achieved in terms that everyone in the organization can understand.

MEASURABLE

- Answers “How will you know if it meets expectations?”
- Uses assessable terms, such as quantity and costs.
- Uses terms of amounts and percentages.



Slide 3-14

2. Measurable.

A specific criterion for determining if the objective has been accomplished. This is normally a specific number (e.g., 100 fires or 20 percent reduction in fire loss).

ACHIEVABLE

- Answers “Can they do it?”
- Ensures objective is reasonable for the time frame, opportunity and resources.



Slide 3-15

3. Achievable.

Within the means of your organization.

RELEVANT

- Answers "Should it be done?"
- Determines what the impact will be.



Slide 3-16

4. **Relevant.**

How is it relevant to the mission of your organization?

TIME-ORIENTED

- Answers "When will it be done?"
- Ensures that there are check points and end points.



Slide 3-17

5. **Time-oriented.**

It is always best to use a specific end date. Avoid ambiguous statements (e.g., within one year or next fiscal year).

EXAMPLE

MISSION
To protect the community through fire education, prevention, suppression and investigation through the optimal use of resources.

GOAL
To reduce fire loss.

OBJECTIVES
To reduce fire loss by 8 to 12 percent by June 30, 20XX.
To reduce fire loss in single-family residences by 7 to 10 percent by June 30, 20XX.
To reduce fire loss in the three highest-loss occupancy classes by 10 to 15 percent by June 30, 20XX.
To reduce fire loss in multifamily dwellings by 5 to 10 percent by Dec. 31, 20XX.

Slide 3-18

- 6. Some objectives are either accomplished or they are not. For example:
 - a. Pass a new sprinkler ordinance.
 - b. Meet all National Fire Protection Association (NFPA) 1500, *Standard on Fire Department Occupational Safety and Health Program* standards.

- B. Examples of good objectives:
 - 1. To reduce fire losses from space heaters from Nov. 1, 20XX through March 31, 20XX by 10 percent as compared to baseline data.
 - 2. To increase the survival rate for heart attack victims by 25 percent over the period January 20XX through December 20XX.

OBJECTIVES DO TWO THINGS

- 1. Identify critical results on which to concentrate.
- 2. Quantify those results.

Slide 3-19

C. Objectives do two things:

1. Identify the critical results on which to concentrate.
2. Quantify results to make people accountable.

FOR OBJECTIVES

- Use historical data.
- Use prototype programs.
- Use judgment and experience to make adjustments.

Slide 3-20

D. In setting objectives, attempt to be as accurate and factual as possible.

1. Base the objective on data.
 - a. Historical data, when it is relative.
 - b. Prototype programs/data.
 - c. Use experience to make adjustments.
2. Use these measurable standards to monitor progress.

MANAGER RESPONSIBILITIES

Manager must either:


- Modify the activities.
- Modify the objectives.

Slide 3-21

3. This monitoring process leads the manager to:
 - a. Modify the activities and programs.
 - b. Modify the objectives that prove unrealistic.
4. Modifying objectives is an important part of the process.
5. Adjusting objectives is critical to maintain the credibility of objectives.

PROCESS OF SETTING OBJECTIVES

- Incremental.
- Cyclical.
- Continuous.



Slide 3-22

6. The process of setting objectives is:
 - a. Incremental.
 - b. Cyclical.
 - c. Continuous.

DEPARTMENTS

Departments ignore objectives because they:

- Do not recognize the difference between objectives and goals.
- Confuse activities with results.
- Do not want to be held accountable.

Slide 3-23

- E. Many departments ignore objectives. They:
1. Do not recognize the difference between objectives and goals.
 2. Confuse activities with results.
 3. Do not want to be held accountable.

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ACTIVITY 3.1

Writing Goals

Purpose

Write clear and accurate goals.

Directions

1. The instructor will divide you into groups of five to seven.
2. Write one goal that represents a typical service provided by the departments represented in your group.
3. You have 10 minutes to develop the goal and record it on an easel pad. Select a representative to present the goal to the class.
4. Presentations will take five minutes.

Goal

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ACTIVITY 3.2

Writing Specific, Measurable, Achievable, Relevant and Time-Oriented Objectives

Purpose

Write clear and accurate SMART objectives.

Directions

1. The instructor will divide you into groups of five to seven.
2. Write three different objectives that represent a typical range of services provided by the departments represented in each group.
3. You have 15 minutes to develop the objectives and record them on an easel pad. Select a representative to present the objectives to the class.
4. Presentations will take 10 minutes.

SMART Objectives

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III. SUMMARY FOR QUANTIFYING THE DECISION-MAKING PROCESS

- A. Objectives focus on what is important.
- B. Objectives provide a management tool to evaluate how well the organization performs.
- C. Objectives provide a basis for continuous improvement.

IV. INTEGRITY OF INFORMATION

INTEGRITY OF INFORMATION

- Data used for managing must be accurate and reliable.
- Many departments have inaccurate records.
- Departments place little emphasis on collecting accurate information.


Slide 3-26

- A. Data used for managing must be accurate and reliable.
- B. Many departments have inaccurate records.

ACCURATE DATA

Data must be accurate and reliable:

- Fire losses seldom verified.
- Personnel not trained to make damage estimates.



Slide 3-27

- C. Departments place little emphasis on collecting accurate information.
 - 1. Fire losses are seldom verified through insurance claims paid.
 - 2. Personnel are not trained or qualified to make damage estimates.
 - 3. Departments seldom establish quality controls to verify data.
 - 4. Little systematic sampling is done on quantitative or qualitative issues.
 - 5. Quality control is a critical component.
 - 6. Data is available through the National Fire Incident Reporting System (NFIRS).
 - a. Department data manager.
 - b. State data agency, usually state fire marshal's office.
 - c. U.S. Fire Administration (USFA).

V. EVALUATION AND EFFECTIVENESS

EVALUATION AND EFFECTIVENESS

- Measure progress periodically.
- Analyze cause and effect.
- Modify activities to achieve objectives.
- Modify objectives.

Slide 3-28

- A. Organizations seldom do a good job of evaluating their activities.
- B. Evaluation is an essential function of management.
- C. Objectives provide the natural benchmark for evaluation.
 - 1. Judge the ultimate success.
 - 2. Manage the entire activity, and allow adjustment to be done.

- D. Evaluation should be done incrementally.
 - 1. Measure progress toward the objective periodically.
 - 2. Analyze shortfalls for cause and effect.
 - 3. Modify activities to achieve the objective.
 - 4. Modify the objective to adjust to new information.

**EFFECTS OF OBJECTIVES
ON PERSONNEL**

- Shifts evaluation from being driven by supervisor to being driven by results.
- Measures their own progress.
- Pushes them to make decisions.
- Encourages them to be creative.

Slide 3-29

- E. Objectives are used to empower employees and hold them accountable.
 - 1. Employees know that evaluation shifts from being driven by the supervisor to being driven by results.
 - 2. Employees can measure their own progress.
 - 3. Employees can make decisions because they have an objective criterion to guide them.
 - 4. Employees are encouraged to be creative, to be innovative.

REASONS FOR PROGRAM EVALUATION

- Meets fiduciary duty to the public to use resources effectively.
- Provides foundation for decision-making.
- Expands knowledge base of profession.

Slide 3-30

F. The importance of evaluating activities for results.

1. Meets the fiduciary duty to the public to use resources effectively.
2. Provides foundation for decision-making.
3. Expands the knowledge base of the profession.

G. Summary.

Objectives are important tools for the management and incremental improvement of programs.

