

# Leadership in Supervision: Perspectives in Thinking

LS: PIT-Student Manual

*1st Edition, 4th Printing-April 2018*



**FEMA**

FEMA/USFA/NFA  
LS: PIT-SM  
April 2018  
1st Edition, 4th Printing

***Leadership in Supervision: Perspectives  
in Thinking***



**FEMA**

# Leadership in Supervision: Perspectives in Thinking

LS: PIT-Student Manual

*1st Edition, 4th Printing-April 2018*



**FEMA**

**This Student Manual may contain material that is copyright protected. USFA has been granted a license to use this material only for NFA-sponsored course deliveries as part of the course materials, and it shall not be duplicated without consent of the copyright holder. States wishing to use these materials as part of state-sponsorship and/or third parties wishing to use these materials must obtain permission to use the copyright material(s) from the copyright holder prior to teaching the course.**

This page intentionally left blank.

TABLE OF CONTENTS

|   | <b>PAGE</b>   |
|---|---------------|
| Table of Contents .....   | iii           |
| Acknowledgments .....   | v             |
| Rationale.....  | vii           |
| Course Goal.....  | vii           |
| Audience, Scope and Course Purpose .....                            | vii           |
| Grading Methodology .....   | ix            |
| Schedule .....  | xi            |
| Firefighter Code of Ethics .....                                    | xiii          |
| A Student Guide to End-of-course Evaluations.....                   | xv            |
| <br>  |               |
| <b>UNIT 1: THINKING PERSPECTIVES .....</b>                          | <b>SM 1-1</b> |
| <br>  |               |
| <b>UNIT 2: THINK IMAGINATIVELY, ACT CREATIVELY .....</b>            | <b>SM 2-1</b> |
| <br>  |               |
| <b>UNIT 3: THINK ANALYTICALLY, POLITICALLY AND CRITICALLY .....</b> | <b>SM 3-1</b> |

Acronyms

This page intentionally left blank.

## 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:

Kevin S. Brame, MA EFO  
Training Specialist — Curriculum Manager  
Leadership and Executive Development Programs  
U.S. Fire Administration, National Fire Academy  
Emmitsburg, Maryland

Stacey Harmon, Instructional Systems Specialist  
Leadership and Fire Risk Reduction Branch,  
U.S. Fire Administration, National Fire Academy  
Emmitsburg, Maryland

Byron Kennedy, Ed.D.  
1st Deputy Chief  
Atlanta Fire Rescue Department  
Atlanta, Georgia

Laurie Reinhart, MA SPHR, SHRM-SCP  
Senior Human Resources Analyst (retired)  
Orange County Fire Authority (California)

Jeff Buchanan, MBA, MPA, EFO  
Deputy Fire Chief  
Clark County FD (Nevada)

This page intentionally left blank.



### **RATIONALE**

The NFA supports courses for federal, state and local fire and Emergency Medical Services (EMS) personnel to include professional development within the disciplines of leadership and executive development. This curriculum is intended to serve the professional development needs of fire and emergency services personnel who are at or are preparing for first line supervisory positions. The curriculum is also intended to serve as prerequisite course work for participants of the NFA Managing Officer Program.

### **COURSE GOAL**

Provide a conceptual foundation and framework for a successful transition by fire and Emergency Medical Services (EMS) personnel to first line supervisor by exploring a broad spectrum of perspectives in thinking.

### **AUDIENCE, SCOPE AND COURSE PURPOSE**

The primary target audience for this course are those individuals who are at the first line of supervision. For purposes of student selection, first line level is considered to be those at the Company Officer or Unit (fire prevention, fire education, communications, EMS, etc.) Supervisor level. More specific primary selection criteria is as follows:

- First line supervisors in fire and EMS organizations.
- Fire and EMS personnel due for promotion/appointment to a first line supervisory position within 18 months.
- Fire and EMS personnel who are regularly assigned acting supervisory positions.
- Fire and EMS personnel currently enrolled in the NFA Managing Officer will be provided priority selection.

The secondary target audience are fire and EMS personnel at the first line management level (chief officer or above). Students at this level may be given consideration on a space available basis.

This two-day course presents the student with the basic leadership and supervisory knowledge, skills and tools needed to perform effectively in the fire and EMS environment. The course includes:

Unit 1: Thinking Perspectives: At the completion of this unit, students will be able to assess situations from multiple perspectives.

Unit 2: Think Imaginatively, Act Creatively: At the completion of this unit, students will be able to articulate techniques for fostering an environment of creativity and innovation.

Unit 3: Think Analytically, Politically and Critically: At the completion of this unit, students will be able to create a personal plan as a supervisor and leader in fire and EMS based on the thinking perspectives presented in this course.

This page intentionally left blank.

**GRADING METHODOLOGY**

The required performance to successfully complete the course is attained by completing the examination with a grade of “C” or better by correctly answering a minimum of 18 out of 25 questions.

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

| <b>Minimum Number of Questions Answered Correctly</b> | <b>Number of Incorrect Answers</b> | <b>Letter Grade to be Assigned to Student</b> |
|---|------------------------------------|---|
| 23  | 0-2                                | A   |
| 20  | 3-5                                | B   |
| 18  | 6-7                                | C   |
| 17 or less  | 8 or more                          | F   |

**EXAMINATION ADMINISTRATION PROCEDURES**

Students will be given exams at the end of the class, and only the facilitator will grade the exams. While the exams are being graded by the facilitator, students will be asked to complete end-of-course evaluations.

Exams are to be completed individually and not as a group or a group activity, unless specifically directed within the facilitator guide for the specific course. Students should use pencils to complete answer sheets if bubble sheets and a scoring key overlay are being used.

There should only be one answer for any given question marked by the student. A question with multiple answers is considered incorrect. Please mark number of incorrect answers on completed exam sheets, record score (percentage), and mark the appropriate letter grade.

Transfer the letter grades to the corresponding student name on the course roster.

If a student does not obtain a passing grade on the first attempt, the facilitator will provide remediation<sup>1</sup> prior to a retest. Students who do not pass the first exam will be allowed to take one retest of a new exam before departing from the class. A second failure will result in a grade of “F” being recorded on the grade roster.

Once all exams have been graded, facilitators should review the exam as a group.

In the event of unusual events (storm, fire response, family emergency) or early departure, the host agency or state representative may be asked to proctor the exam at a later date. The facilitator is responsible to notify the Training Specialist as soon as practical of the situation and name of person responsible for the exams and testing process.

---

<sup>1</sup> The goal of remediation during a 2-day class is to assist students in order to achieve expected competencies in the course. It may involve review, discussion, explanation and other needs to allow the student to understand the course competencies and how to apply them to their work environment, as well as how to successfully complete the examination.

This page intentionally left blank.

**SCHEDULE**

| <b>TIME</b>   | <b>DAY 1</b>  | <b>DAY 2</b>  |
|---------------|---|---|
| 8:00 - 8:50   | Introductions   | Unit 3: Think Analytically, Politically and Critically          |
| 8:50 - 9:00   | <i>Break</i>  | <i>Break</i>  |
| 9:00 - 9:50   | Unit 1: Thinking Perspectives   | Unit 3: Think Analytically, Politically and Critically (cont'd) |
| 9:50 - 10:00  | <i>Break</i>  | <i>Break</i>  |
| 10:00 - 10:50 | Unit 1: Thinking Perspectives (cont'd)  | Unit 3: Think Analytically, Politically and Critically (cont'd) |
| 10:50 - 11:00 | <i>Break</i>  | <i>Break</i>  |
| 11:00 - 12:00 | Unit 1: Thinking Perspectives (cont'd)<br>Unit 2: Think Imaginatively, Act Creatively | Unit 3: Think Analytically, Politically and Critically (cont'd) |
| 12:00 - 1:00  | <i>Lunch</i>  | <i>Lunch</i>  |
| 1:00 - 1:50   | Unit 2: Think Imaginatively, Act Creatively (cont'd)                                  | Unit 3: Think Analytically, Politically and Critically (cont'd) |
| 1:50 - 2:00   | <i>Break</i>  | <i>Break</i>  |
| 2:00 - 2:50   | Unit 2: Think Imaginatively, Act Creatively (cont'd)                                  | Unit 3 Think Analytically, Politically and Critically (cont'd)  |
| 2:50 - 3:00   | <i>Break</i>  | <i>Break</i>  |
| 3:00 - 3:50   | Unit 2: Think Imaginatively, Act Creatively (cont'd)                                  | Unit 3: Think Analytically, Politically and Critically (cont'd) |
| 3:50 - 4:00   | <i>Break</i>  | <i>Break</i>  |
| 4:00 - 5:00   | Unit 2: Think Imaginatively, Act Creatively (cont'd)                                  | Final Exam<br>Evaluation  |

Note: Times listed reflect approximate instructional time blocks and may be adjusted to meet individual course preferences.

This page intentionally left blank.

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

This page intentionally left blank.

# **UNIT 1: THINKING PERSPECTIVES**

## **TERMINAL OBJECTIVE**

*The students will be able to:*



- 1.1 *Assess situations from multiple perspectives.*

## **ENABLING OBJECTIVES**

*The students will be able to:*

- 1.1 *Define “mindset.”*
  - 1.2 *Describe ways to improve thinking processes.*
  - 1.3 *Identify influences on decision-making.*
  - 1.4 *Describe models for decision-making.*
-

This page intentionally left blank.

 FEMA  U.S. Fire Administration

---

**UNIT 1:  
THINKING PERSPECTIVES**

Slide 1-1

---

---

---

---

---

---

---

---

---

---

---

---

**TERMINAL OBJECTIVE**

---

Assess situations from multiple perspectives.

Slide 1-2

---

---

---

---

---

---

---

---

---

---

---

---

**ENABLING OBJECTIVES**

---

- Define “mindset.”
- Describe ways to improve thinking processes.
- Identify influences on decision-making.
- Describe models for decision-making.

Slide 1-3

---

---

---

---

---

---

---

---

---

---


---

---

**I. MINDSET**

---

What do you think the word "mindset" means?



Slide 1-4

---

---

---

---

---

---

---

---

---

---


---

---

---

**DEFINE "MINDSET"**

The established set of attitudes held by someone.



Slide 1-5

---

---

---

---

---

---

---

---

---

---

---

---

---

- A. Definition: the established set of attitudes held by someone.
- B. Fixed mindset verses growth mindset.

---

What do you think the difference is between the fixed mindset and the growth mindset?

Slide 1-6

---

---

---

---

---

---

---

---

---

---

---

---

---

## FIXED MINDSET

A mindset in which one believes that his or her basic qualities, like intelligence or talent, are fixed traits.



Slide 1-7

---

---

---

---

---

---

---

---

---

---

1. Fixed mindset.
  - a. A mindset in which one believes that his or her basic qualities, like intelligence or talent, are fixed traits.
  - b. Individuals of this mindset believe that there isn't much they can do to overcome a shortcoming.
  - c. Defeatist?

## GROWTH MINDSET

A mindset in which one believes that his or her basic qualities, like intelligence or talent, can be developed through hard work.



Slide 1-8

---

---

---

---

---

---

---

---

---

---

2. Growth mindset.
  - a. A mindset in which one believes that his or her basic qualities, like intelligence or talent, can be developed through hard work.
  - b. Individuals of this mindset believe they can overcome a shortcoming through hard work: "I think I can."

### JASON MOSER EXPERIMENT

Michigan State University experiment on brain signals (2010).

- Error-Related Negativity (ERN): an involuntary brain response when making a mistake.
- Error Positivity (Pe): originates in different part of brain milliseconds (ms) after the mistake and is associated with heightened awareness.

— Moser, Most & Simons, 2010  
Slide 1-9

---

---

---

---

---

---

---

---

---

---

3. The Jason Moser Experiment was an experiment conducted on brain signals at Michigan State University in 2010 (Moser, Most & Simons).
  - a. Error-Related Negativity (ERN): an involuntary brain response when making a mistake.
  - b. Error Positivity (Pe): originates from a different part of the brain 200 to 500 milliseconds (ms) after the mistake and is associated with heightened awareness.
  - c. This brain signal happens when we are focusing on mistakes.

### MINDSET AND ERROR-RELATED NEGATIVITY OR ERROR POSITIVITY

- Fixed-mindset individuals had an ERN signal and a small reading of Pe after a mistake.
- Growth-mindset individuals had an ERN and Pe signal three times that of the fixed-mindset group.



Slide 1-10

---

---

---

---

---

---

---

---

---

---

4. Previous studies show that people who exhibit two brain signals learn more rapidly.
  - a. Fixed-mindset individuals had an ERN signal and a small reading of Pe after a mistake.
  - b. Growth-mindset individuals had an ERN and Pe signal three times that of the fixed-mindset group.



- c. For growth-mindset individuals, this experiment shows that a mistake was of great interest, and the brain directed attention toward it.

**PRODUCTIVE VERSUS DEFENSIVE**

---

- Productive mindsets seek out valid knowledge that is testable.
- Defensive mindsets are self-protective and self-deceptive.
  - Organizations with this mindset only seek out information that will protect them.
  - Truth can be shut out if it is viewed as threatening.

