**Emergency Exercise Design and Evaluation**

**What is an Exercise?**

An **exercise** is a *focused practice activity that places the participants in a simulated situation requiring them to function in the capacity that would be expected of them in a real event*. Its purpose is to promote preparedness by testing policies and plans and training personnel.

**Why Exercise?**

Through exercises, organizations can:

􀁺Test and evaluate plans, policies, and procedures.

􀁺Reveal planning weaknesses.

􀁺Reveal gaps in resources.

􀁺Improve organizational coordination and communications.

􀁺Clarify roles and responsibilities.

􀁺Train personnel in roles and responsibilities.

􀁺Improve individual performance.

􀁺Gain program recognition and support of officials.

􀁺Satisfy regulatory requirements.

Once the district and building-level plans are completed and all staff members have completed the training programs, a proactive emergency exercise program should be implemented to validate the plans and training.

**TYPES OF EXERCISES**

**Orientations** are overviews or introductions to a school or district’s crisis/emergency management program. The purpose of an orientation is to familiarize participants with roles and responsibilities, plans, procedures, and equipment. It can also be used to resolve questions of coordination and assignment of responsibilities.

**Drills** are coordinated, supervised, activities used to test a specific operation or function of the emergency response plan. The goal of a drill is to practice and gain familiarity with one small part of the response plan and prepare teams and participants for more extensive exercises in the future. Schools generally conduct evacuation, shelter-in-place, or lockdown drills with school occupants to demonstrate the steps they should take if confronted with an emergency. These exercises can include local public safety agencies that can assist and evaluate the drills.

**Tabletop Exercises** are facilitated exercises which analyze an emergency event in an informal, stress-free environment. Tabletops are designed to extract constructive discussion as participants identify, investigate and resolve issues based on their existing emergency response plans. Tabletop exercises provide participants with an emergency scenario that will increase their awareness of the roles and responsibilities they need to take to effectively respond to, stabilize, terminate, and recover from emergencies.

**Functional Exercises** are interactive exercises that test the capabilities of school and district emergency response teams in responding to a simulated event. The functional exercise tests a function(s) of the school’s emergency response plan and is a coordinated response to a situation in a time-pressured, realistic simulation.

**Full-scale Exercises** simulate a real event as closely as possible. It is an exercise designed to evaluate the operational capability of emergency management systems in a highly stressful environment that simulates actual response conditions. To accomplish this realism, it requires the mobilization and actual movement of emergency personnel, equipment, and resources. Ideally, the full-scale exercise should test and evaluate most functions of the emergency response/operational plan. A full-scale exercise will test the capabilities of the schools, school district, local emergency responders, resources, staffing allocations, information analysis, interagency relationships, and emergency response plans and procedures.

**EXERCISE DESIGN**

**The eight-step process is used to design an exercise:**

**1. Assess needs.**

• Conducting a needs assessment will help you define the problems, establish the reasons to do an exercise, and identify the functions to be exercised.

• Some organizations plan exercises as a response to pressure or a “gut feeling.” For example, someone may suddenly decide to do a full-scale exercise based on some dramatic disaster, because full-scale exercises generate a lot of excitement. Such hasty decisions usually result in failure and embarrassment.

• The best way to determine whether you need an exercise and what kind of exercise is needed is to study your situation systematically.

• Conducting a needs assessment will help you define the problems, establish the reasons to do an exercise, and identify the functions to be exercised.

**2. Define the scope.**

• Defining the scope of an exercise means putting realistic limits on the issues that you identified in the needs assessment.

**Why Define the Scope?**

• A needs assessment may reveal a wide array of concerns.

• Clearly you can’t design an exercise that effectively practices: All functions. . .In the context of all hazards. . .Using all agencies, organizations, or departments. . .In all exercise formats. . .Employing all resources.

• You will need to set priorities and make choices. It is important that the scope be clearly and narrowly defined.

**3. Write a purpose statement.**

• The **purpose statement** is *a broad statement of the exercise goal*. It focuses and controls the whole exercise.

• The purpose statement:

• Governs the selection of the objectives, which in turn governs subsequent steps.

• Clarifies for the chief executive and potential participants why the exercise is being conducted.

• Is useful in communicating plans to the media and community leaders.

**The purpose of this exercise is to improve the following operations:**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Types of

2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ operations to

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ be exercised)

**By involving the following personnel and units/agencies:**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Personnel

2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and units

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ involved)

**In a simulated (Hazard) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ emergency at (Location) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**4. Define objectives.**

• Early in the development of an exercise, you must decide what the exercise is intended to accomplish. These outcomes, or objectives, must be specified clearly.

• An **objective** is *a description of the performance you expect from participants to demonstrate competence*. Objectives go hand in hand with the purpose statement but are more specific and performance based.

• Objectives should be SMART.

• **Simple -** A good objective is simply and clearly phrased. It is brief and easy to understand.

• **Measurable -** The objective should set the level of performance, so that results are *observable*, and you can tell when the objective has been achieved. This doesn’t mean that you have to set a quantifiable standard. It just means that people can agree on whether they succeeded.

• **Achievable -** The objective should not be too difficult to achieve. For example, achieving it should be within the resources that the organization is able to commit to an exercise.

