AETC
AIDS EDUCATION & TRAINING CENTERS
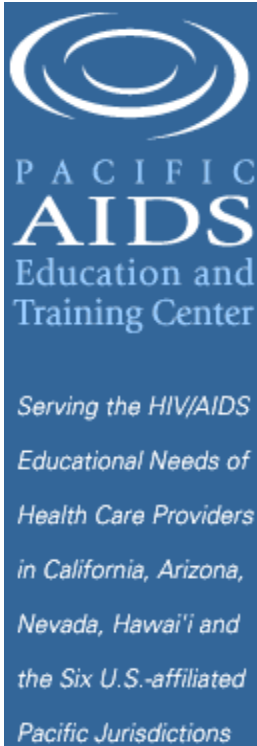
The AETC Trainers'

Reference and
Resource Manual

PACIFIC
AIDS
Education and
Training Center

September 2009

The AETC Trainers' Reference and Resource Manual

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September 2009

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Trainers' Reference & Resource Manual

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AETC
AIDS EDUCATION & TRAINING CENTERS

Introduction & Overview

Training Program Design and Implementation

Adult Learning and Participatory Training

Teaching and Presentation Effectiveness

Group Facilitation

Interactive Learning Activities

Developing and Using Clinical Case Studies for Teaching

Designing and Developing Training Curricula

Training in the Clinical Setting

Cultural Competence Training

Learner Assessment and Training Program Evaluation

Training Program Management Resources

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Introduction and Overview

Welcome

Welcome to *The AETC Trainers' Reference and Resource Manual!*

Whether you are an experienced trainer, a new AIDS Education and Training Center (AETC) program manager, or a clinical faculty member with either full-time or only occasional teaching and education responsibilities, we hope you will find this resource useful.

The national AETC program has been providing HIV/AIDS information, clinical training, and knowledge dissemination for over 20 years. As knowledge of HIV/AIDS continues to evolve, so do the needs for clinical training and education of health care professionals on the status of current prevention, care and treatment strategies. *The AETC Trainers' Reference and Resource Manual* brings together in one place information on and tools for developing and delivering dynamic, effective HIV/AIDS educational and clinical training programs.

About This Manual

The AETC Trainers' Reference and Resource Manual began as a series of handouts for the Pacific and Northwest AETCs' annual Asilomar Faculty Development Conference. It has since grown into a collection of practical wisdom gained on the job; tips and best-practice ideas distilled from the medical education, adult learning, and professional development literature; and training activities and curricula developed and produced by AETC faculty and colleagues.

The purpose of this manual is to:

1. Synthesize helpful AETC trainer/facilitator-related information into one organized repository.

2. Help orient new AETC faculty and staff to the AETC program and training approach.

3. Provide experienced AETC trainers, clinical faculty and program staff with a context for organizing existing teaching materials and educational content into complete, customizable training activities or packages.

4. Provide AETC program managers with some basic information on and sample tools for use in training program design and implementation.

About the AIDS Education and Training Centers (AETCs)

The AIDS Education and Training Centers (AETCs) program is a network of regional and national centers that train health care providers to treat persons with HIV/AIDS. It is one of the largest and most comprehensive professional education programs dedicated to HIV/AIDS. Based in leading academic medical centers, the AETCs serve as the clinical training and education component of the federal Ryan White HIV/AIDS Program by conducting targeted, multi-disciplinary HIV/AIDS. education and clinical training programs for healthcare providers.

The mission of the AETCs is to improve health outcomes of people living with HIV/AIDS through clinical training, education and consultation on the management of HIV disease.

For a complete directory listing of nationwide AETC programs:

Visit the AETC National Resource Center online at www.aids-etc.org

There are currently 11 regional centers with more than 130 "local performance sites" (LPSs) providing HIV/AIDS education and clinical training to health care providers and organizations in all 50 States, the District of Columbia, the Virgin Islands, Puerto Rico, and the six U.S.-affiliated Pacific Jurisdictions. Four national centers – the National Resource Center, National Clinicians' Consultation Center (Warmline/PEPline/Perinatal Hotline), National Evaluation Center, and the National Minority AETC – provide support services and technical assistance to the entire AETC network.

The AETC program is administered by the federal Department of Health and Human Service's Health Resources and Services Administration (HRSA), HIV/AIDS Bureau, as part of the Ryan White HIV/AIDS Program. The program targets health care providers who treat minority, underserved, and vulnerable populations in communities most affected by the HIV epidemic. The AETCs collaborate with other Ryan White-funded organizations, area health education centers, community-based HIV/AIDS organizations, community health centers, medical professional organizations, and other federal training centers and key collaborators to identify and deliver training opportunities.

The AETC Training Approach

The AETC training approach is rooted in adult learning principles and driven by the educational needs of clinician-learners and their health care provider organizations. The AETCs focus on training a clinical core of physicians, physician assistants, nurses, nurse practitioners, dentists, pharmacists, and other health professionals involved in the care and treatment of people with HIV/AIDS. Special emphasis is given to HIV and primary medical care sites that serve targeted populations, those unable to regularly participate in continuing medical education, and those that have not had previous access to HIV training. Training activities are based upon assessed local needs. Interactive, hands-on training and clinical consultation are emphasized in order to assist providers with complex issues related to the management of highly active antiretroviral therapy.

Sample AETC Training Formats	Sample AETC Training Topics
☑ Expert clinical consultation ☑ Intensive clinical rotations, preceptorships, and mini-residencies ☑ Workshops and seminars ☑ Hands-on supervised clinical experience ☑ Longitudinal training and mentoring ☑ Self-study modules and curricula, including online training ☑ Technical assistance on clinical and health care delivery issues	☑ Basic science and epidemiology ☑ Clinical management of HIV & AIDS ☑ Implementation of routine HIV testing in health care settings ☑ Prevention and treatment of opportunistic infections associated with HIV disease and AIDS ☑ Screening and management of major co-morbidities, including hepatitis co-infections ☑ HIV, mental health and substance use

Innovative training methods, including participatory skills-building workshops and clinical practice preceptorships, supplement traditional didactic education. AETCs also provide clinical consultation and decision support to clinicians regarding care and the use of antiretroviral therapies, and technical assistance in improving service delivery at the organizational level. AETCs also produce and disseminate a variety of HIV/AIDS training information resources and clinician support tools, guidelines, case studies, slide sets, and additional training materials on specific clinical topics and issues.

AETCs prioritize and target training to help support broader service delivery objectives of the Ryan White Program, including improving access to care for HIV-infected individuals; providing programs that reduce HIV-related morbidity and mortality; and targeting resources to meet the needs of underserved communities and populations increasingly affected by the epidemic.

The AETC Training Levels: An Overview

To meet a wide variety of learning and technical assistance needs, the AETCs employ a hybrid training and capacity-building model, currently organized into "levels" of training. The AETC training levels range from lectures to clinical consultations (individual and group) and programmatic technical assistance. AETC training events can be organized as either single- or multi-level programs, depending on the audience, their learning needs, and programmatic or logistical considerations. Some definitions, background information, and examples of activities under each of the five levels of training are listed below and in the summary table that follows:

Level 1: Didactic Presentations
Level I trainings are primarily didactic presentations, but can also include panel discussions, self-instructional materials, journal clubs, teleconferences, and other activities in which participants are mostly just "passive" learners. Level I programs can vary in length from brief lectures to conferences.

Level 2: Skills Building Workshops
Level II training emphasizes interactive and skills-building activities that are characterized by active trainee participation. Activities may include interactive learning through case-based discussion, role play, simulated patients, train-the-trainer, and other skill-building activities.

Level 3: Clinical Training
Level III clinical training includes activities where the trainee is actively involved with actual clinical care experiences involving patients. These may include preceptorships, "mini-residencies," or observation of clinical care at either the AETC training site or the trainee's worksite.

Level 4: Clinical Consultation
Training that includes patient-specific, clinical consultation provided to health care professionals. Characteristics of this level of training include interaction between two clinicians via telephone, electronic media, or in person on-site at a trainee's location; training topics based on patient-specific clinical questions; case-based discussion of state of the art clinical care, with no direct contact between patient and trainer; and interaction supported financially or administratively by AETC funds.

Level 5: Technical Assistance
Technical assistance activities are primarily designed to address service delivery issues and programmatic needs at the organizational level.

Summary Table: The AETC Training Levels

Level	Training Objective	Role of Learner	Sample Training Methods
LEVEL I **DIDACTIC PRESENTATION**	• Change in knowledge • Limited attitudinal change	Passive	• Didactic knowledge transfer (e.g., lecture) • Journal Club
LEVEL II **SKILLS-BUILDING WORKSHOPS**	Change in attitudes & skills	Interactive with instructor & other participants in skills building activities	• Small group interactive sessions • Workshops • Interactive worksheets/handouts • Role play • Instructor-generated (hypothetical) case discussion • Use of standardized/ simulated patient care
LEVEL III **CLINICAL TRAINING**	• Change in knowledge, attitude & clinical skills • Comfort & confidence to make sound/ appropriate clinical decisions	Interactive with patient, faculty within clinical setting	• Clinical observation of patient care • Interaction with patients in care setting • Mini-residency • Preceptorship
LEVEL IV **CLINICAL CONSULTATION**	• Change in clinical problem-solving • Change in clinical decision-making for better or more appropriate care • Impart state of art knowledge on specific HIV care	Provider-driven	• Interaction between clinical consultant & clinician consultee (1-to-1 or multiple consultees) • Patient-specific question & problem-solving via phone, Internet, fax or on-site • Telemedicine
LEVEL V **TECHNICAL ASSISTANCE**	• Provide resources, guidance & assistance to improve HIV service delivery & performance on an organizational level • Changing organizational infrastructure & service delivery	Active involvement at the organizational level	• Consultation style that is either organization- or AETC-driven • Focus on organizational or programmatic issues about HIV service delivery

How to Use This Manual

The AETC Trainers' Reference and Resource Manual is designed as a series of topical monographs or "chapters" organized into 12 sections. The manual is produced and formatted for a 3-ring binder for easy updating, and for use as a place to integrate and keep your favorite training activities, strategies and tips. We enthusiastically encourage you to think of this manual as your own personal training "recipe book," and add to or change it to best suit your needs!

What's Included?

The AETC Trainers' Reference and Resource Manual is organized into these sections:

Section 1: Introduction and Overview
Overview of the AETC program and training approach; information about this manual and suggestions for how to use it

Section 2: Training Program Design and Implementation
The Framework for Excellence in HIV/AIDS Education; planning effective training events

Section 3: Adult Learning and Participatory Training
Definitions of and information on basic principles of adult learning and their implications for training; learning domains and adult learning styles; developing learning objectives; strategies and techniques to involve learners in training

Section 4: Teaching and Presentation Effectiveness
Teaching methods and training techniques; presentation and communication skills; giving and receiving feedback as part of the teaching and learning process; creating and using support materials, including handouts, interactive worksheets, and electronic presentations; sample presentation planning and assessment tools

Section 5: Group Facilitation
Skills and tips for facilitating groups and interactive activities; handling questions effectively; dealing with challenging participants/learners

Section 6: Interactive Learning Activities
Sample activities

Section 7: Developing and Using Case Studies for Clinical Teaching
Information on how to write up case studies and leading case-based discussion

Section 8: Developing and Designing Training Curricula
How to put together a training manual; what a "curriculum" is and what it includes; how to develop and write up interactive teaching and learning activities

Section 9: Training in the Clinical Setting
Special considerations for Level III clinical training; clinical preceptorships

Section 10: Cultural Competence Training
Special considerations and activities for cultural competence training in the HIV/AIDS health care context

Section 11: Learner Assessment and Training Program Evaluation
Concepts and tools for assessing learners and evaluating the effectiveness of training programs

Section 12: Training Program Management Resources
Additional resource items, including glossaries and sample forms and tools

Suggestions for Use

This manual is meant to be used as a reference and resource guide for developing, designing and delivering HIV/AIDS training and educational programs. It is by no means an exhaustive treatise or expert pronouncement on how to prepare and conduct trainings! Instead, the manual is designed to be a "dynamic" document that you can continuously update, change, add to, and otherwise modify for your own personal use.

Here are some suggestions for how you can get the most out of your *AETC Trainers' reference and Resource Manual:*

- ☑ Refer to your manual frequently when developing learning objectives, considering various teaching methods, designing training activities, and planning programs. Use the checklists, tables, sample forms, and other tools to help generate ideas or to refer to when you have specific questions about preparing training content.

- ☑ Refer to reference and resource lists to help you identify additional sources of information on training design, development and implementation. Browse the listed web sites for more exploration and ideas or resources for specific training content.

- ☑ Adapt/modify any of the sample tools and forms for customized use in particular training programs.

- ☑ Use the binder to store your favorite training activities, tools and resources as you create or obtain them.

- ☑ Add, remove, or update sections to suit your personal needs and style, and as new information becomes available.

Resources and References

AETC National Evaluation Center
http://aetcnec.ucsf.edu/

AETC National Resource Center
http://www.aids-etc.org/

Health Resources and Services Administration, HIV/AIDS Bureau
http://hab.hrsa.gov/

International Training and Education Center on HIV (I-TECH)
http://www.go2itech.org/

National HIV/AIDS Clinicians' Consultation Center
http://www.nccc.ucsf.edu

National Minority AIDS Education and Training Center
http://www.nmaetc.org/

Technical Assistance Resources, Guidance, Education, and Training (TARGET) Center
http://careacttarget.org/

AIDS Education and Training Centers Program. (2005). AIDS Education and Training Centers: Evidence of Success. Retrieved from AETC National Resource Center: http://www.aids-etc.org/pdf/about/nrc_vignettes.pdf

Klatt, B. (1999). *The ultimate training workshop handbook: A comprehensive guide to leading successful workshops and training programs.* New York, NY: McGraw-Hill.

U.S. Department of Health and Human Services, Health Resources and Services Administration, HIV/AIDS Bureau. *The HIV/AIDS Programs: Caring for the Underserved.* Retrieved November 11, 2008 from http://hab.hrsa.gov/.

U.S. Department of Health and Human Services, Health Resources and Services Administration, HIV/AIDS Bureau, Division of Training and Technical Assistance. Regional AIDS Education and Training Centers Program Non-Competing Continuation Guidance. Announcement Number # HRSA-5-H4A-09-001, Catalog of Federal Domestic Assistance (CFDA) No. 93.145. January 5, 2009.

The Framework for Excellence in HIV/AIDS Education

The Framework for Excellence in HIV/AIDS Education was developed through "collaboratives" between the HRSA HIV/AIDS Bureau (HAB), AIDS Education and Training Center (AETC) grantees, and the Institute for Healthcare Improvement (IHI.) In 2003 HAB held a series of learning sessions and conference calls to identify appropriate components that make up the Framework for Excellence. Since then, regional and local AETC programs have adapted the Framework for use as a model – or simply a starting point, for the process of training program design and implementation.

In its simplest form "training program design" is the process of developing a detailed plan and supporting materials for a training event or learning experience. Your training program design should help you clearly define why you are conducting the program or activity, the desired learning outcomes for participants, how they will achieve them, and how you will know that they did achieve them. The Framework for Excellence, as adapted and presented here, outlines a seven-step process in three phases for developing and providing quality HIV/AIDS educational programs and training events:

PHASE I: ANALYSIS
Identify Learners and Understand Learning Needs
Step 1: Conduct learner needs assessment.   **Step 2:** Market training to target audiences.
PHASE II: DESIGN, DEVELOPMENT AND IMPLEMENTATION
Provide Excellent Learning Experiences
Step 3: Develop a curriculum design and training plan.   **Step 4:** Develop and design learning experiences.   **Step 5:** Tailor training experience to fit learners and their specific learning needs.   **Step 6:** Deliver quality educational experience.
PHASE III: EVALUATION
Measure Results
Step 7: Evaluate the learning experience.

Each of the steps can be applied to any training program, activity or format. Some examples of the key tasks associated with each phase and step are listed in the following table which details the Framework for Excellence in HIV/AIDS Education.

Framework for Excellence in HIV/AIDS Education: The Model and Key Tasks at Each Step

Identify Learners and Understand Needs		Provide Excellent Learning Experiences				Measure Results
Step 1 Conduct Learner Needs Assessment	**Step 2** Market Training to Target Audiences	**Step 3** Develop Curriculum Design & Training Plan	**Step 4** Develop & Design Learning Experiences	**Step 5** Tailor Training to Fit Learner Needs	**Step 6** Deliver Quality Training	**Step 7** Evaluate the Learning Experience
• Who will benefit from HIV/AIDS education or training, and what are their specific learning needs?	• How do we effectively recruit training participants?	• What training delivery methods and learning activities will we use, to meet learners' needs?	• What do participants need to know and do as a result of this learning experience?	• How will we customize training information and materials to maximize learning and clinical application?	• How will we provide useful, relevant and positive learning experiences?	• How will we know that the training was successful? • How will we improve the quality of the training?

Cultural Competence: What cultural issues and perspectives do we need to consider at each step?   **Collaboration:** Who do we need to collaborate with at each step to ensure success?

Identify target populations: • Ryan White Program care & service providers • Community health & social services agencies **Identify key informants:** • Local/regional experts • Position leaders • Informal leaders **Determine HIV/AIDS learning needs:** • Statements of need: demonstrated, expressed & normative • Review epidemiology & service system data • Surveys, interviews, input from staff • Observation or critical incidents **Define learner characteristics:** • Education, cultural background • HIV/AIDS clinical experience • Patient load and demographics • Motivation for learning • Participation parameters (time, location, job demands, etc.)	**Describe target audiences selected for training promotion:** • Disciplines • Practice settings **Determine best methods to reach target audience:** • Directly • Indirectly • Sources: past participants, mailing lists, website visitors • Networking opportunities **Develop marketing materials:** • Brochures • Event-specific flyers, post cards • Web site promotions • E-invites **Implement outreach & promotion plan:** • Engage training & marketing partners • Multiple modalities: print media, online, fax broadcasts, etc.	**Define training context:** • Program/event type • Types of providers targeted for training • One-time event or longitudinal training **Establish desired outcomes:** • Identify training goals • Decide how outcomes will be measured **Determine training needs:** • Past experience • Informal discussions among clinician networks • Surveys, interviews, input from staff • Observation or critical incidents • Emerging data or new knowledge to disseminate **Select training content & delivery options:** • Topics • Methods • AETC training level • Agenda & Schedule	**Define design parameters:** • Timeline • Budget • Logistics & resources **Prepare Learning Objectives:** • Change in provider practice • Change in knowledge, skills, or attitudes **Prepare written course design outline:** • Content & objectives • Delivery approach • Learning activities • Application activities • Learner assessment • Training program evaluation **Create support materials:** • Content, agenda, activities, teaching materials • Handouts & educational support tools • Assessment tools • Application plan **Preview, review input & adjust curriculum**	**Understand target audience characteristics:** • HIV care experience • Educational needs • Cultural contexts & backgrounds • Patient demographics • Populations served • Priority health care issues **Assess learners' course- or topic-specific level of knowledge:** • Review individual needs assessment data • Survey participants • Pre-test or group leveling experience • Open with probing questions **Customize teaching & learning materials:** • Culturally appropriate • Clear, easy-to-understand instructions • Activities appropriate to audience & learning environment	**Select faculty & facilitators:** • Expertise • Cultural competence • Credibility with participants • Teaching & facilitation skills **Prepare for delivery:** • Review notes and participant list • Review curriculum outline & trainer materials • Prepare copies of learner materials • Confirm all location logistics **Deliver the training:** • Build rapport • Confirm needs • Facilitate learning, application practice, & participant interaction • Manage time, continuity • Facilitate follow-up and information support • Assess learner outcomes **Debrief:** • Activities • Program evaluation	**Short-term:** • Identify data collection strategies • Attendance • Participant feedback & satisfaction • Changes in knowledge & skills **Mid-term:** • Identify data collection strategies • Sustained learning • Sustained behavior change on the job • Changes in provider practice **Long-term:** • Identify data collection strategies • Learning integrated into ongoing practice • Improved patient care outcomes **Continuous quality improvement based on:** • Participant feedback • New information • New and improved learning methods

The most important thing that the Framework for Excellence represents is a commitment to some kind of formal process for training program planning and design. There are in fact many different models of instructional design, used by different types of training developers for different instructional purposes. The phases and steps may vary among different instructional design models, but the essential tasks are generally organized into interrelated processes represented here by the generic "ADDIE" model:

A **Analysis**

- Identify learners and understand their learning needs.

