

Think You're Ready,
Think Again

Presentation Goal

- Provide relevant information that can be applied or compared to other programs.

Presentation Agenda

- Willis Tower/Life Safety Facts
- Starting with a Standard
- Mitigation – Inspections
- Preparedness – Training
- Response – Responding to Emergencies
- The Key

Willis Tower Overview

- 110 stories
 - 42,000 sprinkler heads
- 1,450 feet high
 - Tired firefighters
- 1,733 feet including the antenna towers
 - Can't land a helicopter
- 2,232 steps to the roof
 - 2,232 steps to exit
- 16,100 windows
 - Severe weather issues
- Average sway is 6" from true center
 - Severe weather

Willis Tower Overview Continued

- Approximately 50,000 miles of electrical wire
 - 50,000 miles of risk
- Approximately 43,000 miles of telephone cable in the building
 - Potential penetrations
- Approximately 11,000 occupants in the building
 - 22,000 eyes and ears
- Approximately 25,000 entries into the building daily
 - Guests with disabilities
- Record SkyDeck attendance is 12,868 in 1994
 - A lot of people who know nothing about the building

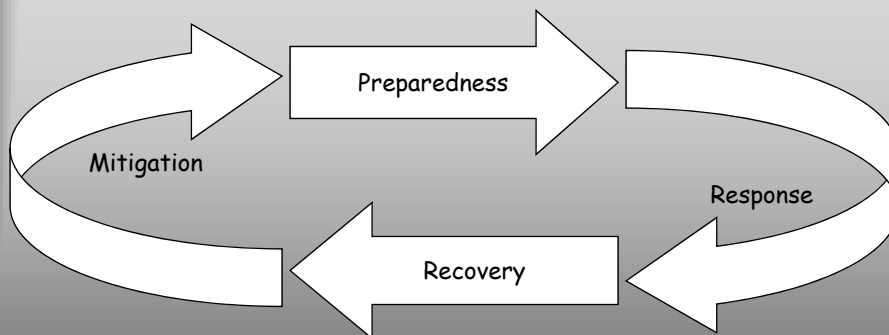
2008 Life Safety Facts

- 244 fire drills completed. Almost one drill per day.
- Approximately 10,000 tenants participated in debrief training
- Average time into stairwell = 1.42
- Over half of all reported incidents were medical illness/injury or slip and fall
- Average 2 medical responses per week
- Average response time = 2.88 minutes
- Over 150 tenants or building employees trained in CPR/AED or First Aid

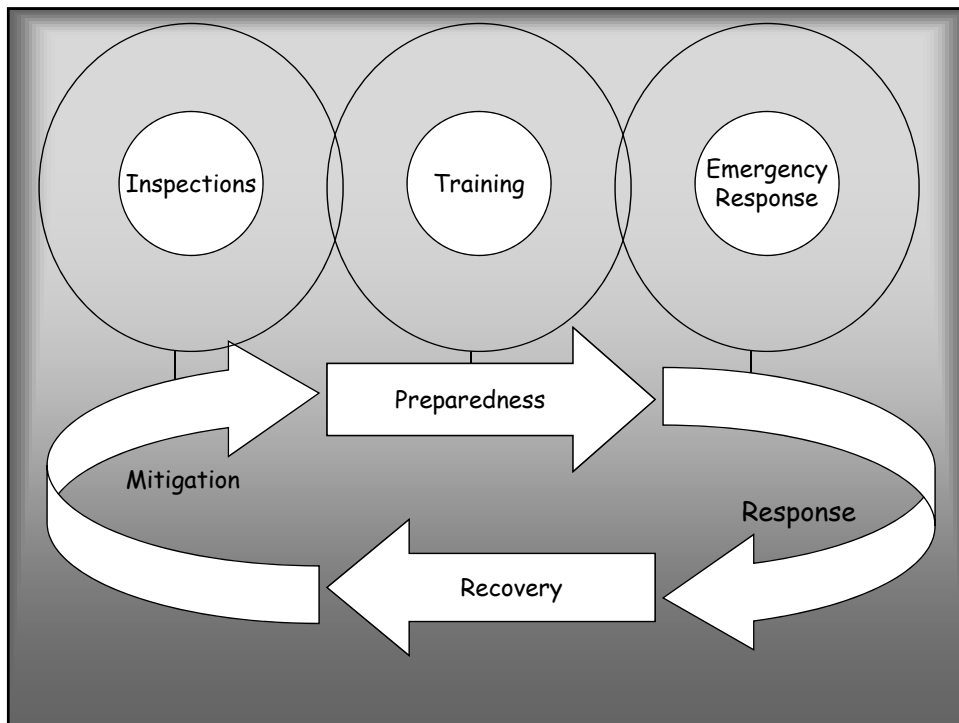
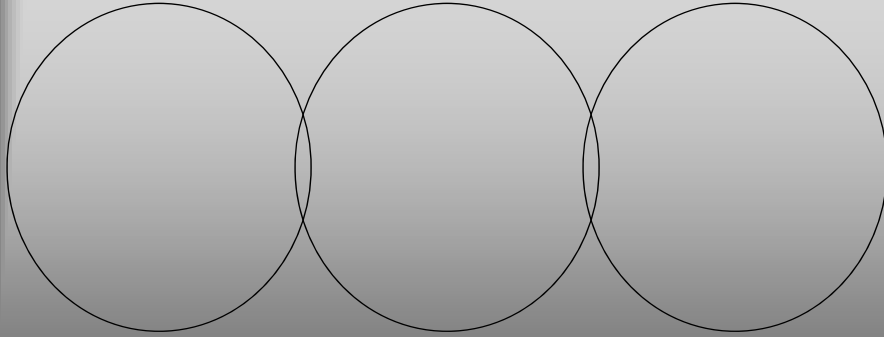
Starting with a Standard

