AgTerror
Preparedness Center

Foreign Animal Disease Response
Training for Emergency Responders

Adult Learner

Participant Manual

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Acronyms Used in This Module

ABL   Activity-based learning

FADR   Foreign Animal Disease Response

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Overview

In order to present successful training programs, particularly to diverse audiences with different training needs, trainers need to be able to adapt course material to accommodate various learning styles.

Goal

This module introduces participants to the elements of instructional design, Gagne's conditions of learning, and elements of adult learning theory incorporating the following principles:

Learning causes an observable change in the participant.

   a. Skills should be learned one at a time.

   b. Each new skill learned should build on previously acquired skills.

   c. Each new skill learned should build on previously acquired skills.

Terminal Learning Objective

Apply adult learning theory and practice into the Foreign Animal Disease Response (FADR) training delivery.

Enabling Objectives

Using Gagne's conditions of learning and elements of Adult Learning Theory, participants will be able to:

   • Recognize five common categories of learning.

   • List the key elements of Adult Learning Theory

   • Implement adult learning theory in the participant teach-back.

Categories of Learning

Gagne's theory stipulates there are several different types or levels of learning with each requiring different types of instruction. Gagne identifies five major categories of learning: [1]

1. Verbal information.
2. Intellectual skills.
3. Cognitive strategies.
4. Motor skills.
5. Attitudes.

Gagne states that different internal and cognitive conditions are necessary for learning. For example, if cognitive strategies are to be learned, there must be a chance to practice developing new solutions to problems; to learn new attitudes, the participant must be exposed to a credible role model or persuasive arguments.

Gagne suggests that there are nine conditions that directly relate to successful learning: They are:

1. Gaining attention (reception)
2. Informing learners of objectives (direction)
3. Retrieval (recall)
4. Presenting new material (content)
5. Providing learning guidance (application level 1)
6. Eliciting performance (application level 2)
7. Providing feedback (application level 3)
8. Assessing performance (evaluation)
9. Retention and transfer (closure)

Key Elements of Adult Learning

Review of key elements of adult learning theory:

Key Elements:

- Adults learn best by doing.
- Learners should be engaged in learning and encouraged to be self-directed.
- Take advantage of learner's experience and previous experiences.

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[1] *Learning Theories: Conditions of Learning,* Open Learning Technology Corporation Limited, (1996):

http://www.educationau.edu.au/archives/cp/04d.htm

- Learning activities have more direct relevance if they relate directly to learner's circumstances.

- Take individual learning styles and demonstrate each new element of learning at least two different ways and three different times.

- Use varying approaches and circumstances.

Tips Related to Adult Learning

Establish a climate conducive to learning. This varies based on what type of training will be given, the expected audience, the training venue, and many other items. The classroom needs to be conducive to learning. For example: proper lighting, enough seating and space for the number of participants attending the training, contain all support equipment and material to deliver the course Design training to be approximately 35% presentation and 65% application and feedback. Studies show that information that is either seen or heard is not retained as long as information that is both seen **_and_** heard.

Considerations When Working with Adult Learners

- Application in the "real world" is important to the adult learner's personal and professional needs.

- Adults want to be the origin of their own learning and will resist learning activities they believe are an attack on their

Photo courtesy USDA NRCS

competence. Training needs to give participants some control over the what, who, how, why, when, and where of their learning.

- Adult learners need direct, concrete experiences to apply the learning in real work.

- Adult learning has ego involved. Training must be structured to provide support from peers and to reduce the fear of judgment during learning.

- Adults need to receive feedback on how they are doing and the results of their efforts.

- Adults need to participate in small group activities during the learning process to move them beyond understanding to:

  o Application
  o Analysis
  o Synthesis
  o Evaluation

  Small group activities provide an opportunity to share, reflect, and generalize their learning experiences.

- Adult learners come to learning with a wide range of previous:

  o Experiences
  o Knowledge
  o Self direction
  o Interests
  o Skills

This diversity in adult learners must be accommodated in adult training delivery.

Trainers

The ability to deliver effective training is often thought to be something an individual either does or does not possess. Although there are specific qualities and behaviors that differentiate effective trainers from ineffective ones, these qualities and behaviors can be acquired and demonstrated.

Qualities of an Effective Trainer

Active Listening is the ability to hear not only what a person is stating, but also what his or her underlying feelings are about the subject. Being an active listener is an essential quality of an effective trainer. It is a sense of hearing that which is not explicitly said.

Peripheral vision is the ability to sense the group process and to make a fairly accurate assessment of what you imagine each group member is experiencing. Acquiring peripheral vision involves tuning into people's body language (postures, facial expressions, gestures) that give clues of how that person is feeling.