- Define learning gaps/ problems and determine possible solutions.

- Develop understanding of learners' existing knowledge, skills, and expectations, and job requirements.

- Consider available learning methods, environments and logistics.

- Develop and delineate training goals to inform Design process.
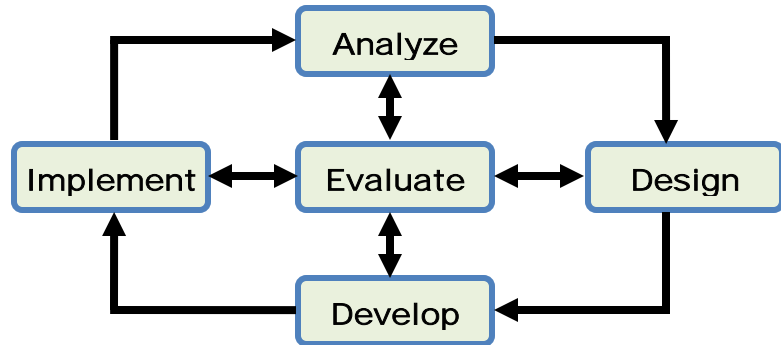
The "ADDIE" model is a generic instructional design model upon which many other approaches to training design are based.

D **Design**

- Develop desired learning outcomes and written learning objectives for each task to be addressed.

- Identify and plan strategies for specific topical content, presentation methods and media, interactive exercises and activities, and learner assessment criteria and tools.

- Choose training techniques and teaching methods and prepare written lesson plan outline, based on course format, and mode of delivery, and the time allocated for the training.

D **Development**

- Develop and produce all instructional materials, media and supporting documentation.

- Create interactive learning activities and instructions for completing them.

- Prepare training manuals, instructor's guides, participant manuals and handouts, and all necessary additional resource materials.

- Complete all logistical arrangements and pre-training outreach, marketing and promotion.

I **Implementation**

- Effectively and efficiently present training program and deliver instruction.

- Promote learner interaction and understanding of material in support of achieving the desired learning outcomes.

- Support learner transfer of knowledge to the job setting.

E **Evaluation**

- Measure the effectiveness and efficiency of instruction.

- Gather and consider feedback from learners.

- Prepare and report performance results.

- Assess effectiveness of training content, delivery methods, teaching activities, educational materials, and learner resources.

- Make improvement changes for next program or presentation.

The diagram below illustrates some of the questions to be answered during each phase of creating a training program using the ADDIE model:

Creating a Training Program Using the ADDIE Model

Needs Assessment
o What are the learners' job-related needs?
o What existing knowledge do they have?
o What is the gap between what they know and what they need to know?

The Adult Learner
o What do they expect?
o What do they need?
o How can training meet their learning needs?
o How can I as a trainer help them meet their learning needs?

Training Design
o What learning outcomes will meet learners' needs?
o What kind of training plan needs to be created?
o What resources are available?
o What are some potential challenges to this training?

Training Implementation
o Are selected trainers ready to deliver the training?
o Are all training resources prepared and details regarding the training addressed?

Training Development
o What content needs to be created?
o What appropriate activities need to be developed?
o What formative and evaluation instruments need to be created?

Evaluation
o Are the needs of learners being addressed in the design and development of the training?
o What methods are working/not working during implementation?
o How did learners evaluate the training upon completion?
o How will you determine if learners are applying their learning as they carry out job-related tasks?

From I-TECH
Training Toolkit:
http://www.go2itech.org

Practical Approaches to Training Design

Using the Framework for Excellence overlaid with the generic ADDIE instructional design model as a guide, we will now take a look at some specific strategies, tools and tips for carrying out the essential tasks at each step.

PHASE I: ANALYSIS
Identify Learners and Understand Learning Needs
Step 1: Conduct learner needs assessment. **Step 2:** Market training to target audiences.

Questions to Answer During This Phase:

- **?** **Who will benefit from HIV/AIDS education or training, and what are their specific learning needs?**

- **?** **How do we effectively recruit training participants?**

Identifying Learners

In a sense, target audiences for AETC training programs and activities are somewhat pre-determined by the mission of the AETC program, which is to improve the quality of life of patients living with HIV/AIDS through the provision of high quality professional education and training to health care providers and organizations.

> *"AETCs focus on training a diverse group of clinicians including physicians, advanced practice nurses, physician assistants, nurses, oral health professionals, and pharmacists."*

So, how do you know who to target for your training efforts? The answer, of course, depends both on your training activity's particular purpose, and the HIV/AIDS professional development needs you have established for health care providers in your service area. Below are some suggestions for identifying potential target audiences for HIV/AIDS education and training:

Understand your local, regional and state HIV/AIDS health care delivery system:
Who is providing clinical care to patients with HIV and AIDS in your service area? Where are they physically located, both geographically and in what types of clinical settings?

- Use search functions on HRSA web sites to identify and locate Ryan White Program grantees and community health centers in your area that provide HIV/AIDS clinical care and services.

> *"Training is targeted to providers who serve minority populations, the homeless, rural communities, incarcerated persons, community and migrant health centers, and Ryan White CARE Act-funded sites."*

- Use your state's AIDS Drug Assistance Program (ADAP) data to

identify ADAP prescribers/pharmacies and high-volume HIV antiretroviral (ARV) dispensers.

- Review resource inventories produced by local and state Ryan White program grantees or included in planning documentation, such as the Statewide Coordinated Statement of Need.

- Use "find-a-provider" search functions on web sites such as the American Academy of HIV Medicine (AAHIVM) and other professional, credentialing, or managed care organizations to locate HIV specialists.

Know your region's HIV/AIDS epidemiology:
Awareness of and insight into the scope of the HIV/AIDS epidemic in your area is indispensible when considering potential health care providers and organizations to target for HIV/AIDS education and training:

- **?** What are the socio-demographic characteristics of both the general population and those living with HIV/AIDS in your area?

- **?** What are the indicators of risk for HIV infection and AIDS in your population?

- **?** What are the patterns of health care service utilization: Who is getting care and services, and where?

- **?** Who are the persons who know they are HIV-positive but who are not receiving HIV primary medical care?

Essential sources for current HIV/AIDS epidemiology data include:

- ☑ National surveillance data from the Centers for Disease Control and Prevention (CDC).

- ☑ Surveillance and epidemiology reports produced by local health jurisdictions (e.g., city or county health departments) and state Ryan White Program grantees (usually state health departments).

- ☑ Epidemiological profiles included in care and prevention planning documents (comprehensive HIV health services plans; HIV prevention plans) produced by HIV Health Services Planning Councils, Ryan White Part B HIV Care Consortia, and HIV Prevention Planning Councils.

- ☑ HIV incidence and prevalence study data.

Establish relationships with key collaborators:
AETCs collaborate with Ryan White Program-funded organizations and other HRSA programs such as Federally Qualified Health Centers (FQHCs, or community health centers) and Rural Health Centers (RHCs); other federally-supported health care facilities such as the Indian Health Service (IHS) and the Veterans Administration; community-based HIV/AIDS organizations; mental health and substance use programs; and programs serving medically underserved or incarcerated populations.

AETCs also collaborate with other federal training centers including:

- STD/HIV Prevention Training Centers (PTCs)

- Family Planning Regional Training Centers (RTCs)

- Addiction Technology Transfer Centers (ATTCs)

- Viral Hepatitis Education and Training Projects (VHNET)

- Tuberculosis (TB) Regional Training and Medical Consultation Centers (RTMCCs)

Understanding Learning Needs

Demonstrated Need	**Expressed Need**	**Normative Need**
Gaps in Practice	*Expressed in Action*	*Presumed/Defined by Experts*

Patient care indicators: prescribing data; hospitalization data; length of stay; patient outcome data; referral rates; patient satisfaction; patient complaints, etc.
 	
Quality assurance data
 	
Public health data: epidemiology data, surveillance reports, public health advisories, etc.
 	
External forces requiring change and evidence that required change has not occurred: federal or state legislation or other similar government directives; marketplace data; legal information
 	
Literature review: journal articles, PubMed/Medline search results
 	
Abstracts/presentations at national meetings, scientific conferences
 	
Research findings
 	
Data illustrating variation in practice between providers/ disciplines
 	
Data or documentation that a particular practice is desired but has not yet been introduced or employed
	Previous program evaluation summaries: review for suggested content areas/topics
	
	Potential target audience perspectives:
	☑ focus groups
	☑ discussions at peer group meetings
	☑ target audience surveys
	  • E-mail questions sent to target audience
	  • Brief phone interviews with sample of targeted participants
	  • Targeted questions on training registration forms
	
	Needs assessment questions that target what providers find challenging in practice:
	"What would you like to be able to do in your practice that is currently prevented by the absence of skills, information, or resources?"
		New procedure, treatment recommendations or guidelines
		
		New best practices that have not been implemented consistently
		
		Opinion/experience of planning committee
		
		Input from leadership and other experts:
		☑ Interview or e-mail local leadership
		☑ Elicit perspectives of those who provide oversight and coordination in particular clinical areas
		☑ Committee activities and action plans

PHASE II: DESIGN, DEVELOPMENT AND IMPLEMENTATION
Provide Excellent Learning Experiences
Step 3: Develop a curriculum design and training plan. **Step 4:** Develop and design learning experiences. **Step 5:** Tailor training experience to fit learners and their specific learning needs. **Step 6:** Deliver quality educational experience.

Questions to Answer During This Phase:

? **What training delivery methods and learning activities will we use, to meet learners' needs?**

? **What do participants need to know and do as a result of this learning experience?**

? **How will we customize training information and materials to maximize learning and clinical application?**

? **How will we provide useful, relevant and positive learning experiences?**

- **STRUCTURED SEQUENCE OF DIFFERENT LEARNING ACTIVITIES:**
  - **HIGHER LEVEL LEARNING**
  - **ACTIVE FORMS OF LEARNING**
- **FREQUENT and IMMEDIATE FEEDBACK to participants on the quality of their learning**
- **LEARNER ASSESSMENT STRATEGY**

PHASE III: EVALUATION
Measure Results
Step 7: Evaluate the learning experience.

Questions to Answer During This Phase:

? **How will we know that the training was successful?**

? **How will we improve the quality of the training?**

Resources and References

Addiction Technology Transfer Centers (ATTCs)
http://www.attcnetwork.org/index.asp

Centers for Disease Control and Prevention: HIV/AIDS Surveillance
http://www.cdc.gov/hiv/topics/surveillance/index.htm

Family Planning Regional Training Centers (RTCs)
http://www.hhs.gov/opa/familyplanning/grantees/training/index.html

Health Resources and Services Administration (HRSA): Find a Health Center
http://findahealthcenter.hrsa.gov/

HRSA HIV/AIDS Program: Ryan White Grantee Contacts
http://hab.hrsa.gov/programs/granteecontacts.htm

I-TECH: Training Toolkit
http://www.go2itech.org/resources/Training-Toolkit

Institute for Healthcare Improvement: HIV/AIDS
http://www.ihi.org/IHI/Topics/HIVAIDS/

National Network of STD/HIV Prevention Training Centers (NNPTC)
http://depts.washington.edu/nnptc/

TARGET Center: Ryan White Community
http://careacttarget.org/community.asp

Tuberculosis (TB) Regional Training and Medical Consultation Centers (RTMCCs)
http://www.cdc.gov/tb/education/rtmc/default.htm

Viral Hepatitis Education and Training Projects (VHNET)
http://www.cdc.gov/hepatitis/Partners/VHNET.htm

Adult Learning and Participatory Training

> *"If we know why we are learning and if the reason fits our needs as we perceive them, we will learn quickly and deeply."*
>
> *-- Malcolm Knowles*

What is "adult learning?" What are "adult learning principles" and why do we care about them? What are the implications for training?

Simply stated, part of being an effective educator is understanding how your training audiences learn best. Understanding adult learning principles (ALP) and how to apply them will help you become a better trainer, facilitator and champion of learning. By creatively using combinations teaching techniques and strategies for adult learners, educators can deliver effective training experiences that enhance participants' learning. When adults participate in a positive learning experience that embraces and follows ALP, they are more likely to retain what they have learned and apply it in their work environment.

The design of your training sessions should be influenced by your expected learner population, their learning needs both as individuals and as a group, and the differences and similarities in their learning styles and experiences.

In this section we will review:

☑ Some basic adult learning principles and their implications for training;

☑ How to develop appropriate learning objectives and design training sessions that accommodate a variety of learning styles; and

☑ Some strategies for actively involving learners in training.

Definitions:

Active learning
Learning which focuses the responsibility of learning on learners. Learners engage in intellectually and physically stimulating activities that provide opportunities to meaningfully interact with and reflect upon training content, ideas, and materials.

Adult learning
The processes by which adults learn and build on their existing knowledge and skills.

Participatory training
A variation of "active learning:" in participatory training, learners are active participants in their own learning.

Key Concepts:
Adult Learning and Participatory Training

☑ Adults bring unique characteristics, varying experience, and different perspectives to the learning environment. Adults also have strong preferences for how and why they learn. They learn best when these considerations are fully taken into account.

☑ Adults learn and retain information more easily if they can connect learning to their previous knowledge and experience base.

☑ Training design that is consistent with adult learning principles is more likely to be successful.

Basic Principles of Adult Learning

The basic principles of adult learning theory are rooted in the concept that adults are in charge of and need to be active participants in their own learning. Adults bring unique characteristics, varying experience, and different perspectives to the learning environment. Adults also have strong preferences for how and why they learn. To provide successful training experiences, instructors should understand some of the basic principles of adult learning and how to transform them into action for effective trainings.

Characteristics of Adult Learners

Adults have unique characteristics related to learning that set them apart from younger students and more traditional, "formal education" learners. Adult learners bring to the training environment a variety of professional and personal experiences which impact both how and why they participate in training.

Malcolm S. Knowles, one of the early major architects of current adult learning knowledge, popularized the concept of *andragogy*, which he defined as "the art and science of helping adults learn." Knowles identified the following essential characteristics of adult learners that contribute to their success at learning:

Need to Know

- Adults need to know why they should learn something: either the reason they need to learn something, or how it will benefit them.

Self-Concept or Self-Direction

- Adults are autonomous and as they mature they tend to prefer self-direction.
- Adults are self-reliant learners and prefer to work at their own pace.

Life Experiences as Resources for Learning

- Adults accumulate a growing reservoir of experience that becomes an increasing resource for learning.
- Adults learn and retain information more easily if they can connect learning to their previous knowledge and experience base.

Readiness to Learn

- Individuals learn best when they are ready to learn and when they have identified their own learning needs.
- Adults' readiness to learn becomes increasingly oriented to the developmental tasks of professional and social roles.

Orientation to Learning

- Adults are competency-based learners: they want to focus on aspects of learning a skill or acquiring knowledge that are most useful to them in life or work-related situations.
- Adult learning is problem-centered and oriented more toward performance than subject.

Motivation to Learn

- Adults need to understand why they are learning a particular topic.
- As adults mature their motivation to learn becomes more internal.

Describing these characteristics in practical terms, adult learners (in general):

▶ Have a wealth of first-hand experience to draw upon for new learning.

▶ Want to have a say in what they learn.

▶ Are usually focused on specific goals and can be highly motivated to change when the change is relevant.

▶ Want to be competent in their application of new knowledge and skill, and need to be able to apply new information in a practical and immediate way.

▶ Respond to and learn from reinforcement (especially positive reinforcement) and constructive feedback.

▶ May have habits, tastes, prejudices, or strong feelings about the learning situation which can impact their response to and participation in an active learning environment.

▶ Do not want their time wasted or their physical comfort compromised.

▶ Have varying levels of confidence and assuredness in their learning abilities.

▶ May arrive to the learning environment with outside preoccupations or anxieties that need to be effectively managed in order to achieve a successful learning experience:

  ▪ Fear of failure, looking foolish or "out of place," or other consequences (real or imagined) of participating in group learning or experiential activities.

  ▪ Concern about how relevant the training topic is to their own experience, abilities and current work.

  ▪ Lack of confidence about their ability to learn or to contribute to discussion in a meaningful way.

  ▪ Concern about accessibility issues of the physical space or any limitations that may impact participation in the training.

  ▪ Worry over logistical considerations or costs, such as time, transportation, or family commitments.

Understanding and being sensitive to the characteristics that are unique to adult learners will help you in turn to effectively apply adult learning principles in your training sessions.

Adult Learning Principles

Building upon the identified characteristics of adult learners, Knowles' work introduced the following basic principles of adult learning:

1. Learning is a lifelong process.

2. Adults need to be self-directed learners.

3. For learning to take place, the learner must be actively involved in the experience.

4. Adults learn by doing.

5. Situations, problems, exercises and examples must be relevant, realistic, and immediately applicable.

6. Adults relate current learning to what they already know. Thus, trainers benefit from knowing the background of their participants.

7. There are several learning domains. A variety of learning activities stimulates learning and appeals to the range of learning styles.

8. Learning flourishes in an environment that is:

   - Informal
   - Nonjudgmental
   - Collaborative
   - Based upon mutual trust
   - Open and authentic
   - Humane

9. Supportive learners benefit from an opportunity to identify their own learning needs.

10. The trainer is a facilitator of learning and a catalyst for change. The responsibility for learning and making change resides with the learner.

Training design that is consistent with adult learning principles is more likely to be successful. This means putting process before content when training adults, and being both sensitive to and flexible around the factors that contribute to learning.

The following pages offer a brief summary of how adults learn best, and some suggestions for applying adult learning principles in the training setting in order to:

☑ Develop training suited to individual and group learning needs.

☑ Establish a comfortable learning environment that encourages active participation from and is respectful of all learners.

☑ Support learning through practical application and problem-solving.

☑ Connect learners' existing knowledge and experience to new ideas, skills, or behaviors.

☑ Offer learners plenty of choices, self-direction, and opportunities to assess their achievement.

Reality Check

Just because there are adult learning principles does not mean all adults always follow them! Good trainers and facilitators know that not all participants will be self-directed, motivated, problem-solving learners all the time, in every training session. Be prepared to deal with learners "where they are at," and avoid being surprised by individual or group behavior that does not meet your expectations. Also, do not overdo it when trying out new active learning activities – especially at first or if you are new to the application of adult learning principles.

How Adults Learn Best

► Adults learn best **in a democratic, participatory and collaborative environment** where they are actively involved in determining how and what they will learn.

► Adults learn best **when they know why they are learning something** and the learning goals and objectives are considered realistic and important to them.

► Adults learn best **when new information and skills are directly relevant and meaningful** to their concerns, needs and interests.

► Adults learn best **when the learning environment is physically and psychologically comfortable.**

► Adults learn best **when their talents are acknowledged and explored** in a teaching situation.

► Adults learn best **when they are able to engage in practical, problem-based learning activities** that allow them to draw on and apply prior knowledge, skills and experience.

► Adults learn best **when they are treated like adults** and their established opinions, values and beliefs are respected.

► Adults learn best **when instructors use a variety of teaching strategies** to anticipate and accommodate differing learning styles and comprehension rates of learners.

► Adults learn best **by participating in small-group activities** that provide an opportunity to share, reflect, and generalize their learning experiences.

► Adults learn best **when they receive constructive feedback** on how they are doing and the results of their efforts.

► Adults learn best **when coaching and other kinds of follow-up support are provided** to help them transfer learning into sustainable regular practice.