VI. COST/BENEFIT ANALYSIS

PURPOSE OF COST/BENEFIT ANALYSIS

Primary tool for:

- Choosing between alternatives.
- Justifying the choice.



Slide 3-31

- A. Cost/Benefit analysis is the primary tool for:
 - 1. Making a choice between alternatives.
 - 2. Justifying that choice to the political or economic decision-makers.
- B. Cost/Benefit analysis covers a wide range of specialized analytical tools.
 - 1. Simple cost allocations.
 - 2. Highly sophisticated multilayered analytical techniques.

PURPOSE OF COST/BENEFIT ANALYSIS (cont'd)
<ul style="list-style-type: none">• Comparison of alternative proposals on the basis of the cost of a comparable measure of benefits.• Determines a way to link cost to results, not activities.• Compares cost efficiencies of each alternative based on results.
<small>Slide 3-32</small>

- C. The defining characteristic of cost/benefit analysis:
 - 1. The identification of a common denominator for comparison of alternatives.
 - 2. Definition: Cost/Benefit analysis is the comparison of alternative proposals on the basis of the cost of a comparable measure of the benefit.
- D. At its most basic level, cost/benefit analysis can be a simple cost comparison of alternative ways for producing the same activities.

COST/BENEFIT ANALYSIS

- Begin with objective:
 - “Reduce the annual dollar fire losses by 15 percent for the period of January to December 20XX.”

Slide 3-33

- E. At its most complex level:
1. Determines a way to link cost to results rather than the activities.
 2. Compares cost efficiencies of each alternative based on results.

**COST/BENEFIT ANALYSIS
(cont'd)**

- Develop alternative programs for objective:
 - Perform 1,000 additional inspections.
 - Deliver 100 educational programs.
 - Require retrofit installation of smoke detectors.

Slide 3-34

- F. To better understand these differences, develop alternative programs to achieve the objective.
1. Perform 1,000 additional inspections of targeted occupancies.
 2. Deliver 100 educational programs to targeted audiences.
 3. Require retrofit installation of smoke detectors in all rental occupancies.

COST/BENEFIT ANALYSIS (cont'd)

- Perform a cost/benefit analysis of the first program:
 - Perform 1,000 additional inspections of targeted occupancies.
 - Alternatives:
 - Inspectors on overtime.
 - Suppression personnel on-duty.

Slide 3-35

G. Perform cost/benefit analysis on the first alternative.

1. The end result is 1,000 inspections.
2. The common denominator is the cost per inspection.

H. Evaluate the alternative of full-time inspectors working on overtime.

OVERTIME COSTS FOR FULL-TIME INSPECTORS

- Calculate the total number of inspections that the inspectors can perform annually.

Hours available per year for overtime inspections	400
Average hours required per inspection	2
Field inspectors available for program	8

Slide 3-36

**OVERTIME COSTS FOR
FULL-TIME INSPECTORS (cont'd)**

$\frac{400 \text{ hours available annually}}{2 \text{ hours per inspection}} = 200 \text{ inspections annually per inspector}$

Number of inspections that can be performed annually by all inspectors:

8 inspectors x 200 inspections = 1,600 inspections

Slide 3-37

**OVERTIME COSTS FOR
FULL-TIME INSPECTORS (cont'd)**

- Calculate the cost of performing each inspection (variable cost).

Overtime costs per hour:	\$55
Hours per inspection:	x 2
Cost per inspection:	\$110

Slide 3-38

- I. Perform a cost/benefit analysis on using company-level inspectors.
 - 1. Calculate the cost per inspection.
 - 2. There are no direct inspection labor costs (variable costs) because they are already on duty.
 - 3. The only costs involved are for training (fixed costs).
 - 4. Calculate the number of inspections that can be done with available resources.
 - 5. The total costs then are divided by the number of inspections to determine the cost per inspection.

COSTS FOR COMPANY-LEVEL INSPECTORS

- Calculate fixed costs.

One-time certification training	\$5,000
Annual equipment costs	\$2,500
Annual support costs	\$2,500
Total fixed costs per person	\$10,000

Slide 3-39

COSTS FOR COMPANY-LEVEL INSPECTORS (cont'd)

- Calculate number of inspections that can be done.

Hours available per year for field inspections	120
Average hours required per inspection	2
Field inspectors available for program	10

Number of inspections that can be performed annually:
 $\frac{120 \text{ hours available annually}}{2 \text{ hours per inspection}} = 60 \text{ inspections annually per person}$

Slide 3-40

COSTS FOR COMPANY-LEVEL INSPECTORS (cont'd)

- Calculate the number of inspections that can be performed annually by all company-level inspectors.

10 inspectors x 60 inspections = 600 inspections

Slide 3-41

COSTS FOR COMPANY-LEVEL INSPECTORS (cont'd)

- Calculate the cost per inspection for a one-year period:

$$\frac{\text{Total fixed costs per person}}{\text{Annual inspections}} = \frac{\$10,000}{60} = \$167 \text{ per inspection}$$

Slide 3-42

COSTS FOR COMPANY-LEVEL INSPECTORS (cont'd)

- Calculate the cost per inspection for a two-year period:

$$\frac{\text{Total fixed costs per person}}{\text{Annual inspections}} = \frac{\$15,000}{120} = \$125 \text{ per inspection}$$

Slide 3-43

- J. This allows a direct comparison of the incremental costs of programs.
1. The programs can be compared despite differences in fixed costs compared to variable overtime costs.
 2. The programs can be compared under different conditions:
 - a. Training costs over one year of inspections.
 - b. Training costs over two years of inspections.

COST COMPARISON PER INSPECTION	
Cost per inspection by full-time inspectors on overtime:	\$110
Cost per inspection by field inspector in one-year program:	\$167
Cost per inspection by field inspector in two-year program:	\$125

Slide 3-44

- K. If the department is willing to commit to a two-year inspection program, it is more effective to use a field program.

- L. If the department is willing only to commit to a one-year inspection program, it is more effective to use full-time inspectors working on overtime.
 - 1. The maximum number of inspections available using field inspectors is 600.

COST/BENEFIT RESULTS
<ul style="list-style-type: none">• For a two-year program, use:<ul style="list-style-type: none">– Field inspection for 600 inspections.– Overtime inspectors for 400 inspections.• For a one-year program, use full-time inspectors for all inspections.

Slide 3-45

- 2. Under a two-year program, it is cheaper to use:
 - a. Field inspection program for 600 inspections.
 - b. Overtime inspectors for 400 inspections.

- 3. Under a one-year program, it is cheaper to use the full-time inspectors for all inspections.

- M. It is relatively easy to do cost/benefit analysis in this case because the benefits are the activities.

VII. COST/BENEFIT ANALYSIS FOR OBJECTIVES

**COST/BENEFIT ANALYSIS
FOR OBJECTIVES**

- Compares results that flow from the activities.
- Requires a more sophisticated analysis.

Slide 3-46

- A. The more difficult challenge comes when you do a cost/benefit analysis at the objective level.
 - 1. Compares results that flow from the activities.
 - 2. Requires a more sophisticated analysis.
- B. Each program represents a different activity to produce a 15 percent reduction in fire losses.
- C. The essential question is this: What is the cost for each dollar of fire loss reduction in each of the three programs?
 - 1. The cost of the result (the reduced fire loss) must be calculated.
 - 2. This requires a much more sophisticated analysis.
 - a. There must be proof of a causal relationship.
 - b. There must be an estimate of input-to-output relationship.
 - 3. Once you establish that linkage, it is possible to calculate each program's cost for each dollar of fire loss it will reduce.

