# Basics of Instructional Design

STATECIVILSERVICE
COMPREHENSIVE PUBLIC TRAINING PROGRAM

Course Manual

Revised 06/27/2018

# BASICS OF INSTRUCTIONAL DESIGN

## CONTENTS



## COURSE DESCRIPTION

This one-day course is designed to help subject matter experts and other non-trainers develop training for their agencies. Participants will discuss and apply instructional design models, adult learning principles, multiple intelligence theory, and learning preferences to determine training needs and create effective and engaging training.

This course is part of the Master Trainer Certificate.

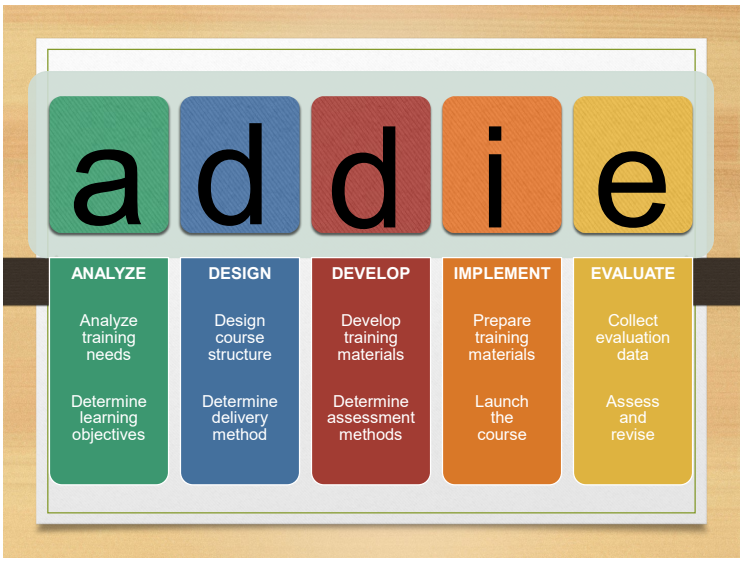
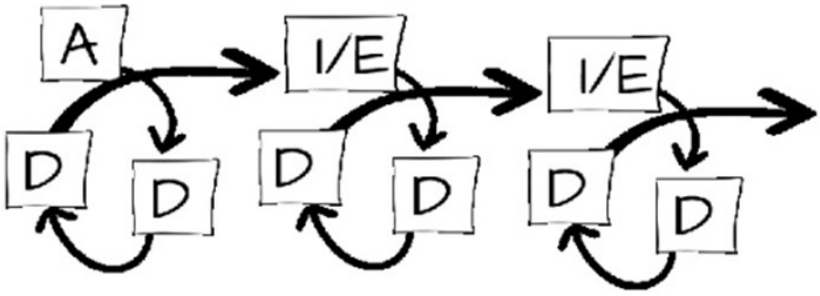
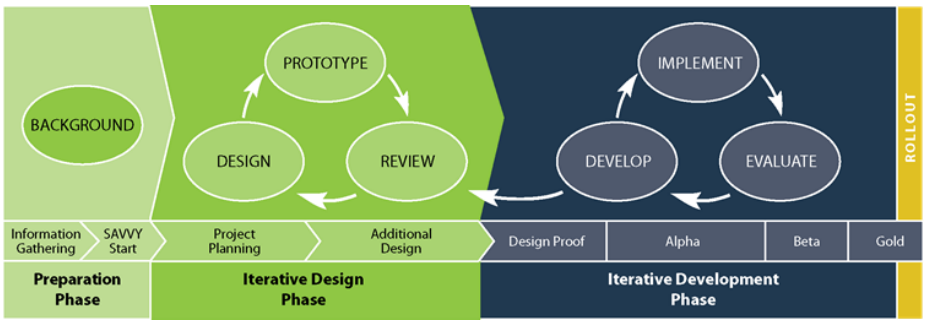
### LEARNING OBJECTIVES

By the end of this workshop, attendees will be able to:

- ☑ Apply the concepts of instructional design
- ☑ Design and develop effective training materials
- ☑ Select activities and tools that will aid in the understanding of course topics
- ☑ Evaluate training for improvement and revisions