► Adults learn best **when the learning experience is enjoyable and fun.**

Applying Adult Learning Principles in Training

Here are some suggestions for how to use the principles of adult learning to inform and improve your training practices and programs:

Adult Learning Principles	Teaching Strategies and Applications in Training
Adults are self-directing learners	**Actively involve adult participants in the learning process and serve as facilitators for them:** ☑ Include learners in the instructional design process. Get participants' perspectives about what to cover and what activities reflect their interests: ask them what they already know and/or want to know about the topic. Tailor your teaching to the specific learning needs and interests of individual participants ☑ Engage in a process of inquiry, analysis, and decision-making with adult learners; avoid merely transmitting knowledge or expecting total agreement. ☑ Expect adult learners to want more than one medium for learning and to want control over the learning pace and start/stop times. ☑ Allow adult learners to assume responsibility for presentations and group leadership. ☑ Show participants how the training will help them reach their goals.
Adults have years of experience and a wealth of knowledge to contribute to the learning process	**Use adult learners as resources for yourself and for other learners:** ☑ Connect learning objectives and activities to the existing knowledge and experience base of training participants. Acknowledge and validate the wealth of experience amongst learners. ☑ Encourage participation by using open-ended questions to draw out learners' knowledge and experience relevant to the topic. ☑ Active participation in planned experiences – such as discussions or problem-solving exercises, an analysis of those experiences, and their application to work or life situations – should be the core methodology for training adults. ☑ Encourage participants to share examples from their own experience as appropriate. ☑ Respect the experience of learners in the group. Avoid asking adults to try a new skill in front of a large group. ☑ Provide many opportunities for dialogue among learners.

Adult Learning Principles	Teaching Strategies and Applications in Training
Adults have established values, beliefs, and opinions	**Demonstrate respect for differing beliefs, value systems and lifestyles, and experiences:** ☑ Take time to clarify learner expectations of the training and experience with the content. ☑ Design programs and learning activities that allow varying viewpoints to be shared. ☑ Acknowledge that learners are entitled to their values, beliefs and opinions, and that everyone in the room may not share these ideas. ☑ Allow debate and challenging of ideas.
Adults expect to be treated as adults	**Support learners as individuals:** ☑ Treat questions and comments with respect. Acknowledge or thank learners for their responses, questions, and contributions to the training. ☑ Do not expect learners to necessarily agree with your plan for the training. ☑ Listen to and respect the opinions of learners. ☑ Create an environment that is perceived as safe and supportive. People will not ask questions or participate in learning if they are afraid of being put down or ridiculed. ☑ Allow people to admit confusion, ignorance, fears, biases and different opinions. ☑ Avoid jargon and do not "talk down" to learners ☑ Provide opportunities for learners to teach each other through discussion and small group work.
Adults are goal-oriented and often have a problem-centered approach to learning	**Show immediately how new knowledge or skills can be applied to current problems or situations:** ☑ Obtain information on learners' goals, and explicitly communicate to participants how the training will meet those goals. ☑ Tell participants why a particular training is meaningful, why new skills must be mastered, and how the new learning will be useful to them on the job. ☑ Use participatory learning techniques such as case studies and small-group problem-solving exercises to emphasize how learning can be applied in a practical setting. ☑ Anticipate problems in applying new ideas, and offer strategies to overcome problems. ☑ Provide a variety of activities that offer participants opportunities to assess their own learning. ☑ Provide immediate and relevant feedback to reinforce new learning and redirect learners when they stray off course.

Adult Learning Principles	Teaching Strategies and Applications in Training
Adults want practical answers to questions and problems, and expect to learn information that has immediate application to their lives	**Orient training content toward direct applications rather than toward theory:** ☑ Find out what learners know about the topic, and what they would like to know. ☑ Create learning objectives that address and focus on "real" problems. State objectives and expectations clearly at the beginning of training so learners know how they will be involved in the learning tasks. ☑ Focus on theories and concepts within the context of their application to relevant problems. ☑ Include both time to learn new material AND time to apply new skills in your trainings. ☑ Repeat to participants how the learning can be applied, or how the information will be useful to people in their work. ☑ Suggest follow-up ideas and next steps.
Adults relate new knowledge and information to previously learned information and experiences	**Help participants connect previous knowledge and life experiences to new information:** ☑ Assess the specific learning needs of your audience before your training or immediately at the beginning of the training session. ☑ Present new concepts one at a time, and focus on their application to relevant practical situations. ☑ Choose training methods that help learners recall what they already know and how it can be integrated with new ideas and information. ☑ Create activities that emphasize learning by doing and call upon participants to use their existing knowledge and experience. ☑ Summarize frequently to increase retention and recall.
Adults have differing learning styles and comprehension rates, and learn best when they are actively engaged	**Accommodate differences in style, time, types and pace of learning:** ☑ To appeal to a range of learning styles and increase everyone's capacity to learn, include *listening, seeing* new material, and *doing something* with the new material in your training. ☑ Use a variety of teaching materials and participatory methods that provide opportunities for participants to work together in both small- and large-group discussions, hands-on practice, or analyzing a case study. ☑ Build in repetition and plan to repeat certain key concepts. Adult learners need to hear something six or seven times to have it sink in.

Adult Learning Principles	Teaching Strategies and Applications in Training
Adults learn best in an informal and comfortable environment	**Create a physically and psychologically comfortable environment that encourages participation and supports active learning:** ☑ Create a comfortable space with few distractions where dialogue and privacy are allowed. Establish an environment of mutual trust between all learners, including the trainer. ☑ Plan frequent breaks. Avoid long lectures with no break. ☑ Make sure everyone can see and hear. ☑ Set up the room so that participants can face each other to promote group interaction. Learners will engage in discussion and learn more if they can see each other. ☑ Allow for spontaneous discussions. ☑ Provide food or drink.

Questions to Consider for Applying Adult Learning Principles

? **What are some of the ways you can make training relevant to learners' practices?**

? **What are some of the ways you can give participants control over their own learning?**

? **What are some of the ways you can use learners' experience as a resources for teaching and learning?**

? **What are some of the ways you can keep learners stimulated and involved?**

? **What kinds of training materials can you use to support and enhance active learning?**

? **What are some of the ways you can create a safe, respectful and comfortable learning environment?**

? **What are some of the ways you can encourage learners to be more self-directed and to continue learning on the job?**

? **How can you create connections among training participants and their workplaces?**

? **What are some of the ways you can help ensure that learners are successful?**

? **What are some of the ways you can reinforce learning and facilitate feedback?**

Choosing Training Techniques and Teaching Methods

There are many methods to choose from when deciding how to best deliver educational material – the methods you can use are restricted only by your experience, imagination and courage! The teaching methods and training techniques you choose should be consistent with the nature of your target learning audiences and what is expected of them, the complexity of the topic, and the amount of time you have for both preparation and presentation.

Selecting the most appropriate training method(s) is a process that includes taking a number of factors into consideration:

- ☑ Recommendations from training needs assessment analysis.
- ☑ Training or learning objectives and the type and content of training to be delivered.
- ☑ Preferred learning styles and needs of participants.
- ☑ Previous experience and comfort with training activity design and delivery.
- ☑ Number of training participants.
- ☑ Amount of time available for training development.
- ☑ Amount of time available for training delivery.
- ☑ Physical space and equipment available for training.

Before deciding on methods to use for any training activity, you must 1) determine the training priorities and desired outcomes; 2) develop appropriate learning objectives; and 3) prepare an overall curriculum design or training plan. Once you have completed these steps, you can begin to consider which teaching methods and training techniques are best suited to the particular learning situation.

For any type of training to be delivered, identify teaching methods that best satisfy the training requirements, support your learning objectives effectively, and meet the learning needs of the target audience. Teaching methods and training activities that require active involvement by the learner and the application of personal experiences are most conducive to adult learning. Keep in mind that more than one training technique or teaching method may be appropriate.

Here are some guidelines for deciding which teaching methods and training techniques to use:

> **GENERAL:**   **Teaching techniques and training methods should promote active engagement in and reinforcement of learning.**

- ▪ Choose training activities and teaching methods that will give learners plenty of opportunities to practice what they have learned.

▪ Use visual aids to communicate important, relevant information.

▪ Continually reflect upon your teaching and group facilitation skills, make changes as appropriate, and build a library of your favorite successful, effective teaching methods.

CONTENT:	**The extent and level of content coverage will vary according to the purpose of the training, and what learning outcomes are expected of the target audience.**

▪ Determine what content must be tailored to particular learners or customized for individual training sessions.

▪ The more you know about your target audience and their expectations, the better you can select appropriate activities.

▪ Different methods have different degrees of effectiveness, depending on what needs to be learned.

▪ Teaching methods and learning activities should be directly relevant to the training topic. Always review learning objectives to make sure the training method is appropriate for achieving the objectives.

▪ Ensure a variety of teaching methods are used to build and maintain learner attention.

EXPERTISE:	**Some teaching methods require more extensive training, preparation or practice to execute successfully.**

▪ Assess your own expertise and comfort level with the skills required to effectively use a teaching method.

▪ Allow sufficient advance time for training development when creating new curricula and activities.

▪ Do not attempt new or unfamiliar instructional strategies without adequate practice. Try out new activities and teaching strategies on your colleagues first and ask for specific feedback on how the activity can be improved or should be executed.

LEARNERS:	**Consider the learning needs and preferred learning styles of the target audience when determining the most appropriate training method. Learners learn better and quicker when knowledge is presented in meaningful ways.**

▪ The number of training participants and the location of the training will influence which teaching methods may be most effective.

- Determine which training methods are most familiar to the trainees. Participants' previous experiences with particular methods will impact learning preferences. You may also find that certain Western training methods are not well received in a non-Western context.

- Choose activities that are applicable to and involve the learning audience as much as possible.

- The level of language used and complexity of content coverage should be relative to target audience capabilities.

- Many training participants need time to build confidence and trust with colleagues and the trainer in order to participate with confidence in active learning activities.

- Training participants should be able to resolve challenges or problem situations presented during learning activities.

- Learners are more likely to actively participate in a relaxed, non-threatening training environment.

TIME:	**The length of a presentation or training session will vary depending on the time available, information to be covered, and the learners' interest and attention span.**

- Activities must be able to be completed during the time available. Review the training schedule to ensure that the training method under consideration can be accommodated in the allotted time.

- Trainers should field test interactive learning activities to have an accurate feeling for time and possible outcomes.

- All activities should include sufficient time for delivering clear and precise instructions.

- Role plays, games or other group activities must include time to clearly explain roles and tasks for the group.

- Ample time must be allotted for debriefing activities that involve active or group learning in order to maximize their effectiveness.

TRAINING AIDS:	Some teaching methods require additional resources.

- Be mindful of the time, materials and financial resources needed to prepare and distribute training aids and reference materials.

- Choose a variety of teaching support materials to facilitate different learning styles. All teaching aids and educational

> materials should serve to help training participants achieve the desired learning objectives.

- Know what existing materials and resources are readily available for you to use.

- Ensure availability of all required materials and equipment.

The following table summarizes some key features of common training techniques and teaching methods, and some issues to consider when choosing them.

Common Training Techniques and Teaching Methods		
Methods and Common Usage	**Features**	**Issues to Consider**
Lecture/Speaker ☑ Address a large group ☑ Establish common body of knowledge and common understandings among participants ☑ Convey facts or statistics ☑ Introduce participants to a new subject ☑ Provide an overview or a synthesis	▪ Purpose is to clarify a large amount of information to a large group in a short amount of time ▪ Presents factual material in a direct, logical manner ▪ Can be adapted to all kinds of learners ▪ Useful for large groups: audience can be larger than is feasible for other methods ▪ Can precede more practical training techniques ▪ Trainer controls content, delivery and pace/timing ▪ May include use of visual aids, handouts, other illustrative materials	▪ Effective lecturers have both good presentation <u>and</u> group facilitation skills, including the ability to manage questions. Experts and guest speakers are not always good presenters or effective teachers. ▪ Emphasizes one-way communication: the audience role is mostly passive; minimal learner involvement ▪ Learning is generally more difficult to gauge ▪ Inappropriate for changing behavior or learning new skills ▪ Should include a variety of examples, anecdotes, and visual aids ▪ Avoid information overload: limit total time and content to maximize effectiveness and learner retention
Lecture/Presentation with Audience Discussion ☑ Formal question-and-answer session ☑ Broaden audience points of view	▪ Learning audience has opportunity to question, clarify and challenge in a more organized interactive format ▪ Presenters can give learners a structured listening assignment prior to the presentation ▪ Quality of training is largely influenced by the quality of questions and discussion	▪ Discussion questions should be prepared and rehearsed in advance ▪ Audience role is mostly passive; learner involvement is minimal without participant interaction ▪ Discussion may be limited by time constraints
Panel Speakers/ Panel Discussion ☑ Add different points of view to content ☑ Present expert opinion	▪ Allows experts to present different opinions ▪ Frequent change of speaker helps keep audience attention from lagging ▪ Adds variety to training and establishes or enhances credibility ▪ Stimulates more discussion than lecture	▪ Requires moderator with strong group facilitation skills ▪ Facilitator should coordinate focus of panel, brief and introduce panelists, and summarize discussion at end ▪ Expert panelists may not be good speakers; panelist personalities may overshadow content ▪ Audience role is mostly passive; minimal learner involvement

Common Training Techniques and Teaching Methods

Methods and Common Usage	Features	Issues to Consider
Class Discussion ☑ Analyze a presentation or experience ☑ Pool group ideas and experiences	▪ Allows everyone to participate in an interactive learning process ▪ May be structured or unstructured: questions, experiential exercises, case studies or interactive handouts (worksheets, etc.) may all be used to structure discussion	▪ Requires careful planning by instructor or facilitator; discussion is time-consuming and can get off track ▪ Structured discussion sessions should be prepared in advance with questions outlined ▪ Not practical or effective with large groups (usually more than 20)
Small Group Discussion ☑ Enhance problem-solving skills ☑ Help participants learn from each other ☑ Promote team work ☑ Achieve group consensus	▪ Gives learners more control over their own learning and responsibility for the learning process ▪ Encourages active participation from everyone; participants should be able to listen to each other, even if they do not agree ▪ Allows for reinforcement and clarification of lesson through discussion ▪ Provides for a variety of viewpoints and gives participants the opportunity to learn from one another	▪ Small groups of 4 to 6 learns are most effective ▪ Instructor should prepare specific questions for group to answer or tasks to complete; provide clear, explicit directions for completing all group discussion tasks ▪ Requires an atmosphere of openness and trust for maximum participation and effectiveness ▪ Strong facilitation required to help groups be aware of time limits for discussion; stay on task; encourage participation from all learners
Brainstorming ☑ Stimulate creative thinking for new ideas ☑ Problem-solving ☑ Draw out group knowledge and experience	▪ One of the easiest ways to motivate learners to think about and elaborate on topics ▪ Encourages creativity and cooperation within a group ▪ Promotes full participation because all ideas are equally recorded and worthy of consideration ▪ Allows creative thinking for new ideas ▪ Can be done individually, in pairs or in small groups ▪ Helps learners realize how much they know about a topic	▪ Requires skill and experience to effectively facilitate, help groups stay focused on the topic and avoid criticism ▪ Brainstorming activities should be short – no longer than 5–10 minutes ▪ Maximize brainstorming sessions by spending time only on generating new ideas – not on evaluating them ▪ Allow sufficient time for processing and discussion once all ideas have been recorded ▪ Should be followed by a focusing or application activity

Common Training Techniques and Teaching Methods		
Methods and Common Usage	**Features**	**Issues to Consider**
Case Studies ☑ Discuss common problems in a typical situation ☑ Develop analytic and problem-solving skills ☑ Stimulate discussion and encourage group problem-solving ☑ Explore value judgments	▪ Stimulates learners to define and seek solutions for actual problems encountered in work situations ▪ Allows for exploration of solutions for complex issues ▪ Highly participatory method of learning; learners are actively involved and can practice applying new knowledge and skills ▪ Fosters the exchange of experience within learning group ▪ Reactions to realistic and relevant cases often provide different perspectives and solutions to problems	▪ Requires a lot of advance planning time to sufficiently prepare case study ▪ To be most effective, a case study must be closely related to learners' experience and relevant to their needs and concerns ▪ Discussion questions need to be carefully designed ▪ Instructor must have knowledge and skills required to present and work thorough the case study problems ▪ Case-study problems are often complex and multi-faceted; there often is not just one "right" solution or approach
Role Play ☑ Practice new skills ☑ Examine and change attitudes ☑ Explore different behaviors in a given situation ☑ Explore alternative approaches to dealing with difficult problems or uncomfortable situations	▪ Provides opportunity for learners to assume roles of others and appreciate other points of view ▪ Active learner involvement by participants and observers in exploration of a realistic situation ▪ Introduces problem situation dramatically ▪ Participants can experience a real-life situation without having to take real-life personal risks ▪ Stimulating and fun; engages learners' attention ▪ Roles can be assigned or participants can create their own roles; can be structured into dyad, triad, or fishbowl ▪ Most effective when participants receive constructive feedback from assigned observer(s)	▪ Requires strong group facilitation skills to give clear directions, establish a climate of trust, encourage participation, and help group to process and de-brief ▪ Requires significant time commitment ▪ Instructor must clearly define problem situation and roles and provide explicit instructions for conducting role play ▪ Requires maturity and willingness of groups; learners must have a good understanding of their role for the role play to succeed ▪ Learners may feel too self-conscious or threatened to participate actively in role play activities ▪ Not appropriate for or effective with large groups; most effective when used with well-formed groups

Common Training Techniques and Teaching Methods		
Methods and Common Usage	**Features**	**Issues to Consider**
Task Groups with Report-Back Sessions ☑ Explore specific content in greater detail ☑ Stimulate discussion and encourage group problem-solving ☑ Practice analytic and problem-solving skills	▪ Small-group techniques and activities help learners participate freely and actively ▪ Allows for group discussion of role plays, case studies, and small group exercises ▪ Gives people a chance to reflect on experience ▪ Makes a larger training session more efficient and productive ▪ Sustained interaction allows quieter people to express themselves; validates participants	▪ Discussion questions/tasks must be planned in advance ▪ Requires significant time commitment ▪ Keep groups small: no more than 8 participants ▪ Need to provide clear instructions and any required materials (chart paper, etc.) for report-back ▪ Avoid repetition of each group saying the same thing ▪ Small groups require great degree of self-direction and group maturity
Interactive Handouts ☑ Gather information or collect input from groups ☑ Direct an experiential activity or provide practice in a particular exercise ☑ Reinforce content	▪ Opportunity to practice what has been learned and strengthen recall ▪ Helps keep learners focused and active ▪ Allows learners to think for themselves without being influences by others ▪ Individual thoughts, opinions, or responses can be shared collectively in a larger group ▪ 'Completed' interactive handouts promote individual ownership of learning	▪ Interactive handouts (worksheets, survey tools, "in-basket" exercises, etc.) must be prepared in advance ▪ With interactive handouts each individual activity should take a relatively short time ▪ Provide a clear set of objectives for each handout to give learners a clear idea of what they should know, or be able to do, by the end of the lecture or activity ▪ Leave space for results of small-group activities or discussions to be recorded
Values Clarification Exercise ☑ Develop a common shared vision or purpose ☑ Encourage group discussion ☑ Give practice in compromise and reaching consensus	▪ Interactive activities in which learners explore where their stance on ethical or philosophical issues ▪ Allows participants to explore and discuss values and beliefs in a safe environment ▪ Encourages learners to clarify and explore personal attitudes and values, become more comfortable with opinions different from their own ▪ Opportunity to explore difficult and complex issues; increase communication; and allow people to get to know each other a little better	▪ Facilitator must carefully prepare exercise and discussion questions ▪ Give clear instructions and permission to pass ▪ Most effective when used with small groups of no more or less than 4 people ▪ Participants may be too self-conscious to fully participate, or may not do exercise ▪ Avoid creating the expectation that things will change as a result of the exercise or process

Common Training Techniques and Teaching Methods		
Methods and Common Usage	**Features**	**Issues to Consider**
Videos, DVD Clips, Movies ☑ Reinforce content ☑ Add entertainment ☑ Provide a common experience to generate group discussion	▪ An entertaining way of teaching content and raising issues ▪ Instructional video can help learners retain more information and understand concepts more rapidly ▪ Useful for showing experiments or demonstrations that cannot be done in classroom ▪ Helps learners practice critical observation skills ▪ Reaches learners with a variety of learning and information acquisition styles ▪ Learners can use new media technologies to create videos to share knowledge with peers	▪ Only effective when accompanied by post-viewing group discussion; facilitator must prepare discussion questions in advance ▪ Facilitator should always provide introduction and debriefing; give learners specific things to look and listen for <u>before</u> they watch a clip ▪ Passive learning for audience; discussion may not have full participation ▪ Subject to equipment failure or malfunction – facilitator should set up and test all equipment before session ▪ Copyright clearance may be required for some media
Demonstration ☑ Teach a specific skill or technique ☑ Model a step-by-step approach	▪ Helps focus learner's attention on critical aspects of task ▪ Shows practical applications of a method ▪ Involves learners when they try the method themselves ▪ Opportunity to model specific/desired behavior or skill	▪ Requires planning and practice ahead of time ▪ Requires accompaniment by discussion or lecture to give feedback to learners; feedback must follow immediately after practice ▪ Demonstrator needs to have enough materials for everyone to try the method ▪ Not useful in large groups
Simulation ☑ Give learners an opportunity to practice new skills ☑ Apply knowledge and examine attitudes in the context of an everyday situation	▪ Practical, integrated learning experience ▪ High involvement of the learner; learners are able to discover and react on their own ▪ Allows instructor to control the training environment ▪ Immediate feedback ▪ Enables training and assessment in teamwork; situational awareness; behavior; and communication skills	▪ Requires significant time commitment ▪ Requires advanced facilitator skill and preparation ▪ Linkage between simulation outcome and real-world application needs to be clearly defined ▪ Can be challenging to evaluate effectiveness of simulation as a teaching tool

Notes on Your Favorite Training Techniques and Teaching Methods:

Creating and Using Support Materials

Creative use of the right educational materials greatly enhances learning by facilitating active participation in the learning process, which supports a higher level of information retention among learners. Trainers use support materials to provide specific documentation, resources and references for participant use beyond the conclusion of the training session.