COST COMPARISON OF COMPETING PROGRAMS

Program	Cost per \$1,000 of Loss Reduction
Inspection program	\$90
Education program	\$55
Smoke detector program	\$48

Slide 3-47

Cost Comparison of Competing Programs

Program	Cost per \$1,000 of Loss Reduction
Inspection program	\$90
Education program	\$55
Smoke detector program	\$48

COST COMPARISON OF COMPETING PROGRAMS (cont'd)

- Predictions of results are far less reliable.
- Higher degree of uncertainty in making these forecasts.



Slide 3-48

- D. Predictions of results are far less reliable than predictions of activities, which we can directly control.
- E. There is a higher degree of uncertainty in making these forecasts.

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ACTIVITY 3.3

Selecting Data to Support Decisions in Your Organization

Purpose



Identify a typical decision or recommendation in your organization, and select data to support it.

Directions

1. The instructor will divide you into groups of five to seven.
2. Work collectively to select one of your objectives developed previously in this unit. Then decide the following:
 - a. What factual data would be required to support decisions on that objective?
 - b. What quantitative method should be used to compare alternative solutions to meeting the objective?
 - c. What criteria should be used to make the decision?
 - d. What justification strategy will be most appropriate?
3. Select a representative, different from the ones in the previous activities, to present your group's answers to the class.

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VIII. SUMMARY



SUMMARY

- Evaluate on results, not activities.
- Use objectives to identify results you want.
- Use objectives to identify the target level of activities.
- Use cost/benefit analysis to:
 - Decide on alternative.
 - Justify that choice.

Slide 3-50

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Hertz, D. B., and H. Thomas. *Risk Analysis and its Applications*. New York: John Wiley and Sons, 1983.

A comprehensive and exhaustive review of this topic. This is not for the mathematically illiterate or faint of heart, but it is one of the best texts for the serious student of this valuable field.

Lave, L. B. *Risk Assessment and Management*. New York: Plenum Press, 2013.

A highly technical collection of articles on quantifying risk; however, it does have two articles on quantifying fire risk. G. Ramachandran's article "USA Management of Fire Risk" is an excellent broad overview of risk theory applied to the fire service, but some sections of it get very technical.

Russo, J. E., and P. J. Schoemaker. *Decision Traps: The Ten Barriers to Brilliant Decision Making and How to Overcome Them*. New York: Doubleday, 1990.

One of the best books written on decision-making. While it covers a number of different types of decision processes, the chapters on the quantitatively based decision techniques provide one of the clearest explanations of commonly used procedures found in the literature.

Slova, R. S. *Getting it to the Bottom Line: Management by Incremental Gains*. New York: The Free Press, 1999.

An excellent follow-up to *How to Measure Managerial Performance*, it is a briefer and less systematic book, but it is filled with outstanding insights into performance-based management.

_____. *How to Measure Managerial Performance*. New York: Macmillan, 1999.

This is one of the best books written on quantifying managerial performance. It is easy to understand and presents ideas that can be easily transferred from the private sector into the fire service. If you read only one book on improving your quantification of management skills, this should be it.

UNIT 4: MANAGING CHANGE IN YOUR ORGANIZATION

TERMINAL OBJECTIVE

The students will be able to:

- 4.1 *Explain why employees resist change and develop strategies for implementing change within the fire and emergency service environments.*

ENABLING OBJECTIVES

The students will be able to:

- 4.1 *Discuss the concept of resistance to change for both people and organizations.*
 - 4.2 *Describe strategies used for implementing change in the emergency service environment.*
 - 4.3 *Describe the importance of the manager serving as an agent for change within the organization.*
 - 4.4 *Describe the steps to be used for monitoring changes and evaluating their results.*
-

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UNIT 4: MANAGING CHANGE IN YOUR ORGANIZATION

Slide 4-1

ENABLING OBJECTIVES

- Discuss the concept of resistance to change for both people and organizations.
- Describe strategies used for implementing change in the emergency service environment.
- Describe the importance of the manager serving as an agent for change within the organization.

Slide 4-2

ENABLING OBJECTIVES (cont'd)

- Describe the steps to be used for monitoring changes and evaluating their results.

Slide 4-3

I. INTRODUCTION

INTRODUCTION

“There is nothing more difficult to take in hand, more perilous to conduct, more uncertain in its success, than to take the lead in the introduction of a new order of things.”

— Machiavelli, 1537


Slide 4-4

- A. “There is nothing more difficult to take in hand, more perilous to conduct, more uncertain in its success, than to take the lead in the introduction of a new order of things.” — Machiavelli, 1537

- B. A mind is like a parachute; it has to be open in order to work properly.

CHANGE

- Make or become different.
- Take or use another instead of.
- The act or instance of making or becoming different.



Slide 4-5

- C. Change defined.

Change can be defined as making something different, to modify, to make distinctly different from what was (Mills, 2006).

- 1. Sometimes change is welcomed by the people affected, and sometimes it is resented and resisted.

- 2. Organizations and the people within them have to change and transform themselves because they are facing the effects of:

FORCES CAUSING CHANGE

- Changing economic structure.
- New and developing technology.



Slide 4-6

- a. A changing economic structure.
 - Budget challenges.
 - Propositions and local tax initiatives.
 - Downsizing/Rightsizing.
 - Consolidations.
- b. New technology developing at an ever-increasing rate.
 - Computerization/Technology.
 - Communications.
 - Building construction.
 - New firefighting gels, foams and other chemicals.
 - Improved protective clothing and breathing apparatus.
 - “Smart” apparatus and equipment.
 - Defibrillators.
 - Images of crashes provide information to doctors.
 - Geographic Information System (GIS).
 - Use of social media.

- Managing staffing software.
- GPS tracking.

FORCES CAUSING CHANGE
(cont'd)

- New demands by citizens/customers.
- Increasing federal, state and local mandates.
- More competition and privatization.
- Statutes.
- Regulations.
- Case law.

Slide 4-7

- c. New demands by more knowledgeable citizens/customers.
 - Tax reductions/limiting measures.
 - Changes in form of government demanded by citizens.
 - Direct involvement in community decisions.
 - Increased input through the media.

FORCES CAUSING CHANGE
(cont'd)

- Standards.
- National Highway Traffic Safety Administration (NHTSA) and National Transportation Safety Board (NTSB).
- Centers for Disease Control and Prevention (CDC).
- Department of Health.

Slide 4-8


- Special interest groups, etc.
- d. Increasing federal, state and local mandates.

- e. More competition and privatization within the industry for tax dollars, grant dollars, etc.
 - Private fire and Emergency Medical Services (EMS).
 - Combining emergency service departments through consolidation.
 - Regionalization of hazmat service.
 - Volunteer departments changing from all volunteer to part (or full) paid.

- 3. A person or organization that does not continue to grow and change will stagnate and eventually atrophy. Stagnation, as opposed to forward motion, has much the same effect on organizations as on people.

CHANGES FACING THE FIRE SERVICE

What has changed in the last 20 years?



Slide 4-9

D. Changes in the emergency service environment over the past 20 years.

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ACTIVITY 4.1

Identifying Future Changes

Purpose

Identify the most important changes facing emergency service departments today and the impacts of those changes.

Directions

1. The class will be divided into small groups.
2. Using the worksheet on the next page, your group should take five minutes to list changes that most departments will be facing over the next one or two years. Then define the specific impacts for changes that cause an increase, a decrease or maintenance in something (e.g., activities).
3. Then reach consensus on a list of three changes that most or all departments represented will be facing.
4. Select a representative to present this “future change” list and expected impacts to the rest of the class during a brief open discussion.