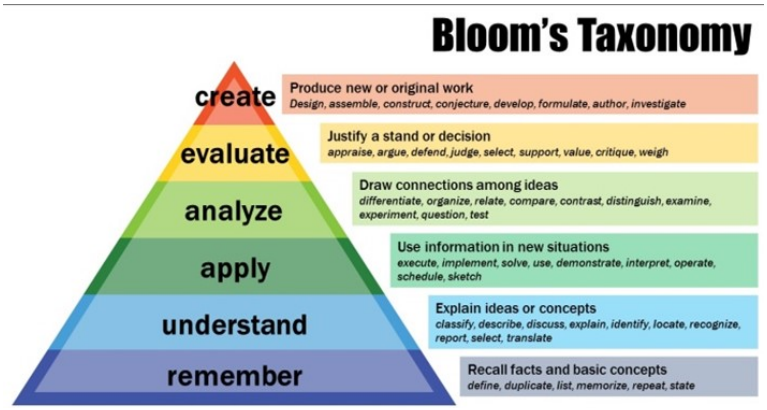
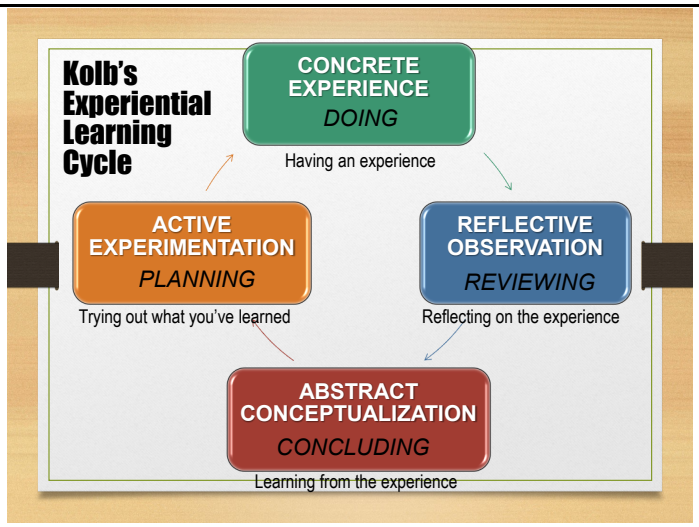
# BASICS OF INSTRUCTIONAL DESIGN

## LEARNING MODELS AND CONCEPTS YOU NEED TO KNOW

| MODELS | NOTES |
|---|---|
| ADDIE<br><br>The classic model of the training design process, which includes the steps:<br>• Analysis<br>• Design<br>• Development<br>• Implementation<br>• Evaluation |  |
| AGILE LEARNING DESIGN<br><br>Any approach to content development that focuses on speed, flexibility, and collaboration |  <br>Image from LearningSolutionsMag.com |
| SAM<br>(Successive Approximation Model)<br><br>An agile content development model that emphasizes collaboration, efficiency, and repetition |  <br>Image from AllenInteractions.com |

# BASICS OF INSTRUCTIONAL DESIGN

## LEARNING MODELS AND CONCEPTS YOU NEED TO KNOW

| THEORIES/PRINCIPLES | NOTES |
|---|---|
| ROBERT GAGNE'S CONDITIONS OF LEARNING<br><br>Gagne identified these nine instructional events. Applying these help to design training and select appropriate media and activities. |  |
| BLOOM'S REVISED TAXONOMY<br><br>In 2001, a group of researchers and theorists revised Bloom's six major categories of Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation to action verbs to make them more dynamic.<br>It is most commonly used to assess learning on a variety of cognitive levels. |  <br>Image from http://acorn.library.vanderbilt.edu/cgi-bin/isbn-search/0321084055 |
| KOLB'S EXPERIENTIAL LEARNING CYCLE<br><br>A four stage cycle of the learning process identified by David Kolb in 1984. |  |