About Teaching Aids, Tools and Support Materials

Learners process new information in a variety of ways and at different speeds, depending on how the information is presented to them. Effective teaching aids and educational materials are designed to support and reinforce training content for all learners and learning styles.

Thoughtful, well-designed teaching aids and educational support materials should:

- ☑ Attract learners' attention, actively engage them in the learning process, assist them in processing information, and help them to remember and recap key concepts.

- ☑ Support learners in applying training content and information to specific tasks.

- ☑ Satisfy the needs of both visual and kinesthetic learners.

- ☑ Emphasize key teaching points and help explain highly technical information or complex concepts.

- ☑ Give variety to your presentation methods and help improve your teaching effectiveness.

- ☑ Provide examples, additional information, references, data, and resources for further study and use beyond the training session.

There are many different types of teaching aids and learning tools you can use or create to support effective training and make the learning experience more interesting and memorable for learners:

- Primary Reference Sources

- Resource Packs, Handbooks, and Reference Manuals

- Reading and Resource Lists

- Handouts and Job Aids (tip sheets, clinician support tools, etc.)

- Interactive Worksheets

- Training Manuals and Curriculum Guides

- Flip Charts/Posters

- Samples, Models and Mock-ups

- Media Clips: Trigger Tapes, Audio, DVD, CD-ROM, etc.

- Electronic Presentation Software

When developing teaching and training aids or considering the use of presentation technology, it is important to be aware of your audience and their expectations (as well as your own experience and limitations with learning technologies and computer skills!) Remember to select training aids that are best suited for your presentation.

The same guidelines for creating dynamic presentations or training sessions also apply to creating effective support materials:

1. Plan for and prepare your materials well in advance! Avoid the anxiety of last-minute production, technology failures, printing or copying problems, and other unanticipated delays.

2. Identify the major concepts you will be covering and determine which ones require or would benefit from the use of visual aids or support materials.

3. Know your audience, what will work best for them in terms of learning or completing tasks of the training session, and what is required for them to demonstrate they have achieved the desired learning outcome. Analyze your audience and create your teaching materials to support their knowledge and learning interests.

4. Make sure your support materials and presentation aids are relevant to, not a distraction to your delivery of the material.

5. Review, preview, edit, and practice using all support materials and visual aids prior to your presentation session. Make sure copies are legible and equipment works!

Key Questions to Consider When Creating Support Materials

? What kind of presentation is it? A training? Conference? Poster? Why do you need support materials?

? Who will collect or create the materials? Who pays for them?

? What educational methods are you planning to use? What materials are required to successfully execute planned training activities?

? How will your teaching support materials help you to achieve your objectives or enhance learning about the topic?

? How much time do you have? How many people are in the learning group?

? What is it that you need your audience to learn, and what do they need to take with them in order to reinforce it?

The following diagram illustrates a sample materials development process. In this example, note that both content and design review occur at each stage of materials development, and that materials and experience with their usage are evaluated on an ongoing basis.

Materials Development Process

What is the Purpose of the Materials?

What Type of Materials are Needed?

Who is the Audience?

Requirements

Review

Collate Content

Outline, Chunk and Sequence *Review*

Add Meaningful Graphics *Review*

Flesh Out Materials *Review*

Create Exercises *Review*

Create Job Tools *Review*

Spice Up Materials

Final Review

Use Materials

Evaluate Materials*

Review requirements, outline, materials, graphics, job aids, etc. with stakeholders at each stage of development.

*After using the materials in a training session, you will be able to edit and update materials based on your own experience, insights and user feedback. Constantly evaluate and update materials whenever possible.

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Support materials should be an integral part of your teaching strategy. Creating and using teaching aids is more than simple information-sharing: it is also part of the art of learning management. All information you introduce, including handouts and other supporting materials, should relate to your training goals and learning objectives. When developing teaching aids or choosing educational materials, select the right tools to support your message based on your communication needs and the learning environment. Avoid confusing learners with too much material or too many different themes.

Use a "Purpose of Materials Checklist" like the sample provided at the end of this section to help you think through the creation and use of your training materials:

Some development, design and usage considerations for different types of teaching aids and training materials are given below. This is certainly not an exhaustive list, and many successful teachers and trainers constantly invent their own unique educational materials. Do not fear trying new things!

Primary Reference Sources

Primary reference sources may include copies of journal articles or textbook pages or chapters; brief excerpts or quotations from authors; images, pictures and graphics; or sets of figures. Primary reference sources also include information sheets or permanent sources of

reference that can be used as handouts (e.g., copies of new treatment guidelines or recommendations; HIV/AIDS Fact Sheets from the Centers for Disease Control and Prevention [CDC].)

Ideally each learner should be provided with an individual copy of primary source material, although trainers should be mindful of copyright and usage regulations.

> **Trainer Resource: Copyright.com**
> The Copyright Clearance Center (www.copyright.com) is a valuable resource that provides collective copyright licensing services for corporate and academic users of copyrighted materials.

Resource Packs, Handbooks, and Reference Manuals

A resource pack (or reading packet) is simply a collection of documents which further supports the teaching or training content. A handbook or reference manual is also a collection of supporting documents, with the material usually bound together in book fashion. They are both integrated and comprehensive so that the learner has all the materials together, and are generally distributed all at once, usually at the beginning of the training session. Resource packs and other reference materials may also contain additional information on subjects not covered in the presentation or training session.

Reading and Resource Lists

Provide a list of web sites, books or articles to give learners more detailed information and resources for further inquiry. This is especially helpful when information overload is a potential problem. If you are using presentation slides, consider handing out an annotated bibliography or reading list that includes all the data sources cited in your slide set.

Handouts

Trainers create handouts (documents) to help illustrate and support key concepts, engage learners in interactive exercises, and provide additional information for future reference. Use handouts to increase your audiences' attention to the topic, interest in your presentation, and ability to comprehend and apply what they are learning.

When creating your own handouts for use as educational support material, you should choose a format that best supports the objectives of your presentation:

- *Reiterative handouts* generally restate or summarize your material. They may include content or items such as a presentation outline; fact and data sheets;

- case studies; primary reference sources (journal articles, etc.) in support of your training content and topic; charts; copies of graphics and images; and a bibliography.

- *Interactive handouts* are documents designed to engage learners by encouraging the sharing of experiences, concerns and ideas; or giving them the opportunity solve a problem or apply content information to different scenarios. These can include case study worksheets, problem-based learning or small-group activity guides, workbooks, and practical guides to particular resources.

- *Job aids* are handouts, tip sheets, or clinician support tools designed to be used by learners as quick-reference guides following the training session.

Creating Quality Handouts

Quality, effective handouts are current, accurate, visually pleasing, and practical. A good handout complements your training session or presentation and helps learners take away your key messages. Creative use of well-designed handouts enhances engagement with learners as they interact with the handout material.

Good handout design reflects your approach to teaching and helps you establish credibility. Outstanding teaching materials can help create a positive impression even before a presentation begins. Fortunately, advances in desktop publishing and inexpensive printing options make it easy to create and produce high-quality handouts. Design handouts to support the purpose of your presentation and what you know about the audience and their learning needs.

Handouts should be attractive to the eye and make information stand out quickly. Include enough white space to help the eye to search for and find critical information. If you are creating interactive handouts for use with learning activities, make sure there is ample space for learners to write answers or take notes.

Choose and employ handout design elements and text styles thoughtfully:

☑ No more than two fonts in a document. For instructional materials, use at least 12-point font.

☑ Use **bold**, *italics* or underlining to focus attention but never all three at once!

☑ Text should be left-justified and margins should be wide enough to create sufficient white space.

☑ Use column layout (two or three columns) for large amounts of text.

☑ Use graphics and images to break up large amounts of text, and place them above text whenever possible.

☑ Use icons or symbols to help learners locate key information quickly.

If you are creating handouts for use as convenient, quick reference material after the training ("job tools" such as tip sheets, clinician support tools, etc.), make sure they are

simple and clear. Present information in sequence or step-wise fashion to help learners organize important details, concepts or protocols.

If you will be making handouts available for electronic distribution, make sure your materials are in a format that will easily accommodate conversion to a format suitable for electronic posting and distribution, such as Adobe Portable Document Format (PDF).

Finally, consider preparation time, production costs, and copyright clearance or content approval issues: would it be more cost effective or efficient to purchase training materials?

Creative Ways to Use Handouts

Use Handouts as Interactive Teaching Tools
Create and use interactive handouts to provide opportunities for active learning during the training session (see "Interactive Worksheets," below.) Leave blanks for learners to fill-in, or insert a 'question' slide into your electronic presentation and ask them to make appropriate notes on the handout. This helps students engage with the material and encourages critical thinking.

Vary Distribution
Give out only a brief outline or skeletal handout at the beginning. You may hold learners' attention more effectively if you include a few surprises in your training delivery! Or, consider providing handout material in advance to establish expectations among learners about what they will be expected to do. Provide support material at a resource table for learners to take only what they want to use. If taking notes would help learners understand your material better, consider distributing your handouts at the end of your session. Distributing handouts to a large group can cause considerable disruption: make sure you plan ahead for how you will handle distributing (and carrying!) large amounts of material.

Use Color
Color impacts reading, comprehension, learning and promoting ideas. Handouts can be improved when printed in color or reproduced on colored paper. Use matte-finish paper in cream or pastel colors.

Effective Handout Checklist

- ☑ Emphasizes important knowledge; makes clear what is important
- ☑ Presents information in a logical sequence
- ☑ Clear and easy to understand: no jargon
- ☑ Scientifically accurate, up-to-date, and reflective of current clinical practice
- ☑ Uses active verbs as much as possible
- ☑ Legible: copies will reproduce clearly
- ☑ Easy to read: clear, uncluttered layout; pages not too full of print; sufficient white space
- ☑ Interactive worksheets include enough space for learner notes
- ☑ Striking and interesting: appropriate use of fonts, text styles and contrast
- ☑ Graphics (pictures, diagrams, images, etc.) are clear, relevant, useful and accurate
- ☑ Complies with accessibility requirements; electronic copy available

Post Handouts Online

Provide access to your handouts from a web page so your audience can to refer to them after the presentation. You can also take advantage of Internet technologies to provide multiple resources, create online discussion forums, and distribution lists.

What about Presentation Slide Set Handouts?

Should you provide a copy of your electronic presentation slides as a handout? The answer to this question generally depends on how you are using the slide set. For didactic presentations, learners generally like to take notes, so provide them with a handout (e.g., in PowerPoint "3-per-page" format) at the beginning of your presentation.

For more in-depth or interactive training sessions, a handout of your presentation slides may not be appropriate, especially if providing it would "give away the answers" or invite any potential for misunderstanding of material that needs to be presented in context. In these cases, make your slide sets available *after* the presentation as appropriate, or consider instead providing a printed text handout that contains all of the information covered in the slides: "All of the information covered in the presentation and on the slides is included in your handout."

Interactive Worksheets

Interactive worksheets are handouts designed to encourage assimilation of your material via hands-on exercises and learning activities. Interactive handouts used as teaching activities directly involve learners with the material and help them apply what they are learning in a problem-solving or skills-testing scenario.

Interactive handouts may be designed for individual or group use, and they should be reflective of the tasks that learners will be expected to perform. Examples include workbooks or "gapped" worksheets to be completed as a session progresses; checklists; surveys; decision trees, flow charts, diagrams and tables; action plans; self-assessment quizzes; and anything else that helps learners actively organize and apply information:

Type of Training and Task	Interactive Handout Examples
Skills Training Hands-on practice	▪ Process Worksheets (fill-in-the-blank; interpret lab results or supply missing lab values; etc.) ▪ Examples to be completed and then discussed in class ▪ Case Study Worksheets
Knowledge Training Test learner understanding and ability to recall	▪ Self-assessment Quiz / Practice Question Set ▪ Pre- and Post-Tests ▪ List of Questions for Group or Self-study
Attitude or Behavior Change Training Role play, discussion, action planning	▪ Case Scenarios and Role Play Instructions ▪ Closing Statements Handout ▪ Action Planning Worksheet

Creating and using interactive handouts effectively is a time-consuming process that requires giving thoughtful attention to some important details:

? What is your purpose for doing an exercise? How will it fit with other teaching activities of the training session?

? What do you want learners to accomplish by completing the interactive handout? Will learners have the appropriate tools or knowledge to complete the exercise and interactive handouts?

? How much time do you have? How will you distribute interactive handouts at the right time? How long will it take a variety of learners to complete the activity?

? Will learners work individually or in teams? How will you encourage and manage collaborative learning with the exercises and handouts?

? How will you include processing of the interactive handout within the activity? How will you identify and address any difficulties learners may experience with the handout or exercise? If there are no single "correct" answers, how will you deal with alternatives?

Remember to carefully plan the creation and use of your interactive handouts as you are planning the preparation of your learning session. Also, regularly ask for feedback from your audiences on how to improve the quality and effectiveness of your interactive teaching materials.

Training Manuals and Curriculum Guides

Training manuals or curriculum guides are bound documents that include specific training content such as learning objectives; training program outlines or agendas; educational materials; instructions and procedures for teaching activities; standards, diagrams and illustrations; trainer or facilitator notes; and additional resources for follow-up study or reference.

A training manual or curriculum guide can take various forms, and typically covers a defined topic or specific training course:

☑ *Training manuals* ("participant guides") are used to provide training participants with the content information and educational materials necessary to support the learning session. They should be designed to support and enhance learning and active participation in the training.

☑ *Curriculum guides* ("instructor's manuals") are used by trainers to facilitate appropriate and effective training planning, design, delivery, assessment and development.

Both versions generally contain the same basic material, adapted and formatted for the different purposes of trainer or participant. Consider who will be using the materials and

for what purpose as you plan how your training manuals will be organized and presented.

Training manuals should be prepared in loose-leaf binders to facilitate easy updating, and the content and sequence of items should be appropriately customized for specific training topics or programs. Some sample content suggestions appear in the following tables.

Some Common Elements of a Training Manual	
Element	**Sample Contents**
Cover and Title Pages	▪ Title of training topic or course ▪ Authorship, attribution and copyright information ▪ Terms of use and disclaimers
Table of Contents	▪ Itemized listing of contents in the order they appear in the binder
Introduction and Overview	▪ Purpose and structure of manual/guide ▪ Target audience ▪ Learning objectives ▪ Key concepts addressed in the training
How to Use the Manual	▪ Training program agenda ▪ Outline and overview of training manual contents ▪ Instructions for using training materials included in manual
Training Module Contents	▪ Training content, notes and activity instructions presented in a logical sequence reflecting the order of training delivery ▪ Interactive discussion and case-based learning activities which give participants opportunities to apply what they are learning during training
Training Support and Educational Materials	▪ Handouts, job aids, clinician support tools, etc. ▪ Training activity instructions, materials, worksheets, etc. ▪ Learner assessment and training evaluation tools
Resources and References	▪ Bibliography/reading and reference lists; glossaries ▪ Additional tools, resources, further information and sources for ongoing learning and follow-up

A "trainer's version" of a curriculum guide should include all of the information and materials contained in the participant version, plus additional instructor-specific elements as appropriate.

Additional Common Elements of a Trainer's Curriculum Guide
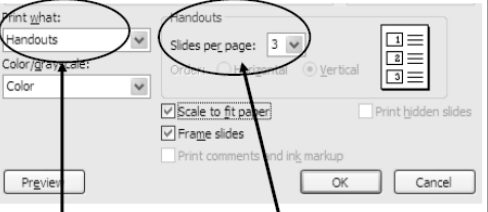
Element	Sample Contents
Training Program Management Notes and Support Tools	▪ Checklist/inventory of all necessary training materials and equipment, including audio-visual support ▪ Tracking list/management notes on training program logistics, venue, faculty arrangements, etc.
Trainer's Content Notes and Activity Instructions	▪ Overview and suggestions for use, describing the purpose, learning objectives, and key concepts to be addressed in each module ▪ Training delivery instructions for each module and activity, including options and alternatives for different learning styles and levels of ability ▪ PowerPoint presentation slide sets with formatted speaker notes that include Instructions for Slide, Prompt Questions, Discussion Points, and Backup Data and Resources ▪ Suggestions and tips for improving training delivery or modifying/varying activities ▪ Copies of handouts and interactive worksheets, with answers when appropriate
Resources for Trainers	▪ Suggestions for training program agenda and format ▪ Guidelines and tips for developing and leading effective training sessions ▪ Learner needs assessment and program evaluation suggestions, tools and resources
Master Copies	Master copies of all participant handouts and training support materials

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Formatting Training Manual Contents

Training manual contents may be arranged and formatted in any variety of ways. Choose a format that presents your material in a clear and consistent manner, and meets both the teaching needs of faculty and the learning needs of your training participants. Remember, the purpose of creating learning support materials is to provide your learners with the information that is essential and relevant to your training, in a way that is consistent with the preferred learning styles of your trainees.
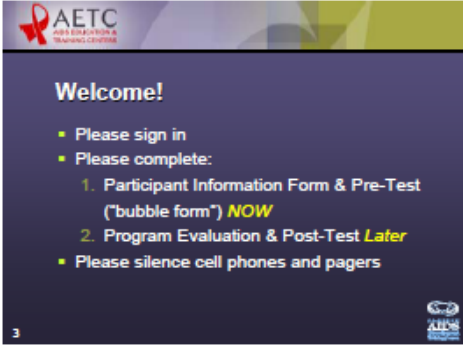
Formatting Notes Pages

One simple way to encourage training participants to take notes during the training session is to provide presentation slide handout pages formatted for note-taking (see Microsoft PowerPoint example below.) Keep in mind the quality of your slides when preparing notes pages for printing.

Here is another example of PowerPoint Notes pages formatted for an instructor's manual, using the Notes Page Master function within PowerPoint to design and apply the formatting elements:

HIV Screening and Testing

Welcome!
- Please sign in
- Please complete:
  1. Participant Information Form & Pre-Test ("bubble form") *NOW*
  2. Program Evaluation & Post-Test *Later*
- Please silence cell phones and pagers

Instructions for slide:

Welcome Slide

- You may have this slide showing as participants arrive if desired.
- Review with the audience the training program logistical announcements below.

Backup Data & Resources

Suggested Handouts:

1. Participant Information Form (PIF)
2. Pre-Test and Post-Test
3. Program Evaluation
4. The Basics of HIV Screening and Testing
5. Quick Reference Guide for Clinicians: Routine HIV Testing in Health Care Settings
6. HIV Screening and Testing Frequently Asked Questions (FAQ)
7. Codes for HIV Testing and Diagnosis
8. Copy of *Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings*

TIP: Copy pre-test questions onto back of PIF form and post-test questions onto back of Program Evaluation Form.