- Emergency Management Cycle

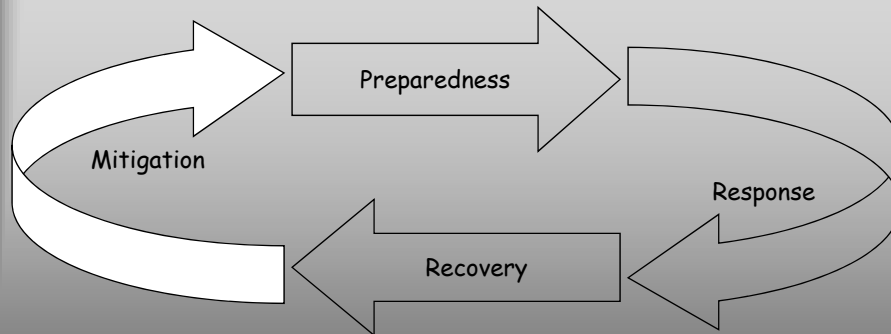
Emergency Management Cycle



Three Critical Components to Readiness



Inspections



Inspection Basics

- Purpose
 - Continual Risk Reduction
 - Liability Reduction
- Priorities
 - Means of Egress
 - Exits are Illuminated
 - Identify Imminent Danger to Life and/or Property
 - Emergency Power
 - Fire Alarm System in Working Order
 - Public Address in Working Order
 - Housekeeping
- Special Issues
 - Construction
 - Penetrations (floor/ceiling)
 - Hot Work