Slide 1-11

---

---

---

---

---

---

---

---

---

---

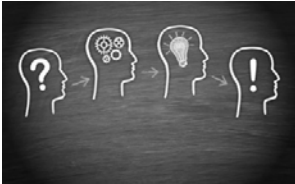
- C. Productive versus defensive.
  - 1. Productive mindsets seek out valid knowledge that is testable.
  - 2. Defensive mindsets are self-protective and self-deceptive.
    - a. Organizations with this mindset only seek out information that will protect them.
    - b. Truth can be shut out if it is viewed as threatening.

**II. THINKING PROCESSES**

**THINKING PROCESSES**

---

- System 1 (Automatic).
- System 2 (Effortful).
- System 1 to System 2 (influence/endorsement).



Slide 1-12

---

---

---

---

---

---

---

---

---

---

- A. Meta-Cognition, according to the Merriam-Webster dictionary, is the “awareness or analysis of one’s own learning or thinking process.” <https://www.merriam-webster.com/dictionary/metacognition>
- B. By understanding your defaults (the thinking process you go to first), you can change your patterns of thinking.
- C. System 1 (Automatic).
  - 1. Operates automatically and quickly, with little or no sense of voluntary control.
  - 2. Examples in order of complexity:
    - a. Detect that one object is more distant than another.
    - b. Complete the phrase “bread and ...”
    - c. Make a disgusted face when shown a horrible picture.
    - d. Answer  $2 + 2$ .
    - e. Drive a car on an empty road.
    - f. Understand simple sentences.
- D. System 2 (Effortful).
  - 1. Allocates attention to the effortful mental activities that demand it.
  - 2. Often associated with choice and concentration.
  - 3. Examples:
    - a. Brace for the starter gun in a race.
    - b. Focus attention on the clowns in a circus.
    - c. Look for a woman with blond hair.
    - d. Monitor the appropriateness of a behavior in a social situation.
    - e. Fill out a tax form.
- E. System 1 (automatic) makes suggestions to System 2 (effortful).
  - 1. Impressions, intuitions, impulses and feelings are generated by System 1.

2. If endorsed by System 2, these impressions and intuitions become beliefs, and impulses become voluntary actions.
3. Most of what your System 2 will think originates in System 1, but System 2 takes over when things get difficult.

**III. INFLUENCES ON THINKING AND DECISION-MAKING**

**COGNITIVE EASE VERSUS  
COGNITIVE STRAIN**

---

- Little versus substantial effort.
- Clear font versus poor font.
- Clear language versus complex language.
- Good mood versus bad.

Slide 1-13

---

---

---

---

---

---

---

---

---

---

- A. Cognitive ease versus cognitive strain.
1. Little effort required versus substantial effort.
  2. A sentence in a clear font versus a sentence in a poor font.
  3. Clear language versus complicated language.
  4. When in a good mood versus when in a bad mood.

**COGNITIVE EASE VERSUS  
COGNITIVE STRAIN (cont'd)**

---

- Cognitive ease — You believe what you hear, like what you see. This can cause us to be superficial in our thinking.
- Cognitive strain — We are more vigilant, invest more effort, and make fewer errors, but we are less creative.

Slide 1-14

---

---

---

---

---

---

---

---

---

---

B. Cognitive ease — “fast and slow.”

1. You believe what you hear.
2. This can lead us to be superficial in our thinking.

C. Cognitive strain.

1. We are more vigilant, invest more effort, and make fewer errors, but we are less creative.

**SYSTEM 2**

---

- In action when we experience cognitive strain and when self-control is necessary.
  - Controls thoughts and behaviors.
  - Both require attention and effort.
- When brain is cognitively strained, selfish and superficial judgments are more likely in social situations.

Slide 1-15

---

---

---

---

---

---

---

---

---

---

2. System 2 is in action when we experience cognitive strain.
  - a. System 2 is in action when self-control is necessary.
  - b. It controls thoughts and behaviors.
  - c. Both require attention and effort to control.
3. When the brain is cognitively strained, selfish and superficial judgments are more likely in social situations.
4. Evidence suggests that when the brain is strained, we are more likely to yield to a temptation. (Ever studied and had a craving for something sweet? In this instance, you are probably looking for energy (carbs) because you are under strain or pressure.)

D. Follow your intuition for the next problem you are about to see.

### COGNITIVE EASE

If a pen and paper cost \$1.10 and the pen cost one dollar more than the paper, how much does the pen cost?

Slide 1-16

---

---

---

---

---

---

---

---

---

---

1. A pen and paper cost \$1.10.
  2. The pen costs one dollar more than the paper.
  3. How much does the pen cost?
- E. Cognitive blind spots.
1. The human brain hides from us those things to which we are not paying attention.

### COGNITIVE BLIND SPOTS

Finished files are the result of years of scientific study combined with the experience of years.

Slide 1-17

---

---

---

---

---

---

---

---

---

---

2. Finished files are the result of years of scientific study combined with the experience of years.

**WYSIATI**

---

- “What you see is all there is.”
- The brain’s machine for jumping to conclusions.

Slide 1-18

---

---

---

---

---

---

---

---

---

---

F. WYSIATI.

1. “What You See Is All There Is.”
2. The brain’s machine for jumping to conclusions.
3. Halo/Horns Effect: a cognitive bias in which an observer’s overall impression about a person, brand or organization influences the observer’s feelings about that entity’s character or abilities.

**CAUSALITY**

---

- The relation between cause and effect.
- We prefer to believe that causal relationships are present, even when there is not enough evidence to support that belief.

Slide 1-19

---

---

---

---

---

---

---

---

---


---

G. Causality over statistics.

1. Causality: the relation between cause and effect.
2. We prefer to believe that causal relationships are present, even when there is not enough evidence to support that belief.

**THINKING PROCESSES (cont'd)**

- Cognitive dissonance — Our beliefs are challenged by evidence.
- Confirmation bias — Most people prefer to confirm their hypotheses.



Slide 1-20

---

---

---

---

---

---

---

---

---

---

- H. Cognitive dissonance — “fast and slow.”
1. Our beliefs are challenged by evidence.
  2. Confirmation bias.

Most people prefer to confirm their hypotheses.

---

“For if we are uncritical, we shall always find what we want.”

— Philosopher Karl Popper

Slide 1-21

---

---

---

---

---

---

---


---

---

---

**THINKING PROCESSES (cont'd)**

- Disposition effect — We have a tendency to keep a losing stock and sell a high-performing stock. Why? We hate to solidify a loss. We love to solidify a win.



Slide 1-22

---

---

---

---

---

---

---

---

---

---

---

- 3. Disposition effect.
  - a. We have a tendency to keep a losing stock and sell a high-performing stock. Why?
  - b. We hate to solidify a loss.
  - c. We love to solidify a win.



## ACTIVITY 1.1

### Are We in Control of Our Own Decisions?

#### Purpose

Identify and define influences on decision-making.

#### Directions

1. For this activity, view the TED Talks video by Dan Ariely, “Are We in Control of Our Own Decisions?” ([http://www.ted.com/talks/dan\\_ariely\\_asks\\_are\\_we\\_in\\_control\\_of\\_our\\_own\\_decisions?utm\\_source=tedcomshare&utm\\_medium=email&utm\\_campaign=tedsread](http://www.ted.com/talks/dan_ariely_asks_are_we_in_control_of_our_own_decisions?utm_source=tedcomshare&utm_medium=email&utm_campaign=tedsread)).
2. After viewing the video, participate in a large-group discussion based on the following questions:
  - a. Dan Ariely makes the case that if we don’t know our preferences well, we are susceptible to outside forces making our decisions for us. In what ways have you been influenced by outside forces when you have not been clear about your preferences?
  - b. What are the implications of Dan Ariely’s points for your perceptions of others at work?
  - c. Why do you think you’re rational?

This page intentionally left blank.

## THE LEADER'S ROLE

Leaders control decision-making processes by determining the amount and type of opportunity afforded subordinates to participate in the decision.

Slide 1-25

---

---

---

---

---

---

---

---

---

---

### IV. DECISION-MAKING STYLES

## DECISION-MAKING STYLES

- Autocratic.
- Consulting.
- Collaborative.



Slide 1-26

---

---

---

---

---

---

---

---

---

---

## AUTOCRATIC (STYLE A)

- Style A — leader makes decision and informs others of it.
- Styles A-I — leader makes the decision with information already known.
- Style A-II — leader asks unit members for specific information, leader makes the decision.

Slide 1-27

---

---

---

---

---

---

---

---

---

---

A. Autocratic (Style A).

1. Leader makes decision and informs others of it (Style A).
2. (A-I). The leader makes the decision with information known at the time.
3. (A-II). The leader asks unit members for specific information. Once the information is obtained, the leader makes the decision. Unit members may not be involved further.
  - a. The leader listens actively and carefully considers all ideas.
  - b. Subordinate(s) know(s) ideas are being considered.

**CONSULTING (STYLE C)**

- Style C-I — leader informs unit members of what he or she is doing and may seek input but makes decision alone.
- Style C-II — leader is responsible for making the decision; however, assembles the group to discuss, hear different perspectives, solicit suggestions.

Slide 1-28

---

---

---

---

---

---

---

---

---

---

B. Consulting (Style C).

1. (C-I). The leader shares the problem with individual members and may ask individual opinions; however, the group is not brought together for discussion. The leader makes the decision alone.
2. (C-II). The leader is responsible for making the decision; however, he or she assembles the group to discuss the situation, hear different perspectives, and solicit suggestions.

### COLLABORATIVE (STYLE G)

Style G — collaborative/group process.

- Unit makes decision together. Leader's role is mostly facilitative.

Slide 1-29

---

---

---

---

---

---

---

---

---

---

C. Collaborative (Style G). (This style is also referred to as Group Process.)

1. Unit makes decision together. The leader's role is mostly facilitative, and he or she helps the team come to a final decision everyone agrees on.
2. Consensus.
  - a. Equal opportunity to give opinions.
  - b. All suggestions are carefully considered.
  - c. Everyone committed to final decision.
  - d. There is no voting.

### VARIATIONS IN LEADERS' INFLUENCE STYLES

- The leader's personal influence on the final decision ranges from 100 percent to almost zero.
- Regardless of style, the leader retains ultimate responsibility and accountability for the final decision.
- Effective leaders vary their decision-making style according to the requirements of the situation/issue.

Slide 1-30

---

---

---

---

---

---

---

---

---

---

D. Variations in leaders' influence styles.


1. The leader's personal influence on the final decision ranges from 100 percent to almost zero.

2. That said, no matter which style is selected, the leader retains ultimate responsibility and accountability for the final decision.
  - a. Many leaders are reluctant to use Style G because they recognize how risky it can be.
  - b. They're not willing to pay the price if subordinates make a bad decision.
  - c. They're not comfortable with sharing decisions.
3. Effective leaders vary their decision-making style according to the requirements of the situation/issue.

**SELECTING THE RIGHT STYLE**

---

- Do you have a reasonable amount of time to make the decision?
- Does the leader have the expertise to make a quality decision?



Slide 1-31

---

---

---

---

---

---

---

---

---


---

- E. Selecting the right style.
- Factors to consider.

**SELECTING THE RIGHT STYLE (cont'd)**

---

- How important is the quality of this decision?
- How important is subordinate commitment to the decision?
- Do you have sufficient information to make a high-quality decision?



Slide 1-32

---

---

---

---

---

---

---

---

---


---

1. How important is the quality of this decision?
2. How important is subordinate commitment to the decision?
3. Do you have sufficient information to make a high-quality decision?

**SELECTING THE RIGHT STYLE**  
(cont'd)

---

- Is the problem well structured?
- If you were to make the decision by yourself, is it reasonably certain that your subordinates would be committed to it?
- Do subordinates share the organization's goals to be attained in solving this problem?



Slide 1-33

---

---

---

---

---

---

---

---

---

---

4. Is the problem well structured?
5. If you were to make the decision by yourself, is it reasonably certain that your subordinates would be committed to it?
6. Do subordinates share the organization's goals to be attained in solving this problem?

**SELECTING THE RIGHT STYLE**  
(cont'd)

---

- Is conflict among subordinates over preferred solutions likely?
- Do subordinates have sufficient information to make high-quality decisions?

Slide 1-34

---

---

---

---

---

---

---

---

---


---

7. Is conflict among subordinates over preferred solutions likely?
8. Do subordinates have sufficient information to make a high-quality decision?

**EIGHT DECISION-MAKING  
GUIDELINES**

---

- Guideline 1: Quality.
- Guideline 2: Subordinate Commitment.
- Guideline 3:  
Leader Information.
- Guideline 4: Structure.
- Guideline 5: Degree of  
Probability.



— Vroom & Jago, 1998

Slide 1-35

---

---

---

---

---

---

---

---

---

---

---

F. Eight decision-making guidelines.

1. Guideline 1: Quality.

If a high-quality decision is needed, active participation by the leader is required.

2. Guideline 2: Subordinate Commitment.

If subordinate commitment for implementation is needed, then subordinates should be involved.