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ACTIVITY 4.1 (cont'd)

Worksheet


Changes	Expected Impacts
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	

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I. INTRODUCTION (cont'd)

CHANGE AND THE COMFORT ZONE

- Change is always with us.
- Change may be welcomed or resented.
- Change is resisted when comfort zones are invaded.



Slide 4-16

- E. Change and the comfort zone.
1. The one thing certain about change is that it will always be with us.
 2. As previously noted, sometimes change is welcomed by those affected; and sometimes it is resented and resisted.
 3. Change is resisted when people feel that their comfort zones are being invaded. Comfort zones are defined by our habits: those ways that are customary and comfortable to us.

II. OVERCOMING RESISTANCE TO CHANGE

OVERCOMING RESISTANCE TO CHANGE

“Few organizations can be characterized as having a high level of trust between employees and management, and consequently it is easy for misunderstandings to develop when change is introduced.”

— Kotter and Schlesinger, 1983

Slide 4-17

- A. Responding to change.

FOUR REASONS WHY PEOPLE RESIST CHANGE

1. Desire not to lose something of value.
2. Misunderstanding the change.
3. Belief that change will not improve the organization.
4. A low personal tolerance for change.



Slide 4-18

1. People resist change for one of four reasons.
 - a. A desire not to lose something of value.
 - b. Misunderstanding the change and its implications.
 - c. Belief that change will not improve the organization.
 - d. A low personal tolerance for change.

HOW PEOPLE REACT TO CHANGE

- Willing to accept the change.
- Change to avoid getting into trouble but do not believe in the change.
- Say they will accept change but never actually do so.
- Openly oppose the change and refuse to accept it.



Slide 4-19

2. Research indicates that when change is implemented, people react to the change in one of four ways.
 - a. They are willing to accept the change.
 - b. They change to avoid getting into trouble but do not believe in the change; they criticize the program but still perform.

- c. They say they will change but never actually accept the change.
- d. They openly oppose the change and refuse to accept change, regardless of its purpose.

B. As an implementer of change, you may have to confront some of the following barriers to successful change implementation.

BARRIERS TO SUCCESSFUL CHANGE IMPLEMENTATION

- Lack of vision.
- History of poor implementation.
- Lack of middle-management support.
- Lack of understanding.
- Environment of low risk-taking.
- No-consequence management.

Slide 4-20

- 1. Lack of vision.
 - a. When the organization’s vision or strategies are unclear, employees may be unsure how changes are to be implemented.
 - b. Clear plans ensure that information passed down does not become filtered, diffused and nonspecific.
- 2. History of poor implementation.
 - a. In an organization with a poor history of implementing changes, members do not expect much when new changes are announced.
 - b. Some organizations make great fanfare of rewarding people involved in big projects but fail to follow through and finish the project or make sure that the desired goals were achieved.
- 3. Lack of middle-management support.
 - a. If you (the middle managers) do not believe in and support the change, it probably won’t be successful.
 - b. To avoid this, find a way to ensure that you are involved in the process “up front.”

- 4. Lack of understanding.
 - a. Managers must understand and believe in the change if they expect to be successful in its implementation.
 - b. Know the difference between lack of understanding and lack of belief.

- 5. An environment of low risk-taking.

A tendency to overpunish errors or to reward simply the absence of errors promotes mediocrity and low risk-taking.

- 6. No-consequence management.

People will ignore new directives if there are no rewards for compliance and no negative consequences for failure to comply.

BARRIERS TO SUCCESSFUL CHANGE IMPLEMENTATION (cont'd)

- Lack of planning for resistance.
- Lack of time.
- Lack of union support.
- Lack of synergy.
- Rhetoric unsupported by results.

Slide 4-21

- 7. Lack of planning for resistance.

All major changes involve resistance; people resist the disruptions that changes cause more than the changes themselves.

- a. Don't deny or try to quash resistance.
- b. If resistance is not managed properly it goes "underground" and produces slowdowns, covert resistance, malicious compliance and even sabotage.

- 8. Lack of time.

Insufficient time for implementation will cause large maintenance costs after the change is implemented.

9. Lack of union support.

Some organizations fail to solicit union input and support for changes. This can lead to distrust and infighting between labor and management.

10. Lack of synergy.

a. Synergy defined: the ability to work together for combined actions or operations.

b. Forgetting that an organization's various operations are interdependent can lead to initiating changes successfully in one place and encountering resistance in another place.

11. Rhetoric unsupported by results.

Senior managers say one thing, but their behavior suggests the opposite.

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ACTIVITY 4.2, PART 1

Trust-Orientation Profile

Purpose

Gauge your propensity for trust in relationships. Principles of trust-building and related attitudes hold true in relationships between two people as well as among members of a group.

Directions

1. Read the directions for completing the Trust-Orientation Profile instrument.
2. After you have read the directions, complete the instrument individually.

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ACTIVITY 4.2, PART 1 (cont'd)

Trust-Orientation Profile

Myron R. Chartier

Directions: For each of the situations described below, you are to distribute five points between two alternatives (A and B). Base your answers on how you actually behave or feel or how you actually perceive the situation, not on how you think you should respond. Although some sets of alternatives might seem to be equally true, assign more points to the alternative that is more representative of your personal experience. For the purpose of this activity, “co-worker” is defined as peers and/or subordinates who work in close proximity with you on a regular basis.

1. If A is completely characteristic of you or your views and B is completely uncharacteristic, write 5 under A and 0 under B.
2. If A is considerably characteristic of you and B is somewhat characteristic, write 4 under A and 1 under B.
3. If A is only slightly more characteristic of you than B, write 3 under A and 2 under B.
4. Each of the above three combinations may be reversed. If you feel B is slightly more characteristic of you than A, write 2 under A and 3 under B, and so on, for A=1 and B=4 or A=0 and B=5.

Be sure the numbers you assign to each pair add up to 5.

1. _____ (A) My co-workers have all the knowledge and experience they need to do their jobs effectively.
_____ (B) My co-workers seem to lack the knowledge and/or experience they need to do their jobs effectively.
2. _____ (A) I cannot predict how my co-workers will respond in a given situation.
_____ (B) I can predict how my co-workers will respond in a given situation.
3. _____ (A) I share my honest thoughts and feelings with my co-workers.
_____ (B) I keep my honest thoughts and feelings to myself.

4. _____ (A) I help my co-workers see what their goals and concerns should be.
_____ (B) I let my co-workers know that I understand and appreciate their individual goals and concerns.
5. _____ (A) I trust my co-workers; I believe they won't let me down.
_____ (B) I "play it safe" and trust only myself; this way no one else can let me down.
6. _____ (A) I am not convinced that each of my co-workers is worthy of my respect.
_____ (B) I respect my co-workers; each of them has a unique contribution to make.
7. _____ (A) I encourage my co-workers to comment on their thoughts and feelings.
_____ (B) I would prefer not to hear my co-workers' expressions of their thoughts and feelings.
8. _____ (A) I believe in the old saying "do as I say, not as I do."
_____ (B) I say what I mean and mean what I say.
9. _____ (A) When I am in a bind, I know I can depend on my co-workers to help me out.
_____ (B) When I am in a bind, I have to rely exclusively on myself.
10. _____ (A) My abilities are superior to those of my co-workers.
_____ (B) My co-workers and I are all at the same level of competence.
11. _____ (A) I let myself be vulnerable with my co-workers.
_____ (B) I protect myself and try not to be vulnerable with my co-workers.
12. _____ (A) The term "commitment" doesn't seem to mean much to my co-workers.
_____ (B) I can depend on my co-workers to follow through on their commitments.
13. _____ (A) My co-workers and I cooperate with one another.
_____ (B) My co-workers and I compete with one another.