# BASICS OF INSTRUCTIONAL DESIGN

## LEARNING MODELS AND CONCEPTS YOU NEED TO KNOW

| THEORIES/PRINCIPLES | NOTES |
|---|---|

LEARNING STYLE INVENTORY

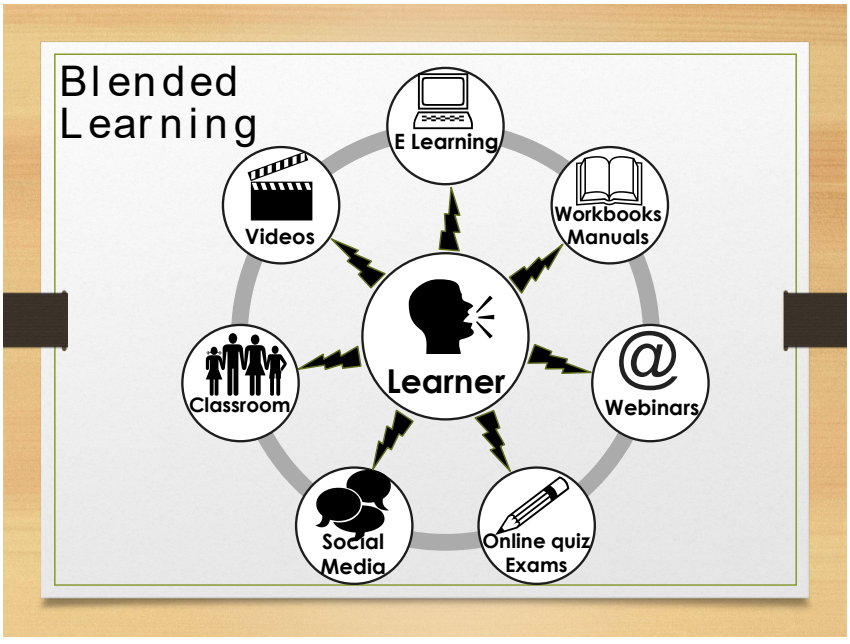
The three styles of learning include visual, auditory, and kinesthetic (hands-on) learning.

Some basic preferences that can indicate learning styles include:

| | VISUAL | AUDITORY | KINESTHETIC |
|---|---|---|---|
| **When spelling** | ☐ Do you try to see the words? | ☐ Do you say the words aloud? | ☐ Do you write words to find if they feel right? |
| **When speaking** | ☐ Do you prefer words like: see, picture, image | ☐ Do you prefer words like: hear, tune, sounds? | ☐ Do you prefer words like: feel, touch, hold |
| **When reading** | ☐ Do you like descriptive scenes? | ☐ Do you enjoy dialog? | ☐ Do you prefer action stories? |
| **When learning software** | ☐ Do you prefer pictures and diagrams? | ☐ Do you call the help desk? | ☐ Do you prefer to work through it yourself? |
| **When trying to concentrate** | ☐ Are you distracted by untidiness or movement? | ☐ Are you distracted by sound or noise? | ☐ Are you distracted by movement near you? |

BLENDED LEARNING

Training initiatives that include using a variety of learning formats, including digital, web-based, job aids, assessments, and face-to-face training.