3. Guideline 3: Leader Information.

If the leader is lacking information or personal expertise, then subordinates should be involved.

4. Guideline 4: Structure.

Lack of clarity and poor structure will require the leader to involve subordinates.

5. Guideline 5: Degree of Probability.

If subordinates normally just go with the flow and do as they are told, then their input is not essential.



EIGHT DECISION-MAKING  
GUIDELINES (cont'd)

- Guideline 6: Congruence.
- Guideline 7: Conflict.
- Guideline 8: Subordinate Information.



— Vroom & Jago, 1998

Slide 1-36

---

---

---

---

---

---

---

---

---

---

6. Guideline 6: Congruence.

If subordinates' commitment to the organization's goals to resolve an issue is weak, then they should not be involved in the decision alone.

7. Guideline 7: Conflict.

- a. If autocratic decisions are likely to be rejected, and/or if there is likely to be serious conflict among subordinates regarding methods to attain goals, then subordinate involvement should be considered.
- b. The selected style/process may allow for the venting of differences and resolution of the issue with full knowledge of the situation by everyone involved.

8. Guideline 8: Subordinate Information.

If the subordinates have sufficient quality information on the problem and solutions, then they should have a higher degree of delegated responsibility to make the decision.

V. CHARACTERISTICS OF EFFECTIVE DECISION-MAKERS

**CHARACTERISTICS OF  
EFFECTIVE DECISION-MAKERS**

---

- Successful leaders and decision-makers.
  - Are not born.
  - Are not “lucky.”
- Success is related to:
  - Knowledge (Intelligence Quotient (IQ)).
  - Skills.
  - Personal attributes.

Slide 1-37

---

---

---

---

---

---

---

---

---

---

A. Successful fire/Emergency Medical Services (EMS) leaders and successful decision-makers:

1. Are not born.
2. Are not “lucky.”

B. Success is a composite of:

1. Knowledge (IQ).
2. Skills.
3. Personal attributes.

**MARVIN'S CHARACTERIZATION OF  
EFFECTIVE DECISION-MAKING**

---

- Synoptic.
- Dissatisfied.
- Sensitive.
- Catalytic.
- Opportunistic.
- Skill-directed.
- Innovative.
- Forward thinking.

Slide 1-38

---

---

---

---

---

---

---

---

---

---

C. Marvin's characterization of effective decision-makers:

1. Synoptic — They focus on the big picture, considering all possible opportunities and potentials.
2. Dissatisfied — They have an inherent preoccupation to make the best better.
3. Sensitive — They continuously and consistently exercise acute sensitivity to others and their environment.
4. Catalytic — They make things happen and assume personal responsibility to do so.
5. Opportunistic — They take advantage of opportunities and even create opportunities where there are seemingly none.
6. Skill-directed — They do not play trial and error; they rely on things they do well and make the most of available inputs and resources.
7. Innovative — They are creative and draw upon the creativity and strengths of others.
8. Forward-thinking — They look to the future and search for other opportunities.

**MARVIN'S CHARACTERIZATION OF  
EFFECTIVE DECISION-MAKING (cont'd)**

- Resourceful.
- Evaluative.
- Expedient.
- Courageous.

Slide 1-39

---

---

---

---

---

---

---

---

---

---

---

---

9. Resourceful — They use the expertise and ideas of others, involving them in decision-making as appropriate.
10. Evaluative — They know what they are doing: asking the right questions and pursuing the answers to those questions.
11. Expedient — They get things done.


- 12. Courageous — They take calculated risks, and they act, accepting responsibility for the things they do.

**VI. DECISION-MAKING PRINCIPLES**

**DECISION-MAKING PRINCIPLES**

---

- Make the decision.
  - Use a decision-making model.
  - Match style to situation.
  - Recognize and minimize potential negative effects.
  - Understand and avoid common pitfalls.



Slide 1-40

---

---

---

---

---

---

---

---

---

---


**A. Make the decision.**

- 1. Use a decision-making model.
- 2. Match style to situation.
- 3. Recognize and minimize potential negative effects of personal and behavioral influences.
- 4. Understand and avoid common pitfalls.

**DECISION-MAKING PRINCIPLES (cont'd)**

---

- Implement and evaluate.
  - Execute the decision.
  - Monitor the process.
  - Watch for unintended consequences.
  - Evaluate results.



Slide 1-41

---

---

---

---

---

---

---

---

---

---

**B. Implement and evaluate.**

1. Execute the decision.
2. Monitor the process.
3. Watch for unintended consequences.
4. Evaluate results.

This page intentionally left blank.

## ACTIVITY 1.2

### New Fire Chief Selection Criteria

#### Purpose

Apply a decision-making approach to a given scenario using differing influences.

#### Directions

1. You will play the role of a community member who has been asked to establish the selection criteria for the next fire chief.
  - a. Police Chief.
  - b. Fire Union President.
  - c. President of the Chamber of Commerce.
  - d. Human Resources Director.
  - e. Chair — Citizens for Responsible Government.
  - f. City Council Member.
2. As a group, establish the selection criteria, evaluation methodology, and score for each criteria. Your group must agree on all three elements.
3. Place the criteria on an easel pad and select a representative to present your group's decisions.
  - a. What was your decision?
  - b. How did you arrive at your decision?
  - c. What decision-making method (consensus, voting, etc.) did you use?
  - d. How was your decision influenced by your values? Attitudes? Prejudices?
  - e. Who provided leadership in your group?
  - f. How were disagreements and conflicts handled?
  - g. How satisfied are you with your own level of participation in this exercise? Why?
  - h. How does this activity apply to what you do every day?

This page intentionally left blank.



## ACTIVITY 1.3

### Unit 1 Learning Reflections

#### Purpose

As a portion of your personal and professional development, reflections on your learnings and identified development needs are essential. This activity provides you the opportunity to reflect and critically assess your development needs, within the topics of this unit, which will lead to a personal plan of action.

#### Directions

1. Review and reflect on the enabling objectives for this unit from a perspective of your current degree of competencies. The students will be able to:
  - a. Define “mindset.”
  - b. Describe ways to improve thinking processes.
  - c. Identify influences on decision-making.
  - d. Describe models for decision-making.
2. From your above reflections, class dialogue, activities and personal notes from this unit, what knowledge, skills and abilities do you currently hold that support you achieving these objectives? How are you maintaining an effective degree of competency in these areas? Be specific. Use additional paper as needed.

---

---

---

---

---

3. From the above reflections, what knowledge, skills and abilities are you, personally and professionally, **most in need of developing** in order to apply the unit objectives? Be specific. Use additional paper as needed.

---



---

---

---

---

**VII. SUMMARY**

|   |  |   |
|---|--|---|
| <br>FEMA | <h2 style="text-align: center;">SUMMARY</h2> <ul style="list-style-type: none"><li>• Mindset.</li><li>• Thinking processes.</li><li>• Influences on thinking and decision-making.</li><li>• Decision-making styles.</li><li>• Characteristics of effective decision-makers.</li><li>• Decision-making principles.</li></ul> <p style="text-align: right; font-size: small;">Slide 1-44</p> | <br>U.S. Fire Administration |
|---|--|---|

---

---

---

---

---

---

---

---

---

---

This page intentionally left blank.

## REFERENCES

- Ariely, Dan. (2008). *Are we in control of our own decisions?* [Video file]. TED Talks. Retrieved from [www.ted.com/talks/dan\\_ariely\\_asks\\_are\\_we\\_in\\_control\\_of\\_our\\_own\\_decisions?utm\\_source=tedcomshare&utm\\_medium=email&utm\\_campaign=tedsread](http://www.ted.com/talks/dan_ariely_asks_are_we_in_control_of_our_own_decisions?utm_source=tedcomshare&utm_medium=email&utm_campaign=tedsread)
- Burkus, D. (2013). *The myths of creativity: The truth about how innovative companies and people generate great ideas*. San Francisco: Jossey-Bass.
- Deci, E. L. (1975). *Intrinsic Motivation*. New York: Plenum Press.
- Emdin, C. (2013). *Teach teachers how to create magic* [Video file]. TED.com. Retrieved from [https://www.ted.com/talks/christopher\\_emdin\\_teach\\_teachers\\_how\\_to\\_create\\_magic](https://www.ted.com/talks/christopher_emdin_teach_teachers_how_to_create_magic)
- Grant, A. (2016). *The surprising habits of original thinkers* [Video file]. TED.com. Retrieved from [http://www.ted.com/talks/adam\\_grant\\_the\\_surprising\\_habits\\_of\\_original\\_thinkers](http://www.ted.com/talks/adam_grant_the_surprising_habits_of_original_thinkers)
- Kahneman, Daniel. (2011). *Thinking, fast and slow*. New York: Farrar, Strauss and Giroux.
- Leadbeater, C. (2005). *The era of open innovation* [Video file]. TED.com. Retrieved from [https://www.ted.com/talks/charles\\_leadbeater\\_on\\_innovation](https://www.ted.com/talks/charles_leadbeater_on_innovation)
- Levitin, D. (2014). *The organized mind: Thinking straight in the age of information overload*. Dutton.
- Marvin, Philip. (1971). *Developing decisions for action*. Homewood: Dow Jones-Irwin.
- Moser, J. S., Most, S. B., & Simons, R. F. (2010). Increasing negative emotions by reprisal enhances subsequent cognitive control: A combined behavioral and electrophysiological study. *Cognitive, Affective, and Behavioral Neuroscience*, 10 (2), 195-207.
- Syed, M. (2015). *Black box thinking: The surprising truth about success*. John Murray.
- The benefits of a creative workplace [Blog post]. Retrieved from [http://www.bestpracticeconsulting.com.au/\\_blog/Articles/post/Fostering\\_creativity\\_in\\_the\\_workplace/](http://www.bestpracticeconsulting.com.au/_blog/Articles/post/Fostering_creativity_in_the_workplace/)
- Vroom, V., & Jago, A. (1988). *The new leadership: Managing participation in organizations*. Pearson.

This page intentionally left blank.

## **UNIT 2: THINK IMAGINATIVELY, ACT CREATIVELY**

### **TERMINAL OBJECTIVE**

*The students will be able to:*

- 2.1 *Articulate techniques for fostering an environment of creativity and innovation.*



### **ENABLING OBJECTIVES**

*The students will be able to:*

- 2.1 *Initiate processes for thinking creatively and imaginatively.*
  - 2.2 *Examine the relationship between leadership and imagining, creating and innovating.*
  - 2.3 *Describe how creativity leads to change.*
  - 2.4 *Identify ways to foster creative thought.*
  - 2.5 *Examine strategies for creating innovative ideas.*
  - 2.6 *Identify effective techniques of persuasion and influence to sell new ideas.*
-

This page intentionally left blank.



 FEMA  U.S. Fire Administration

---

**UNIT 2:  
THINK IMAGINATIVELY,  
ACT CREATIVELY**

Slide 2-1

---

---

---

---

---

---

---

---

---

---

---

---

**TERMINAL OBJECTIVE**

---

Articulate techniques for fostering an environment of creativity and innovation.

Slide 2-2

---

---

---

---

---

---

---

---

---

---

---

---

**ENABLING OBJECTIVES**

---

- Initiate processes for thinking creatively and imaginatively.
- Examine the relationship between leadership and imagining, creating and innovating.
- Describe how creativity leads to change.
- Identify ways to foster creative thought.
- Examine strategies for creating innovative ideas.
- Identify effective techniques of persuasion and influence to sell new ideas.

Slide 2-3

---

---

---

---

---

---

---

---

---

---

---

---

This page intentionally left blank.

## ACTIVITY 2.1

### Wanna Make a Buck, Inc.

#### Purpose

Initiate processes for thinking creatively and imaginatively.

#### Directions

1. You are members of the Product Design Unit of the globally renowned Wanna Make a Buck, Inc.
2. Your team has been assigned a specific item and advised of the following by corporate stockholders:

Your assigned product has been sitting on the Wanna Make a Buck, Inc. warehouse shelves for an extended period of time. Stockholders are not happy, given the original design and production cost for the item. Cost recovery is essential. Your team has been given the task of taking the item and repurposing it. The repurpose must be feasible and meet a genuine need. The team must also come up with a rebranding proposal to include a new name and a three to five word sales slogan. The stockholders are expecting something creative, innovative and original. If the item does not get off the shelves, Wanna Make a Buck, Inc. may be forced to downsize, and the word is that your unit is on the cut list.


3. Your team has 10 minutes to address the problem. At the conclusion, one member of the team must make a brief presentation to the stockholders with the team's idea.

This page intentionally left blank.

I. IMAGINATION, CREATIVITY AND INNOVATION

**IMAGINATION, CREATIVITY AND INNOVATION**

- Imagination.
  - Seeing the impossible or unreal.
  - Dreams.
- Creativity.
  - Uses imagination to manifest the potential of existing ideas in order to create new ideas.
  - Reality.



Slide 2-5

---

---

---

---

---

---

---

---

---

---

A. Imagination.

1. Seeing the impossible or unreal.
2. Dreams.

B. Creativity.

1. Uses imagination to manifest the potential of existing ideas in order to create new ideas.
2. Reality.

**IMAGINATION, CREATIVITY AND INNOVATION (cont'd)**

- Innovation.
  - Improving existing or reliable systems.
  - Combining imagination and creativity.