Discussion Points

ANNOUNCEMENTS TO THE GROUP:

1. Repeat announcement to sign in several times to make sure all have done so.
2. Ask participants to complete PIF and pre-test.
3. Offer brief instructions to group on how to complete the PIF forms (i.e., "bubble in" answers – not [✓] or [x].
4. Be sure to have audience (and you!) silence cell phones and pagers before beginning.

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Additional Design Considerations for Training Manuals

Design your training manuals with a professional look and "feel:"

- Create your own standardized template for designing, developing and preparing training manuals and content notes pages. Define and present each element of the training content in clear, consistent sections. Choose a formatting and design structure which supports both the teaching needs of instructors and learning needs of training participants.

- Ensure that both training manual contents <u>and</u> design elements encourage and support active, practical hands-on learning by including participatory exercises, interactive handouts, and other adult learning-based support materials.

- Along with including a table of contents in the front of a manual, use additional indexing methods such as tab dividers and sequential page numbering to facilitate fast, easy location of specific sections or materials.

- Use charts, graphs and images (photos, illustrations, etc.) to communicate or reinforce key concepts and critical content. Graphics help maintain learner interest in and comprehension of educational material.

- Use desktop publishing programs to create customized covers. Make manual covers distinctive so they stand out. Put recipients' names on the cover to personalize the manual and help convey the message that each participant is viewed as an individual.

Flip Charts/Posters

While "high-tech" electronic presentations are ever-more common, even "low-tech" presentation media like flip charts and posters can be effective when used creatively! Flip charts continue to be one of the simplest and most effective ways to communicate training messages.

Flip charts are economical, simple and easy to use, and do not require any electricity or telecommunications. They may be either prepared in advance or created spontaneously during a training session, for use as a visual aid for the presenter, or as a display of teamwork or small-group problem-solving. Flip charts are also extremely effective and useful for small-group activities that include problem solving, decision making, planning, team building, brainstorming, quality management and reaching consensus.

General Tips for Preparing Flip Charts

1. **Limit use of flip charts to small groups.** As visual aids, flip charts are most ideal for smaller groups of not more than 25 participants.

2. **Prepare visuals well in advance.** Making "prepared" flip charts can take a considerable amount of time, so start preparing them early. Allow enough time to review your charts and make any changes or corrections prior to use in your

training session. For drawings or diagrams that you will construct during your presentation, create light pencil outlines on the chart paper in advance. Use only the top 2/3rds of the paper, and leave at least one blank page between each prepared page for space to add extra details or audience comments during your presentation. Tab the pages with post-it notes for easier turning.

> **TRAINER RESOURCE:**
> **flipcharts2go.com**
> Flip chart pads can be pre-printed in color at http://www.flipcharts2go.com. Send flipcharts2go your presentation or flip chart content in PowerPoint or Word via e-mail, and they will prepare and return to you a printed pad of flip charts. See web site for details on pricing and delivery.

3. **Print neatly and legibly!** Print rather than write. Use chart paper with grid lines to keep text aligned. Lightly write your text in pencil first before using the actual flip chart markers. This will allow you to make any adjustments with text spacing and any figures you will be drawing. If you generally do not print neatly, ask someone who does to prepare flip charts for you.

    a. Use big letters, but not all capitals – a combination of upper- and lower-case letters is easier to read.

    b. Make letters large and bold enough to be seen. Each character should be **at least three inches** tall.

    c. Have no more than seven words on each line and no more than seven lines to a sheet.

    d. Use whiteout to correct any small mistakes. For larger areas, cover the mistake with a double layer of flip chart paper and correct the error.

    e. If you are tasking participants with writing on chart paper for later report-back to the group, provide ruled paper and remind them to print large, legible letters.

4. **Use color appropriately:**

    a. Text should be in a dark color, such as black or blue, so it can be easily seen. Reserve bright colors for charts and diagrams.

    b. Use more than one color for contrast and to distinguish systems or types of information. Black and blue are the best; avoid yellow, orange, pink or pastels, which are difficult for the audience to see.

    c. Avoid using too many colors. Using one dark color and one accent color works best. Use red only for emphasis.

5. **Use the right equipment:**

    a. **Paper and pad:** Make sure the pad has perforations at the top to allow easy removal of sheets, especially if you plan on tearing off the chart and mounting it on the wall.

b. **Markers:** Use markers made specifically for flip charts, which do not bleed through chart paper. Avoid scented markers.

c. **Display stand/mounting:** Make sure that your flip chart and the stand match. There are several types of stands available; some chart paper pads have holes to match the stands. The best stands have clamps on the top of them to hold the pad in place. If you plan to mount used pages on the wall, find out what is allowed and what sticks on the mounting walls. (Some wall surfaces repel many kinds of tape.) If you do not know the situation, come with a surplus of tack pins and tape.

d. **Portability:** If you have to travel with prepared flip charts, use self-sticking paper, and carry them rolled up in a mailing tube.

Using Flip Charts Effectively and Creatively

Although flip charts are a "low-tech" presentation visual aid medium, you can use them in a variety of ways to support and encourage active learning:

1. When you are writing on flip charts during a presentation: Write, then turn and talk to avoid talking to the flip chart with your back to the audience. Always stand to one side so your audience can see what you have written. Put your marker down when you are not using it.

2. Title each page with a short topical heading. Use different colors for headings and key points you wish to highlight.

3. Consider using two easels – one with pre-prepared charts, and one for extemporaneous use as you go through your training session.

4. Make sure you have plenty of extra paper to write down and respond to input from participants.

5. Use flip charts as "graffiti sheets:" post chart paper prepared with prompt questions around the room, and ask participants to take a marker and respond to the questions.

6. For large groups, post flip chart paper around the room and encourage participants to write down any questions they may have on the posters during breaks. You can then use these questions to begin an informative question-and-answer session.

7. Flip chart paper is indispensable for group activities. Provide groups with chart paper and markers to respond to case study questions, chart progress towards completing a task or activity, or record ideas as an expression of group thinking.

Samples, Models, and Mock-Ups

Samples, models and mock-ups are simply objects, pictures, or documentation that may be handed around in class, but which do not

constitute a handout. Instructors may pass around objects for observation to help illustrate key points or concepts. Some examples are:

- HIV life cycle model

- Hepatitis infection liver model

- MRI scans, X-rays and other imaging.

Remember that individuals focusing on the circulated item will miss some of the accompanying lecture – it can be more effective to leave models and samples out for learners to examine during a break.

Multimedia: Trigger Tapes/Video Clips, Audio, DVD, CD, etc.

Multimedia such as videos, DVDs and audio tapes can be useful ways of reinforcing, introducing or filling in detail on the subject being taught. Multimedia may be used to supplement a lecture or presentation, with participants free to take notes as they choose.
Medic clips can also be used with interactive worksheets which prompt learners to fill in details from the visual or aural experience.

When using media clips as "triggers" *always* make sure you allow sufficient time for discussion both before and after the showing. Participants should be prepared with discussion questions and key points to look or listen for before they watch a trigger clip.

Multimedia is subject to unanticipated technology failures, so if you are in doubt, leave it out! Always check your equipment and practice running it in advance.

Presentation Software

Presentation software (e.g., Microsoft PowerPoint$^{®)}$) is now considered "industry standard" for preparing visuals for electronic projection. Presentation software is particularly helpful for:

- ☑ organizing and displaying content, including graphics, text and media;
- ☑ preparing speaker notes; and,
- ☑ generating documents which may be used as handouts.

In addition to content and design issues, trainers should strongly consider *how* electronic presentations will be used during the training session. Use electronic presentation software to support the delivery of your message, not to give the presentation for you or demonstrate your ability to use flashy media!

Guidelines for Effective Electronic Presentation Visuals

The goal of your presentation is education, so your presentation materials and media

should be prepared and delivered in service to that goal of communicating ideas and information that learner can use. Following are some general rules and helpful tips for preparing and delivering effective electronic slide presentations.

General Design and Usage Considerations

Simplicity is the key to a great electronic presentation. Slides should be simple, direct, concise, and easy to read. They should make a strong visual impact that enhances – not distracts from – the presentation:

- Include only the most vital information: the audience should be able to take in a slides' meaning at a glance.

- Use one slide for every two minutes of speaking time. For example, if you are scheduled to give a one-hour presentation, use no more than 30 slides. When presenting study data, try to limit slides to two slides per study.

- Limit the use of special effects, which tend to distract viewers. Animation should be used only when it has a purpose. Transitions between slides should be kept simple and should be consistent throughout the slide deck. Never use random transitions.

- Keep slide layouts and page orientation consistent: "landscape" orientation is recommended. Standardize text, figures and colors throughout the entire slide deck.

- Use caution when considering or choosing pre-made design templates: many tend to be too busy or intricate for projection.

- Use graphics, images, sounds, and other multimedia content appropriately to enhance your slide contents, not overwhelm it.

- Use sufficient margins and leave ample empty space to avoid overcrowding.

- Use professional language – no jargon or slang. *Always* proofread slides for spelling and grammar and correct errors before presenting.

Five Realities of Electronic Presentations

1. Your presentation will never look exactly like it does on your computer monitor when you project it on a screen! **ALWAYS "hook and look:"** hook up an LCD projector and see what every slide looks like when projected onto a screen. Make adjustments in font size and color as needed.

2. Your audience will never remember anything you say if the technology fails: **ALWAYS have a backup plan!**

3. No amount of expert data, fancy artwork or showy animation can hide presenter inexperience with technology. **Always learn the basics of proper use**, or consider not using it at all.

4. It is never, *ever* OK to say, "I know you can't read this, but…." **ALWAYS move excessive slide text** into your speaker notes.

5. Slides are only reminders of what and when to speak: your audience is there to listen to and learn from YOU, not read slides off the screen.

Slide Organization and Format

Simple, brief outline formats are easiest to follow - do not overload slides with too much information. Limit each slide to one topic and include only the basic, necessary information.

Communicate your presentation material as specifically as possible – your intended content should be evident:

> **Slide Organization & Format**
> - Keep content simple: Outlines are best
> - One topic per slide
> - Use the 7x7 rule:
>   - No more than 7 lines of text
>   - No more than 7 words per line
> - Use bullets instead of numbers
>   - Use numbers only for rank or sequence

- **Use the "7x7 Rule:"**

  - ☑ No more than seven lines of text.

  - ☑ No more than seven words per line – less if the slide includes graphics.

- Title each slide and keep titles in the same layout format and location. Titles should be brief, attention-grabbing "headlines" that focus learners' concentration on the slide content.

- Use key words and bullet points. Bullets imply no significant order or specific preference; use numbers only when ranking or presenting a sequence.

- Limit graphics to one or two per slide – too many images can be distracting.
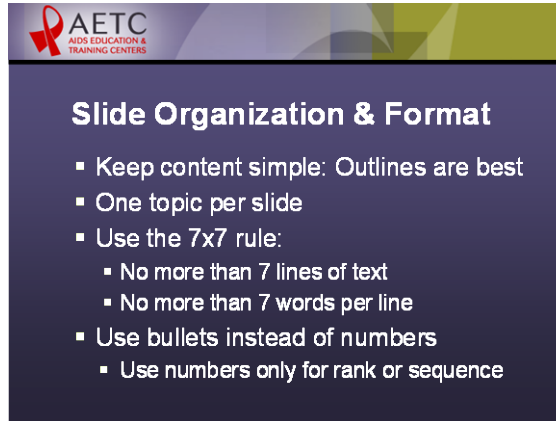
Font Size and Style

Visibility and clarity are essential for effective presentation slides. Make sure your audience can see AND read your slides:

> **Font Size and Style**
> - Titles: 48-52 point font
> - Text and bullets: 28-32 point font
>   - Text less than 24pt is unreadable
> - Choose plain, easy-to-read fonts
> - Capitalize only first letter of each line

- Font sizes should be large enough to be viewed comfortably from anywhere in the room:

  - ☑ Titles: 48 – 54 points.
  - ☑ Text: 28 – 32 points.

- **The absolute minimum font size for text is 24-point: Any font size below 24-point will be unreadable.**

- Use plain font styles that are easy to read. Avoid using multiple typefaces: choose one font family and stick to it. **"Sans serif" fonts such as Arial, Helvetica, Tahoma or Verdana are best for clarity.** If you *really* need more fonts, use no more than two: one sans serif and one serif (e.g., Times Roman, New York, Book Antiqua).

- Only capitalize the first letter of line of text or bullet point. Avoid using all uppercase letters, which take up more space and are more difficult to read.

- Use font formatting for emphasis (bold, shadow, etc.) sparingly. Use Italics only when essential (e.g., Latin names).
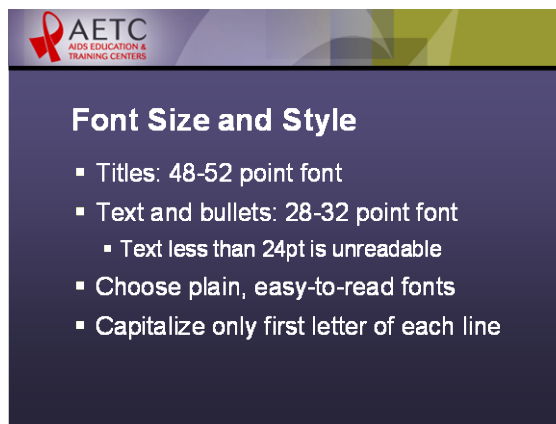
Backgrounds and Color

Visibility and consistency are the most important considerations when choosing backgrounds and colors. LCD projectors do not show colors as clearly or distinctly as computer monitors – what looks nice on your monitor *will look completely different* when projected, and may not even be suitable for projection at all!

Best Colors for Readability

Yellow on dark blue

White on dark blue

Yellow on dark green

White on dark green

Dark green on white

- Choose a plain, solid background that creates high contrast between the background and the text, and keep it consistent throughout the slide deck.

- Choose a selection of standard, complementary (contrasting) colors and keep them consistent throughout the slide deck.

- Avoid using too many different colors or excessive use of color – keep your color palette to no more than two or three colors.

- Choose color combinations that make the text easy to read:

    ☑ Solid, dark colors on light backgrounds **or** solid, light colors on dark backgrounds.

    ☑ Avoid using red! Dark colors like red on a dark background will NOT be readable.

    ☑ Avoid red/green combinations since colorblind people may not be able to distinguish the colors.

    ☑ Avoid color palettes that are too close in hue (e.g., blue text on dark blue background) or too close contrast although they may be a different color (e.g., purple text on bark blue background.)

    ☑ Use solid colors rather than pastels, which will washout when projected. Solid colors convey a clear, bold message.

- Avoid the use of fancy fill patterns, especially on charts and graphs.

Graphs and Charts

Graphs (or charts, as they are called in PowerPoint) are a powerful way to explain data or present information visually. Try to present information in graphical form whenever possible: data presented in visuals is much easier to comprehend and retain than plain text. Once again, to be most effective your audience must be able to both SEE the graphic clearly, as well as UNDERSTAND what it says. Choose the type of graph or chart that is best suited for the information you will present, and use care when formatting graphic design elements. Following are some suggestions and tips for working with graphs and charts:

☑ Visual information should be instantly recognizable. Label all charts and diagrams clearly. Make figures large and bold.

☑ Keep graphs as large, simple and easy to read as possible:

- 4 – 6 columns maximum per graph.

- 2 – 3 curves maximum per graph.

- 5 vertical columns or bars maximum per graph.

- Use two-dimensional chart types; 3-D charts are difficult to read on screen.

☑ Use color to differentiate elements, but limit colors to no more than five per chart or graph.

☑ Use solid, primary colors instead of fill patterns for bars or pie slices. Patterns are more difficult to read and cause confusion; solids convey a clear, bold message.

☑ Label all key elements (category names, axes values, etc.) boldly and clearly.

☑ Do not put more than two graphs, charts or images on a slide.

☑ Tables should be simple, neat and uncluttered.

Use this type of chart . . .	If you want to . . .
Column (Vertical Bars) Chart	• Create vertical columns to compare values of categories of data • Compare values over time periods such as months or quarters • Show changes in quantity over time
Bar (Horizontal Bars) Chart	• Create horizontal bars to compare values of categories of data • Compare quantities
Pie Chart	• Create a pie that analyzes percentages of a total number • Show percentages of a total amount • Show how items contribute to a total • Emphasize a significant element
Line Chart	• Create a line with markers for each data value • Demonstrate trends • Clarify and communicate relationship through time • Identify correlations

When you project graphics such as charts and tables, explain to the audience what they are seeing: do not assume they will automatically know what you are trying to communicate. In addition to giving details about the data, also be sure to explain the

different elements of the graphic – components, axes values, etc. Make clear the significance of the graphic and how it is related to the key concepts you are trying to teach.

Images

Other images (photographs, illustrations, diagrams, cartoons, etc.) add variety and interest to a slide deck, and should be used judiciously. Try to avoid decorative embellishment just because you can, and remember that if your clip art comes from a standard software package, your audience has seen it before! If you use images:

- ☑ Choose images carefully, considering:

    - **?** Is it clear and visible to the entire audience?
    - **?** Is it simple, accurate, and relevant to your material/presentation?

- ☑ Avoid diagrams with massive amounts of text. Keep text to a minimum on slides with images.

- ☑ Choose clip art from the same family and with the same color scheme as your slide deck.

- ☑ Demonstrate only one key concept per visual.

Animation and Slide Transitions

Use animated graphics and automated slide transitions carefully: they can easily become too complex and distracting to viewers. Keep to basic animation and slide transitions rather than fancy custom animation. Be consistent with slide transitions throughout the presentation slide deck. Never use "random" transitions.

Using Electronic Presentation Software Effectively

No amount of fancy slide design can hide presenter inexperience with the technology. In addition to slide design considerations, here are some important points about using electronic presentation software effectively:

1. ALWAYS preview and practice with your slide deck hooked up to an LCD projector, not just on your computer monitor. Remember, it will NEVER look on the screen like it does on your computer!

2. ALWAYS test your equipment in advance. Be sure everything is set up and ready before the start of your presentation. Adjust the focus or position of the projector or screen as needed.

3. Find the best place to stand so that everyone in the audience will be able to both you and the screen. Make sure you stand so that learners' attention is not split between you and the screen. Always face the audience, not the screen.

4. Speak louder than you normally would since the visuals will be competing for your learners' attention. If the room is darkened, more speaking volume is required in order to hold audience attention.

5. When showing graphic or tabular data, pause and give learners a few seconds to look at the graphic, then direct their attention and provide interpretation: "This (graph, chart, table, diagram, etc.) shows…."

6. Do not let the slides be a distraction or take over your presentation: the audience is there to learn from YOU, not from watching slides.

Purpose of Materials Checklist

Answer the questions below for all materials to be created or collected, based on what needs to be covered and accomplished in the training session.

1 What is the material's primary purpose?

2 What is the material's secondary purpose, if applicable?

3 What objectives or performance standards should the materials help users achieve?

Notes: Use/purpose; research needed; who will find, create, etc.?

	Yes	No	
4 Will learners use the material throughout a workshop or course?	☐	☐	
5 If yes, will the material be supplemented with additional tools, resources, media, or interactive activities?	☐	☐	
6 After the course, will learners use the material (or parts of) as a reference tool?	☐	☐	
7 Will this be the sole training tool needed for a short workshop?	☐	☐	
8 Will learners use the material for self-study?	☐	☐	
9 Will materials be used from beginning to end, or for start-and-stop use?	☐	☐	
10 Will materials need to be changed or updated periodically?	☐	☐	
11 Will materials be made available for distribution?	☐	☐	

Adapted from *Train the Trainer Library Workshops: Developing Materials* by Paul Clothier and Cheryl Gould for the Infopeople Project, U.S. Institute of Museum and Library Services; California State Librarian. Summer 2004. Creative Commons License.

