DESIGNING FOR UNCONVENTIONAL LEARNING OUTCOMES AND EXPERIENCES IN EXERCISES

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#Disaster Learning
National Center for Disaster Medicine and Public Health
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Core Competencies for Disaster Medicine and Public Health

- The following presentation may align with the following competencies from the academic article “Core Competencies for Disaster Medicine and Public Health”*
  - 2.0: Demonstrate knowledge of one’s expected role(s) in organizational and community response plans activated during a disaster or public health emergency
  - 4.0: Communicate effectively with others in a disaster or public health emergency
Objectives

1) Explore the concept of exercise learning outcomes beyond the usual focus of testing plans and meeting metrics.

2) Introduce types of unconventional learning outcomes.

3) Describe examples of exercise design to achieve unconventional learning outcomes.
Background and Partnership

• Minnesota Department of Health

• University of Minnesota School of Public Health
  • Applied Research: Preparedness and Emergency Response Research Center (PERRC), and
  • Research into Practice: Preparedness and Emergency Response Learning Center (PERL)
Creating well-functioning teams

- Research focused on creating well-functioning teams

- Standard ICS team of 15-17 activated

- Pool of ~80 individuals for Command and General positions

  - How many potential team combinations?

  600 million
Research

• Conducted 30 exercises in 3 years
  - 3 teams, 10 exercises each
  - 5-7 scenarios
    - Floods, Political Event*, Tornadoes (2), Wildfire, Winter Storms (2)

• Used HSEEP Framework

• Added team training** (2 teams) and in depth hotwash (1 team)

*Spread over 3 exercises
**Team Dynamics now called Improving team performance in a public health response
Research Results

- Intervention – No

- Attitudinal Changes – Yes

- Exercising more frequently – Yes

- Discovered and Experimented
  - “Unconventional Learnings”
  - Learners are not conventional responders
  - Emergency preparedness is not their daily work/world
Unconventional Learnings

• Rocket Science, well – no.

• Important, well – we think so.

• Beyond the mechanics usually measured (e.g., EEGs),

• Beyond exercise design classes (IS 120.a, IS-139, MEP series)
What can people learn?

• Calmness
• Confidence
• Credibility
• Trust
• Respect
• Decision-making & delegation

• Goal: “Moving chaos to organized chaos to organized response”
It’s the little things…

• Providing an orientation to the Department Operation Center (DOC)

• Room set-up

• Warm-up time

• Workstation set-up
It’s the big things

• The right person in the right position with the right training

• Exercise frequency

• Increase people’s comfort level

• Create open environment encouraging questions
  “safe & stress-free(?!?) environment”
Keys

- Leadership support

- Sensitivity to daily work vs. emergency response work

- Recognition of:
  - Process-oriented, consensus-focused practices vs. Hierarchical system requiring fast, unilateral decision-making
Keys - continued

• Integration/use of ICS into regular work

• Integration/use of communication tools & techniques
  • New e-learning course (product of CDC-funded PERRC research)
  • Housed on MN.TRAIN (https://mn.train.org)
E-Learning

Improving Team Performance in a Public Health Response

U-SEE: UNIVERSITY OF MINNESOTA: SIMULATIONS, EXERCISES, AND EFFECTIVE EDUCATION

PERRC  Preparedness & Emergency Response Research Center
Four Modules

1. **Introduction to Team Dynamics**
   - Course duration: 08:30 Minutes

2. **High Reliability Teams**
   - Course duration: 10:34 Minutes

3. **Team Dynamics Tools and Techniques**
   - Course duration: 28:39 Minutes

4. **Team Communication**
   - Course duration: 08:18 Minutes
Unconventional Options
Nuggets of Knowledge

• 10-15 minute education session

• Build into Exercise
  - Subject Matter Experts (SMEs)
  - Resources, Plans, Policies, Procedures

• Examples:
  - Public health laboratory and Epidemiologists roles in suspected white powder
  - Well water management
  - SNS: what it is and how to activate and manage it
  - Tactical communications: how to turn on and talk on the radio
  - Mobile medical assets
Coaching – “Whisperers”

- Assigning 1 or 2 people to pro-actively work with team members (exercise and response)
- Help with basics: log onto computer, find paper, locate online files
- Answer questions: “who should I…what should I…what does that mean..?”, etc.
- Remind people about key tasks
- Help re-direct
Role-specific Meetings