Slide 2-6

---

---

---

---

---

---

---

---

---

---

C. Innovation.

1. Improving existing or reliable systems.
2. Combining imagination and creativity.

This page intentionally left blank.

## ACTIVITY 2.2

### Imagination, Creativity and Innovation in Leadership

#### Purpose

Examine the relationship of leadership to imagining, thinking and creating.

#### Directions

1. You will work in your assigned groups.
2. Each assigned group will be given one of the scenarios listed below.
3. Using a group imagination-and-creativity process, each assigned group will address the situation in a designated scenario.
4. Each group will document their results on an easel pad.
5. One person from each assigned group will present the findings and solutions to the given scenario.

#### Scenarios

Group 1: You decide to enter a “create a new candy bar” contest. Rules require that it not be like any existing candy bar. What would be in your ultimate candy bar? What would you call your new candy bar?

Group 2: Walt Disney World called, and they’re looking for some new ride and attraction ideas. They do not want a modification of what they currently have. It must appeal to all ages. What would you suggest? Why would your suggestion be the “one” that Disney would choose.

Group 3: McDonald’s corporate office is looking for a new and innovative design for the drive-through design at their restaurants that could be used in both the United States and Australia. They need efficiency, fast customer service and safety. What would suggest they do? Why?

Group 4: The government has asked you to come up with a new holiday that will be celebrated by everyone in the country. What would you name that holiday, and what day would you choose? Why did you choose that name and day?

Group 5: If you could invent a virtual reality program that would place you in the scene of your choice at any point in time, what would the scene be and why?

This page intentionally left blank.



II. CREATIVITY

VIDEO PRESENTATION

“THE EUREKA MYTH”

<https://www.youtube.com/watch?v=g1WacRpm96Q>

Slide 2-8

---

---

---

---

---

---

---


---

---

---

CREATIVITY

- The ability to produce original ideas or products.
- Debunking the myths of creativity.
  - Myth 1 — The Eureka Myth.
  - Myth 2 — The Breed Myth.
  - Myth 3 — The Originality Myth.
  - Myth 4 — The Expert Myth.
  - Myth 5 — The Incentive Myth.



Slide 2-9

---

---

---

---

---

---

---

---

---

---

- A. The ability to produce original ideas or products.
- B. Debunking the myths of creativity.
  1. Myths are stories that are not true. But over time ... myths seem real and become true ... even if they are not true.
  2. Myth 1 — The Eureka Myth.

The notion that creativity happens in an instant flash, or that the creative notion was brought to us by an outside force: “...it just came to me all of a sudden.”

The Truth.

Creativity requires a time of incubation. This is the time in which ideas and relevant understandings manifest themselves and linger in our subconscious. Some creative practitioners actually schedule time away from a project to give the conscious thinking process a break.

3. Myth 2 — The Breed Myth.

Outstandingly creative individuals are a certain type.

The Truth.

There is no scientific evidence that offers proof that a creative gene or personality type exists. Everyone has the same ability to generate creative ideas. Some of the world's most innovative companies purposely make creativity a part of everyone's job.

4. Myth 3 — The Originality Myth.

As a creative idea emerges, it is an original idea that departs from the previous or traditional way of thinking.

The Truth.

All new or creative ideas are developed from a combination of ideas that originate from a variety of sources. Creativity is about making connections with existing sources. For example: Star Wars = Sci-fi characters + Samurai warriors.

5. Myth 4 — The Expert Myth.

Challenging creative tasks should be handled by the person with the most expertise.

The Truth.

A measure of expertise does matter. However, the most creative solutions come from those individuals who only border on knowing the specifics about the organization or technical aspects of an environment. These persons know just enough to understand the subjects ... but lack the perceived understandings and knowledge that inherently block their creative thought. Research implies that the creative levels of most individuals in an organization peak moderately early in their career. From that point onward, there is a gradual decrease in the creativity. Some organizations counter this by moving personnel throughout the organization to keep the creative stimulation active.

6. Myth 5 — The Incentive Myth.

If you want something done, you should measure it. If you want something done well, you should incentivize it.


The Truth.

This common management practice loses its effectiveness when something that needs to be done requires a level of creativity. Extrinsic motivators, like incentive pay, may have a moderate effect on employees, but may also produce negative effects as well. Real creativity is a product of intrinsic motivation. Therefore, for the incentive to have a positive impact, incentive rewards must be aligned with intrinsic desires.

**CREATIVITY (cont'd)**

---

- Myth 6 — The Lone Creator Myth.
- Myth 7 — The Brainstorming Myth.
- Myth 8 — The Cohesive Myth.
- Myth 9 — The Constraints Myth.
- Myth 10 — The Mousetrap Myth.



Slide 2-10

---

---

---

---

---

---

---

---

---

---

7. Myth 6 — The Lone Creator Myth.

Great, creative work happens in isolation.

The Truth.

Real creativity is often referred to as a team sport. Most highly creative ideas are developed from the collaboration of team members. Thomas Edison had a team of around 15 other inventors working alongside him on many of his projects. When we make attempts at creativity in a silo or with the same old team, we are seldom able to truly expose new ideas, thoughts or theories.

8. Myth 7 — The Brainstorming Myth.

Brainstorming is sufficient by itself whenever we are charged with being creative.

The Truth.

Creativity is a process. Most formal creative methods (from creative problem-solving to design thinking) involve a period of rapid idea generation. Additionally, the process requires a time period for ideas to be combined and vetted. In reality, brainstorming serves the purpose of generating a rough list of ideas. The level of creativity hinges on what is done with the list that is created.

9. Myth 8 — The Cohesive Myth.

Creativity is always fun and playful.

The Truth.

The vast majority of innovative organizations and teams build conflict into their creative process. This is effective only when steps are taken to ensure that criticism stays task-focused (and not people-focused). If we revisit the myth of brainstorming, research suggests that efforts are more beneficial when teams debate the various ideas. Some believe that conflict is a genuine sign that new ideas are on the table. And cohesion may imply that there are no new ideas being produced.

10. Myth 9 — The Constraints Myth.

Creativity is constrained by limitations of resources and/or restrictive specifications.

The Truth.

Creativity is highest in constrained environments. Research suggests that individuals who are initially burdened with obstacles and roadblocks are typically more creative after experiencing a constraining environment. Many innovative organizations build limitations into their projects to promote creativity. Constraints seem to force the creation of a desired structure to meet the challenges that are being addressed. Structure yields understanding. Without some level of understanding, there can be no solution. Creativity flourishes under the pressures of constraints.

11. Myth 10 — The Mousetrap Myth.

“If you build a better mousetrap, the world will beat a path to your door.”

The Truth.


Although you may be able to build a better mousetrap, it does not guarantee that the world will find its way to your door. In fact, the world could ignore it all together. History has many stories of innovative productions that were rejected on their debut.

- a. Kodak — the digital camera — never marketed it.
- b. Xerox — the personal computer — handed it off to Apple and Microsoft.
- c. Harry Warner (Warner Brothers) — first saw the technology that allows talking movies and rejected it, saying, “Who the hell wants to hear actors talk?”

**ELEMENTS OF CREATIVITY**

---

- Fluency.
- Flexibility.
- Perspective.
- Originality.
- Awareness.
- Drive.



Slide 2-11

---

---

---

---

---

---

---

---

---

---

C. Elements of creativity.

1. Fluency.

Multiple ideas concerning one topic.

2. Flexibility.

Multiple ideas concerning multiple topics.

3. Perspective.

a. Details.

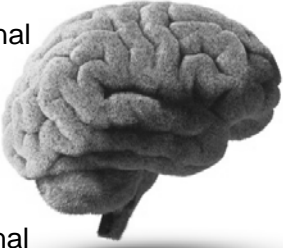
b. Viewpoints.

4. Originality.
  - a. Unique.
  - b. Brainstorming sessions.
5. Awareness.
  - a. See with the mind, as well as the eyes.
  - b. Ability to see the possibilities, not just reality.
6. Drive.
  - a. Willingness to try and try again.
  - b. Perseverance.

**BENEFITS OF CREATIVITY**

---

- Enhances teamwork.
- Increases organizational engagement.
- Increases organizational interaction.
- Stimulates morale.
- Promotes organizational problem-solving.
- Improves productivity.



Slide 2-12

---

---

---

---

---

---

---

---

---

---

- D. Benefits of creativity.
1. Enhances teamwork.
  2. Increases organizational engagement.
  3. Increases organizational interaction.
  4. Stimulates morale.
  5. Promotes organizational problem-solving.
  6. Improves productivity.

## ACTIVITY 2.3

### Alternatives

#### Purpose

Describe how creativity leads to change.

#### Directions

1. You will be divided into small groups (not exceeding seven people).
2. Each group is assigned a specific problem to address.
3. Elect a representative.
4. Collectively identify a creative solution to resolve its specific problem.
5. Creatively resolve how to achieve the solution.
6. Identify and address any anticipated constraints and roadblocks.
7. Each group representative will report on the group outcomes.

#### Current Situations — Problems

1. You are a fire and Emergency Medical Services (EMS) supervisor within a small fire/EMS department. You have a total of four stations that are responsible for 135 square miles of territory. Each station is equipped with an engine (pumper). One of the stations has an aerial ladder truck. Two other stations are equipped with a rescue (ambulance). The call load in the department has been on a steady increase of 20 percent over the last two years, and projections for continued community growth are solid. It is very clear that, because of previous city financial issues, there are no anticipated resources for additional stations or personnel for at least five years. The chief has asked your crew for ideas on what to do in the interim.

---

---

---

2. You are a recently hired safety officer with the responsibility of developing and implementing your department's safety management program. Following a recent accident that involved one of your department's units, it was determined that no one involved had been wearing a seat belt. Despite the current seat belt policy, occasional visual inspections have revealed that the problem is departmentwide. You have even noted the chief not wearing a seat belt.

---

---

---

3. During a recent course at the National Fire Academy (NFA), you came across literature that implied that 59 percent of all firefighter fatalities in 2015 were attributed to overexertion/stress/medical (National Fire Protection Association (NFPA), 2016). Fifty-one percent of these firefighter fatalities were attributed to sudden cardiac arrest. Previous efforts to bring a physical fitness and annual medical exam to the department have fallen on deaf ears.

---

---

---

4. You are a fire and EMS supervisor with a crew of seven fire/EMS personnel. All are highly-motivated achievers and meticulous at their specific duties. You notice that two of the personnel are constantly engaged in conflict. The conflicts have now escalated to the point at which physical separation has taken place in a couple of instances. You really desire to keep the crew together as they are the best you have ever worked with.

---

---

---

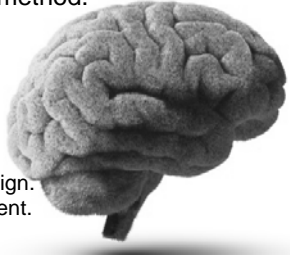


III. FOSTERING CREATIVITY

**FOSTERING CREATIVITY**

---

- Intellectual challenge.
- Freedom to choose the method.
- Supporting resources.
  - Time.
  - Avoidance of unrealistic deadlines.
  - Money.
  - Personnel.
  - Effective work-group design.
  - Leadership encouragement.
  - Organizational support.



Slide 2-14

---

---

---

---

---

---

---

---

---

---

- A. Intellectual challenge.
  - 1. Match the correct people with the appropriate problem-solving task.
  - 2. Promote intrinsic motivation.
  - 3. Manage the challenge (boredom versus feeling overwhelmed).
  
- B. Freedom to choose the method.
  - 1. Employees tend to be most creative with freedom.
  - 2. Management can set goals, but teams should be allowed to determine the method of achieving the goal.
  - 3. Stable goals are easier than having employees try to hit a moving target.
  
- C. Supporting resources.
  - 1. Time.
  - 2. Avoidance of unrealistic deadlines.
  - 3. Money.
  - 4. Personnel.
  - 5. Effective work-group design.
    - a. Diversity is important.

- b. Mixed experiences produce great work.
  - c. Homogenous experiences mean that people argue less, but homogeneity may reduce creativity.
6. Leadership encouragement.
- a. Leadership must establish and maintain a safe atmosphere.
  - b. Allow employees to challenge assumptions and opinions of the leader.
  - c. Recognize and praise creative work.
  - d. Creativity should be evaluated quickly rather than through the slower review process.
7. Organizational support.
- a. Encourage information collaboration.
  - b. Promote intrinsic motivation.
  - c. Focus team toward creativity rather than focusing it on the limitations of politics.

## ACTIVITY 2.4

### Fostering Creativity

#### Purpose

Identify ways to foster creative thought.

#### Directions

1. As a large group, view the 15-minute TED Talks video “Adam Grant: The surprising habits of original thinkers” ([http://www.ted.com/talks/adam\\_grant\\_the\\_surprising\\_habits\\_of\\_original\\_thinkers](http://www.ted.com/talks/adam_grant_the_surprising_habits_of_original_thinkers)).
2. After the video, individually document your observations and develop answers to the following:
  - a. As a fire and EMS supervisor, what specific new ways can you deploy to foster creativity in your own team, group or organizations?