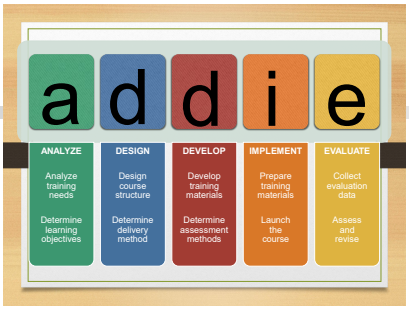


# BASICS OF INSTRUCTIONAL DESIGN

## KEY TERMS

| KEY TERMS | NOTES |
|---|---|
| COMPETENCIES | Behaviors that demonstrate the knowledge, skills, and abilities as levels of performance in the workplace. (Formal definition: A competency is a set of defined behaviors that provide a structured guide enabling the identification, evaluation, and development of the behaviors in individual employees.) |
| COURSE | A planned series of learning experiences on a specific topic or group of tasks |
| E-LEARNING<br>(Electronic Learning | Term covering a wide set of applications and processes, such as web-based learning, computer-based learning, virtual classrooms, audio programs, videos, and more |
| ILT<br>(Instructor-led Training) | Traditional classroom training with an instructor/facilitator and students |
| INFORMAL LEARNING | Learning that is not formally defined and takes place in locations ranging from the workplace to social media |
| KSAs<br>(Knowledge, Skills, and Abilities) | Knowledge, skills, and abilities (See competencies) |
| M-LEARNING<br>(Mobile Learning) | Learning that takes place on wireless devices such as smart phones and tablets |
| MODULE | A unit, especially one that can stand alone, to be learned independent of other units |
| OBJECTIVES | Training objectives state what will be accomplished as a result of the training. |
| SME<br>(Subject Matter Expert) | An individual who is proficient in a specific topic area |
| UNIT | A major subtopic, task, or task cluster to be learned within a course |
| WBT<br>(Web-based Training) | Delivery of educational content via a Web browser, internet, or intranet |

# BASICS OF INSTRUCTIONAL DESIGN




Your task is to study your assigned steps of ADDIE below.

- Your group will discuss the notes on the page.
- You'll decide why you feel this step is important to the instructional design process.
- And you'll add anything else you might want to do during this step of instructional design.
- Then you'll be prepared to share your information with us when we get to your step in the course today.

| ADDIE | NOTES |
|---|---|
| ANALYZE | ☐ Gather data<br>☐ Analyze training needs<br>☐ Identify learner's existing knowledge and skills<br>☐ Analyze skill gaps<br>☐ Define learning objectives<br>☐ Identify timeline and delivery options<br>☐ Continually communicate with stakeholders and revise plans as needed |
| DESIGN | ☐ Determine how training will be delivered<br>☐ Identify and plan the topics<br>☐ Decide on the order of topics<br>☐ Select training activities to support learning<br>☐ Select media to be used<br>☐ Continually communicate with stakeholders and revise plans as needed |
| DEVELOP | ☐ Develop the content<br>☐ Create slide presentation, audiovisuals, and other graphics<br>☐ Complete handouts and course materials<br>☐ Build the learning activities<br>☐ Ensure all elements support the objectives<br>☐ Continually communicate with stakeholders and revise plans as needed |
| IMPLEMENT | ☐ Create plan to roll out training<br>☐ Train others who will be facilitating the courses<br>☐ Finalize all course logistics (location, equipment, etc.)<br>☐ Utilize checklists to ensure all preparations are complete<br>☐ Communicate with potential learners<br>☐ Register and confirm attendees<br>☐ Present training<br>☐ Continually communicate with stakeholders and revise plans as needed |
| EVALUATE | ☐ Have learners complete evaluation<br>☐ Review test results if applicable<br>☐ Observe behaviors to measure results<br>☐ Continually analyze results to determine course revisions<br>☐ Continually communicate with stakeholders and revise plans as needed |

# NEEDS ASSESSMENT

**NEEDS ASSESSMENT**

What symptoms suggest that a change is needed?

What is the intended result of this training?

Why is this important?

Who requested this training?

**AUDIENCE**

Who is the intended audience for this training?

What is the difference between what they do now and what they will be able to do after completing this training?

What is their current knowledge level of the topic?

**OBJECTIVES**

*Your group will use the information on page 9 to create three objectives for your class.*

By the end of this training, participants will be able to…
(Action Verb + Activity)

- 
- 
- 

# CREATING OBJECTIVES

What do you want attendees to be able to do upon completion of this course?
How will you be able to measure this?

Think about these questions:

- What are the most important concepts or skills that trainees need to understand or be able to do by the end of the class?
- Why are these concepts and skills important?
- How will you know that they have understood these correctly?

**Characteristics of Well-Written Objectives**

- PERFORMANCE: States what the learner will be able to do.
- CONDITIONS: Sometimes performance alone is not enough to explain the desired objective. In these cases, objectives will include the conditions under which the performance is expected to occur.
- CRITERIA: Using SMART concepts (Specific, Measurable, Achievable, Relevant, Time-bound) can help determine the level of performance that is considered acceptable.