Resources and References

American Society for Training and Development
http://www.astd.org/

Businessballs Free Work and Life Learning
http://www.businessballs.com/training.htm

Microsoft Office Online: PowerPoint
http://office.microsoft.com/en-us/powerpoint/default.aspx

Public Speaking Tips
http://speaking-tips.com/

Atherton, J.S. (2005). *Teaching and Learning: Handouts.* Retrieved January 10, 2008 from Learning and Teaching Home:
http://www.learningandteaching.info/teaching/handouts.htm

Facilitate Ltd. (2005). *Good Slide Design.* Retrieved January 2008, from Facilitate Fact Sheets: http://www.facilitate-uk.com/pdf/GoodslidedesignUSApril2005.pdf.

InFocus Corporation. (2005). *15-Minute Guide to wining Presentations.* Wilsonville, OR: InFocus Corporation.

Kelty, K. (1999). Design Learner Friendly Training Manuals. *Training and Development*

Prozesky, D. R. (2000). Communication and Effective Teaching. *J Comm Eye Health, 13* (35), 44-45.

Giving and Receiving Feedback

"Learners want to hear what they need to work on."

-- Kaprielian

"Without feedback mistakes go uncorrected, good performance is not reinforced and clinical competence is not achieved."

--Ende

Feedback is an essential skill for all educators, because learners need guidance from experts on what they are doing well, and on how they can improve. Clinical educators and trainers provide such guidance by offering regular, ongoing feedback about specific training activities and outcomes. Providing and encouraging regular feedback to and from learners is one of the most powerful teaching tools available to you. As an instructor you have the responsibility of creating a learning environment that welcomes the exchange of constructive feedback as a part of the active learning process. This chapter synthesizes and summarizes some of the professional development, adult learning, and medical education literature about the characteristics of and practical uses for giving and receiving effective feedback as a part of active learning.

What is Feedback?

Feedback is information given to a learner about performance-related behavior, and about how others may be affected by the performance or behavior.

Purposes of Feedback

Feedback may be used to reinforce knowledge or behavior that is considered to be positive, as well as to encourage a change in practice or behavior that is considered to be negative. In either case the purpose of giving feedback to learners is to help them either continue or modify a behavior, such as performing a particular procedure in a certain way. Feedback is used by both educators and learners to adapt and adjust teaching and learning strategies to accommodate changing needs. One of the most important outcomes of successful feedback is that learners become independent critics of their own work, encouraging them to progress and improve their future efforts.

Importance and Challenges of Feedback

Instructors and learners both use feedback to help define what is important in the learning process.

Reasons Why Feedback Is Important:

☑ Learners want and value feedback, both on what they are doing well and on what needs to be improved.

☑ Effective feedback can help to identify learning needs, accelerate learning and offer options for future performance.

☑ Encourages learners to be actively engaged and take responsibility for their own learning.

☑ Helps learners to be able to recognize, evaluate and discard or include new ideas in practice.

☑ Provides information about current performance that can help learners correct misconceptions, improve performance in future tasks., and continue positive behaviors.

☑ Models for learners that ongoing feedback and continual learning are part of the content, process, values, and motivation of clinical medicine.

Reasons Why Feedback Is Often Avoided or Neglected:

☑ Many educators have little or no formal experience with models of providing constructive feedback or instruction on how to do it for learners.

☑ Many teachers and learners have had hurtful experiences with feedback in previous experience with traditional medical education that emphasized negative feedback based on humiliation and fear.

☑ Fear of damaging close relationships between teachers and learners.

☑ Time-consuming: Giving useful feedback can be very time consuming for educators and has limited value if learners do not act on it.

Types of Feedback

Constructive feedback can be used in a variety of ways to encourage learning and support improvement in individual and team performance:

Clarifying: Restating instructions; checking for understanding

Informal: Given constructively as issues arise, either privately or with colleagues (e.g. verbal feedback in class, personal consultation)

Formal: Provided as part of an established performance evaluation protocol

Direct: Given to an individual (either in written form or in consultation)

Indirect: Given to a team or entire class or learners

Formative: Ongoing feedback provided to guide learning throughout process

Summative: Provided at the end of the learning process to judge performance and let learners know what they have achieved.

Characteristics of Effective Feedback

Constructive feedback is carefully considered, and given to help receivers learn more about themselves and the effect of their behavior on others. Destructive feedback is feedback that is provided in an unskilled way and leaves the receiver simply feeling bad, with no options for using the information to affect change.

The most effective feedback is:

- ☑ Specific and timely.

- ☑ Focused on observed behaviors that can be changed.

- ☑ Presented as a non-judgemental observation of perceptions, reactions, opinions, or facts.

- ☑ A balance of negative and positive that provides encouragement and clearly specifies needed improvements.

- ☑ Sharing ideas and information rather than giving advice.

Below are some characteristics of god constructive feedback:

Timely and Prompt
- Given as close as possible to the performance so that learners can recall what they did and thought at the time
- Provided as part of an established routine, not delivered as a surprise

Supportive of Learning
- Learners feel encouraged and motivated to improve their practice
- Linked to a clear statement of orderly progression of learning, so that learners have clear indications of how to improve their performance
- Increases ownership of feedback and helps learners integrate the information into their own experience

Specific, Descriptive and Non-judgmental
- Specific description of observed facts: feedback is more accurate and helpful if it is based on direct observation
- Assesses performance and focused on behavior or achievement, not personality or intention

Consequential
- Information that learners can use for subsequent learning and future effort
- Engages learners by requiring them to attend to the information

Fostering of Independence
- Leads learners to being capable of assessing their own work
- Encourages learners to seek regular, ongoing feedback

Efficient
- For educators and trainers to do
- For learners to incorporate into learning process

Giving and Receiving Feedback

Feedback is a way of learning more about ourselves and the effect our behavior has on others. Constructive feedback increases self-awareness and encourages development, so it is important to learn to both give it and receive it effectively. Feedback should be aimed at creating actual change and helping learners discover how to continuously evaluate their own performance. Below are some guidelines to help achieve this:

Guidelines for Giving Constructive Feedback

When giving feedback it is helpful to create a respectful, friendly, open-minded, non-threatening environment. Establish a climate of trust in which learners welcome and invite feedback in the spirit of caring and concern for genuine learning. It is also important to elicit thoughts and feelings both before and after giving feedback.

Plan for Feedback

Feedback is more effective when it is incorporated into an established learning process; it should not come as a surprise. Let learners know that you encourage ongoing, open dialogue and that you will be providing both formal and informal feedback throughout your learning sessions. Ask learners what preferences they have about how they like to receive feedback. For ongoing training or educational programs, you may consider planning regular opportunities for "check-in" feedback (a few minutes at the beginning or end of each session, over lunch, etc.) Discussing chart notes at the end of a clinic session is another opportunity to incorporate feedback.

Select an Appropriate Time and Place to Give Feedback

Choose correct timing for feedback: pick a time and place where you will not be interrupted, and where the environment is appropriate to the type and context of the feedback message you are delivering. Explain the value of feedback and that you want to give feedback to support an individual's growth and learning.

Feedback is most effective when it occurs as close as possible to the behavior it addresses. The earliest opportunity after an event is optimal, but the impact may lessened if the timing is inappropriate. Praise is most effective when given as soon as possible after the behavior has occurred. Immediate feedback will also help to reinforce a correct behavior and make it more likely to happen again. When addressing an incorrect behavior, feedback should ideally be given before the situation occurs again.

It is also important to determine whether the receiver is ready to hear the feedback. Has the learner indicated readiness and willingness to listen and accept the feedback as it is intended? Feedback should be given at an emotionally appropriate time, and support should be available for the learner as needed. In some situations, you may want to say, "I have some feedback for you. Would this be a good time to talk?"

Feedback should <u>not</u> be given during stressful times; when either party may be rushed or interrupted; when either party may be angry or frustrated; or at a time when the learner is not ready or able to receive feedback for a particular reason. Do not share

negative reactions in the presence of others who would not understand the context or constructive intent of your remarks. Respect confidentiality and give feedback in private as appropriate.

Give Feedback in Appropriate Quantity

The amount of information should be appropriate to what the receiver can use. Be brief and concise. Too much feedback can be overwhelming and may decrease the usefulness of the information. To avoid overloading learners with feedback, start with the highest priority issues first, and limit feedback to a few important points that can be addressed one at a time.

Encourage Self-assessment

Self-assessment involves the learner in the feedback process, helps to promote an open dialogue between the learner and the instructor, and provides an insight into the learner's thought processes.

Before giving feedback, ask the learner to self-assess:

> *"How do you think you did?"*
> *"What do you feel went well? What do you feel you need to work on still?"*

Self-assessment also helps learners assume more responsibility for their own abilities and performance. Encourage learners to regularly solicit feedback as part of their own learning processes.

Be Supportive

The reception and use of feedback involves many emotional reactions, so it is important to be sensitive to the receiver and their reactions to the feedback. Learners are better able to hear and apply feedback when they feel supported rather than criticized. Acknowledge that it can be difficult to hear feedback, and emphasize that the feedback process is about making changes to specific behaviors, not about the learner as a person.

Support what the learner has done well with praise and encouragement, but do not de-emphasize the importance of areas that need improvement. When giving feedback aimed at changing behavior, be aware of some possible solutions to potential problems beforehand, and be prepared to suggest alternatives as appropriate.

Describe Specific Behaviors

Constructive feedback should be descriptive rather than evaluative: describe the behavior and its effects that you see. Focus on behaviors related to a particular situation that can be changed, not on personal characteristics or speculation about the receiver's intentions. Specific feedback on behavior that can be changed gives more opportunity for learning. Making observations allows learners to process and respond to your information less defensively.

Give details about what specifically was done well and what might be done differently. When talking about behaviors, be as specific as possible, use nonjudgmental language, and provide concrete examples:

> *"I noticed that when you acknowledged and addressed the mother's concerns about transmitting HIV to her child, she appeared relieved and less anxious."*

When giving feedback about a particular incident or addressing performance that needs to be changed, be sure to have all the facts. Be specific and focus on behavior and performance facts as observed:

> *"I noticed that you seemed to have difficulty understanding what the patient was saying."*

> *"In your last few work-ups, I've noticed that you took shortcuts that seemed to save you time and effort, but caused you to miss important diagnostic information."*

Focus on Exchanging Ideas and Information, Not on Giving Advice

The value of feedback is rooted in its helpfulness to the receiver, not in satisfying the personal needs of the giver. Share information instead of just offering advice: telling a learner what to do is less effective than having the learner formulate a course of action based on the feedback given. Offer alternative strategies or information to allow the receiver of feedback to take ownership of the information and decide its value.

Encourage the sharing of ideas for initiating action without personal opinion:

> *"What actions can you think of that would help build on your skills in this area?"*

> *"What can we work on together to achieve our desired outcome?"*

> *"Have you thought about -- ?"*

> *"Your options include --."*

> *"What can I do to help?"*

Utilize Effective Communication Skills

They way feedback is delivered always affects how it will be received. When communicating feedback, be mindful of the messages that you send through body language, facial expression, and voice. Center your attention exclusively on the other person. Use open gestures and body language; deliver feedback in a clear, steady and neutral tone of voice; and maintain eye contact as appropriate.

Utilize effective interpersonal communication skills such as:

<u>"I" Statement Language</u>
Non-defensive, feeling language in the form of "I" statements communicates personal messages much more effectively:

> *"I would like you to start/stop/change --- ."*

> *"I understand that you --."*

> *"What I see is --."*

Open-ended Questioning
Use open-ended questions to allow and encourage more elaboration and detail. Avoid closed-ended questions when you wish to elicit more information from someone.

Use Questions Like:	Avoid Questions Like:
What …?	*Do you …?*
How …?	*Did you …?*
Who …?	*Have you …?*
Tell me about …?	*"Yes/No-only" questions*

Reflecting Back
Use paraphrasing -- putting what someone has said into your own words and reflecting it back -- to check that you are listening and show your understanding of how the receiver is accepting your feedback.

Maintaining Silence
Encourage receivers to take their time when processing and responding to feedback. Allow plenty of time to think through replies to challenging questions or information. Maintain eye contact and demonstrate an interest.

Explore Issues Fully

Take time to clearly identify and organize issues that need to be addressed. Use probing questions to explore and gain a full understanding of the learner's perspective of the context in which specific performance or behavior. If you experience resistance from the receiver, continue to listen for new information and continue to be specific until it is clear that your message is understood.

Describe the Consequences

Giving constructive feedback is more effective when the receiver fully understands the consequences. When giving feedback be aware of its consequences and be prepared to follow up with appropriate support. Clearly discuss expectations and timelines for any required action. To build a commitment to change, state the benefits of changing and describe the positive consequences of the behavior being addressed. Make sure that learners understand what is expected of them, and, as necessary, the consequences of not improving performance or changing behavior as well.

Check to Ensure Clear Communication

Feedback is often subject to distortion or misinterpretation, so be sure to check that the receiver understands your message. Verify understanding by asking learners to rephrase what they have heard from you, and to talk about their assessment of the issues you have raised. At the end of the session, restate the key aspects of the feedback discussion, add your own points of emphasis, and summarize the important issues and any plan for action.

Develop Follow-up/Action Plan

Feedback is most useful when it addresses things that can be changed. However, constructive feedback is about sharing reactions, not demanding change. When done well, skilled feedback offers the receiver a choice about whether or how to act upon the information. Provide appropriate follow-up to your feedback and engage the learner in negotiating a plan for dealing with any problems identified and monitoring progress. Work together to identify the desired performance result and determine how it can best be achieved.

Receiving Feedback

Feedback related to performance or behavior is some of the most important information we can receive from others. Learning how to receive feedback is equally important as learning how to give effective feedback. The challenge lies in learning how to receive feedback with an open mind and grow from it, and in resisting the natural impulse to get defensive. Below are some tips for receiving constructive feedback:

How to Solicit and Receive Constructive Feedback

- ☑ Signal when you are seeking assistance by asking for feedback in advance. This allows the feedback provider to think about the feedback they will give you, and also the opportunity to express any concerns about giving feedback (not the right person to give it; not motivated or interested; not the right time; etc.)

- ☑ Decide on the outcome(s) you want and why, and how getting feedback will help. Make sure you are in fact ready to receive feedback!

- ☑ Be specific feedback: you can indicate your readiness to receive feedback and help the giver provide useful and actionable information by asking for feedback about specific things:

  - ✓ LIKE THIS: *"Will you please help me organize the outline of my case presentation?"*

  - ✗ NOT LIKE THIS: *"What do you think of my case presentation?"*

- ☑ Avoid asking leading questions (e.g., *"You thought my case presentation went alright, didn't you?"*)

- ☑ If a change in performance is indicated by the feedback you receive, be prepared to discuss what to do differently in order to achieve your outcome.

- ☑ Share your reactions to the feedback you receive in order to help the giver improve their skills at giving useful feedback. Always thank the giver for feedback, even if you do not completely agree with it.

How to Receive and Deal with Less Constructive Feedback

☑ Avoid "taking it personally." Try to identify the motives for giving you particular feedback at a particular time. Keep clam and maintain control of the discussion. Do not lose your temper, argue, or try to justify your position.

☑ Center yourself by taking several slow, deep, deliberate breaths before the feedback discussion takes place.

☑ Keep an open mind, act on the things you agree with, and be prepared to discuss the things you do not agree with or do not understand.

☑ Utilize interpersonal communication skills: establishing rapport, active listening, and effective questioning.

☑ Allow the person giving you feedback to complete what they are saying and wait at least three seconds before you reply. Listen to and consider the information before responding, as opposed to reacting.

☑ Use empathy to acknowledge and deflect any anger or aggression you detect from the giver:
> *"I understand you are angry that I did not consult you about -- ."*

☑ Remember that feedback is about specific performance-related behavior or instances, not about making personal judgments. If the feedback is subjective or directed at personality traits or attitude, use questioning skills to refocus the feedback on to real and actionable issues by asking for specific examples.

☑ If the feedback is too vague, probe for more details. Ask questions for clarification.

☑ Make sure you understand the feedback by summarizing the giver's criticisms and reflecting them back in your own constructive words.

☑ Accept feedback as a learning and growth experience in the spirit of continuous quality improvement. Visualize successful outcomes of any change that is indicated from the feedback you receive.

Challenging Feedback Situations

Not everyone is open to receiving feedback or willing to adapt their behavior. Consider these challenging feedback situations as opportunities to sharpen your feedback sills.

Handling Disagreement

It is important to be prepared to handle disagreement because it is one of the most disconcerting reactions and can occur in almost any feedback situation. Your response will depend on whether the other party is disagreeing with the facts - the behaviors and performance you have described - or with the question of whether these behaviors are a problem.

When the receiver is signalling disagreement with your feedback:

1. Give as many explicit examples of the known facts as you can.

2. Probe for the areas of disagreement:
   "Are you disagreeing that the incident took place or only certain details of the incident? Which details?"

3. Probe strongly around differences that exist between versions of events. Be prepared to adjourn the feedback discussion and investigate further if necessary.

4. Clarify consequences of behavior.

Managing Shock or Anger

It is also important to be prepared for the emotional reactions that are a natural part of receiving feedback:

1. Signal permission (OK to cry, etc.) to allow for emotional reaction.

2. Empathize with the receiver's situation and acknowledge their right to be angry

3. Control the pace of the feedback session by judging the receiver's reaction.

4. Give the receiver time and space. Be prepared to talk about why the receiver finds the feedback so upsetting.

5. Move forward into the positive part of the session.

Feedback Models

In addition to the main principles and techniques of giving and receiving feedback described thus far, it is also helpful to follow a model of giving feedback that you are comfortable using with confidence. Work with feedback models and techniques to find the combination that is most likely to be successful for both you and your learners.

Feedback Cycle

The feedback cycle is a continuous process of observation, reflection, negotiation, and implementing change.

To help tailor feedback to the learner's specific needs, discuss and negotiate the key areas that the learner would like to focus on:

"What specific areas would you like us to focus on during the consultation?"

The observation is followed by reflection on and discussion of the issues raised during the initial discussion, as well as any other issues that may

The Feedback Cycle

Observation
Reflection
Change
Negotiation
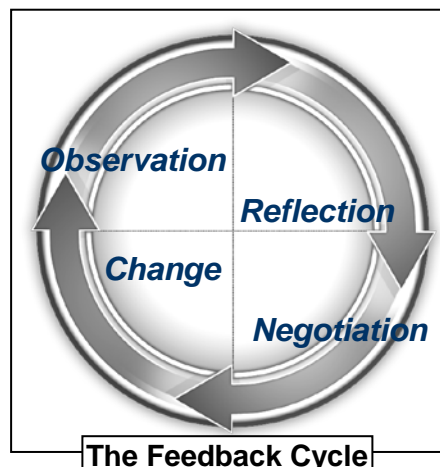
have arisen. This process requires a balance of challenge and support to help the learner feel stimulated to learn, rather than defensive or resentful. Use questions that encourage reflection:

"What features of the history led you to that diagnosis?"
"When you asked the patient about her weight how do you think she felt?"

During the reflection process, provide specific feedback on areas of strength as well as areas that need to be improved. Use this information to identify ongoing learning needs and develop an action plan for implementing change:

"The things that you do well and should continue doing are -- ."
"Things that you should do less of are -- ."
"Things to focus on in the future are -- ."

Pendleton's Rules

Pendleton's rules guide educators to give balanced feedback to learners. This structured approach to providing feedback centers on the fundamental principle that it is outcome-based. Follow these steps in order immediately after an observed event:

Step 1: Briefly **clarify** any points of information/matters of fact.

Step 2: Ask the learner to discuss, **"What went well?"**
Ensure the learner identifies strengths of the performance.

Step 3: Discuss what went well, adding **your own observations**. If there is a group observing the performance, **ask the group** what went well, limiting discussion to the strengths.

Step 4: Ask the learner to identify and discuss **what did not go well** and **what could be done differently** next time.

Step 5: Discuss what went less well, adding your own **observations and recommendations**. If there is a group observing the performance, ask the group to add their observations and recommendations.

Pendleton's rules also provide a useful framework for reflecting on the times when you have given feedback. It is always helpful to review how you provide feedback, what works best for you, and why:

- *What went well in these situations?*

- *What did not go so well?*

- *How do you think the receiver of the feedback felt?*

- *What will you do differently next time?*

The limitations of these rules are that people may find it hard to separate strengths and weaknesses in the prescribed manner; it can take a long time to identify learners' needs; and the structured approach can limit or prevent more in-depth consideration of priorities.