---

---

---

- b. What challenges do you perceive you may face trying to be more creative?

---

---

---

3. Be prepared to present your answers to the class.

This page intentionally left blank.

IV. SEVEN STRATEGIES FOR CREATING INNOVATION

**SEVEN STRATEGIES FOR CREATING INNOVATION**

---

- Establish a clear sense of direction.
- Open communication.
- Reduce bureaucracy.
- Instill a sense of ownership.
- Maintain constant recognition and rewards.



Slide 2-17

---

---

---

---

---

---

---

---

---

---

- A. Establish a clear sense of direction.
1. When organizations try changing cultures, the process always involves changing people’s minds.
  2. Our organization’s vision and mission help to organize and direct the creativity of our people.
  3. Having a clearly-articulated vision and mission allows everyone to focus on innovation where it can deliver the greatest value.
  4. Innovation, as Peter Drucker has defined it, means creating a new dimension of performance (2002).
  5. A visible and clear sense of vision and mission will clarify the direction of the organization’s performance and help determine which new innovative ideas to focus on.
- B. Open communication.
1. Open communication between management and employees creates the foundation for an atmosphere of fostering trust in your organizations.
  2. Fire and EMS leaders can initiate the process of fostering open communication by sharing information with employees on a regular basis. This will eliminate the culture of “grapevine” rumors.
  3. Fire and EMS leaders in growth-mindset organizations will foster and sustain innovation that offers an environment with multiple opportunities for open communication.

C. Reduce bureaucracy.

It's not the size of your fire and EMS organization that fosters a culture that inhibits innovation — it's the systems in place that we adopt that inhibit innovation. Bureaucracy — the organizational culture and systems that we put in place — slows down actions of our innovative staff and is a serious impediment to innovation.

D. Instill a sense of ownership.


1. Fire and EMS leaders that foster an organizational culture characterized by a philosophy of employee ownership on the part of its personnel will create a powerful new incentive for open and free inventive thinking.
2. When fire and EMS personnel are clearly aware of how their interests are aligned with those of the organization, they have a strong reason to go the extra mile to meet the desired vision and to further the organizational mission.
3. When fire and EMS personnel don't see how their individual efforts affect the organization in any way, they tend to be passive and reactive.
4. This can start a culture and process of employee disengagement.

E. Maintain constant recognition and rewards.

1. Fire and EMS organizations that successfully foster and implement an innovative culture design rewards that reinforce the desired organizational culture they want to establish.
2. If your fire and EMS service organization values integrated team solutions, your organization should not compensate team leaders based on unit performance.
3. If your fire and EMS organization values development of potential new leaders, the organization cannot base rewards on short-term performance.

**SEVEN STRATEGIES FOR CREATING INNOVATION (cont'd)**

- Develop a tolerance for risk and failure.
- Eliminate projects and processes that don't work.



Slide 2-18

---

---

---

---

---

---

---

---

---

---

- F. Develop a tolerance for risk and failure.
1. Fire and EMS organizations that foster a culture of tolerating a certain degree of failure demonstrate that tolerating failure encourages innovation.
  2. Innovation can be a process of risk.
  3. Fire and EMS personnel will not take certain risks unless they understand the organization vision, mission and goals clearly.
- G. Eliminate projects and processes that don't work.
1. As your fire and EMS organization fosters and implements a culture of innovation, the organization needs to adopt the practice of what Peter Drucker calls "creative abandonment" (2002).
  2. Fire and EMS projects, processes, policies and procedures that no longer contribute should be abandoned to make room for new, progressive activities that meet and enhance the overall organizational vision and mission. (Is this our culture of history and tradition?)
  3. An organizational culture of innovation requires a philosophy of optimism.
  4. The culture fosters an organizationwide attitude of continually reaching for higher performance.
  5. Fire and EMS organizations cannot expect their personnel to maintain an optimistic attitude if those personnel feel compelled to continue activities that are going nowhere or have no defined purpose.

This page intentionally left blank.



## ACTIVITY 2.5

### Seven Strategies for Creating Innovation

#### Purpose

Examine strategies for creating innovative ideas.

#### Directions

1. You will work in your assigned groups.
2. You will be instructed to develop a new firefighting or EMS piece of equipment. You will design the equipment, the look of the equipment, and the stated purpose of the equipment (the development team/students will draw their proposed new piece of fire and EMS equipment on an easel pad).
3. You will apply the educational concepts of the “Seven Strategies for Creating Innovation”:
  - a. Did the development team establish a clear sense of direction for the new equipment?
  - b. Was open communication used throughout the innovation process?
  - c. Did the development team reduce the bureaucracy of developing and implementing the new piece of equipment?
  - d. Did the team members have a sense of ownership while developing the new piece of equipment?
  - e. Did the team foster and maintain an appropriate and constant recognition and rewards process while developing the new piece of equipment?
  - f. Did the development team embrace the philosophy of tolerance for risk and failure of proposed ideas?
  - g. Will this new piece of equipment allow the development team to eliminate projects and processes that do not work?
4. You will reflect on and document your responses to the above questions on an easel pad.
5. One member of the development team/group will present your documented findings to the class. There will be a student-facilitated discussion.

This page intentionally left blank.

V. TECHNIQUES OF PERSUASION AND INFLUENCE

**TECHNIQUES OF PERSUASION AND INFLUENCE**

---

- “Persuasion — to sway the opinion of others, make people believe certain information, or motivate a decision.”  
Socialmediatoday

Slide 2-20

---

---

---

---

---

---

---

---

---

---

A. Persuasion is presenting a case in such a way as to sway the opinion of others, make people believe certain information, or motivate a decision.

**TECHNIQUES OF PERSUASION AND INFLUENCE (cont'd)**

---

- “Influence — a vision of the optimum outcome and then, without using force or coercion, motivating people to work together toward making the vision a reality.”  
Socialmediatoday

Slide 2-21

---

---

---

---

---

---

---

---

---

---

B. Influence is having a vision of the optimum outcome for a situation or organization and without using force or coercion, motivating people to work together toward making the vision a reality.

C. Persuasion can be used to spur someone to action or to make a decision without actually earning their sincere buy-in. With influence, dedicating time to win someone’s heart or earn mindshare is a prerequisite to the process of inspiring them to take action or make a particular decision.

D. However, many people make the mistake of thinking that persuasion and influence are the same thing. That, my friends, is far from the truth. Yes, they are both a means to an end and many times they involve swaying opinions.

**TECHNIQUES OF PERSUASION AND INFLUENCE (cont'd)**

---

- “There is one thing that influence has and uses, that persuasion does not use, and that is your reputation.” Karen Keller

Slide 2-22

---

---

---

---

---

---

---

---

---

---

---

---

But, there is one thing that influence has and uses, that persuasion does not use, and that is your reputation.

**VIDEO PRESENTATION**

---

“HEAR YES! MORE OFTEN WITH THE SCIENCE OF INFLUENCE”

[https://www.youtube.com/watch?v=6pxm8ziST\\_A](https://www.youtube.com/watch?v=6pxm8ziST_A)

Slide 2-23

---

---

---

---

---

---

---

---

---

---


---

---

**TECHNIQUES OF PERSUASION AND INFLUENCE (cont'd)**

---

- Reciprocation.
- Social proof.
- Commitment and consistency.
- Liking.
- Authority.
- Scarcity.



Slide 2-24

---

---

---

---

---

---

---

---

---

---

---

---

E. Techniques of persuasion and influence.

1. Reciprocation.

People want to give back when something has been received.

2. Social proof.

Watching what others are doing.

3. Commitment and consistency.

a. People don't like to back out of deals.

b. They prefer to do what is already being done.

4. Liking.

Yes, to those they know and like.

5. Authority.

Follow the lead of the expert.

6. Scarcity.

Wants that which is least available.

F. Getting to "yes."

**GETTING TO YES**

---

- The problem:
  - Do not bargain over positions.
- The method:
  - Separate the people from the problem.
  - Focus on interests, not positions.
  - Invent options for mutual gain.
  - Insist on using objective criteria.

Slide 2-25

---

---

---

---

---

---

---

---

---

---

1. The problem:  
Do not bargain over positions.
2. The method:
  - a. Separate the people from the problem.
  - b. Focus on interests, not positions.
  - c. Invent options for mutual gain.
  - d. Insist on using objective criteria.

### GETTING TO YES (cont'd)

---

- Yes, but ... :
  - What if they are more powerful?
  - What if they don't play?
  - What if they use dirty tricks?

A firefighter in full gear stands with arms raised, holding a white rectangular sign that says "YES!". The firefighter is wearing a helmet, a jacket with reflective stripes, and pants with reflective stripes. The sign is held high above the firefighter's head.

Slide 2-26

---

---

---

---

---

---

---

---

---

---

3. Yes, but ... :
  - a. What if they are more powerful?
  - b. What if they don't play?
  - c. What if they use dirty tricks?

## ACTIVITY 2.6

### Techniques of Persuasion and Influence

#### Purpose

Identify effective techniques of persuasion and influence to sell new ideas.

#### Directions

1. Refer to Activity 2.5.
2. Using the educational concepts of self-reflection and self-discovery, examine the learning process of developing the innovative new piece of fire and EMS equipment.
3. During the team process and analysis, answer the following questions:
  - a. Was the power of persuasion used?
  - b. Was it used effectively?
  - c. Who used the power most?
  - d. How does your organization use the power of persuasion? Is it a positive or negative experience and culture?
  - e. Who had the power of influence on the team, and how was it used?
  - f. Was the power of influence used appropriately, or was it simple peer pressure?
  - g. What techniques of persuasion were used appropriately or inappropriately?
    - Reciprocation.
    - Social proof.
    - Commitment and consistency.
    - Liking.
    - Authority and who had it or exercised it.
    - Scarcity.

4. Were any of the concepts of “Getting to Yes” applied?

a. The problem:

Do not bargain over positions.

b. The method:

- Separate the people from the problem.

- Focus on interests, not positions.

- Invent options for mutual gain.

- Insist on using objective criteria.

c. Yes, but ... :

- What if they are more powerful?

- What if they don't play?

- What if they use dirty tricks?

5. You will share your reflections with the group.

One group member will volunteer to share their reflections with the class.



## ACTIVITY 2.7

### Unit 2 Learning Reflections

#### Purpose

As a portion of your personal and professional development, reflections on your learnings and identified development needs are essential. This activity provides you the opportunity to reflect and critically assess your development needs, within the topics of this unit, which will lead to a personal plan of action.

#### Directions

1. Review and reflect on the enabling objectives for this unit from a perspective of your current degree of competencies. The students will be able to:
  - a. Initiate processes for thinking creatively and imaginatively.
  - b. Examine the relationship between leadership and imagining, creating and innovating.
  - c. Describe how creativity leads to change.
  - d. Identify ways to foster creative thought.
  - e. Examine strategies for creating innovative ideas.
  - f. Identify effective techniques of persuasion and influence to sell new ideas.
2. From your above reflections, class dialogue, activities and personal notes from this unit, what knowledge, skills and abilities do you currently hold that support you achieving these objectives? How are you maintaining an effective degree of competency in these areas? Be specific. Use additional paper as needed.

---

---

---

---

---

3. From the above reflections, what knowledge, skills and abilities are you, personally and professionally, **most in need of developing** in order to apply the unit objectives? Be specific. Use additional paper as needed.

---



---

---

---

---

## VI. SUMMARY

|   |  |   |
|---|--|---|
| <br>FEMA | <h3>SUMMARY</h3> <ul style="list-style-type: none"><li>• Imagination, creativity and innovation.</li><li>• Creativity.</li><li>• Fostering creativity.</li><li>• Seven Strategies for Creating Innovation.</li><li>• Techniques of persuasion and influence.</li></ul> | <br>U.S. Fire Administration |
|---|--|---|

Slide 2-29

---

---

---

---

---

---

---

---

---

---

---

This page intentionally left blank.