**ACTION VERBS FOR OBJECTIVES**

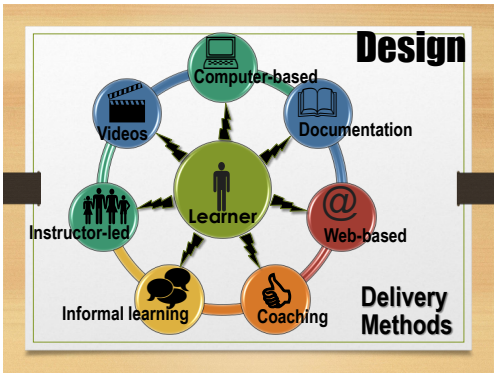
| REMEMBER | UNDERSTAND | APPLY | ANALYZE | EVALUATE | CREATE |
|---|---|---|---|---|---|
| cite | describe | apply | analyze | assemble | assess |
| define | discuss | demonstrate | calculate | build | check |
| label | explain | employ | categorize | compose | choose |
| list | identify | interpret | diagnose | design | compare |
| name | locate | operate | distinguish | establish | estimate |
| recall | report | perform | inspect | manage | measure |
| recognize | review | practice | relate | organize | rate |
| state | summarize | schedule | solve | plan | review |
| tell | tell | use | test | prepare | select |

# DESIGN CONSIDERATIONS

## DELIVERY METHODS

Select which formats will best support the information being shared.

- Instructor-led
- Web-based
- Computer-based
- Documentation/Job Aids
- Other:




## TOPICS TO BE COVERED

Determine the main topics that will support the objectives.

## INTERACTIVITY

Select methods to practice and assess understanding of information for each topic listed in the content outline.

- Discussion
- Demonstrations
- Learning Activities
- Observation
- Feedback
- Tests
- Assessments

# ORGANIZING CONTENT

Sample Organizational Methods for Course Content:

- Tasks
- Topics
- Problem and solution
- Step by step
- Simple to complex
- Overview to detail
- Specific to general
- Known to unknown
- Present to future

Which organizational methods will you use for your course?

Create a draft of that order below:

# BASICS OF INSTRUCTIONAL DESIGN - DEVELOPMENT

## RESEARCH

| METHOD | DESCRIPTION | ☐ When would this method of research be good to use?<br>☐ Would it be good to define a process or procedure?<br>☐ Would it help gain buy-in from potential attendees?<br>☐ What could be a drawback in using this form of research?<br>☐ Would this work for your case study? |
|---|---|---|
| INTERVIEW | Discussion with the person who requested the class can help to find information that needs to be included in the course content. | |
| SME SURVEYS | Surveys or questionnaires of Subject Matter Experts (SMEs) can be used as a method to identify best practices and detailed information about the topic and processes. | |
| DISCUSSION | Casual discussions with those involved in the topic can produce more candid information than a formal survey. | |
| FOCUS GROUP | Formalized discussions with those involved in the topic allows interaction between viewpoints and can enhance buy-in for the course. | |
| DOCUMENTATION | Review of materials, manuals, and job aids can be useful in determining what information is currently available and what will have to be researched and developed. | |
| OBSERVATION | Observation of the current processes may be structured by having employees perform specific tasks or it can be unstructured by observing without influencing the employee's actions. | |
| OTHER | Traditional research methods, such as online investigation and publications, can help determine what others have discovered about the topic. | |

# LEARNING ACTIVITIES

| If you're dealing with hands-on or kinesthetic learners, these activities can help learning occur: | If you're dealing with auditory learners, these activities can help learning occur: | If you're dealing with visual learners, these activities can help learning occur: |
|---|---|---|
| • Role playing<br>• Handouts<br>• Role playing/games<br>• Hands-on demonstrations<br>• Group or individual projects<br>• Writing on flipcharts/boards<br>• Practicing with tools<br>• Coaching<br>• Written tests<br>• Interactive computer simulations | • Mini-Lectures<br>• Question/Answer sessions<br>• Videos<br>• Demonstrations<br>• Group or individual projects<br>• Panel discussions<br>• Music<br>• Coaching<br>• Oral tests<br>• Interactive computer simulations | • Slide presentations<br>• Handouts<br>• Videos<br>• Demonstrations<br>• Posters, graphics<br>• Writing on flipcharts/boards<br>• Lists<br>• Reference materials<br>• Written test s<br>• Interactive computer simulations |

| **SAMPLE LEARNING ACTIVITIES** | **NOTES** |
|---|---|
| Case studies | Groups read a real job-related case study and apply what they just learned to determine the course of action. |
| Discussions | Small group discussions can be a good way for more reserved attendees to feel comfortable discussing the topic. It also also experienced attendees to share knowledge with others. |
| Icebreakers and Energizers | These activities are designed to either allow the group to get acquainted and become more comfortable with each other or to help raise the energy level of a group. There are numerous collections online and in publications. |