Five-Step Microskills

This is a popular feedback model, frequently used in clinical preceptorship teaching, which recognizes that most clinical teaching takes place in a busy practice setting. The five-step microskills help the trainer to assess, instruct and give feedback more efficiently.

Step 1: **Get a Commitment**

"What do you think is going on here?"

Encourage learners to make a commitment to a diagnosis, work-up or treatment plan. Asking learners how they interpreted a situation is the first step in diagnosing their learning needs and promoting problem-solving skills.

Step 2: **Probe for Supporting Evidence**

"What led you to that conclusion?"
"What did you take into account before arriving at that decision?"

Encourage reflection on the mental processes used to arrive at decisions, and ask the learner for their evidence before offering your opinion. This will allow you to find out about what they know and identify where they have gaps.

Step 3: **Teach General Rules and Principles**

"When this happens I would suggest you do --."

Take a general approach so that information is readily transferable to other situations.

Step 4: **Reinforce What Was Right**

"Specifically, you did an excellent job of --."

Reinforcement of positive behavior will result in these behaviors being repeated. Positive feedback early on also makes negative feedback easier later.

Step 5: **Correct Mistakes**

"Next time this happens, try this instead.

Mistakes which are left unattended have a good chance of being repeated. Correcting mistakes is deliberately the last step. Correcting mistakes is important, but it is only one part of feedback and requires tact to be effective. Ask the learner to critique their own performance first. If the learner does not raise important issues or problems, be prepared to raise them yourself. Where possible frame mistakes as 'not best' rather than 'bad'

The ARCH Feedback Model

This model is especially useful for formal or pre-established feedback sessions, such as clinical training follow-up evaluation. The arch is symbolic of strength and support. By using the ARCH model, educators support learners and help them strengthen their skills.

A = Ask for self-assessment

R = Reinforcement

C = Correct

H = Help learner develop action plan for improvement

Asking for learner self-assessment relative to performance facilitates the learner's development of an important life-long learning skill. Learners also accept feedback better when they feel the teacher has first taken time to understand their concerns and perspectives. Start sessions with questions such as, "How do you think you are doing?" or "What do you feel are your strengths and weaknesses at this time?" Listen to the learner's point of view attentively and thoroughly before commenting.

Providing specific and descriptive **reinforcement** is an important feedback skill. Learners often say that the only time they get feedback is when they do something "wrong." Reinforcement is the provision of feedback when they do something "right."

Providing **corrective** feedback is also critical; remember that suggestions for improvement need to be specific and actionable.

Helping the learner develop a plan for improvement is an opportunity for the educator to partner with the learner.

Large-group Feedback

What feedback techniques can you use to gain insight into how learners are interpreting lecture content and thus have an opportunity to clear up misconceptions? How can you give feedback to a large group of learners to indicate their progress? Below are some examples active learning techniques used for generating and providing feedback to and from large groups of learners:

Active Writing Activities

Give learners a brief writing task to review key points, identify material that remains unclear, and pose questions for future discussion:

One-Minute Paper
Ask learners to write for one minute on what their understanding is of the main idea of the lecture, or the most intriguing point, and the top one or two questions that remain unclear.

Five Main Points
Ask learners to identify and write down the main theme of a lecture session in one or two sentences, and then list the five main points addressed in the session.

The Muddiest Point
Ask learners to write for one minute the idea that is least clear to them at that moment, and why.

<u>Concept Map</u>
Give learners five minutes to illustrate the relationship between ideas or to fill in a pre-drawn concept map with the links provided, but the concepts removed.

<u>Applications Card</u>
Ask learners to brainstorm some of the ideas discussed and then select two and illustrate on a 4'x6' note card ways that these ideas may be applied in practice.

Content Checklists
Ask learners to conduct a self-evaluation of a body of work prior to submission to check that particular areas or issues have been covered. Learners then refine work as necessary.

Generic Feedback
A typed page of generic feedback, that is common for all learners, and that briefly describes the characteristics and examples of 1) appropriate responses; 2) misconceptions, with some explanations about why they were not correct; and, 3) resources for follow-up study to correct misconceptions. This enables learners to see how their learning fits into a scope of possible achievements, and provides answers, ideas, and clarification of misconceptions on a broad, comparative scale.

Practice Exercise: Giving Feedback

Practicing difficult situations enables you to engage in feedback more confidently and smoothly. Try this brief exercise to help you identify opportunities for improvement in giving and receiving feedback.

1. Invite a colleague or friend to role play a difficult feedback situation for you. Ask your partner to role play the person with a behavior problem.

2. Role play giving the difficult feedback to your partner.

3. Afterwards invite your partner to give you feedback on how you handled the issue. Ask them to tell you how they felt and what their thoughts were while receiving constructive feedback. Then consider and discuss:

   - *What worked well?*

   - *What could you have done better?*

   - *What will you do differently next time?*

PROVIDING FEEDBACK EFFECTIVELY
A Self-Checklist

Do I:

❑   begin by inviting the learners' reflections?

❑   encourage learners to invite my feedback?

❑   link my feedback to each learner's goals?

❑   try to provide my feedback in a timely way?

❑   provide the feedback directly to the learner?

❑   try beginning my feedback with positive observations?

❑   provide concrete, descriptive examples?

❑   consider illustrating my feedback with a video recording of the student?

❑   label my feedback as subjective when it is?

❑   link my feedback to my actual observations of learners when possible?

❑   check out any hypotheses I generate about the learner's performance?

❑   try to avoid sweeping judgments about learners?

❑   avoid premature feedback even when learners do well?

❑   avoid overloading learners with feedback?

❑   recognize that learners have varying levels of receptivity to feedback?

❑   convey my support when providing feedback?

❑   check for understanding and invite the learners' reaction to my feedback?

❑   help learners turn negative feedback into constructive challenges?

❑   provide follow-up to my feedback whenever appropriate?

FOSTERING REFLECTION DURING LEARNING
A Self-Checklist

BEFORE the experience do I:

❑ discuss any pre-established learning goals?

❑ encourage learners to set their own goals?

❑ invite learners to assess where they are starting from?

❑ encourage learners to have questions ready to ask themselves or suggest some to get them started?

DURING the experience do I:

❑ if patients will be involved, explain to them what will be happening and, if appropriate, get their informed consent?

❑ invite learners to talk about what they are thinking and doing?

❑ help learners consider other approaches, if appropriate?

❑ support the learners' relationships with their patients?

AFTER a significant experience do I:

❑ begin by inviting the learners reflections?

❑ invite learners to write down their reactions or fill out a form?

❑ invite learners to reflect on one or more of the following:

- their overall impressions?
- any new issues or goals that emerged?
- what they did well?
- what they were thinking?
- key decision points and options that were available?
- any assumptions, values, or biases that might have affected their behavior?
- what they were feeling?
- what they thought the patient or others who were part of the experience were thinking and feeling?
- what they need to work on?
- issues and questions that they'd like to pursue?

❑ stretch the learner?

❑ ensure that learners have the concepts, language, and questions they need for reflecting on their work?

❑ share my reflections and feedback when appropriate?

❑ reflect with learners on their reflections and self-assessments?

❑ help learners move toward more balanced views of themselves?

❑ invite learners to identify lessons they've learned and learning issues they want to pursue?

❑ encourage learners to reflect in a journal or in other written form?

PREPARING YOURSELF AND YOUR LEARNERS
A Self-Checklist

PREPARING MYSELF
Do I:

- ❑ reflect on my own experiences with and attitudes toward reflection, including self-assessment?

- ❑ reflect on my own experiences with receiving and giving feedback?

- ❑ make certain that I'm clear about the learning goals for the course?

- ❑ provide opportunities for learners to practice what they need to learn?

- ❑ try to observe learners as they use the capabilities they are expected to develop while working with me?

- ❑ find out ways to include reflection and feedback in my teaching?

- ❑ identify private, quiet locations for talking with learners?

- ❑ find out what roles, if any, the learners and I have in evaluating their work?

- ❑ consider eliciting feedback about the learners' work from others?

- ❑ identify or create forms that can facilitate reflection and feedback?

- ❑ consider using videotape recordings of the learners' work?

- ❑ consider using literature to foster reflective practice?

- ❑ consider inviting learners to express their experience in some artistic form?

PREPARING LEARNERS
Do I:

- ❑ build trust with learners?

- ❑ determine the learners' prior, experiences, comfort with, and attitudes toward, reflection, including self-assessment?

- ❑ invite the learners to explore why reflection, including self- assessment, can be important and helpful to them?

- ❑ explore some of the roadblocks to reflection, especially self- assessment?

- ❑ consider modeling reflection, including self-assessment?

- ❑ talk with learners about the conditions under which it will be most comfortable for them to reflect on their experiences and hear my feedback?

- ❑ talk about ways to do reflection and feedback in the presence of patients?

HELPING LEARNERS REFLECT WITH AND GIVE FEEDBACK TO EACH OTHER
A Self-Checklist

Do I:

❑ help learners see the value of taking time for collectively reflecting on experiences?

❑ discuss the format that we will use in the session?

❑ help the learners create a safe environment for reflection and feedback?

❑ help the learners establish ground rules for our work together?

❑ if a learner is reflecting aloud on his or her experience, ask that person to identify any specific help that he or she would like from the group?

❑ if the group is reflecting on a joint experience, consider creating an agenda?

❑ help students and residents learn to foster each other's self-reflections?

❑ model ways to foster reflection and provide feedback constructively?

❑ help learners provide each other with balanced critique?

❑ intervene if any critique is not constructive?

❑ encourage learners to seek alternative perspectives and strategies?

❑ help learners extract general principles and strategies?

❑ invite learners to reflect on the process of the session in which they have just engaged and how the next session can be improved?

❑ invite learners to summarize what they've learned and the learning issues they want to pursue?

❑ invite students and residents to reflect on what they already knew and what they learned from each other?

❑ make arrangements for the next session?

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Handling Questions Effectively

Questioning is an integral part of teaching and learning, and "how to handle questions effectively" is both a broad and – in the education and public speaking milieus, at least – extensively-researched topic. In the course of creating and delivering quality learning experiences within the Framework for Excellence, AETC faculty trainers are most likely to encounter questioning in the three forms addressed herewith:

1.   *Questions from a presentation audience* – How you will be asked and how you will respond to questions significantly impacts the teaching and learning experience.

2.   *Questioning as a teaching strategy and technique for generating discussion* – The more refined art of using questioning as a teaching methodology in the classroom setting or training environment.

3.   *Questioning to debrief an activity* – Questioning to process interactive training activities and learners' reaction to or application of them.

Questions from a Presentation Audience

How you respond to questions from the audience as part of a lecture or presentation makes a huge difference in how your message is received. In fact, a well-planned and executed question-and-answer ("Q&A") strategy improves your presentation and the learning experience for your audience. Handling questions with confidence demonstrates your expertise and enhances your credibility.

Plan Accordingly for Questioning

Planning for questioning during or immediately following a presentation is equally important to preparing your overall presentation content and delivery. Advance preparation should include anticipating all kinds of likely questions, and considering how you will respond. Imagine the most challenging questions that could arise to test your knowledge or credibility, and practice answering these difficult questions before the presentation. Consider rehearsing possible Q&A scenarios with colleagues as you plan and develop your presentation. Knowing you have a carefully planned approach to addressing learners' questions will help to increase your confidence as a presenter.

Set Up for Success

Your plan for questioning should include explaining to the audience the parameters of your Q&A session. Let the audience know when you will take questions, and how you will recognize speakers. Clearly point out any appropriate logistics for the Q&A session, such as where to stand or what microphone to use when asking questions. Politely but firmly request that the audience honor and respect any ground rules for asking questions that you establish.

It is certainly appropriate – and especially for novice presenters – to defer taking questions to a later point in the presentation, or to ask the audience to hold all questions until the end of your presentation. Simply state your preference: "I would like to address your question later when we talk about --;" or "I will be happy to answer all of your questions at the end of the formal presentation."

Maintain Control of the Process

The key to success with an audience Q&A session is to assert and maintain control of the process:

1. Invite and encourage questions to express your enthusiasm for questioning as a teaching tool by starting the questioning period with your own question: *"A question I am often asked is, …."* Then provide an appropriate response to your own question as a lead-in to taking questions from the audience.

2. Acknowledge understanding of the question, and repeat or paraphrase the question to the group as necessary to be sure they heard it. Ask for a question to be restated if you are unsure of what the question is asking before attempting an answer.

3. Use effective group facilitation skills to maintain control of the process:

   ☑ Keep the Q&A exchange focused on your presentation topic.

   ☑ Formally recognize a questioner before they speak, allow only one person to speak at a time, and limit the number of questions.

   ☑ Take plenty of time to think about what you want to say, and address your response to the entire group.

   ☑ Do not engage in an argument or lengthy discussion, or allow any questioners to dominate the Q&A session.

   ☑ Discourage inappropriate questions.

If you have planned accordingly you will be able to address questions with confidence and authority.

Maintain Credibility

Honesty is generally a good policy for answering questions: if you do not know the answer, simply state so. If appropriate you may offer to follow up with a response at a later time. You may also turn the question to the audience: "How might any of you experts in the audience answer this question?" Beware, however, of too many "I don't know" or "I'll get back to you" responses: you do not wish to diminish your credibility by focusing too much on inappropriate or distracting questions, or questions you cannot answer confidently. When the Q&A session has concluded, finish with a strong, positive closing statement that assertively reinforces your message.

Questioning as a Strategy for Teaching and Discussion

Successful use of questioning as a teaching strategy or discussion-generator in the classroom or training environment requires actively engaging participants in the learning process, and challenging them to explore their own beliefs, assumptions and comprehension of new or complex topics. Posing questions to learners strengthens their learning by allowing them to work with knowledge and information using different functional parts of the brain.

Questioning is a powerful teaching method that can:

- ☑ arouse curiosity and stimulate interest in a topic
- ☑ clarify concepts
- ☑ emphasize key points
- ☑ establish class structure and direction
- ☑ enhance problem-solving ability
- ☑ identify learners' knowledge level and readiness for new information

- ☑ establish relationships between ideas, concepts, and beliefs
- ☑ encourage higher-order thinking and active learning
- ☑ motivate learners to search for new information
- ☑ prepare learners to apply new skills and information
- ☑ review and summarize new information.

Creating "good" questions and developing effective questioning strategies for teaching involves planning and practice. You should therefore plan your questions and questioning approach as carefully as you plan and prepare your teaching session.

Types of Questions

The types of questions and the manner in which they are asked directly impact both the effectiveness of questioning as a teaching method, and the overall learning experience. To maximize the learning experience through questioning, trainers should develop questions and an approach to questioning that guide learners toward achieving stated learning objectives. Increase your questioning skills by exploring different ways of asking questions and different alternatives to how you handle questions.

A "good" question is one that both stimulates discussion and challenges learners' higher-level thinking skills. Research on the effects of classroom questioning on learning (Andrews, 1980) suggests that the questions that produce the most responses are:

1. **High-Level:**   Effective questions require higher-order thinking as suggested by Blooms Taxonomy of Thinking Skills: application, analysis, synthesis or evaluation (Bloom, 1956).

2. **Divergent:**   Effective questions suggest many possible correct responses [*divergent*], rather than implying a single right answer [*convergent*].

3. **Structured:**   Effective questions are specific, and guide the learner to a particular approach or framework for determining a response.

4. **Straightforward:**   Effective questions are clear and address only one issue at a time (Rasmussen, 1984).

Your questioning should reflect the level of thinking expected from learners. Higher-order questions – those at the application, analysis, synthesis, and evaluation levels of Bloom's Taxonomy, for example (see following table) – tend to be open-ended, encourage divergent thinking, and increase the length and quality of learner responses.

Below are a summary and examples of Blooms' hierarchical system of ordering thinking skills (from lower to higher), and some suggested action verbs for formulating questions at each level:

Bloom's Taxonomy of Thinking Skills	Sample Action Verbs	
Knowledge Learners are required to remember facts, terms, definitions, concepts by recall or recognition only *Example: What are the major routes of HIV transmission in the U.S.?*	Define Describe Identify Indicate List	Name Recite Recognize Repeat State
Comprehension Learners are required to understand the meaning and intent of material *Example: Explain some common challenges to adhering to antiretroviral therapy.*	Associate Compare Contrast Describe Differentiate	Discuss Explain Interpret Report Review
Application Learners are required to apply essential knowledge, concepts or skills to new settings and contexts to solve a problem *Example: A 35-year-old HIV+ woman presents to your office with a 1-month history of dry cough, worsening shortness of breath, and low-grade fevers. What is the most likely diagnosis?*	Apply Demonstrate Examine Illustrate Interpret Order Practice	Predict Relate Report Review Solve Translate Utilize
Analysis Learners are required to break down material into component parts; identify major causes of a situation; determine evidence; and then use a systematic process to reach a logical conclusion. *Example: Why has the overall health of your HIV+ patient declined in recent months?*	Analyze Appraise Assess Conclude Debate Detect Distinguish	Experiment Infer Inspect Question Separate Summarize Support
Synthesis Learners are required to produce something original after breaking down material into component parts *Example: What new programs could be implemented to reduce HIV transmission in high risk groups?*	Arrange Collect Compose Design Develop Formulate Generalize Integrate	Organize Plan Predict Prepare Prescribe Produce Propose Specify
Evaluation Learners are required to formulate and justify opinions, judgments, or decisions based on established criteria *Example: Explain your rationale for changing a patient's antiretroviral regimen versus continuing on the current regimen.*	Assess Choose Critique Decide Determine Estimate Evaluate	Grade Judge Measure Rank Rate Recommend Select

In addition to the level of thinking expected from learners, the types of questions you ask should also be rooted in what you expect them to accomplish as they work toward achieving learning objectives. Here are some examples of types of questions and associated learning tasks:

Question Type	Learner Tasks	Examples
Action	Decide a course of action given certain circumstances	*What should ….?* *How would you approach …?* *What need to be done to achieve stated goals?*
Cause-and-effect	Identify and articulate causal relationships	*If …, then what …?* *How does … affect …?*
Challenge	Examine assumptions and interpretations	*How do you explain …?* *What is the significance of …?*
Clarification	Revise a previous response with specifics or explanations	*What do you mean by …?* *How would you explain (or describe) …?*
Diagnostic	Examine motives or identify causes	*Why did (or does) …?* *What factors influenced your decision to … ?* *What might happen if …?*
Elaborative	Elaborate on a response given to an earlier question	*What ideas might you add to …?* *What more can you say about …?*
Exploratory	Probe facts and basic knowledge	*What is …?* *How would you define …?*
Extension	Extend a thought or expand discussion to new ground	*What else …?* *What would you think if …?* *What are the downside risks of this approach versus another?*
Hypothetical	Consider a change in facts or assumptions	*What if …?* *What is your theory or idea about …?* *What might have been the result if you had done -- instead?*
Justification	Provide rationale for a previous response	*Why do you believe …?* *What evidence supports …?*
Prediction	Declare what is likely to happen	*What do you think will happen now?* *Based on what you know now, what is likely to happen when …?*
Priority	Establish priorities; identify the most important issue(s)	*What immediate action should be taken?* *What is the most important …?* *How might you prioritize …?*
Prompting	Respond to original question not answered	*What other … can you identify?* *What are some other ideas about …?*
Relational	Establish relationships; compare two things	*How would you compare …?* *What differences exist between -- & --?*
Summary	Synthesize information	*What have we learned today?* *What could you put together from …?*

Successful Questioning Strategies

In addition to different types of questions, there are different approaches to questioning and questioning techniques that instructors employ to promote active learning. If your goal is to increase knowledge, simply asking and answering question directly from learners is suitable. However, if your goal is to further develop learners' thinking skills, you will want to explore the use of dialogue and other interactive techniques to guide learners toward discovery of their own answers.

Example: A "Predicting Discussion"
(Hyman, 1980)
1. What are the essential features and conditions of this situation?
2. Given this situation, what do you think will happen as a result of it?
3. What facts and generalizations support your prediction?
4. What other things might happen as a result of this situation?
5. If the predicted situation occurs, what will happen next?
6. Based on the information and predictions before us, what are the probable consequences you now see?
7. What will lead us from the current situation to the one you predicted?