Empathy is the quality of a good trainer that refers to the ability to stand in the other person's shoes, to see the world as he or she sees it. No two people see things exactly the same. An effective trainer is able to imagine what the world looks like from another person's eyes.

Sense of timing is knowing when to intervene and when to remain silent. Trainers may find themselves talking too much, making too many interventions and taking too long to make them.

Clarity is an important characteristic of an effective trainer. Trainers who are able to be clear and to the point usually hold the attention of the personnel. It is important for trainers to be comfortable with, and knowledgeable about, their material.

Differentiation is the ability of the trainer to separate himself/herself from the students, so that the trainer is able to facilitate the group process rather than become enmeshed with it. It is the ability to distinguish between one's own thoughts and feelings, and those of others.

Variability means the ability to be confrontational and supportive, serious or light, depending on the circumstances. As a trainer, you need to respect the feelings of individuals within the class. The use of humor is important, as laughter almost always makes an experience more enjoyable, and enjoyment is an aid to learning.

Sensitivity is the ability to reach each person, to touch each member emotionally, intellectually, or physically. The sensitive trainer is truly involved in the group experience.

Self-disclosure is a willingness to share one's feelings, thoughts, reactions, and appropriate personal information with members of the class.

Flexibility is the willingness of the trainer to give up pre-conceptions. It is also the ability make changes in the design or presentation of the information to make the information relevant and meaningful to students.

Effective Trainer Behaviors

Be prepared: You need to know the subject matter you are instructing. Take time to fully prepare yourself for the training (practice).

Be yourself: No one can be you better than you. Use language that is comfortable to you but not offensive to others (use verbiage you understand).

Be energetic: Vary the activities in order to maintain an energetic learning environment (lecture, then discuss, then paper exercises to cover the topic rather than just one format).

Use your sense of humor: Encourage humor whenever possible. Humor provides both the trainer and learner with another way of viewing themselves that is meaningful, fun, and creative.

Be direct: The more honest and direct you are as a trainer, the more you serve as a positive role-model for the learner (admit you do not know all the answers to all the questions but will find out).

Be clear: Make sure what you say is easily grasped and understood (ask the class if things are clear if you need to provide additional information).

Be sensitive to learners: Pay attention to people's feelings and be responsive to their changing needs (watch for changes in body language and interaction throughout the training).

Share Leadership: Shared leadership produces greater involvement and investment from the learner (allow participants to engage with sharing their knowledge).

Be a role model: Behave in ways that are consistent with your value system and learners will probably behave in similar ways (practice what you preach).

Be positive: It is essential that you believe in the learner's unlimited potential to grow and change in a positive direction (failure exists only if the participants fail to come through the door to training).

Learning Styles

Transfer of learning for adults is not automatic and must be facilitated. Coaching and other kinds of follow-up support are needed to help adult learners transfer learning into daily practice so that it is sustained.

One of the pitfalls of instruction is that trainers tend to develop training programs that accommodate the way the trainer learns best, not the way the participants learn best. For example, if the trainer learns best by reading, he/she tends to give a manual to new employees and expects them to master the procedure by reading the manual. If the trainer learns best through experimentation, he/she tends to throw participants into a new situation with little guidance. Every participant is different and must be treated as an individual. Here are some examples:

Passive learners learn best by:

1. Reading manuals and books.
2. Watching an audio-visual presentation.
3. Hearing a lecture.
4. Observing demonstrations.

Active learners learn best by:

1. Participating in discussions.
2. Role-playing.
3. Performing an experiment.
4. Taking a field trip.
5. Hands-on learning.
6. Responding to a scenario.
7. Making a presentation.

Some learners prefer to learn by themselves; others prefer to work in groups. Some people need a lot of organization and learn small steps sequentially; others assimilate whole concepts with a flash of insight or intuition. Appendix B provides examples of activities for activity based learning.

Key Points about Adult Training

Adult training must be relevant; that is, the material being presented should be of immediate use or benefit to the learner. Relevancy is crucial to successful adult training.

In adult education, the most important resource for course content is often the participants themselves. Adult professionals have a wealth of knowledge and experience. A skilled trainer will take advantage of this resource by soliciting it from the group as an integral part of the training.

Summary

Remember to keep focused on the topic. Repeat the main topic so that the focus does not shift. The instructor must refocus the participants by repeating or paraphrasing the main topic, or by offering a personal response to redirect the focus.

The following is a brief summary of adult learning principles.