14. _____ (A) My co-workers behave as if they think they are better than I am.
_____ (B) My co-workers treat me as an equal.
15. _____ (A) I can count on my co-workers to meet the deadlines and performance standards defined for their work.
_____ (B) I cannot count on my co-workers to meet their deadlines and performance standards.
16. _____ (A) When faced with a problem, I figure out the best solution and present my idea to my co-workers.
_____ (B) When faced with a problem, I collaborate with my co-workers to define the problem, explore alternatives, and arrive at a solution.
17. _____ (A) My team is warm, accepting, and free of hostility.
_____ (B) There is hostility in my team.
18. _____ (A) I cannot rely on my co-workers.
_____ (B) I can rely on my co-workers.
19. _____ (A) My co-workers and I are knowledgeable and experienced in our respective skill areas and in our ability to interact with one another.
_____ (B) My co-workers and I lack the knowledge and experience to function as effectively as we might.
20. _____ (A) I wonder if my co-workers appreciate my work; I sometimes think they question the value of my contributions.
_____ (B) I know that my co-workers are concerned about my well-being; they “play fairly” and respect my unique contributions.
21. _____ (A) My co-workers hold themselves accountable for their work.
_____ (B) My co-workers do not hold themselves accountable for their work.

22. _____ (A) I prefer my own solutions to problems.
_____ (B) I am willing to accept solutions proposed by my co-workers.
23. _____ (A) No matter what I share with my team members, they are not judgmental.
_____ (B) I am careful about what I share with my team members because they may judge me harshly.
24. _____ (A) I assume that my co-workers could use my help in doing their jobs.
_____ (B) I assume that my co-workers are capable of doing their jobs.

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III. DEVELOPING STRATEGIES TO MANAGE CHANGE

**GAINING EMPLOYEE
CONFIDENCE AND TRUST**

The most important tool available to the manager in having change accepted within an organization is the level of **trust** established between employees and the administration.

Slide 4-23

A. Gaining employee confidence and trust.

The most important tool available to the manager in having change accepted within an organization is the level of **trust** established between employees and the administration.

B. To build employee confidence when implementing change, the manager should use one or more of four strategies.

**FOUR STRATEGIES FOR BUILDING
EMPLOYEE CONFIDENCE**

1. Identify who will be most affected by the change, and involve them in the decision process.

- Builds employee commitment.
- Increases employee motivation.

Slide 4-24

1. Identify who will be most affected by the change, and involve them in the decision process.

a. Employee involvement builds commitment both for the desired change and for the organization.

- b. Involvement has the added effect of increasing both employee motivation and the chances for overall acceptance of the desired change.

FOUR STRATEGIES FOR BUILDING EMPLOYEE CONFIDENCE (cont'd)

2. Work to build trust between employees and administration.

- Trust is basis of human relationships.
- Trust takes time and effort to develop.

Slide 4-25

- 2. Work to build trust between employees and administration.
 - a. Trust is the basis of human relationships.
 - b. Trust does not come naturally; people must want it and work for it.
 - c. Because trust is complex, it cannot be built in a short period of time and have lasting value.
 - d. As trust develops, diverse skills and abilities become recognized and appreciated as strengths.
 - e. People become more frank, expressive, responsive and spontaneous.

FOUR STRATEGIES FOR BUILDING EMPLOYEE CONFIDENCE (cont'd)

3. Empower employees to increase productivity and "buy in."

- Have employees own the goals of organization.
- Encourages commitment and motivation.

Slide 4-26

3. Empower employees to increase productivity and “buy in.”
 - a. Employee empowerment means encouraging an employee’s commitment to doing the best job he or she can by enabling him or her to own the goals and objectives of the organization.
 - b. Empowerment encourages employee commitment, risk-taking and innovation.

**FOUR STRATEGIES FOR BUILDING
EMPLOYEE CONFIDENCE (cont'd)**

4. Hold employees accountable for their work.

- When combined with empowerment, major benefits come to the organization.

Slide 4-27

4. Hold employees accountable for their work product.
 - a. Emergency service managers often are held to a high degree of accountability for the resources entrusted to their care.
 - b. With accountability should come both the responsibility and authority to ensure that the resources are used efficiently and effectively.
 - c. When accountability is combined with empowerment, the results can pay major benefits for the organization in the areas of innovation, improvement and employee trust.

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ACTIVITY 4.2, PART 2

Trust-Orientation Profile

Purpose

Gauge your propensity for trust in relationships. Principles of trust-building and related attitudes hold true in relationships between two people as well as among members of a group.

Directions

1. Following completion of the instrument, transfer your score to the Trust-Orientation Profile Scoring Sheet.
2. After completing the scoring sheet, total the scores in each column, determine your trust orientation (by subtracting your total mistrust score from your total trust score), and plot your respective scores on the scale provided on the Trust-Orientation Profile Interpretation Sheet.
3. After completing the activity, review the descriptions noted in the Student Manual (SM) that contrast the characteristics that build trust with those that build mistrust.

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ACTIVITY 4.2, PART 2 (cont'd)

Trust-Orientation Profile Scoring Sheet

Characteristics	Trust	Mistrust
Expert versus Inept	1A	1B
Dependable versus Capricious	2B	2A
Open versus Closed	3A	3B
Supportive versus Controlling	4B	4A
Willing to risk versus Unwilling to risk	5A	5B
Respectful versus Disrespectful	6B	6A
Open versus Closed	7A	7B
Genuine versus Hypocritical	8B	8A
Cooperative versus Competitive	9A	9B
Mutual versus Superior	10B	10A
Willing to risk versus Unwilling to risk	11A	11B
Genuine versus Hypocritical	12B	12A
Cooperative versus Competitive	13A	13B
Mutual versus Superior	14B	14A
Accountable versus Unaccountable	15A	15B
Open minded about problems versus Fixated on predetermined solutions	16B	16A
Accepting and warm versus Rejecting and cold	17A	17B
Dependable versus Capricious	18B	18A
Expert versus Inept	19A	19B
Respectful versus Disrespectful	20B	20A
Accountable versus Unaccountable	21A	21B
Open minded about problems versus Fixated on predetermined solutions	22B	22A
Accepting and warm versus Rejecting and cold	23A	23B
Supportive versus Controlling	24B	24A
Totals		

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ACTIVITY 4.2, PART 2 (cont'd)

Trust-Orientation Profile Interpretation Sheet

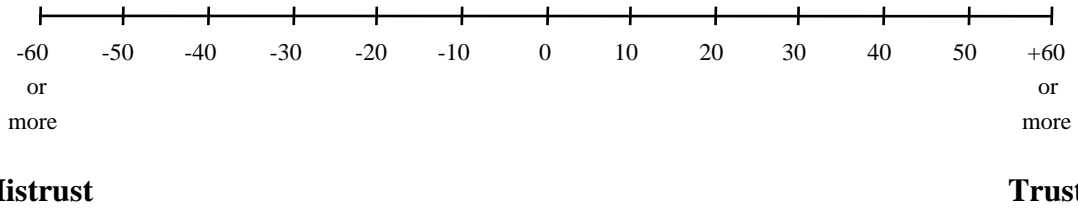
Directions: Transfer your scores from the scoring sheet to the lines that follow in order to compute your trust-orientation score.

Total Trust Score _____

Total Mistrust Score
(Subtract from above.) - _____

Trust Orientation

Plot your trust-orientation score on the continuum that follows.