• Gather people in specific roles together on semi-routine basis

• Identify what works, doesn’t work

• Problem-solve

• Agree on definitions, processes

• Develop resources, tools, techniques
Aids

• Role-specific Planning P

• Binders
  - Job Action Sheets (JAS)
  - Planning P / Meeting Agendas
  - Contact Info
  - Phone / Voicemail / Email
  - MNTrac (bed tracking, web-based comm.)
  - Sample Forms
  - Messaging / Notifications
  - Radiological Emergency Preparedness (REP)
Quality Improvement Approach

• Continuous quality improvement practice

• Exercise designers benefitted

• Learners benefitted

• Use QI tools and techniques (accreditation!)
  • E.g. Plan-Do-Study-Act (PDSA)
Unconventional Methods – In Practice

• Currently 4 teams of Command and General staff

• All vary in range of experience (some to none)
Exercises- Before & After

BEFORE - Only exercise objectives- meet capabilities

• Written plans, job action sheets, 3 –deep staff, assigned roles, EOC (DOC) room, meeting all requirements
• Afraid to fail
• Afraid to speak up
• Afraid to work with each other - expose lack of knowledge

AFTER – added Supports & Learning Objectives

• Build confidence
• Increased comfort level
  - In Role
  - On Team
• Big picture view
  - How the “P” works
  - Others’ contributions
  - Took small steps to increase understanding of big process
• More engaged
  - Contribute freely
  - Desire success
Combined a Few Blocks

- Seminar
- Workshop
- Functional exercise
Prepared an Exercise

• Specific objectives

• No injects

• Froze action to discuss / answer questions

• Walked through process
“P” – Meetings – ICS Forms

- Provided situation
- Response objectives
  - Inspect Warming Shelters
  - Coordinate and support messaging with local public health
- Walk through the “P”
Review Tactics Meeting

- Used ICS 300 curriculum handout
- Main attendees talked
- Others observed
- Completed ICS forms 215, 215A
Preparing for the Planning Meeting

• ICS 300 Handout
• Reviewed role responsibilities
• Worked on ICS forms 203, 204, 207
• Activated operational groups/teams
• Located resources
Feedback from Players

- Learned more about each role
- Good review of “P” and ICS forms
- Loved the handouts
- Slow pace allowed good practice
Recommended Improvements

- More role-specific training
- Include “Subject Matter Expert” from areas
- Same exercise again without handholding
Exercised Again – 2 Months Later

- No handholding
- Gave a few injects
- Same expectation-
  - Hold Tactics Meeting
  - Prepare for Planning Meeting
  - Hold Planning Meeting
- Complete ICS Forms
Recommended Improvements

First Exercise – slow pace

• More role-specific training
• Include “Subject Matter Expert” from areas
• Same exercise again without handholding

Second Exercise – no handholding

• More training (roles & forms)
• Identify and clarify areas of overlap in roles & responsibilities
• Environment & equipment improvements
Unconventional Learning Outcomes

• Build confidence
• Increased comfort level
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  - On Team
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“Who Am I? Why Am I Here?”
ICS Roles & Responsibilities Workshop

• Summarize their role and list the other roles they are dependent upon

• Articulate which forms they are responsible for completing.

• Explain which Planning P meetings they attend and what their responsibility is at those meetings.

• Clarify areas of overlap in responsibilities (and update job action sheets regarding the clarifications)
Getting to Unconventional..

• Consider the learner, not the checklists (e.g., EEGs)

• Recognize achieving exercise goals may be delayed

• Let go of the ‘usual’, the routine, the regular
  • Remember –
    • HSEEP is a FRAMEWORK, not a law chiseled in stone 😊

• Listen to the learners
Unconventional Learning in Music

- Effective handling of error correction resulted in higher proportion of correct, complete performance trials during practice.
- Most effective way to correct errors was to change performance speed.
- Practice is good; ability to deal with mistakes and solve problems is better.
Summary/Conclusion

• Exercises are expensive
• Better responders are worth the expense
• Pay attention to the learners/players
• Ask “What can we do differently?”

“We ought to practice ‘smarter, not harder’.”
Questions and Discussion
Attributions

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