## REFERENCES

- Burkus, D. (2013). *The myths of creativity: The truth about how innovative companies and people generate great ideas*. Jossey-Bass.
- Burkus, D. (2014). *The eureka myth* [Video file]. Retrieved from <https://www.youtube.com/watch?v=g1WacRpm96Q>
- Burstein, J. (2012, Feb.). *4 lessons in creativity* [Video file]. TED Talks. Retrieved from [www.ted.com/talks/Julie\\_burstein\\_4\\_lessons\\_in\\_creativity](http://www.ted.com/talks/Julie_burstein_4_lessons_in_creativity)
- Cialdini, R. (2006). *Influence: The psychology of persuasion, revised edition*. Harper Business.
- DeFalco, N. (2009). Influence vs. persuasion: A critical distinction for leaders. *Social Media Today*. Retrieved from <http://www.socialmediatoday.com/content/influence-vs-persuasion-critical-distinction-leaders>
- Drucker, Peter. (2002, August). The discipline of innovation. *Harvard Business Review*. Retrieved from <https://hbr.org/2002/08/the-discipline-of-innovation>
- Dunmire, C. (2004). The four steps of creativity. *Creativity Portal*. (2004). Retrieved from <http://www.creativity-portal.com/bc/four.steps.of.creativity.html>
- Grant, A. (2016). *The surprising habits of original thinkers* [Video file]. TED Talks. Retrieved from [http://www.ted.com/talks/adam\\_grant\\_the\\_surprising\\_habits\\_of\\_original\\_thinkers](http://www.ted.com/talks/adam_grant_the_surprising_habits_of_original_thinkers)
- Karlsberg, R., & Adler, J. (n.d.). 7 Strategies for sustained innovation. *Innovation Management*. Retrieved from <http://www.innovationmanagement.se/imtool-articles/7-strategies-for-sustained-innovation/>
- Keller, K. (n.d.). The difference between influence and persuasion [Blog post]. *Karen-Keller*. Retrieved from <http://www.karen-keller.com/content/difference-between-influence-and-persuasion>
- Norris, Dan. (2013). *Hear yes! More often with the science of influence* [Video file]. Retrieved from [https://www.youtube.com/watch?v=6pxm8ziST\\_A](https://www.youtube.com/watch?v=6pxm8ziST_A)
- Polanski, T. (n.d.). *Dr. Robert Cialdini and 6 principles of persuasion*. Retrieved from [http://www.influenceatwork.com/wp-content/uploads/2012/02/E\\_Brand\\_principles.pdf](http://www.influenceatwork.com/wp-content/uploads/2012/02/E_Brand_principles.pdf)
- Teller, A. (2016). *The unexpected benefit of celebrating failure* [Video file]. TED Talks. Retrieved from [https://www.ted.com/talks/astro\\_teller\\_the\\_unexpected\\_benefit\\_of\\_celebrating\\_failure](https://www.ted.com/talks/astro_teller_the_unexpected_benefit_of_celebrating_failure)

This page intentionally left blank.

# **UNIT 3: THINK ANALYTICALLY, POLITICALLY AND CRITICALLY**

## **TERMINAL OBJECTIVE**

*The students will be able to:*

- 3.1 *Create a personal plan as a supervisor and leader in fire and Emergency Medical Services (EMS) based on the thinking perspectives presented in this course.*



## **ENABLING OBJECTIVES**

*The students will be able to:*

- 3.1 *Differentiate between analytical, political and critical thinking.*
  - 3.2 *Apply force field analysis as an aid to diagnosing a problem.*
  - 3.3 *Identify the supervisor's role in identifying and solving problems.*
  - 3.4 *Describe advantages and disadvantages of individual and group problem identification.*
  - 3.5 *Describe brainstorming and Nominal Group Technique (NGT) as methods to identify problems.*
  - 3.6 *Describe four methods by which problems are solved.*
  - 3.7 *Outline the critical steps in problem-solving.*
  - 3.8 *Identify examples of integrated analytical, political and critical thinking to solve problems.*
  - 3.9 *Explain how to use influence to change perspectives in thinking.*
-

This page intentionally left blank.



 FEMA  U.S. Fire Administration

---

**UNIT 3:  
THINK ANALYTICALLY,  
POLITICALLY AND  
CRITICALLY**

Slide 3-1

---

---

---

---

---

---

---

---

---

---

---

---

**TERMINAL OBJECTIVE**

---

Create a personal plan as a supervisor and leader in fire and Emergency Medical Services (EMS) based on the thinking perspectives presented in this course.

Slide 3-2

---

---

---

---

---

---

---

---

---

---

---

---

**ENABLING OBJECTIVES**

---

- Differentiate between analytical, political and critical thinking.
- Apply force field analysis as an aid to diagnosing a problem.
- Identify the supervisor's role in identifying and solving problems.

Slide 3-3

---

---

---

---

---

---

---

---

---

---

---

---

### ENABLING OBJECTIVES (cont'd)

- Describe advantages and disadvantages of individual and group problem identification.
- Describe brainstorming and Nominal Group Technique (NGT) as methods to identify problems.
- Describe four methods by which problems are solved.

Slide 3-4

---

---

---

---

---

---

---

---

---

---

### ENABLING OBJECTIVES (cont'd)

- Outline the critical steps in problem-solving.
- Identify examples of integrated analytical, political and critical thinking to solve problems.
- Explain how to use influence to change perspectives in thinking.

Slide 3-5

---

---

---

---

---

---

---

---

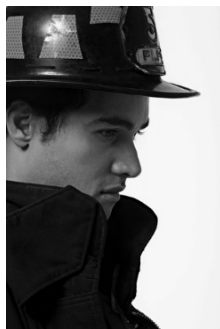
---

---

## I. THINKING ANALYTICALLY, POLITICALLY AND CRITICALLY

### THINKING ANALYTICALLY, POLITICALLY AND CRITICALLY

- Analytical thinking.
  - Breaking down complex information or situations into manageable parts using a focused, streamlined approach.



Slide 3-6

---

---

---

---

---

---

---

---

---

---

A. Analytical thinking.

1. Breaking down complex information/situations into manageable parts using a focused, streamlined approach.
2. Dividing a subject into elemental portions or basic principles.

**STEP BY STEP**

---

- Define.
- Identify.
- Gather.
- Analyze.
- Develop.

Slide 3-7

---

---

---

---

---

---

---

---

---

---

3. Step-by-step process to determine cause and effect using various perspectives.
  - a. Define the problem.
  - b. Identify the hypothesis.
  - c. Gather the facts.
    - Support the train of thought.
    - Support conclusions that will be drawn.
  - d. Analyze the data.
  - e. Develop solution or conclusion.
4. Use facts to support conclusion.
5. Consider pros and cons.
6. Scrutinize strengths and weaknesses.

THINKING ANALYTICALLY, POLITICALLY AND CRITICALLY (cont'd)

- Political thinking.
  - Directing attention toward agents of reform.
  - Broadened investments to mitigate problems.



Slide 3-8

---

---

---

---

---

---

---

---

---

---

B. Political thinking.

1. Directing attention toward agents of reform (e.g., leaders, regulators, etc.).

People have the potential to influence change, but always within the context of given institutional opportunities or limitations.

2. Thinking politically allows for broadened investment in processes that will mitigate problems.
  - a. Leaders seldom work alone.
  - b. It is necessary to mobilize resources in support of a goal.
3. An understanding that both political and technical dimensions are central to developmental outcomes.
4. Addresses collective action by engaging appropriate alliances that will propel developmental outcomes.
5. Diverse people will often have competing interests and struggle with agreeing on something that benefits all.
6. Political thinking is the systematic study of the origins or sources of our ideas (ideology).
  - a. How you answer specific questions regarding your political feelings determines your ideology, to some extent.
  - b. An ideology provides a criterion and a standard of evaluation for deciding right and wrong, good and bad.

- c. An ideology orients people, allowing the individual to have a sense of who they are and where they belong.

**THINKING ANALYTICALLY, POLITICALLY  
AND CRITICALLY (cont'd)**

---

- Critical thinking.
  - Opinion-based style of thinking that is specific to the individual.
  - Careful, exact evaluation and judgment.

Slide 3-9

---

---

---

---

---

---

---

---

---

---

- C. Critical thinking.
  - 1. Opinion-based style of thinking that is specific to the individual.
  - 2. Careful, exact evaluation and judgment.
    - a. Based on the facts of the situation.
      - Emotions are removed.
      - Neutral territory.
    - b. New information is combined with current knowledge to make the most accurate assessment.
      - Tests or examines the value of the subject.
      - Not always negative or harsh.
      - Allows for a suitable background to appreciate the subject.
    - c. Can be a repetitive and indefinite process.
  - 3. Conversations are objective, thorough and incisive.
    - a. They are intended to be reflective in nature and to point out benefits and weaknesses in the propositions, arguments and results of the issue under review.

- b. They examine assumptions, discern hidden values, evaluate evidence, and assess conclusions.
- c. Critical thinking encourages the individual to explore and investigate the assumptions, biases and end results of the decisions of another, regardless of the position of the individual within the society.

**CHARACTERISTICS OF  
CRITICAL THINKERS**

---

- Sufficiency.
- Relevance.
- Reliability.
- Consistency.
- Recency.
- Access.
- Objectivity.

Slide 3-10

---

---

---

---

---

---

---

---

---

---

---

---

- 4. Petress (2004) — characteristics of a critical thinker.
  - a. Sufficiency: The thinker rates the evidence, based on the fact that there are adequate supporting arguments for the propositions and arguments made.
  - b. Relevance: The thinker rates the evidence presented by its pertinence to the issues at hand.
  - c. Reliability: The supporting arguments have a good track record.
  - d. Consistency: The supporting elements are internally and externally consistent with each other and with what we know from other experiences, observations and sources. In other words, we have enough information to make a good analysis and evaluation of the issue under review.
  - e. Recency: The supporting elements are current, rather than out-of-date.
  - f. Access: Supporting materials are open for receivers' verification.
  - g. Objectivity: Supporting materials are fair and undistorted or originate from expert sources. The sources of information are fully disclosed and open to scrutiny.

## ACTIVITY 3.1

### Thinking Analytically, Politically and Critically

#### Purpose

Given a scenario, determine the analytical, political and critical considerations.

#### Directions

1. Think about the billboard or advertisement page of any of the popular fire apparatus manufacturers. This advertisement has a great deal of verbiage that boasts about the item's functions, capabilities and ease of use.
2. Being creative in your responses, identify at least three considerations for each of the three kinds of thinkers (analytical, political and critical) relating to the advertisement.  

---

---

---
3. Discuss your responses and rationales.
  - a. For example: The analytical thinker would consider each piece of the manufacturer's advertisement separately (e.g., images, color scheme, capabilities, speed, etc.).
  - b. The political thinker would likely focus on whether or not the advertised vehicle will satisfy an organization's political needs, which are imposed by the community, leadership or regulators (e.g., National Fire Protection Association (NFPA) standards, local manufacturer, historical procurement practices, etc.).
  - c. The critical thinker would likely judge the credibility of the advertisement's various components (e.g., are the seats really made of recycled materials? Is the claimed acceleration accurate with an empty booster-tank? etc.).

This page intentionally left blank.




## II. FORCE FIELD ANALYSIS


### FORCE FIELD ANALYSIS

- Identifies which factors within an organization or situation propel an individual away from or toward a desired state.

DRIVING FORCES



RESTRAINING FORCES



Slide 3-12

---

---

---

---

---

---

---

---

---

---

---

---

- A. Identifies which factors within an organization or situation propel an individual away from or toward a desired state.
- B. An example of force field analysis:
  1. A person is sitting on a bench. This can be labeled as current state. Driving forces (gravity) push the person into the bench, while restricting or restraining forces (the bench) are pushing back and keeping the person off the ground.
  2. If we are seeking to change the current state of sitting on the bench, then we must identify what needs to happen to influence change. We can increase the driving force (gain weight) to overwhelm the capability of the bench's ability to hold the person.
  3. We may also choose to decrease the restraining force by removing one or more of the bench's legs or other structural components and decreasing its ability to restrict or restrain. Most may choose to eliminate the restraining force entirely by simply removing the bench altogether to achieve the goal.
  4. As the bench example shows, when driving forces are stronger than restraining forces, the status quo or current state will change.

**FORCE FIELD ANALYSIS**  
(cont'd)

- Step 1: Define the present situation (the problem) and the desired situation (the goal).
- Step 2: Identify driving forces (factors that will drive you toward reaching your goal).

DRIVING  
FORCES  
→

←  
RESTRAINING  
FORCES

Slide 3-13

---

---

---

---

---

---

---

---

---

---

---

---

C. Step 1: Define the present situation (problem) and the desired situation (the goal).

Example:

1. Problem — I procrastinate in performing my tasks, and I am frequently late.
2. Goal — Complete tasks early.

D. Step 2: Identify driving forces (factors that will drive you toward reaching your goal).

Examples:

1. My supervisor must hold me accountable.
2. If I complete my tasks on time, I will reduce the number of counseling sessions and reprimands.
3. My subordinates don't respect my position.
4. I am concerned that I will eventually lose my job.

### FORCE FIELD ANALYSIS (cont'd)

- Step 3: Identify restraining forces (factors that are contributing to the problem and will pull you away from reaching your goal).
- Step 4: Estimate the relative strength of each driving and restraining force (high, medium or low).

DRIVING FORCES

RESTRAINING FORCES

Slide 3-14

---

---

---

---

---

---

---

---

---

---

---

---

E. Step 3: Identify restraining forces (factors that are contributing to the problem and will pull you away from reaching your goal).

Examples:

1. I do my best work under pressure.
2. I have other requirements.
3. I always finish the super-important things on time.

F. Step 4: Estimate the relative strength of each driving and restraining force (high, medium or low).

Assign the appropriate points: Low = 1; Medium = 2; High = 3.

| Driving Forces |   | T<br>H<br>E<br><br>G<br>O<br>A<br>L |  | Restraining Forces |
|----------------|---|-------------------------------------|--|--------------------|
| High           | → |                                     |  |                    |
| Low            | → |                                     |  | ← Medium           |
|                | → |                                     |  | ←                  |
| Medium         | → |                                     |  | ← High             |
|                | → |                                     |  | ← Low              |

Slide 3-15

---

---

---

---

---

---

---

---

---

---

---

---

**FORCE FIELD ANALYSIS**  
(cont'd)

- Step 5: Estimate your ability to decrease the restraining forces and to capitalize on and/or increase the driving forces.