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ACTIVITY 4.2, PART 2 (cont'd)

Trust-Orientation Profile Theory Sheet

The following descriptions contrast the characteristics that build trust to those that build mistrust. Read this interpretation sheet in the context of your personal trust and mistrust scores. You may want to pay particular attention to mistrust items to which you assigned four or five points.

Expert Versus Inept

People trust others who are knowledgeable and experienced in the area in which trust is to be granted (Giffin & Barnes, 1976). People do not trust those who have little or no knowledge in a given area. There is a high trust level in relationships in which people possess and exercise what Giffin and Barnes (1976) label “relevant wisdom.” When people are inept with respect to the substantive knowledge, interpersonal qualities, skills, and abilities needed to work collaboratively, they often blame others for their ineffectiveness. When people lack expert technical and relational competencies, the results are poor communication dynamics and a hostile, defensive environment. Such an untrustworthy climate undercuts effective interpersonal relationships.

Dependable Versus Capricious

Probably the most critical characteristic in the creation of trust is dependability. Human beings will trust others more easily and more deeply if they believe they can rely on them. A person’s trust will be more widespread if he or she can predict how others will respond, whether the situation is simple or complex. Capricious people cannot be relied on; their behavior is often quite unpredictable, which can lead to deep mistrust. Being dependable is crucial to building trust.

Open Versus Closed

Open people share their innermost thoughts and feelings with others and are receptive to data, ideas, perceptions, and feelings. Closed people keep their thoughts and feelings to themselves and project an attitude of being non-receptive to others’ communications. Every person has a right not to share certain thoughts and aspects of his or her life. However, effective interpersonal relationships are impossible when information is deliberately kept from others or is ignored. Shared information contributes to trust between people. In order to create a climate of mutual trust, people must be appropriately open with one another.

Supportive Versus Controlling

The supportive person seeks to be encouraging; reassuring; and understanding of others, their agendas, and their goals. The controlling person tries to bind others to his or her desires and wishes, operating on the assumption that others are inadequate and need to be dominated by someone who “has it together.” Supportiveness creates a climate of trust, whereas control engenders a climate of resistance and defensiveness. It is easy to trust supportive people. A supportive attitude among people contributes to a trustworthy climate in which effective interpersonal relationships are possible.

Willing to Risk Versus Unwilling to Risk

To trust another person is risky; a decision to trust can lead to either good or bad consequences. To entrust one’s well-being to another person makes a person vulnerable. Risking is the process of deciding to accept potentially adverse results that may come from trusting another. The greater the risk involved, the more one is required to trust another. Taking such risks with others creates a trusting climate because it communicates trust. Playing it safe communicates one’s unwillingness to trust and fails to generate trust among people.

Respectful Versus Disrespectful

Situations in which people are convinced that others respect them for who they are and for what they have to contribute are conducive to trust. Knowing that others are concerned about one’s well-being goes a long way in helping a person to believe that the risk of trust is worthwhile. In situations in which verbal or even physical abuse takes place, fear overwhelms the bonds of trust and impedes effective interpersonal relationships. Respectful people look out for one another’s welfare and thereby create a climate of trust.

Genuine Versus Hypocritical

A genuine person is a person of integrity. The genuine person’s thoughts, feelings, and actions are consistent. It is difficult to trust someone whose words and conduct are inconsistent. If one can never be certain about the meaning of another’s words, true intentions, or actions, he or she experiences the other person as hypocritical. Genuine people are honest. Trusting them comes easily because they say what they mean; they clarify their intentions; and they follow through on their promises. Interpersonal relationships are enhanced when people are genuine.

Cooperative Versus Competitive

A cooperative attitude builds trust; when people experience a spirit of cooperation, they share relevant information openly, clearly, and honestly. In a competitive atmosphere, communication is either lacking or misleading. Whereas cooperation requires teamwork to achieve common goals, competition stresses personal objectives at the expense of common objectives. When a competitive spirit pervades the climate, trust may be difficult to achieve; fear and defensiveness are the likely result. On the other hand, the give-and-take of cooperation builds a fellowship and trust among people.

Mutual Versus Superior

When people communicate that they feel superior to others, a climate conducive to mistrust and defensiveness is ensured. When people sense a spirit of mutuality, an environment conducive to openness and trustworthiness results. Mutuality makes it possible for people to resolve issues through problem-solving. There is a desire for two-way communication, power is shared, role status is minimized, and appreciation of individuals is maximized. Each person's self-worth is valued. A spirit of mutuality generates a trustworthy climate in which each person's abilities and interests are valued and nurtured.

Accountable Versus Unaccountable

Trust is enhanced when people are willing to be accountable to one another. Eventually, any interpersonal relationship is based on the assumption of personal responsibilities and accountability. Without accountability, all efforts become random, haphazard, and even chaotic. This result leads to an undependable climate in which people do not know whether or not they can count on others to do what they have said they would do. Accountable relationships create and maintain a trustworthy climate.

Problem-Centered Versus Solution-Minded

People with a problem-centered attitude work collaboratively to define problems, explore alternatives, and arrive at solutions. They have no preplanned solutions and encourage others to set goals, make decisions, and evaluate progress in light of the nature of the problem and the various alternatives open to them. Solution-minded people assume that recognizing a problem is equivalent to understanding it. They are quick to arrive at solutions and fail to explore the nature of the problem. They often have a strong tendency to impose their answers on others. Adopting an immediate-solution approach tends to generate negative feelings, a divisive climate, and an atmosphere of endless argumentation and fruitless debate.

Accepting and Warm Versus Rejecting and Cold

An accepting, warm attitude is a major contributor to trust building. On the other hand, a rejecting, cold attitude creates feelings of rejection, low self-esteem, and hostility, which lead to mistrust and suspicion. Accepting attitudes lead to feelings of psychological safety, which lead people to believe that no matter what they share, others will respond in an accepting, nonjudgmental manner. Warmth in relationships is essential to creating a trustworthy climate for effective teamwork. When an attitude of warmth is communicated, people feel prized for who they are and what they have to contribute.

Conclusion

The preceding principles of trust-building and mistrust-building attitudes hold true in relationships between two people as well as among members of a group. If you decide to foster more trust-building attitudes, you can take certain actions. The following interpersonal behaviors can help to build trust:

- initiating communication or action with others
- establishing eye contact
- communicating clearly
- giving and receiving feedback
- listening empathically
- expressing personal feelings
- accepting the feelings of others
- using “I” messages
- affirming the self-images of others
- being present and involved
- acting consistently
- appreciating the trust of others

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IV. THE MANAGER AS CHANGE AGENT

THE MANAGER AS CHANGE AGENT

“The difference between a successful change or innovation and an unsuccessful one lies in the capabilities of management personnel within a particular fire department.”

— Joseph N. Baker, Managing Fire Services

Slide 4-29

- A. Managing the change process.
- B. “The difference between a successful change or innovation and an unsuccessful one lies in the capabilities of management personnel within a particular fire department.” — Joseph N. Baker, Managing Fire Services
- C. The chief executive is responsible for motivating top management to accept the desired change.
 - 1. Top management is responsible for influencing change by providing an environment in which midlevel managers can:
 - a. Achieve greater influence (upward and downward).
 - b. Become key implementers of the desired change.
 - c. Become key communicators in the change process.

IMPLEMENTING CHANGE

When implementing change, middle managers should:

- Advise employees of the details of the change.
- Discuss reasons for the change and its benefits.
- Discuss expected changes in existing work patterns.
- Discuss advantages to be gained throughout the department.