1. Focus on "real world" problems.

2.   Emphasize how the learning can be applied.

3.   Relate the learning to the participants' goal.

4.   Allow debate and challenge of ideas.

5.   Relate the materials to the participant's experiences.

6.   Listen to and respect the opinions of participants.

7.   Encourage learners to be resources to you and to each other.

8.   Treat participants like adults.

Appendix B provides information to assist trainers and training directors who are developing a training program, and evaluators who are assessing a program's quality.

Appendix A

Activity-based Learning (ABL)

Activity-based learning is a process that involves participants in doing things, thinking about what they are doing and applying what they have learned to new situations. The process includes a range of activities such as interactive lecture, hands-on, class discussion, small group exercises, videotapes, case studies, role plays, reflective exercises, panel of experts, brainstorming, guest speakers, and demonstration.

The Interactive Lecture

The use of interactive lecture allows the opportunities for the instructor to present factual material in a direct, logical manner while relating the participants' background and experience to course topics, stimulating critical and creative thinking and providing examples and stories.

Hands-on

The use of hands-on allows opportunities for the participant to show the instructor how well he/she can perform a particular task or procedure.

Class Discussion

The use of class discussion after a learning activity allows opportunities for the participant to gather ideas, analyze issues and /or generate solutions or recommendations.

Small Group Discussions

Small group exercises usually consist of participants from different backgrounds and experiences working toward a common goal. For example, a small group may analyze a job site accident, determine what caused it and establish guidelines to prevent it from happening again.

Videotapes

The use of videotapes is an entertaining way of teaching content and keeping the participants' attention while stimulating discussion.

Case Studies

The use of case studies allows opportunities for the participants to develop analytical skills, explore complex issues and apply new knowledge and skills.

Role-playing

The use of role-playing allows opportunities for the participants to assume the role of others and thus appreciate another point of view, explore complex issues and rehearse skills before applying them in real situations.

Reflective Exercises

The use of reflective exercises allows opportunities for the participants to think for themselves without being influenced by others and then share their individual thoughts with others.

Panels of Experts

The use of experts allows opportunities for the participants to become aware of different opinions and then generate solutions or recommendations based on further reflection and discussion.

Brainstorming

The use of brainstorming allows opportunities for the participants to think creatively, participate fully, draw on their background and trigger other ideas.

Guest Speakers

The use of guest speakers allows opportunities for the participants to personalize the topics and break down stereotypes.

Demonstration

The use of demonstration allows opportunities for the instructor to show the participants how to perform a particular task or procedure.

Appendix B Principles of Adult Education

A Checklist for Planners and Evaluators

The following list is intended to assist trainers and training directors who are developing a training program, and evaluators who are assessing a program's quality.

General Principles

1) The best training programs take advantage of the following characteristics of adult learners:

- Adults are self-motivated.

- Adults expect to gain information that has immediate application to their lives.

- Adults learn best when they are actively engaged.

- Adult learning activities are most effective when they are designed to allow students to develop both technical knowledge and general skills.

- Adults learn best when they have time to interact, not only with the instructor, but also with each other.

- Adults learn best when asked to share each other's personal experiences at work and elsewhere.

Meeting the Needs of Adult Learners

2) Does the physical environment of the classroom encourage active participation?

- How are the chairs, tables, and other learning stations arranged in the classroom?

- How does this arrangement encourage or inhibit participation and interaction?

- Can the arrangement be changed easily to allow different kinds of interaction?

3) Does the social environment or atmosphere in the classroom encourage people to participate?

- Are warm-up activities or "ice breakers" used to put people at ease?

- Do trainers allow participants to say things in their own words, or do they translate what is said into other words or jargon?

- Are participants encouraged to listen carefully to each other?

- Are they encouraged to respect different points of view?

- Are they encouraged to use humor?

4) People learn in different ways. Do the learning activities in the training program provide participants with an opportunity to do each of the following:

- Listen

- Look at visuals

- Ask questions

- Read

- Write

- Practice with equipment

- Discuss critical issues

- Identify problems

- Plan actions

- Try out strategies in a participatory way

5) Does the program effectively accommodate participatory learning activities?

- Is enough time allowed for participant interaction?

- Have the instructors developed workable and effective interactive activities?

- Does the atmosphere in the classroom encourage interaction?

- Are the learning activities sensitive to cultural differences among the participants?

6) What kind of participatory activities used are in the program, and how much time is devoted to each?

- Role playing

- Case studies

- Audio-visual discussions

- Discovery exercises

- Planning exercises

- Mapping exercises

- Group discussions

- Lecture-discussions

- Report-back sessions

- Evaluation sessions

7) How effectively do the lectures in the program encourage participation?

- Are they combined with a participatory exercise?

- Are they brief? (20 minutes at most, preferably less)

- Are they well organized?