• **Realistic -** The objective should present a realistic expectation for the situation. Even though an objective might be achievable, it might not be realistic for the exercise.

• **Task Oriented -** The objective should focus on a behavior or procedure. With respect to exercise design, each objective should focus on an individual emergency function.

**Points of Review**

• Another way to ensure that the objective will provide useful measures is to include specific points of review very specific items to be observed by an evaluator.

For example, the objective below is a little too vague to guide an evaluation team:

**Objective:** Demonstrate the adequacy of the evacuation process.

**5. Compose a narrative.**

• An **exercise** is *a scenario that simulates an emergency*. Part of this scenario is the narrative, which is a brief description of the events that have occurred up to the minute the exercise begins. The narrative has two important functions.

• First, it *sets the mood* for the exercise. Participants need to be motivated to participate. The narrative captures their attention and makes them want to go on.

• Second, the narrative *sets the stage for later action* by providing information that the participants will need during the exercise.

**6. Write major and detailed events.**

• Developing an exercise scenario is much like writing a play. In developing a play, the playwright organizes events into acts and scenes. Similarly, an exercise designer organizes events into major and detailed events.

• Major and detailed events are occurrences, large or small, that take place after and as a result of the emergency described in the narrative. It may be helpful to think of them as *problems* requiring a realistic action that will meet exercise objectives.

• The goal in developing events is to provide a structure that will:

• Link the simulated event to the actions you want people to take.

• Provide unity to the exercise. Without the overall organization provided by major events, the exercise could dissolve into random actions.

• Careful scripting is very important if you are going to produce a convincing, unified scenario rather than a series of unrelated, miscellaneous occurrences. It is also necessary for creating an exercise that is governed by objectives.

**7. List expected actions.**

• **Expected actions** are *the actions or decisi*ons *that you want participants to carry out in order to demonstrate competenc*e. It is necessary to identify expected actions in order to:

• **Write messages.** Because the point of the exercise is to get the participants to think and react in certain ways, the script must be carefully developed to ensure that the messages get the planned results. Your list of expected actions will enable you to write effective messages.

• **Determine what should be evaluated.** The exercise evaluation will focus on whether the participants respond appropriately in an emergency. The list of actions will become the core of that evaluation.

**Event Time Event Description Input Expected Action**

1 \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2 \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3 \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**8. Prepare messages.**

• Messages are used to communicate detailed events to exercise participants. One message may represent an event, or several messages may be needed to notify the participants of the event.

• Messages serve one purpose: To evoke a response, that is, to cause exercise participants to make decisions and take actions that meet the exercise objectives.

• In a full-scale exercise, the controller may input pre-scripted messages into the action.

• Participants receiving the messages make decisions or take action as they would in a real emergency.

**To: \_\_\_\_\_\_\_\_\_\_ Method: \_\_\_\_\_\_\_\_\_\_\_\_ From: \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Time: \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Content: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Action Taken: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**EXERCISE EVALUATION**

Exercise evaluation is a process of observing and recording exercise activities and comparing the performance of the participants against the goals & objectives and identifying strengths, weaknesses and gaps in the plan. There are two types of evaluation to use:

**Process Evaluation** should focus on providing information for program improvement, adjustment and management.

**Impact Evaluation** should focus on determining program results and effectiveness. It provides strong evidence that allows key decisions to be made about your exercise programs – continuation, expansion, reduction, and funding.

􀁺 In order for an emergency management system to be effective, it is critical that the personnel, plans, procedures, facilities, and equipment be exercised and tested on a regular basis. Yet no amount of exercising will be constructive unless each exercise is followed by a structured evaluation that enables the emergency management organization to identify successes and shortfalls.

* Good evaluation can help the organization identify:

– Whether the exercise has achieved its objectives.

– Needed improvements in the plans, procedures, or guidelines.

– Needed improvements in the emergency response system.

– Training and staffing deficiencies.

– Needed operations equipment.

– Need for continued exercising of the plan and the emergency management functions.

**Effective Exercise Evaluation Program**

• Select exercise evaluators and clarify goals and objectives.

• Define criteria that need to be met for a successful exercise.

• Objectives should be **S**imple – **M**easurable – **A**chievable – **R**ealistic and **T**ask-oriented **(SMART).**

• Develop evaluation tool/forms to assess the exercise.

• Evaluation tool/form should include evaluator checklist, narrative summary section, key event section, problem log section, exercise debriefing log and exercise critique form.

***Evaluation Form***

***Evaluator name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Assignment: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

***Objective: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

***Point of Review: Yes No N/A N/O Time***

***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** *􀀀 􀀀 􀀀 􀀀* ***\_\_\_\_\_\_\_***

***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** *􀀀 􀀀 􀀀 􀀀* ***\_\_\_\_\_\_\_***

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*• Provide points of review to guide evaluators. They make it possible to be very objective in collecting data.*

**Conduct a Post Exercise Critique**

• A post-exercise critique should be conducted immediately after the exercise.

• Evaluators, controllers and players should all participate in the critique.

• Positive and negative outcomes of the exercise should be noted and discussed.

• An after-action report should be completed to analyze the findings of the critique and assign responsibilities to close gaps and improve the current emergency management program.