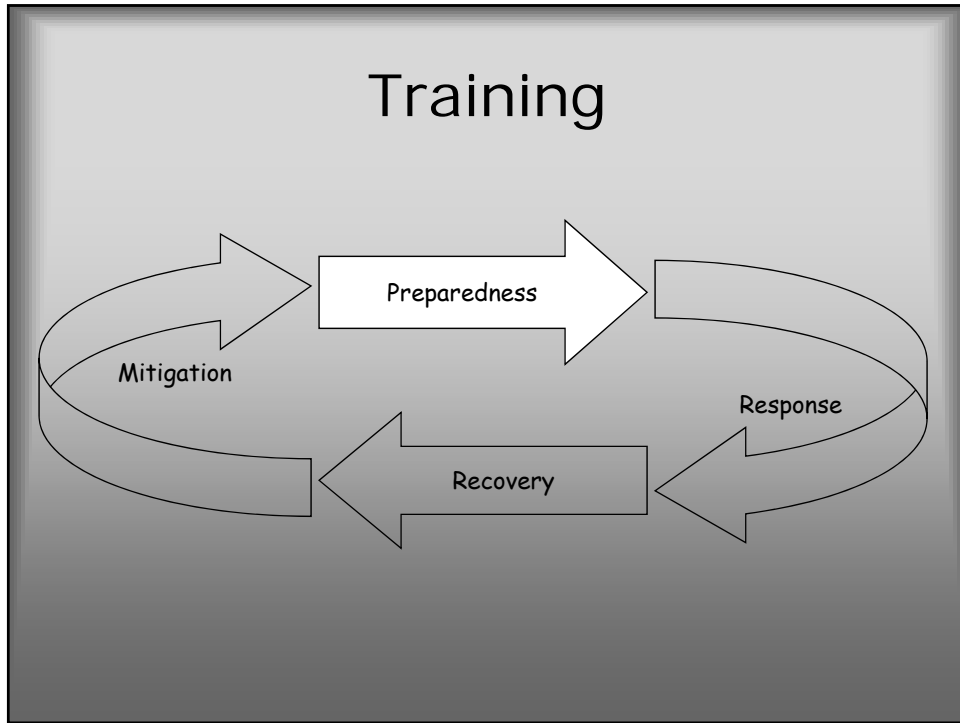
Inspections Continued

- Egress
 - Minimum of 2 exits
 - Hardware functioning properly
 - Doors open easily with correct hardware (ADA Compliant)
 - Doors close on their own
 - Not blocked
 - Exit signage illuminated
 - Emergency lighting operates on battery back-up
 - Generators tested
- Fire Suppression
 - Sufficient number of fire extinguishers (75')
 - Extinguisher inspected and charged
 - Sprinkler system tested within code
 - Cooking hoods inspected
 - Stock not less than 18"



Inspections Continued

- Evacuation Maps Posted
 - They are correct and up to date
- Housekeeping
 - Clear path to exit
 - Trash storage
- Fine tuning
 - Rotate internal inspectors
 - Inspect the inspector
 - Know the code in your area and for your structure
 - Walk with the external inspector (they are our friends)
 - Document
 - Inspections
 - Reports
 - Work orders/ Work Tickets
 - Communications
 - Timely follow-up



Training Basics

Preparedness →

- First seek to understand
- Understand the trainee

Preparedness →

Methods of Learning

- Affective
 - Change in attitudes and/or behavior
- Cognitive
 - New facts, concepts and skills
- Psychomotor
 - Introduce new motor skills

Preparedness →

Learning Continued

- M Motivation
- A Association
- R Repetition
- S Use of Senses

Preparedness →

Training Types

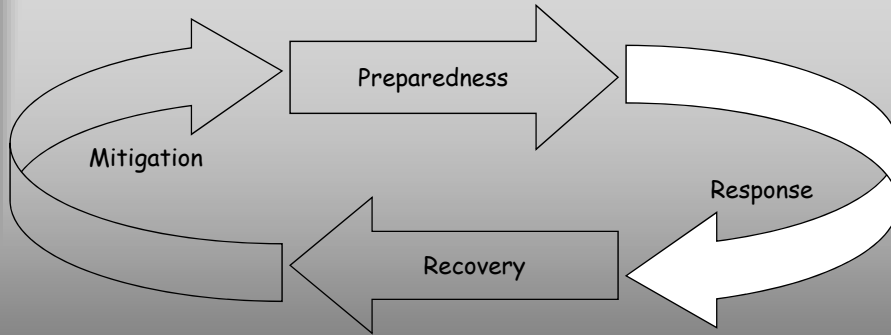
- Quick Hits
- Presentations
- Tabletops
- Simulation
- Targeted Mock
- Full

Preparedness →

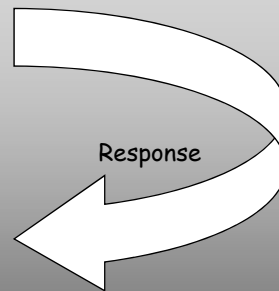
Applying the Training in Levels

- Matrix Development
 - Who needs training
 - What training do they need
 - How is it accomplished

Emergency Response



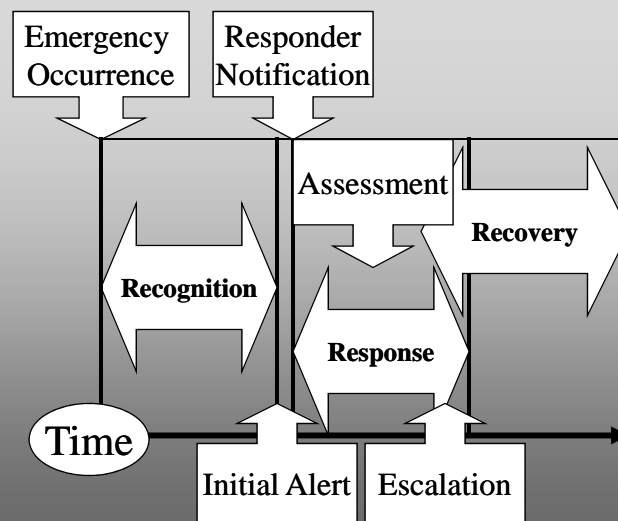
Emergency Response Basics and Considerations