- Are audio-visuals aids incorporated in the lecture?

- Does the lecturer rely too heavily on his or her notes?

- Was there enough time for questions and comments from others?

8) How effective are the participatory activities used in the program?

- Are the purposes of the activities clearly specified?

- Are the tasks that people are expected to complete clearly described?

- Are participants given enough information to complete the expected tasks?

- Is the information accompanying the activity clearly presented and easily understood?

- Is the information presented relevant to the task?

- Are participants given enough time to share what they have learned from the tasks with each other?

- Are the participants given a clear summary of the main points they were expected to learn in the activity?

9) How effectively do the case studies and role-playing activities in the program encourage participation?

- Is the situation being discussed familiar to the participants?

- Does the situation evoke strong feelings in the participants?

- Does the situation lead to an in-depth analysis of the problem?

- Does the situation encourage people to consider a range of possible strategies for dealing with the problem?

- Are people provided with enough information to participate in the activity in a meaningful way?

- Are people provided with too much information so that they have no room to improvise or call on their own experiences?

- Are people provided with an opportunity to discuss the social, cultural, and historical contexts of the situations?

10) How effectively does the organization of the program encourage participation?

- Are discussion groups small enough to ensure participation? (No more than 4 to 6 people.)

- Is the ratio of discussion groups to instructors small enough? (A single instructor cannot supervise more than three or four groups well).

- Is there enough room to enable each group to talk amongst itself without disruption?

- Does each group have its own moderator and note-taker?

- Does the responsibility for leading and recording the discussion rotate among those willing to do the job?

- Are the groups supplied with guidelines about how to lead and report their discussions?

- Do the activities make allowances for anyone in the group who may have problems reading and writing?

11) Is the program sensitive to literacy differences?

- Do the trainers check privately with anyone having reading and writing difficulties?

- Is reading aloud or writing in front of the group only voluntary and never mandatory?

- Are all instructions and other required material read aloud?

- Do the materials incorporate enough visual aids and props?

- Do the trainers repeat out loud anything they write on a board or flip chart?

12) Do the audio-visual aids used by the training program encourage participation?

- Do the instructors write an on-going record if they consider it inaccurate?

- Is no more than 10 percent of the training program devoted to showing films, videotapes or slides?

Guidelines for Leading an Effective Discussion

13) Getting a Discussion Started:

- Use a provocative "trigger," small group exercise, or other activity to give the group something to talk about

- Plan a few specific questions that ask for opinions about the activity

- "Brainstorming" activities help elicit as many different ideas on a given topic as possible.

- "Buzz groups" help elicit controversial interpretations or perspectives

- Open-ended questions and controversial positions can evoke strong responses. They are therefore more likely to be useful after people have gotten used to talking together.

14) Keeping a discussion going

- Ask questions that require the group to come up with its' own ideas rather than just respond to your ideas.

- Questions should encourage people to draw on their own experiences.

- Calling on people may be necessary to keep discussion going.

- Redirect questions to the group—ask if others have ideas on the subject.

- Try to get everyone involved. Don't allow one or two people to dominate.

- Set a good example: keep your comments brief.

References

1.   *Adult Learning Theory.* North Central Regional Educational Laboratory, Naperville, Illinois (2004). Produced under a grant from the Institute of Education Services, U.S. Department of Education:

      http://www.ncrel.org/sdrs/areas/issues/methods/technlgy/te10lk12.htm

2.   Bhola, H.S. (1990). *Evaluating "Literacy for Development" Projects, Programs and Campaigns, Evaluation Planning, Design and Implementation, and Utilization of Evaluation Results.* UNESCO Institute for Education, Hamburg Germany. DSE (German Foundation for International Development).

3.   Carey, L. and Walter, D. (1996). *The Systematic Design of Instruction.* (4th Ed).Harper Collins, New York.

4.   *Designing and Delivering Effective Health and Safety Training.* (Aug 2002). California-Arizona Consortium, under NIEHS Grant.

5.   *Force Field Analysis.* Retrieved June 2004 from OSHA 5600 Disaster Site Worker Train the Trainer Program

      http://www.accel-team.com/techniques/force_field_analysis.html

6.   Hodell, C. (2000). *ISD from the Ground Up: A Non-Nonsense Approach to Instructional Design,* ASTD, Alexandria, VA.

7.   *Learning Theories: Conditions of Learning,* Open Learning Technology Corporation Limited. (1996).

      http://www.educationau.edu.au/archives/cp/04d.htm

8.   ODP Blended Learning version 1 2003

9.   Susan M. McMaster, CIT, Designing and Delivering Effective Training, Instructional Technology Handbook, NESHTA