DRIVING  
FORCES  
→

←  
RESTRAINING  
FORCES

Slide 3-16

---

---

---

---

---

---

---

---

---

---

---

---

- G. Step 5: Estimate your ability to decrease the restraining forces and to capitalize on and/or increase the driving forces.
1. If the driving forces are stronger than the restraining forces, you will probably be able to reach your goal.
  2. If the restraining forces heavily outweigh the driving forces, and if you do not have any possibility of reducing restraining forces, you should probably reconsider your goal because your probability of success is limited.
  3. If driving and restraining forces are about equal, you should resist the temptation to push harder on the driving forces, because the restraining forces will push back even harder. Instead, focus on reducing or eliminating the restraining forces.

## ACTIVITY 3.2

### Force Field Analysis

#### Purpose

Create and apply a force field analysis that diagnoses an identified problem.

#### Directions

1. Working in groups, review the scenario presented by the facilitator.
2. Conduct a force field analysis, and place your work on an easel pad.
3. Identify the desired state (change wanted), and then identify at least three driving forces and at least three restraining forces related to the change.
4. Rate the forces from one to three (three being very significant) to illustrate the levels of drive and restraint.


This page intentionally left blank.

III. SUPERVISOR'S ROLE IN IDENTIFYING AND SOLVING PROBLEMS

**SUPERVISOR'S ROLE**

---

- Supervisor challenges:
  - Deliver service efficiently.
  - Allocating resources (which are often inadequate) to satisfy needs (which are often overwhelming) is one of the greatest challenges a supervisor faces.



Slide 3-18

---

---

---

---

---

---

---

---

---

---


A. Supervisor challenges:

1. The supervisor has primary responsibility for efficient and effective service delivery.
2. To fulfill this responsibility, the supervisor must allocate available resources in an effective manner.
3. Before allocating resources, the supervisor must be sensitive to the needs of the company.

**SUPERVISOR'S ROLE (cont'd)**

---

- Assess needs.
- Balance individual and group needs.
- Problems arise when the existing processes fail to meet existing needs.



Slide 3-19

---

---

---

---

---

---

---

---

---

---

Allocating resources (which are often inadequate) to satisfy needs (which are often overwhelming) is one of the greatest challenges a supervisor faces.

4. The supervisor has to prioritize and balance individual and group needs.

### SUPERVISOR'S ROLE (cont'd)

- The supervisor has to decide whether existing processes are adequately meeting individual and group needs.
- The supervisor must then establish problem-solving priorities.



Slide 3-20

---

---

---

---

---

---

---

---

---

---

5. The supervisor has to make decisions/judgments about whether existing processes are adequately meeting individual and group needs.
6. Problems arise when the existing processes fail to meet existing needs. The supervisor must then establish problem-solving priorities.

Is identifying and solving problems a work unit or an agency management responsibility?



Slide 3-21

---

---

---

---

---

---

---

---

---

---

B. Work unit or management.

1. It's tempting to blame all problems on management.
2. Perceived work unit problems often focus on lack of personnel and apparatus (resources) and overlook how things are working at the work unit level (processes).
3. Actually, many problems can be solved at the work unit level without management involvement and support.
4. A few problems cannot be solved without management support.




5. But even problems that are essentially management’s responsibility can be influenced in ethical and productive ways from the work unit level.
6. Participative management implies that employees from all levels within an organization participate in and contribute to the problem-solving process. (Participation in this context can mean giving input, rather than being the actual problem-solver.)
7. It is the supervisor’s responsibility to identify and solve work unit-level problems and to inform management about other critical problems that cannot be solved without upper-level assistance/action.

#### IV. IDENTIFYING PROBLEMS

### IDENTIFYING PROBLEMS

- What is a problem?
  - Difference between the actual situation and the desired situation.
  - Gap between the way things are and the way they ought to be.
  - The greater the gap, the bigger the problem.



Slide 3-22

---

---

---

---

---

---

---

---

---

---

The supervisor has to satisfy needs and allocate resources — and, when these cannot be properly balanced, problems often result.

A. What is a problem?

1. A problem exists whenever there is a difference between the actual situation and the desired situation.
2. A problem exists whenever there is a gap between the way things are and the way they ought to be.
3. The greater the gap, the bigger the problem.

## IDENTIFYING PROBLEMS (cont'd)

- Multiple problems.
- Level of participation in problem identification.
  - Supervisor's decision.
  - Options for participation.
  - Use a group process for problem identification.



Slide 3-23

---

---

---

---

---

---

---

---

---

---

### B. Multiple problems.


1. If every supervisor had only one problem to contend with at any given time, life would be simple!
2. Unfortunately, most supervisors have many problems competing for their attention.
3. In addition, most supervisors have problems of which they are not even aware.

### C. Level of participation in problem identification.

1. Supervisors have to decide how much and what type of input is needed from company members in order to identify company problems.
2. Three options for participation, much like decision-making:
  - a. None — supervisor works alone.
  - b. Some — supervisor gets input from group members.
  - c. A lot — supervisor and the company work together as a group.
3. Use a group process for problem identification.
  - a. Advantages:

• What are the advantages to the whole company participating?

• If it's so obvious that group input is critical, why don't we do it more often?



Slide 3-24

---

---

---

---

---

---

---

---

---

---

- Allows the supervisor to hear about problems from company's perspective.
- Generates more ideas (the supervisor gets a better picture of all problems).
- Meets subordinates' need to be involved.
- Heightens subordinates' awareness of conflicting needs and the complexity of running a company.
- Generates subordinates' interest in helping to solve problems.

b. Disadvantages:

- It takes a lot of time.
- Cliques and conflicts sometimes develop.
- Individuals may have little interest in participating.
- Interacting groups waste time on interpersonal relationships.
- Ideas may be evaluated prematurely.
- Conformity may inhibit idea generation.
- Certain people may dominate discussion, and some may not be heard.

## IDENTIFYING PROBLEMS (cont'd)

- Techniques for increasing effectiveness of groups:
  - Brainstorming.
  - NGT.



Slide 3-25

---

---

---

---

---

---

---

---

---

---

---

---

D. Techniques for increasing effectiveness of groups.

1. Two techniques designed to overcome the disadvantages listed above:

- a. Brainstorming.
- b. Nominal Group Technique (NGT).

2. Both techniques can be used effectively for identifying problems; NGT is particularly helpful in prioritizing.

E. Brainstorming.

Four steps to prepare for brainstorming:

1. Clarify the problem(s).
2. Identify objectives.
3. Identify solutions (individually), avoiding anchoring on one solution.
4. Work as a group and brainstorm!

## NOMINAL GROUP TECHNIQUE

- Process that collects a variety of information from participants within the group.
- A facilitator asks questions of the group.
- Individuals respond with as many answers as they can.

Slide 3-26

---

---

---

---

---

---

---

---

---

---

### F. NGT.

1. Process that collects various information from participants within the group. A facilitator asks questions to the group, and the individuals respond with as many answers as they can that are relevant to the question.
2. The responses are recorded, usually in a format large enough for everyone to see on the wall or board.
3. The facilitator then asks the participants to rank/prioritize the responses in order of relevance or importance.
4. Preparing for NGT:
  - a. Meeting room.
    - Should be large enough to comfortably accommodate grouped tables of no less than five people, but no more than nine people.
    - Tables should be organized in a U-shape to promote people's attention toward each other, attention toward the facilitator, and, more importantly, attention toward the products of the participants' work.
  - b. Supplies.
    - Easel pad.
    - Large marker.
    - Masking tape.

- Paper.
- Pens/Pencils.
- Index cards for each participant.

**NOMINAL GROUP  
TECHNIQUE (cont'd)**

---

- Steps:
  - Generating ideas.
  - Recording ideas.
  - Discussing ideas.
  - Voting on ideas.

Slide 3-27

---

---

---

---

---

---

---

---

---

---

---

5. The four-step process to conduct an NGT:

a. Generating ideas.

- The facilitator offers the question or problem to the group. This is usually done in written form to allow participants the opportunity to visually ponder the dilemma.
- The facilitator instructs everyone to work silently and individually as they record their ideas to paper by creating short phrases or statements.

b. Recording ideas.

- Group participants engage in a round-robin session to offer suggestions for each question. This is done without any distractions or debate. Ideas are written by the facilitator on an easel pad for all to see. The facilitator continues and repeats the question for others to provide different suggestions.
- This should be continued until all participants have offered all of their ideas for the question posed.

c. Discussing ideas.

- Each suggestion that is written on the easel chart or board is then discussed in order to refine the idea and highlight its significance.
- For each suggestion, the facilitator should ask, “Are there any questions or comments group members would like to make about this item before we move to the next?” Participants may take this opportunity to express any rationale that may exist for the suggestion or idea.

---

- What are some general questions that will get the group started with the exercise?
- Which of the outputs listed are most important to achieving our goal and are easier to measure?

Slide 3-28

---

---

---

---

---

---

---

---

---

---

---

---

---

- Which of our outputs are less important to achieving our goal and are more difficult for us to measure?
- Do we have any limitations with our current apparatus?

Slide 3-29

---

---

---

---

---

---

---

---

---

---

---

---

d. Voting on ideas.

- To start, each participant selects the five most significant ideas from the displayed list and writes the five ideas on separate index cards. Next, each member ranks the five ideas selected, with the most important receiving a rank of five and the least important receiving a rank of one.

- It is the responsibility of the facilitator to identify the criteria that will be used to prioritize the ideas.
- When possible, the participants should be allowed to vote privately as they prioritize the ideas. The votes are tallied to identify the suggestions that are ranked the highest.
- Once the participants have ranked their choices in order of significance, the facilitator creates a tally sheet on the easel pad or board and labels the tally chronologically with numbers and a corresponding idea with each number.
- The facilitator collects each of the index cards from all of the participants and assigns a volunteer to read the idea number and number of points earned by each idea.
- The facilitator records and tallies the points on the tally sheet.

**ADVANTAGES OF NOMINAL  
GROUP TECHNIQUE**

- Produces a larger number of ideas than traditional group discussions.
- Balances the influences.
- Reduces the feeling of competition and pressure to perform.
- Encourages the confrontation of issues through constructive problem-solving.

Slide 3-30

---

---

---

---

---

---

---

---

---

---

---

---

6. Advantages of NGT:
- a. Produces a larger number of ideas than traditional group discussions.
  - b. Balances the influences.
    - Limits the power of decision-makers.
    - Deters a room filled with leaders from dominating the process.
  - c. Reduces the feeling of competition and pressure to perform.



- d. Encourages the confrontation of issues through constructive problem-solving.

**ADVANTAGES OF NOMINAL GROUP TECHNIQUE (cont'd)**

---

- Promotes the prioritization of ideas in a democratic fashion.
- Typically offers a greater sense of closure than other group discussions.

Slide 3-31

---

---

---

---

---

---

---

---

---

---

- e. Promotes the prioritization of ideas in a democratic fashion.
- f. Typically offers a greater sense of closure than other group discussions.

**DISADVANTAGES OF NOMINAL GROUP TECHNIQUE**

---

- Requires moderate preparation.
- Can be regimented and vulnerable to focusing on a single subject.
- Minimizes opportunities for full discussion and idea development.
- Can become monotonous and bland.

Slide 3-32

---

---

---

---

---

---

---

---


---

---

- 7. Disadvantages of NGT:
  - a. Requires moderate preparation.
  - b. Can be regimented and vulnerable to focusing on a single subject.
  - c. Minimizes opportunities for full discussion and idea development.
  - d. Can become monotonous and bland.

V. PROBLEM-SOLVING

- How do you solve problems at work? At home?
- Do you always solve problems in the same way?
- Do others solve problems the same way you do?



Slide 3-33

---

---

---

---

---

---

---

---

---

---


---

---

---

---

- Do you actually spend time gathering complete information and developing alternatives for most of your decisions?
- Do you use a more systematic approach for more important decisions?



Slide 3-34

---

---

---

---

---

---

---

---

---

---

---


---

---

---

### PROBLEM-SOLVING METHODS

- Intuitive method.
- Minimum effort method.
- Politically-based method.
- Systematic method.



Slide 3-35

---

---

---

---

---

---

---

---

---

---

---

---

---

---

A. Methods.

1. Intuitive method.
  - a. Based on hunches and gut feelings.
  - b. Not systematic.
2. Minimum effort method.
  - a. Form a solution based on limited number of alternatives.
  - b. Select an alternative.
  - c. Sometimes called the “satisficing” method.
3. Politically-based method.
  - a. The problem is diagnosed in terms of preferences and power of other parties affected by solution.
  - b. Consequences of solutions are assessed in terms of acceptance or resistance by other parties.
  - c. Solution is based on compromise.
  - d. Implemented in a way that considers stake and political position of involved parties.
4. Systematic method.
  - a. An orderly approach that rationally proceeds from one step to the next.
  - b. Relies on measurable objectives to achieve a clearly-stated goal.
  - c. Analyzes pros and cons of potential alternative strategies.
  - d. Selects and implements strategies that maximize potential for solving the problem.