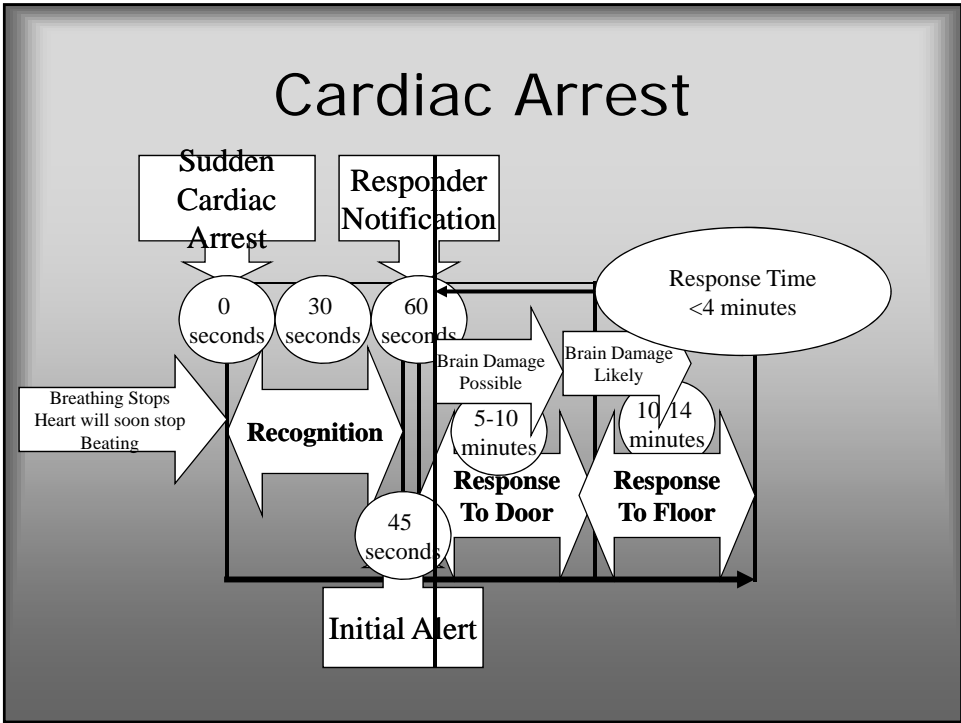
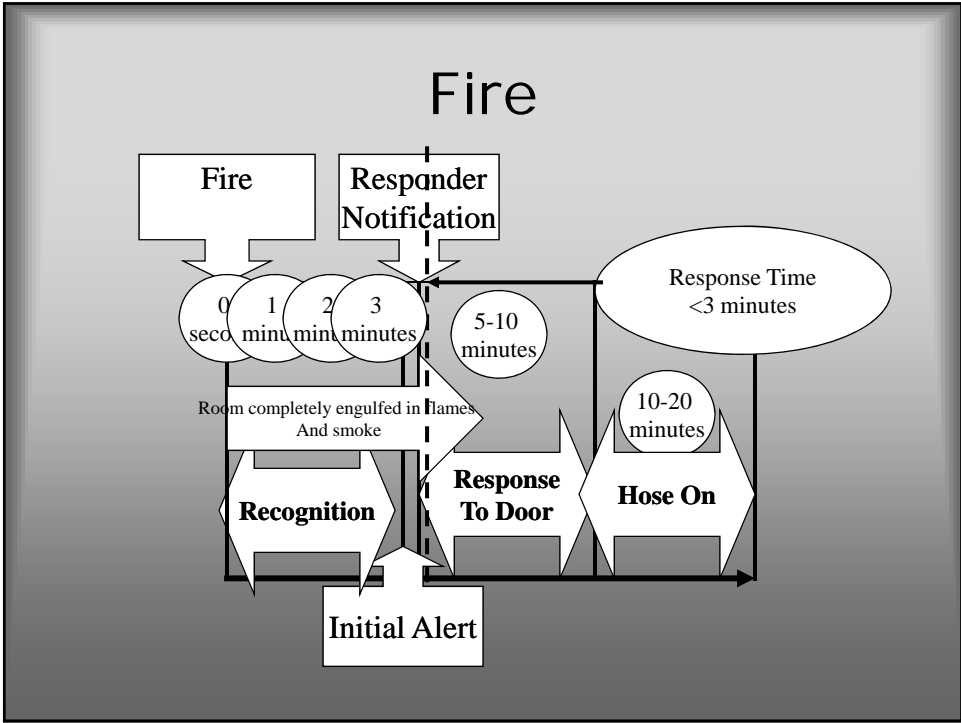