# LEARNING ACTIVITIES (CONTINUED)

| SAMPLE LEARNING ACTIVITIES | NOTES |
|---|---|
| Role Plays | Participants act out a situation that relates to the topic or uses information that has been learned in the session. |
| Question and Answer Sessions | Informal question and answer sessions can be effective when the session is updating skills rather than teaching new skills. |
| Quizzes | Oral or written quizzes can be used as reviews for sections of the course and to assess understanding of the material that has been presented. |
| Games | Various games can be used to introduce topics or to reinforce or review training materials. |
| Teach backs | Attendees teach something they have learned in the session to other attendees. |
| | |
| | |
| | |
| | |
| | |

# BASICS OF INSTRUCTIONAL DESIGN - DEVELOPMENT

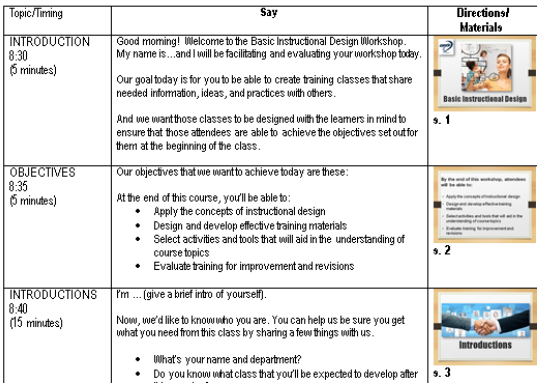
## TRAINING MATERIALS

### SCRIPT

Create instructional guides that detail the timing, materials, and activities that will be used in the course

- May include specific scripting for others who will be teaching the class
- May also include images of slides to help facilitator ensure he/she is at proper place in program
- May include additional information and resources for facilitator's understanding of the topic

.

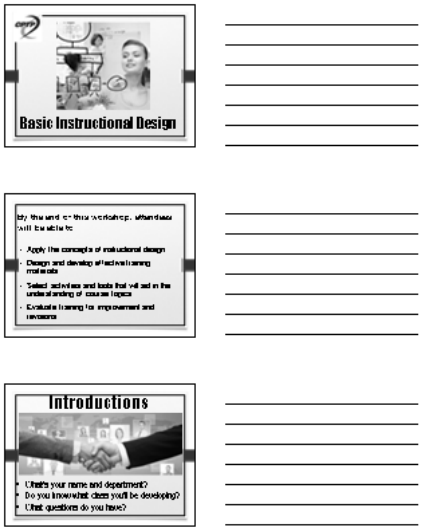


| Topic/Timing | Say | Directions/ Materials |
|---|---|---|
| INTRODUCTION<br>8:30<br>(5 minutes) | Good morning! Welcome to the Basic Instructional Design Workshop. My name is…and I will be facilitating and evaluating your workshop today.<br><br>Our goal today is for you to be able to create training classes that share needed information, ideas, and practices with others.<br><br>And we want those classes to be designed with the learners in mind to ensure that those attendees are able to achieve the objectives set out for them at the beginning of the class. | Basic Instructional Design<br>s. 1 |
| OBJECTIVES<br>8:35<br>(5 minutes) | Our objectives that we want to achieve today are these:<br><br>At the end of this course, you'll be able to:<br>• Apply the concepts of instructional design<br>• Design and develop effective training materials<br>• Select activities and tools that will aid in the understanding of course topics<br>• Evaluate training for improvement and revisions | s. 2 |
| INTRODUCTIONS<br>8:40<br>(15 minutes) | I'm … (give a brief intro of yourself).<br><br>Now, we'd like to know who you are. You can help us be sure you get what you need from this class by sharing a few things with us.<br><br>• What's your name and department?<br>• Do you know what class that you'll be expected to develop after | Introductions<br>s. 3 |