Slide 4-30

2. In turn, middle managers are responsible for increasing opportunities for nonmanagement employees to participate in the change process. Middle managers should:
 - a. Advise employees of the details of the change.
 - b. Discuss the reasons for the change and its benefits.
 - c. Discuss expected changes in existing work patterns.
 - d. Discuss advantages to be gained throughout the department.

V. MONITORING AND EVALUATING CHANGE

- A. An integral part in implementing change is evaluating the results. Proper reporting and evaluating procedures should be established to ensure that the intended results of the change are achieved.
- B. Proper monitoring and evaluating requires the collection of good data.
 1. Objective data (measurable) versus subjective data (personal opinion).
 2. Qualitative data (type or kind) versus quantitative data (number).

**FOUR STAGES OF
TRANSITION TO CHANGE**

- Stage 1: shock.
- Stage 2: retreat.
- Stage 3: acknowledgment.
- Stage 4: adaption and change.

Slide 4-31

- C. When evaluating change, managers should understand that most people go through four predictable stages in response to change: shock, retreat, acknowledgment, and adaptation and change. Understanding the transition process will help managers evaluate and accomplish change (e.g., closing of emergency service stations, layoffs, new employees, or new department chief).

MANAGING STAGE 1: SHOCK

- Help employees look for common ground.
- Give regular information and visible support.
- Provide safety nets:
 - Clear statements of expectations.
 - Treat with time and emotional support.



Slide 4-32

1. Stage 1: shock.

a. Indications.

- People view changes as a threat.
- Productivity is low; people cannot rationalize the changes and have trouble focusing on possible improvements.

b. Ways to manage.

- Help employees look for common ground.
- Give regular information and visible support.
- Provide safety nets through clear statements of work expectations, rewards and supports.
- Treat “psychological shock” with “warm blankets and rest” (time to recover and emotional support).

MANAGING STAGE 2: RETREAT

- Help employees identify what they're holding onto.
- Identify areas of stability.
- Encourage a risk-taking environment.



Slide 4-33

2. Stage 2: retreat.

a. Indications.

- People defend their old ways and back away.
- There is a lot of anger or anxiety and refusal to let go of the past.

b. Ways to manage.

- Help employees identify what they're "holding on to" and how they can maintain comfort in the new situation.
- Identify areas of stability and things that are not changing.
- Encourage a risk-taking environment with rewards, support, resources and clear expectations (relate to accountability).

MANAGING STAGE 3: ACKNOWLEDGMENT

- Involve people in planning and decision-making.
- Point out that organization will provide support.
- Emphasize that everyone is learning.



Slide 4-34

3. Stage 3: acknowledgment.

a. Indications.


- There is a sense of grief and sadness over the loss.
- People begin to let go as they see the value of what is coming and look for ways to make the changes work.

b. Ways to manage.

- Involve people in the planning and decision-making process.
- Encourage risk-taking by pointing out ways in which the organization will provide support.
- Emphasize that everyone is learning from the process.

**MANAGING STAGE 4:
ADAPTATION AND CHANGE**

- Implement the plan.
- Ensure monitoring so information flows.
- Make corrections, and communicate them.



Slide 4-35

4. Stage 4: adaptation and change.

a. Indications.

- People are ready to establish new routines and to help others succeed.
- Risk-taking relative to changing work methods, products or adaptations is fully used.

b. Ways to manage.

- Implement the plan.

- Encourage and support risk-taking, using strategies developed during Stage 3.
- Ensure proper monitoring so information travels in all directions: upward, downward and horizontally.
- Make corrections in the new change as required, and communicate them accordingly.

ACTIVITY 4.3

Managing Change

Purpose

Use all of the “tools” that you have gained from the material in practice on assigned scenarios.

Directions

1. The class will be divided into two large groups.
2. Read your assigned scenario(s), and then complete the Student Activity Worksheet individually.
3. After completing the Student Activity Worksheet, work in your assigned group and attempt to reach consensus on Items 2, 3 and 4 of the Student Activity Worksheet.
4. Select one member of your group to take notes during group discussion and another member to present the findings of your group to the rest of the class.

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ACTIVITY 4.3 (cont'd)

Managing Change

Scenario 1

You are the new fire chief of Westport, a growing suburban community with light industry and a mixture of old and new dwellings. You have been hired by the fire and police commission. You come from a city in another state where you established an outstanding record as a modern and innovative deputy chief. Your previous chief and city manager wrote glowing recommendation letters praising your past record of accomplishments. You have 20 years of fire command experience. You have provided innovations in rescue operations, prefire planning, and fireground tactical operations, which included the design of new suppression equipment. You also helped the city council rewrite the city fire code. You have long been regarded by your peers as an example of a modern fire officer.

While Westport is a growing and forward-thinking city, its fire service has remained in the dark ages, primarily because of the lackadaisical leadership of the previous chief who finally retired. The old chief had let the department deteriorate for the past 10 years. He or she failed to purchase needed new equipment. He or she had no training procedures beyond basic hose and ladders for training his or her force in fireground tactics. He or she was suspicious of any firefighter who sought a college education. Accordingly, there is a tremendous morale problem in the department. The old firefighters have made a career of stomping out new ideas. However, there are a few good, young officers who could provide some leadership and energy to modernize the department.

Your task (as a group) is to create a change management plan for developing a supervisory level training program for the fire department. Consider all levels, including entry, in-service, midmanagement and administrative. In 20 minutes, be prepared to summarize your problem, recommend a solution, and give your reasoning.

1. Which of the following “barriers to change” appear to be present in your assigned scenario? Check appropriate choices.

- Lack of vision.
- History of poor implementation.
- Lack of support from middle management.
- Lack of understanding.
- Low risk-taking environment.
- No-consequence management.
- Lack of clear communication.
- Lack of planning for resistance.
- Poor management of resistance.
- Lack of time.
- Poor follow-through.
- Lack of union support.
- Lack of synergy.
- Rhetoric unsupported by results.

2. Considering the barriers noted in Item 1, which of the following change strategies would be most appropriate to employ for your assigned scenario? Check all that apply, and make notes as appropriate.

Work to build trust between employees and administration.

Identify who will be most affected by the change, and involve them in the decision process.

Empower employees to increase productivity and “buy in.”

Hold employees accountable for their work product.

3. Consider the four stages of response (as noted below) that most people go through when faced with impending change. In the spaces provided, check one or two indicators for each stage and note tools to use to help manage the change process at each stage.

a. Stage 1: shock.

- Indicators:

People view change as a threat.

Low productivity; people cannot rationalize change.

- Management tools:
 - Help employees look for common ground.
 - Give regular information and visible support.
 - Provide clear statements of work expectations.
 - Treat for psychological shock (with time and emotional support).

- b. Stage 2: retreat.
 - Indicators:
 - People defend their old ways.
 - There is anger, anxiety, and refusal to let go of the past.

 - Management tools:
 - Help employees to identify comfort zones.
 - Identify areas of stability and what's not changing.
 - Encourage risk-taking with rewards, resources and support.

- c. Stage 3: acknowledgment.
 - Indicators:
 - A sense of grief and a sadness over the loss.
 - People begin to let go as they see the value of what is coming.

 - Management tools:
 - Involve people in the planning and decision-making process.
 - Encourage risk-taking through showing organizational support.
 - Emphasize that everyone is learning from the process.

- d. Stage 4: adaptation and change.
 - Indicators:
 - People are ready to establish new routines and help each other succeed.
 - Risk-taking relative to changing work patterns is fully used.

 - Management tools:
 - Implement the plan.
 - Encourage and support risk-taking.
 - Ensure proper monitoring so information travels in all directions.
 - Make corrections as needed, and communicate them accordingly.