Incident Command System



Anatomy of an Emergency





Keep it Simple

- It will Get Complicated Soon Enough
 - Evacuation
 - Shelter/Defend in Place

Evacuation



Shelter in Place/Relocation



Disabilities



Disability Considerations

- Mobility
- Hearing
- Vision
- Speech
- Cognitive

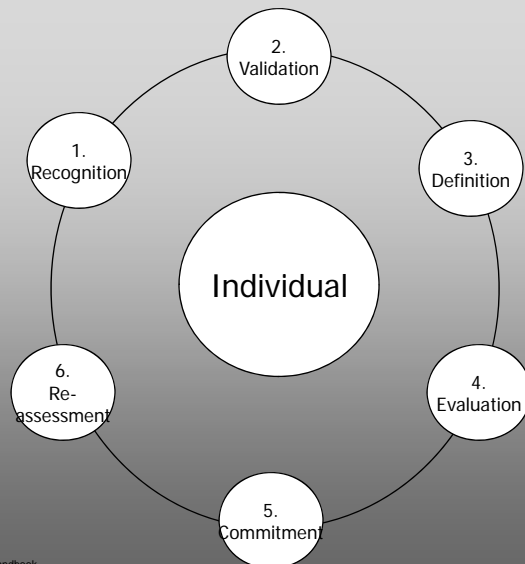
Drill Basics

- Message/alarm understandable
- Everyone goes
- Stay on Right
- Where's your guest
- Any areas not receiving the alarm/alert
- Don't go to same place
- Don't use one stairwell (evacuation may be over by time FD arrives)
- Know all the exits from any location
- Go in the stairwell and to alternate location
- No talking
- Hands Free
- Remove high heels if possible but don't go barefoot
- Have a go bag available
- Know the alarm
- Check the area before the drill