### HANDOUTS

Create handouts with information, spaces for writing, and tools to support activities and transfer of learning into workplace

- Manuals that outline the session information to serve as a resource and a place to take notes
- Job aids can include checklists, documentation, and review pages
- Case studies allow participants to practice the workshop information in a real world situation
- Assessments to self-assess current skills or skill gaps
- Evaluations so that attendees can determine the success of their learning experience




### SLIDES

Create slide presentation

- Used to present information visually
- Serves as an agenda or outline of the material to be covered
- Can also be used as handouts with places for notes
- Printed copies of slides can be used in case of equipment failure

# COURSE CHECKLIST

- ☐ Create and send training announcement. Include:
  - Title
  - Course Description
  - Location
  - Date and time
  - Registration information
  - Presenter/Contact information
  - Location details (Parking, room, directions, etc.)
- ☐ Copy materials.
  - Training manual
  - Handouts
  - Name tags
  - Sign-in sheets
  - Evaluation forms
  - Tests
  - Case studies and other activity materials
  - Signs
- ☐ Determine and reserve equipment.
  - Computer with necessary software
  - Remote
  - Projector
  - All related cords and connectors
  - Microphones
  - Flip charts and stand
  - Markers
  - Materials for activities
  - Training supplies (pens, pencils, paper)
  - Refreshments (optional)

- ☐ Arrive early, allowing preparation time.
- ☐ Post signs.
- ☐ Arrange room setup to encourage interaction.
- ☐ Connect audiovisual equipment and test.
- ☐ Check visibility from all seats and angles.
- ☐ Locate temperature and lighting controls.
- ☐ Locate emergency exits and equipment.
- ☐ Organize registration.
- ☐ Place copied materials as desired .
  - ☐ at seats
  - ☐ registration table,
  - ☐ facilitator table (for later distribution)
- ☐ Greet attendees as they arrive.
- ☐ Start on time.
- ☐ Conduct training, adjusting based on participant needs.
- ☐ Schedule breaks for every 60-90 minutes of training.
- ☐ Collect participant evaluation forms.
- ☐ Reset room to original condition.
- ☐ Compile evaluation results and share.
- ☐ Consider adjustments based on evaluation results.
- ☐ Send follow up emails and communications to those involved in the training project.

# BASICS OF INSTRUCTIONAL DESIGN - EVALUATION

## EVALUATION AND CONTINUED DEVELOPMENT

**THE BASICS:**

- ☐ Create plan for review and revision of materials as needed
- ☐ Communicate evaluation results to stakeholders
- ☐ Create system to ensure materials are updated and maintained in one location
- ☐ Meet with stakeholders to determine what worked and what can be adjusted in future courses
- ☐ Notes:

| EVALUATION FORM | Needs Improvement | Okay but Could Be Better | Good | Very Good | Excellent |
|---|---|---|---|---|---|
| The difficulty level of this training program was appropriate. | 1 | 2 | 3 | 4 | 5 |
| The activities were valuable in understanding the concepts and practicing them. | 1 | 2 | 3 | 4 | 5 |
| The pace of this class was appropriate for the topics covered. | 1 | 2 | 3 | 4 | 5 |
| The class included ample opportunities for active involvement. | 1 | 2 | 3 | 4 | 5 |
| The facilitator was knowledgeable about the subject. | 1 | 2 | 3 | 4 | 5 |
| I obtained the information I needed from this workshop. | 1 | 2 | 3 | 4 | 5 |
| The visual aids were clear and effective. | 1 | 2 | 3 | 4 | 5 |
| The handouts and other resources were useful. | 1 | 2 | 3 | 4 | 5 |
| I will be able to apply what I learned in this workshop. | 1 | 2 | 3 | 4 | 5 |
| I would recommend this workshop to others. | 1 | 2 | 3 | 4 | 5 |
| Comments: | | | | | |