## PROBLEM-SOLVING STEPS

- Step 1: Determine causal factors.
  - What are the symptoms?
  - Who is involved?
  - What is the standard?



Slide 3-36

---

---

---

---

---

---

---

---

---

---

### B. Problem-solving steps.

1. Step 1: Determine causal factors — factors that are contributing to the problem. Use the following questions as guidelines:
  - a. What are the symptoms?
  - b. Who is involved?
  - c. What is the standard?

## PROBLEM-SOLVING STEPS (cont'd)

- What exactly is happening?
- Where is the problem occurring?
- When does it occur?

Slide 3-37

---

---

---

---

---

---

---

---

---

---

- d. What exactly is happening?
- e. Where is the problem occurring?
- f. When does it occur?

## PROBLEM-SOLVING STEPS (cont'd)

- Some problems will have only one cause; others will have several.
- Symptoms versus cause:
  - Symptoms — what happened.
  - Cause — why it happened.



Slide 3-38

---

---

---

---

---

---

---

---

---

---

- g. Some problems will have only one cause; others will have several.
- h. Symptoms versus cause:
  - Many errors in problem-solving can be traced to confusing symptoms with causes.
  - Symptoms — what happened.
  - Examples of symptoms:
    - Decreased productivity.
    - Lower quality.
    - Poor morale.
    - Communication breakdowns.
- i. Cause — why it happened.

## PROBLEM-SOLVING STEPS (cont'd)

- Step 2: Identify assets.
  - Factors that can contribute to reaching the goal.
  - Figure out what you have working for you.
- Step 3: Explore alternative strategies.
  - Input from subordinates.



Slide 3-39

---

---

---

---

---

---

---

---


---

---

2. Step 2: Identify assets — factors that can contribute to reaching the goal.  
Figure out what you have working for you.
3. Step 3: Explore alternative strategies.
  - a. Again, the supervisor needs to decide how much input is needed from subordinates in order to solve the problem.
  - b. Consider maximum input from subordinates if:
    - The problem is complex.
    - They know as much about the problem as you do.
    - They will be affected by the solution.
    - They need to accept the solution in order for it to work.
  - c. Different levels of participation can be used for different parts of the problem-solving process, if appropriate.

**PROBLEM-SOLVING STEPS**  
(cont'd)

- Step 4: Prioritize.
  - Who benefits?
  - Cost effective?
  - Enhance effectiveness?
  - Improve performance?



Slide 3-40

---

---

---

---

---

---

---

---

---

---

4. Step 4: Prioritize.
  - a. After problems have been identified, the supervisor has to decide whether resources should be committed to attempt a solution.
  - b. Re-examine the company's prioritized list. The following questions will help you decide if solving the problem is worth the time and effort required.

- c. Who will benefit if the problem gets solved?
    - The public?
    - The department?
    - The company?
    - One or two individuals?
  - d. Is it cost-effective?
  - e. Will solving the problem enhance company effectiveness?
  - f. Will performance be improved?
5. If solving the problem will not have a direct or indirect effect on company performance, cost of operation, or quality of service, then it is questionable as a valid priority.

**VI. INTEGRATING ANALYTICAL, POLITICAL AND CRITICAL THINKING**

**INTEGRATING ANALYTICAL, POLITICAL  
AND CRITICAL THINKING**

---

- Critical thinking enables the supervisor to:
  - Analyze situations.
  - Solve problems.
  - Communicate position logically.
  - Make decisions based on data, not feelings.
  - Evaluate potential ideas and choices in problem-solving.
  - Evaluate idea and choices.

Slide 3-41

---

---

---

---

---

---

---

---

---

---

---

- A. Critical thinking is the active and systematic process of:
- 1. Communication.
  - 2. Problem-solving.
  - 3. Evaluation.
  - 4. Analysis.

5. Synthesis.
  6. Reflection.
- B. Critical thinking enables the supervisor to:
1. Analyze situations.
  2. Solve problems.
  3. Communicate position logically.
  4. Make decisions based on data, not feelings.
  5. Evaluate potential ideas and choices in problem-solving.
  6. Examine whether examples support ideas.

**INTEGRATING ANALYTICAL, POLITICAL AND CRITICAL THINKING (cont'd)**

---

- Distinguish fact from opinion.
- Examine perspectives and assumptions.
- Analyze and clarify information.
- Evaluate information.
- Break information into parts.

Slide 3-42

---

---

---

---

---

---

---

---

---

---

---

---

7. Distinguish fact from opinion.
8. Examine perspectives and assumptions.
9. Analyze and clarify information.
10. Evaluate information.
11. Break information into parts.
  - a. Separate the ideas.
  - b. Compare and contrast.



- c. Examine cause and effect.
- d. Look for themes, patterns and categories.

**INTEGRATING ANALYTICAL, POLITICAL AND CRITICAL THINKING (cont'd)**

- Political thinking:
  - Can you influence change within the context of institutional opportunities or limitations?
  - Can you mobilize resources in support of a goal?
  - Can you engage appropriate alliances to achieve outcomes?

Slide 3-43

---

---

---

---

---

---

---

---

---

---

- C. Political thinking:
  1. Can you influence change within the context of institutional opportunities or limitations?
  2. Can you mobilize resources in support of a goal?
  3. Can you engage appropriate alliances to achieve outcomes?

This page intentionally left blank.

## ACTIVITY 3.3

### Integrating Analytical, Political and Critical Thinking

#### Purpose

Identify examples of integrated analytical, political and critical thinking to solve problems.

#### Directions

##### Part 1

1. Read the following story from Peshawaria (2015):

In a recent talk, Raghu Krishnamoorthy, Chief Learning Officer of General Electric (GE), told his audience that:

One — Talent is abundant, not scarce.

Two — Intelligence is now a commodity.

As he illustrated his first point, he spoke of GE Aviation redesigning their engine brackets by way of crowd-sourced innovation. The company advertised a global contest for innovative designs that would lead to reducing the weight of the engine brackets by 30 percent. GE officially offered a prize of \$20,000 to the person with the best design for the engine component. The winning design came from a small town in Indonesia. The Indonesian design exceeded expectations in many respects, with the biggest involving the fact that weight was reduced by 84 percent. This exceeded the desired outcome by 180 percent. The design cost only \$20,000 (the prize money) — and so the world's biggest aviation giant achieved a phenomenal win for remarkably little effort and money.

2. While working in your group, answer the following question:

In what ways may the designers have deployed integrated analytical, political and critical thinking to produce a product that not only met the desires of GE, but exceeded them?

3. Document your responses to the question on an easel pad.

##### Part 2

1. Identify which thinking process (analytical, political or critical) the designers may primarily use.
2. After your personal reflections, discuss situations with your group where you practiced analytical, political and critical thinking.
3. One group member will volunteer to share their reflections with the class.

This page intentionally left blank.

## VII. INFLUENCE

Definition of influence: The capacity to have an effect on the character, development or behavior of someone or something, or the effect itself (Oxford English Dictionary, 2016).

---

- How have you influenced those who work for you?
- How have you influenced your department and your community?

Slide 3-45

---

---

---

---

---

---

---

---

---

---

---

---

**VIDEO PRESENTATION**

---

**“THE POWER OF INFLUENCE”**

<https://www.youtube.com/watch?v=44MeI3FeXn4>

Slide 3-46

---

---

---

---

---

---

---

---

---

---

---

---

This page intentionally left blank.

## ACTIVITY 3.4

### Unit 3 Learning Reflections

#### Purpose

As a portion of your personal and professional development, reflections on your learnings and identified development needs are essential. This activity provides you the opportunity to reflect and critically assess your development needs, within the topics of this unit, which will lead to a personal plan of action.

#### Directions

1. Review and reflect on the enabling objectives for this unit from a perspective of your current degree of competencies. The students will be able to:
  - a. Differentiate between analytical, political and critical thinking.
  - b. Apply force field analysis as an aid to diagnosing a problem.
  - c. Identify the supervisor's role in identifying and solving problems.
  - d. Describe advantages and disadvantages of individual and group problem identification.
  - e. Describe brainstorming and NGT as methods to identify problems.
  - f. Describe four methods by which problems are solved.
  - g. Outline the critical steps in problem-solving.
  - h. Identify examples of integrated analytical, political and critical thinking to solve problems.
  - i. Explain how to use influence to change perspectives in thinking.

2. From your above reflections, class dialogue, activities and personal notes from this unit, what knowledge, skills and abilities do you currently hold that support you achieving these objectives? How are you maintaining an effective degree of competency in these areas? Be specific. Use additional paper as needed.

---

---

---

---

---

3. From the above reflections, what knowledge, skills and abilities are you, personally and professionally, **most in need of developing** in order to apply the unit objectives? Be specific. Use additional paper as needed.

---

---

---

---

---



## ACTIVITY 3.5

### Personal Plan for Professional Growth

Although this personal plan for professional growth is not used for your course grade, you are encouraged to finish your reflection process as a means for professional development.

#### Purpose

At the conclusion of each prior unit, you identified specific areas of personal and professional development needs. This activity provides you an opportunity to develop your unit reflections into a specific course of action.

#### Directions

1. Review each of the unit reflections developed at the end of each unit.
2. Develop a specific statement of action (answering the “how” question) for how you will address your identified needs. Be as specific as possible.

---

---

---

3. Describe what will be your first milestone of achievement in each identified area and the time frame to accomplish the action.

---



---

---

**Note:** As you complete each of the courses within the leadership in supervision series, this concurring post course activity should be completed. Through the series, you will then have developed a comprehensive approach to your continued professional and person growth.

This page intentionally left blank.

**VIII. SUMMARY**

|  |  |
|--|--|
| <br>FEMA  | <br>U.S. Fire<br>Administration |
| <b>SUMMARY</b>   |  |
| <ul style="list-style-type: none"><li>• Thinking analytically, politically and critically.</li><li>• Force field analysis.</li><li>• Supervisor's role in identifying and solving problems.</li><li>• Identifying problems.</li><li>• Problem-solving.</li><li>• Integrating analytical, political and critical thinking.</li><li>• Influence.</li></ul> |  |
| <small>Slide 3-49</small>  |  |

---

---

---

---

---

---

---

---

---

---

**IX. EXAM**

**X. COURSE CONCLUSION**

This page intentionally left blank.

## REFERENCES

- Cornish, E. (1995, November/December). Eight steps to innovative problem solving — Simplex: A flight to creativity by Min Basadur. *The Futurist*, 29(6), 49.
- Garrison, D. R., & Vaughan, N. D. (2007). *Blended learning in higher education: Framework, principles, and guidelines*. San Francisco, CA: Jossey-Bass.
- Influence. (2016). In *Oxford English Dictionary*.
- King, Shawn. (2016, February 25). *The power of influence*. TEDxDalhousiell [Video file]. Retrieved from <http://www.youtube.com/watch?v=44MeI3FeXn4>
- Peshawaria, R. (2015, July). Integrated thinking. *Forbes*. Retrieved from <http://www.forbes.com/sites/rajeevpeshawaria/2015/07/23/integrated-thinking/#7d29d360162e>
- Petress, Ken. (2004). Critical thinking: an extended definition. *Education*, 124(3), 461.
- Popper, M., & Maysel, O. (2007). The building blocks of leader development: A psychological conceptual framework. *Leadership & Organization Development Journal*, 28(7), 664–684.
- Tracy, B. (2012, October 26). Personal strategic planning: 4-step action plan to strengthen your personal skills [Blog post]. *Brian Tracy International*. Retrieved from <http://www.briantracy.com/blog/personal-success/personal-strategic-planning-4-step-action-plan-to-strengthen-your-personal-skills-personal-mission-statement/>

This page intentionally left blank.

# ACRONYMS

This page intentionally left blank.



## ACRONYMS

|               |   |
|---------------|---|
| <b>EMS</b>    | Emergency Medical Services                                  |
| <b>ERN</b>    | Error-Related Negativity                                    |
| <b>FEMA</b>   | Federal Emergency Management Agency                         |
| <b>FG</b>     | Facilitator Guide   |
| <b>GE</b>     | General Electric  |
| <b>ICS</b>    | Incident Command System                                     |
| <b>IPSLEI</b> | International Public Safety Leadership and Ethics Institute |
| <b>LODD</b>   | line-of-duty death  |
| <b>NFA</b>    | National Fire Academy                                       |
| <b>NFPA</b>   | National Fire Protection Association                        |
| <b>NGT</b>    | Nominal Group Technique                                     |
| <b>Pe</b>     | Error Positivity  |
| <b>SAW</b>    | Student Activity Worksheet                                  |
| <b>SM</b>     | Student Manual  |
| <b>SOPs</b>   | standard operating procedures                               |
| <b>USFA's</b> | U.S. Fire Administration's                                  |

This page intentionally left blank.