4. Briefly describe the monitoring and evaluating process that you would establish to ensure that the desired results of the change were being achieved.
- Have task group develop goals and measurable objectives for change plan.
 - Set up regular meetings with task group leader in order to keep updated on progress.
 - Ensure that officer performance evaluation instruments are updated to reflect expected results.

ACTIVITY 4.3 (cont'd)

Managing Change

Scenario 2

The decision to purchase a positive-pressure ventilation (PPV) gas-powered fan and implement PPV was made shortly after Chief Barnes of the Barnestown Volunteer Fire Department returned from a seminar on PPV use on the fireground. The chief planned to use money that had been earmarked for the annual department picnic and party for the purchase. In the past, the annual picnic and party was the major social event of the year for members of the department; almost all members attended, along with their families.

The active volunteer firefighters cannot see the value of PPV and are angry that the annual picnic and party is being deferred in favor of the chief's latest gadget. A number of volunteers are threatening to boycott the department unless the chief changes his mind. Chief Barnes has assigned the responsibility for acquisition of the PPV fan and the development of a training program for its use to Training Chief Fred Williams and the four other members of his training committee. The chief has stressed the importance to all committee members of accepting this modern and innovative tactical tool.

Your task (as a group) is to analyze the situation and resistance to change and develop strategies for successfully implementing the change. In 20 minutes, be prepared to summarize your problem, recommend a solution, and give your reasoning.

1. Which of the following "barriers to change" appear to be present in your assigned scenario? Check appropriate choices.

- Lack of vision.
- History of poor implementation.
- Lack of support from middle management.
- Lack of understanding.
- Low risk-taking environment.
- No-consequence management.
- Lack of clear communication.
- Lack of planning for resistance.
- Poor management of resistance.
- Lack of time.
- Poor follow-through.
- Lack of union support.
- Lack of synergy.
- Rhetoric unsupported by results.

2. Considering the barriers noted in Item 1, which of the following change strategies would be most appropriate to employ for your assigned scenario? Check all that apply, and make notes as appropriate.

Work to build trust between employees and administration.

Identify who will be most affected by the change, and involve them in the decision process.

Empower employees to increase productivity and “buy in.”

Hold employees accountable for their work product.

3. Consider the four stages of response (as noted below) that most people go through when faced with impending change. In the spaces provided, check one or two indicators for each stage and note tools to use to help manage the change process at each stage.

a. Stage 1: shock.

- Indicators:

- People view change as a threat.
- Low productivity; people cannot rationalize change.



- Management tools:

- Help employees look for common ground.
- Give regular information and visible support.
- Provide clear statements of work expectations.
- Treat for psychological shock (with time and emotional support).

- b. Stage 2: retreat.
 - Indicators:
 - People defend their old ways.
 - There is anger, anxiety, and refusal to let go of the past.
 - Management tools:
 - Help employees to identify comfort zones.
 - Identify areas of stability and what's not changing.
 - Encourage risk-taking with rewards, resources and support.
 - c. Stage 3: acknowledgment.
 - Indicators:
 - A sense of grief and a sadness over the loss.
 - People begin to let go as they see the value of what is coming.
 - Management tools:
 - Involve people in the planning and decision-making process.
 - Encourage risk taking through showing organizational support.
 - Emphasize that everyone is learning from the process.
 - d. Stage 4: adaptation and change.
 - Indicators:
 - People are ready to establish new routines and help each other succeed.
 - Risk-taking relative to changing work patterns is fully used.
 - Management tools:
 - Implement the plan.
 - Encourage and support risk-taking.
 - Ensure proper monitoring so information travels in all directions.
 - Make corrections as needed, and communicate them accordingly.
4. Briefly describe the monitoring and evaluating process that you would establish to ensure that the desired results of the change were being achieved.
- Have task group develop goals and measurable objectives for change plan.
 - Set up regular meetings with task group leader in order to keep updated on progress.

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VI. SUMMARY



SUMMARY

- Develop strategies for implementing change.
- Gain employee confidence and trust.
- Midlevel managers introduce, communicate and manage change.
- Proper monitoring and evaluating techniques are crucial.

Slide 4-37

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UNIT 5: COURSE CONCLUSION

OBJECTIVES

The students will be able to:

- 5.1 *List major points learned during the training course.*
- 5.2 *Pass the 30-question final examination.*

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**UNIT 5:
COURSE CONCLUSION**

Slide 5-1

OBJECTIVES

- List major points learned during the training course.
- Pass the 30-question final examination.




Slide 5-2

I. MOVING INTO THE FUTURE

MOVING INTO THE FUTURE

- You can make a difference!
- Become an agent for change in your organization!



Slide 5-3

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ACTIVITY 5.1

Review Objectives

Purpose

List major points learned during the course.

Directions

1. The class will be divided into four separate groups.
2. Each group will be assigned a unit from Units 1 through 4.
3. Document the objectives and key takeaways for your assigned unit.
4. Refer to your Student Manual (SM).
5. You have 10 minutes to document your unit on an easel pad. Select a representative to present the unit to the class.
6. Presentations will take five minutes.

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I. MOVING INTO THE FUTURE (cont'd)

**UNIT 1:
REDEFINING THE PRESENT**

Terminal objective: The students will be able to employ creative approaches to identify trends that have an impact on their organization.



Slide 5-5

**UNIT 2: FINDING SOLUTIONS IN THE
QUALITY ENVIRONMENT**

Terminal objective: The students will be able to apply creative group problem-solving methods and describe the importance of continuous improvement within fire and emergency services.



Slide 5-6

**UNIT 3:
JUSTIFYING DECISIONS**

Terminal objective: The students will be able to quantify problems and solutions and use the information to justify a recommendation.



Slide 5-7

UNIT 4: MANAGING CHANGE IN YOUR ORGANIZATION

Terminal objective: The students will be able to explain why employees resist change and develop strategies for implementing change within the fire and emergency service environments.



Slide 5-8

II. FINAL EXAMINATION



COURSE CONCLUSION

Slide 5-9

III. GRADUATION

ACRONYMS

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ACRONYMS

ADA	Americans with Disabilities Act
AED	automated external defibrillator
ALS	advanced life support
ARP	Applied Research Project
BLS	basic life support
CDC	Centers for Disease Control and Prevention
CDL	Commercial Driver's License
CO	Company Officer
CPR	cardiopulmonary resuscitation
DHS	Department of Homeland Security
EFO	Executive Fire Officer
EFOP	Executive Fire Officer Program
EMS	Emergency Medical Services
EMT	emergency medical technician
E-911	Enhanced 911
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
GIS	Geographic Information System
GPS	Global Positioning System
IAP	Incident Action Plan
ICMA	International City/County Management Association
ICS	Incident Command System
IG	Instructor Guide

IMS	Incident Management System
MBO	management by objectives
NETC	National Emergency Training Center
NFA	National Fire Academy
NFIRS	National Fire Incident Reporting System
NFPA	National Fire Protection Association
NHTSA	National Highway Traffic Safety Administration
NTSB	National Transportation Safety Board
OSHA	Occupational Safety and Health Administration
PPV	positive-pressure ventilation
SCBA	self-contained breathing apparatus
SM	Student Manual
SMART	S pecific, M easurable, A chievable, R elevant and T ime-oriented
STF	“Shaping the Future”
SWOT	S trengths, W eaknesses, O pportunities, T hreats
3-D	three-dimensional
TRADE	Training Resources and Data Exchange
US&R	Urban Search and Rescue
USFA	U.S. Fire Administration
WIIFM	what’s in it for me
WMD	weapons of mass destruction
WUI	wildland urban interface