Emergency Meets the Brain

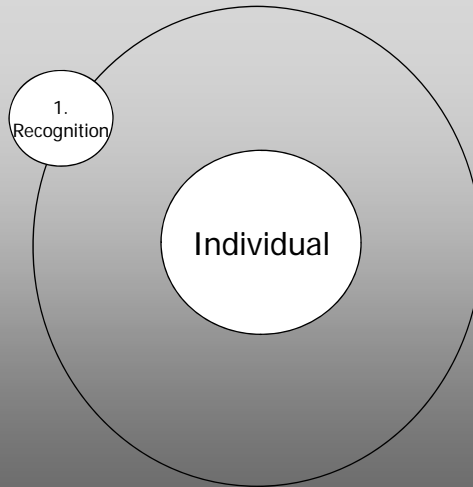


Individuals Decision Process



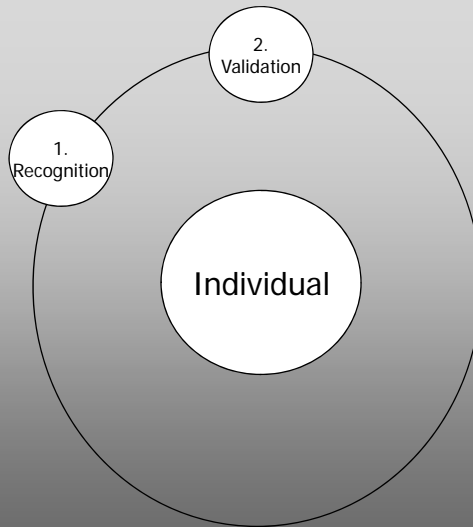
Source: NFPA Fire Protection Handbook

Individuals Decision Process



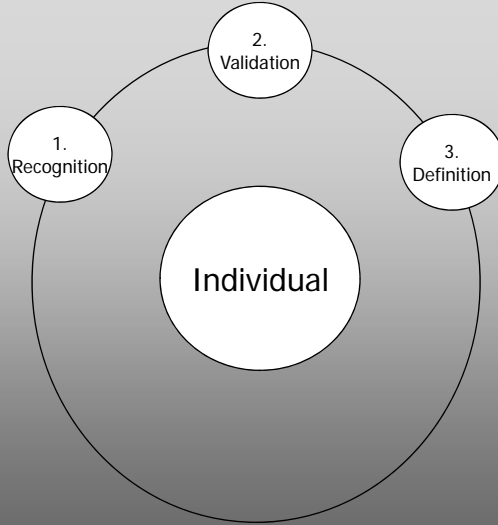
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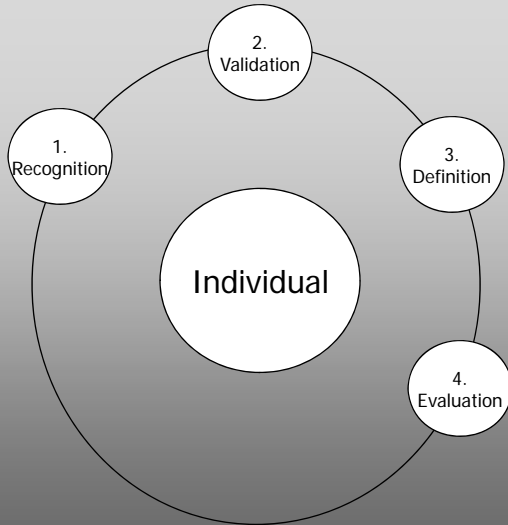
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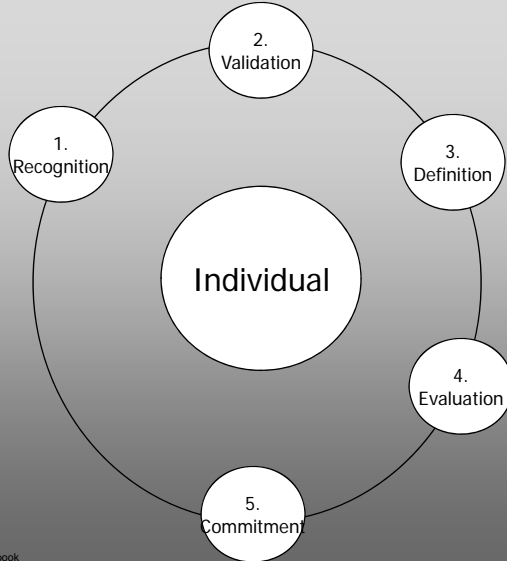
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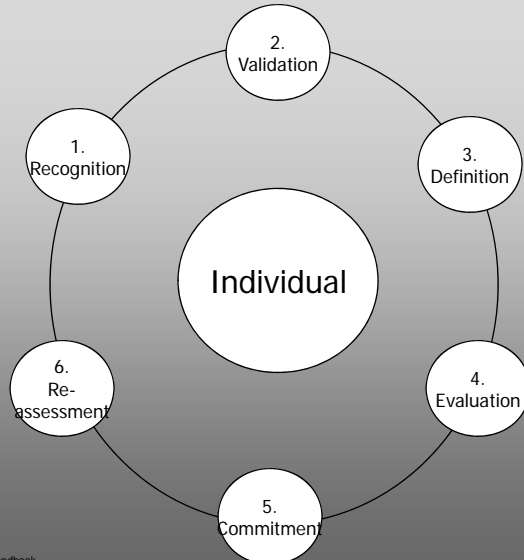
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Individuals Decision Process



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Linking the Response

- Train Together
 - ERT
 - EMG
 - FD/PD/OEM

The Key Component

- **"The dumb sons of bitches told me not to evacuate!"**

- **Rick Rescorla**

- *September 11, 2001*



- Morgan Stanley lost only 6 of its 2,700 employees in the south tower on Sept. 11

It Comes Down to Trust

- T Tell the truth
 - Communicate often
- R Respond Consistently
 - Remain Predictable
- Understand Your Role
 - Be competent and Visible
- S See People as Trustworthy
 - State what you will do and do it
- T Take Action
 - Respond immediately



Questions