Below are some guidelines and strategies for asking and responding to questions in the active learning environment:

Establish an Appropriate Learning Environment

To effectively employ questioning as an interactive teaching method, as well as a means of clarifying and elaborating on learners' ideas, trainers must establish a comfortable environment where learners are not afraid or embarrassed to ask questions. Prepare learners for questioning by explaining the expectations, format, and how this knowledge will help them.

Encourage learners to ask questions by giving them the opportunity to do so. Pause and ask for questions at a regular pace throughout instruction, and give sufficient time for learners to consider and present a response or pose additional questions. If you become aware that learners are confused or lack understanding, use questioning to elicit more information and clear up the misunderstanding: *"Before we move on, what do you not yet understand? What else is not clear?"*

Always pose questions in a non-threatening way and entertain answers in a supportive fashion to encourage all learners to participate in the discussion:

☑ Choose both volunteers and non-volunteers to answer questions to encourage equitable participation and keep learners intellectually engaged.

☑ Maintain a positive learning atmosphere by avoiding sarcasm, reprimands, accusations, and personal attacks.

☑ Ask probing questions to help learners arrive at their own correct conclusions or acceptable answers.

☑ Listen to learners' questions and discussion comments carefully and deliberately. Use nonverbal communication (facial expression, nodding, etc.) to show you are following and understanding.

Plan Questions to Provide Structure and Direction
Plan questions that will provide structure and direction to the learning session and help guide learners from their current level of understanding to higher levels of thinking. Prepare a pre-determined set of questions in advance that will help learners to achieve the objectives of the discussion or lesson. Use pre-planned questions to introduce new concepts, focus the discussion on certain items, steer the discussion in specific directions, or identify learners' knowledge level on the topic.

Phrase Questions Carefully, Concisely, and Clearly
State questions with precision, one question at a time. Phrase questions clearly and specifically, and avoid ambiguous questions. Improper phrasing and asking multiple questions related to the same topic may result in unintentional prompting or the inability to accurately assess learner understanding.

Avoid Vague or Dead-end Questions
Trick questions, rhetorical questions (those to which answers are already known) and "yes or no"-only questions tend to generate frustration; encourage learners to respond without fully understanding or thinking through an issue or situation; and discourage active participation in group discussion.

Pose Questions to the Entire Group
Address questions to the entire group of learners, unless you are seeking clarification of an individual response. Direct questions to the whole group and wait before randomly identifying a learner to respond. Ask follow-up questions to elicit additional details, seek clarification of the answer, or ask the learner to justify a response. Redirect the question again to the whole group if the desired response is not obtained.

Use an Appropriate Variety and Mix of Questions
Ask a variety of questions that require a broad range of intellectual thinking skills.

Convergent and Divergent Questions:

- *Convergent* questions are those with a single or accepted "correct" answer. Convergent questions are frequently closed-ended, and may expect the learner to repeat some basic knowledge or facts.

- *Divergent* questions are those with a wide range of possible answers, many of which may be acceptable. Divergent questions must always be open-ended, and often require learners to apply new, creative insights to think about an issue or solve a problem, rather than to simply discover the "correct" answer.

One possible strategy is to start with convergent questions and then continue with divergent questions, posing questions logically and sequentially, and building on the recall of facts to higher levels of analysis and problem-solving. Alternatively, you may

wish to begin a discussion by asking divergent questions, and move to convergent questions as the group approaches achievement of the learning objective.

Divergent questions generally require higher-level thinking, and some answers to divergent questions may be more acceptable than others in terms of logical consistency, synthesis of relevant data, solutions of major aspects of the problem, etc. Usually learners are more willing to attempt answering divergent questions because they run less of a risk of giving a "wrong" answer.

The most productive types of questions are variants of divergent thinking questions (Andrews, 1980):

EXAMPLE: The Playground Question
- Focuses on a carefully chosen aspect of the material (the "playground")
- Respondents give an overview of a situation or problem
- *"What assumptions might be made from a patient's initial refusal of HIV testing?"*

EXAMPLE: The Brainstorm Question
- Focuses on themes
- Respondents generate as many ideas on a single topic as possible within a short period of time
- *"What factors may contribute to poor medication adherence in a patient?"*

EXAMPLE: The Focal Question
- Focuses on a well-articulated issue
- Respondents choose among a limited number of positions or viewpoints and support their views
- *"Is it best to start antiretroviral medications in an otherwise healthy HIV+ patient with CD4 count of 400 or to wait until the CD4 count drops below 350? Why?"*

Closed-Ended and Open-Ended Questions:

- *Closed-ended* questions allow only an "either/or" or "yes/no" response option. Closed-ended questions are most useful for checking for understanding of and restating facts.

- *Open-ended* questions allow learners to respond in their own words and require higher-level thinking. Open-ended questions are preferred for generating discussion and encouraging participation from all learners.

Finally, for clinical training, only certain questions should be posed in front of patients: bedside questions should emphasize knowledge and recall to a greater extent than comprehension or application.

Adapt Questions to Needs of Learners
Tailor questions to the learning needs of training participants and adapt your questioning to the appropriate level of learners' capabilities. Questions can also help you identify topics and learning objectives for future training or follow-up self-study.

Allow Appropriate Wait Time

"Wait time" is the amount of time an instructor allows for learners to respond to a question. Allowing sufficient wait time can significantly enhance learners' analytic and problem-solving abilities. You must demonstrate your expectation that learners will respond to the questions you pose by giving them enough time to think and formulate a response. Otherwise, if you do not provide ample wait time, learners are perfectly happy to let you do all the work and answer all of your own questions!

Allowing sufficient wait time is also important because higher-level questions require more wait time in order to promote higher-level cognitive interactions between learner and instructor.

Increasing wait time to greater than three seconds after high-level questions:

- ☑ Improves learner achievement and retention.

- ☑ Increases the variety and number of questions asked and responses received; the amount and quality of evidence offered to support conclusions; and the participation of learners who normally do not contribute when wait time is three seconds or less.

- ☑ Decreases learner interruptions and lack of responses (Cotton, 2004).

Try one or more active learning techniques to offer learners enough time to respond to a question, request or learning task:

1. Have learners work in "buzz groups" of two or three to solve a problem, propose possible solutions, or generate more questions for exploration and further discussion.

2. Give learners a few minutes to write out an answer.

3. Encourage learners to imagine and discuss multiple ways in which an idea, fact, explanation, procedure, problem, or situation etc. could be understood.

4. Ask learners to create a visual representation of the answer (such as a flowchart, diagram or model) as a means of extending understanding of key concepts.

5. Pose questions as part of a case study analysis.

Respond to Answers from Learners

Listen carefully as learners respond to questions, and follow up with acknowledgement and positive reinforcement:

- ☑ Allow learners to complete a response without interruption unless they lose their focus.

- ☑ Ensure that all participants have heard the response and if necessary, paraphrase or summarize the response in your own words.

- ☑ When partial or incorrect answers are given, respond supportively and guide learners as a group to the desired response.

☑ Use redirecting or probing questions to encourage responders to expand or elaborate with specifics or suggest alternative explanations.

In addition to allowing appropriate wait time, instructors may also bring forth longer, more meaningful and more frequent responses from learners after an initial response by:

☑ Making a declarative statement.

☑ Making a reflective statement giving a sense of what the learners said.

☑ Encouraging answers, comments, or elaborations on the issue from other learners.

☑ Expressing perplexity over the response and inviting further elaboration.

Generate Discussion with Emerging Questions
Promote further discussion among the learner group by using questions that emerge from previous answers and debate to stimulate additional thinking or problem-solving. Pose and respond to emerging questions accurately and at appropriate times in the discussion. Encourage all learners not only to just respond to questions, but also pose additional emerging questions, especially when there is disagreement among learners about the desired or "correct" response.

Questioning to Debrief an Activity

Debriefing is usually the final part of a training activity, when the trainer facilitates a planned interaction with learners in order to:

☑ Reflect on the learning process and give participants an opportunity to articulate what they have experienced and learned.

☑ Draw conclusions and formulate lessons learned from training activities.

☑ Make a link between the knowledge and skills used in the training, and the knowledge and skills required in actual situations.

☑ Answer any remaining questions and address unresolved issues.

Debriefing what participants have discussed and learned is an essential component of a training session. Effective debriefing helps to achieve a common understanding among training participants about the content and message of the training; brings a sense of closure to the activity; and supports learners in understanding how to apply what they have learned and discussed.

During the debriefing process the focus should be on the learner group. The trainer or facilitator should emphasize what has been accomplished in the training session and encourage all participants to freely contribute during the debriefing process. Rather than answering questions immediately, trainers should reflect them back to the group for consideration. Solutions to problems should come from the group itself, with the trainer

facilitating this process by asking prompting questions and guiding a discussion of key points and lessons.

Questioning for debriefing should include both "feeling" questions (questions about the process and learner's reaction to it) and "content" questions (questions about learning outcomes and how they may be applied.) Following are some sample questions for debriefing a training activity.

? Questions about the Activity Process

- What was happening during this activity?
- What happened as you and your (partner, team, or small group) worked to complete the tasks of this activity?
- What happened during your role play?
- How well did this activity work (or not work)?
- How did the amount of time allotted for this activity affect the quality of your work?
- How was the atmosphere during this activity, and why was it so?
- How did other peoples' actions impact your ability to complete the activity?
- What approach did you use, and how did it work?
- What happened in the negotiation with your (partner, team, or small group)?
- What working steps did you take to achieve your results?
- Where did you disagree with your (partner, team, or small group), and why?
- How was competition within the group handled?
- What would you do differently next time, or how would you change this activity?

? Questions About the Activity Content

- What made the activity easy (or difficult) to accomplish?
- What would have made the activity easier (or more difficult) to accomplish?
- Which tasks were clear and which were not?
- What are the results of your tasks, and how did you arrive at these?
- What information did you consistently want, need or use during this activity?
- What would have made this exercise more meaningful?

? Questions About Feelings and Reactions to the Activity

- How did you feel about this activity?
- How did you feel about this process?
- How are you feeling about the direction of this discussion?
- What feelings came up for you during the activity?
- What did you experience during this activity?
- What did you observe during this activity?
- How do you feel about the work you did for this activity?
- How have your attitudes or perceptions changed because of our work together?
- What feelings do you have right now about the topic? How are these feelings similar to or different than what you felt at the beginning?

- How did you feel about the deadlines for your team activity?
- How did you feel when responding to objections?
- How do you feel about the number of options available?
- How do you feel about your potential for success?
- What was your reaction as your (partner, team or small group) negotiated? Did you become more or less comfortable?
- How was negativity, hostility or peer pressure addressed in your team or small group?
- Which questions did you like best (or least)? Why?

❓ Questions About Learning

- What insights do you have as a result of this activity?
- What did you learn during this activity?
- What did you learn as a result of completing this activity?
- What do you know now that you did not know before doing this activity?
- What new learning have you gained from doing this work together?
- What did you learn about your (partner, team, or small group) during this activity?
- What did you learn from the feedback you received from your (partner, team, or small group)?
- How were learning objectives addressed by or achieved as a result of accomplishing this activity?
- What do you still need to learn?

❓ Questions About Application

- What is the relationship between what happened in this exercise and what happens in actual "real-life" situations?
- How do the challenges or problems presented in the activity have real-life significance?
- What possible improvements in your clinical practice/daily work are suggested by the outcomes of this activity?
- What will you do with this knowledge when you leave here today?
- What new information did you learn that will help you improve your clinical practice/daily work?
- How can you use this information on the job?
- How will you incorporate what you have learned in this training into your clinical practice/daily work?
- What do you anticipate will happen as a result of what you learned during this exercise?
- What are the options going forward? What needs to be done now?

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Assessment:
Gathering and using data/information to make DECISIONS about improvements in teaching and learning. The purpose of assessment is to <u>increase</u> quality.

Evaluation:
Gathering and using data/information to make JUDGMENTS about learner performance. The purpose of evaluation is to <u>judge</u> quality.

http://www.pcrest.com
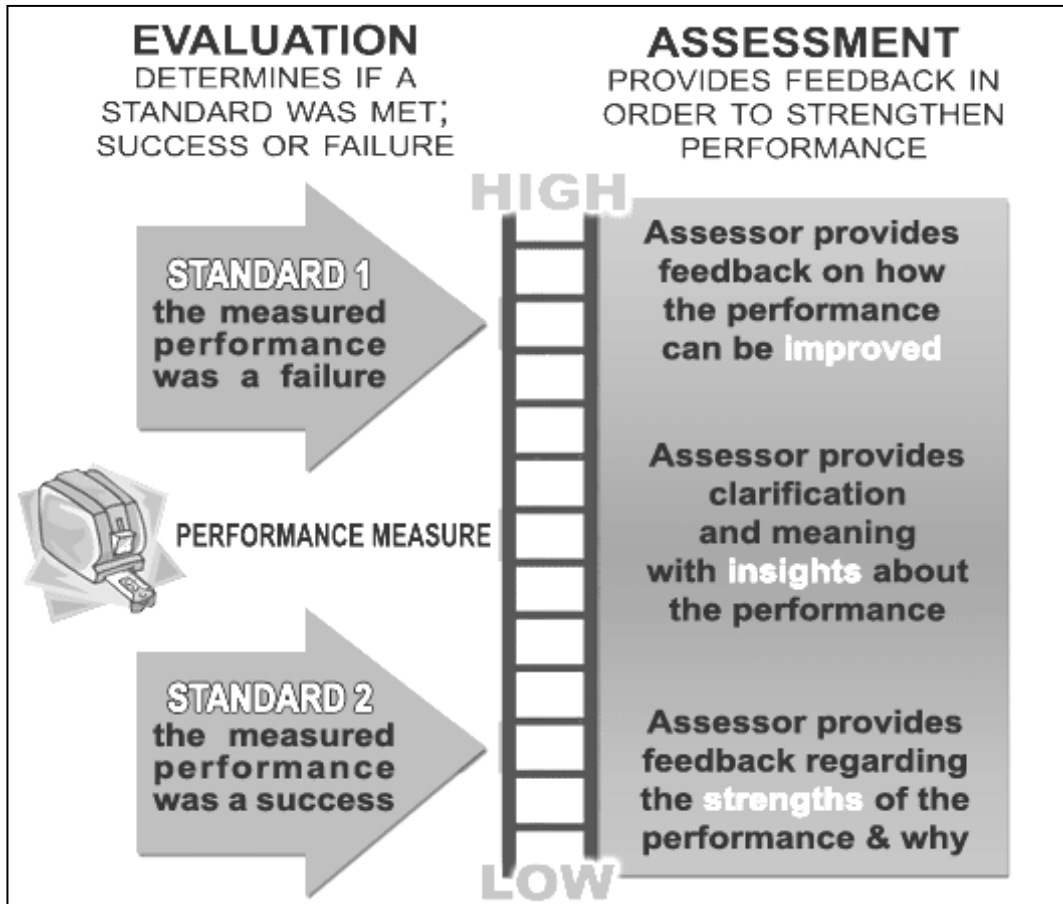
Checklist

❑ Which methods do you use to keep track of what learners can do, and what they know?

❑ How often do you do this with individual learners?

❑ Which methods do you use to assess competence?

❑ How do you assess learners' foundation skills and knowledge?

❑ In what forms do you give feedback to learners, and when?

❑ In what forms do you record the outcomes of assessment?

❑ Do you provide enough opportunities for learners to develop their skills and knowledge before the next assessment?

❑ Do you meet regularly with other assessors to talk about assessment and exchange ideas to improve the standard and consistency of assessment?

Strategies for Transfer of Learning

Transfer Strategies Used Before Training

- ☑ Collect baseline learning needs assessment data

- ☑ Involve training participants in program planning

- ☑ Review training goals of learners and their organizations to understand how learning will contribute to improved performance

- ☑ Review training content before the training session

- ☑ Identify actual work issues and examples to use during training

- ☑ Provide pre-training assignments and time to complete them

- ☑ Provide a positive training/learning environment

Transfer Strategies Used During Training

- ☑ Develop application-oriented learning objectives

- ☑ Incorporate realistic work-related tasks in the form of case studies

- ☑ Create mnemonic devices (i.e., abbreviations or metaphors) to help trainees remember key concepts

- ☑ Have trainees complete action plans as a part of training program

- ☑ Give frequent reinforcement and immediate constructive feedback to learners as they try out new skills

- ☑ Provide job performance aids (tools that help people perform tasks accurately, such as such as checklists, flow diagrams, reference tables, decision tree diagrams, etc.)

- ☑ Provide adequate time for practice and feedback

- ☑ Provide frequent opportunities for learners to reflect on what they are learning and plan how they will use their new knowledge and skills on the job

- ☑ Prevent interruptions and distractions from learning

- ☑ Utilize classroom assessment techniques

- ☑ Conduct training evaluations at the end of the session

Transfer Strategies Used After Training

- ☑ Conduct follow-up with participants in a timely manner to assess the usefulness of the training content

- ☑ Provide trainees with opportunities to apply their new knowledge and skills on the job

- ☑ Conduct follow-up observation/"Live Action Drill"

- ☑ Talk with other trainees about how they are applying the training at work

- ☑ Network with other learners and trainers for support

- ☑ Share key learning points with other team members

For more detailed information about strategies for transfer of learning, visit *Transfer of Learning: A Guide for Strengthening the Performance of Health Care Workers* at http://www.intrahealth.org/tol/.

Competence & Skills Demonstrated	Question Cues	Sample Questions	Sample Assessment Activities
Knowledge ▪ observation and recall of information ▪ knowledge of dates, events, places ▪ knowledge of major ideas ▪ mastery of subject matter	list, define, tell, describe, identify, show, label, collect, examine, tabulate, quote, name, who, when, where	What is -- ? How would you explain -- ? Why did -- ? Describe what happened when -- ? Who were the main -- ? Which one -- ?	Exams and quizzes Make a list or timeline of main events Make a chart of facts Background Knowledge Probes
Comprehension ▪ understand information ▪ grasp meaning ▪ translate knowledge into new context ▪ interpret facts, compare, contrast ▪ order, group, infer causes ▪ predict consequences	summarize, describe, interpret, contrast, predict, associate, distinguish, estimate, differentiate, discuss, extend	What is the main idea of -- ? Can you provide an example of -- ? What facts or ideas show -- ? How would you describe -- ? How would you summarize -- ? How would you compare -- ? Which statements support – ? What is meant by -- ?	Prepare a flowchart to illustrate the sequence of events Write a summary report of an event Create a visual representation: Concept Map, Pro/Con Grid, Outline, Diagram, Flowchart
Application ▪ use information ▪ use methods, concepts, theories in new situations ▪ solve problems using required skills or knowledge	apply, demonstrate, calculate, complete, illustrate, show, solve, examine, modify, relate, change, classify, experiment, discover	How would you use -- ? What examples can you find to -- ? How would you solve -- using what you have learned? What approach would you use to -- ? What would happen if -- ?	Construct a model to demonstrate how it will work Write training instructions for others Present a demonstration Applications Card Live Action Drill
Analysis ▪ seeing patterns ▪ organization of parts ▪ recognition of hidden meanings ▪ identification of components	analyze, separate, order, explain, connect, classify, arrange, divide, compare, select, explain, infer	Why do you think -- ? What are the main features of -- ? How would you categorize -- ? What conclusions can you draw about -- ? What ideas or facts justify -- ?	Design a questionnaire to gather information Prepare a flowchart to show critical stages Construct a graph to illustrate selected information
Synthesis ▪ use old ideas to create new ones ▪ generalize from given facts ▪ relate knowledge from several areas ▪ predict, draw conclusions	combine, integrate, modify, rearrange, substitute, plan, create, design, invent, what if, compose, formulate, prepare, generalize, rewrite	What would result if -- ? How would you design -- ? How would you improve -- ? What theories can you formulate about -- ? What alternatives can you propose?	Design a protocol Write a training script One Sentence Summary
Evaluation ▪ compare and discriminate between ideas ▪ assess value of theories, presentations ▪ make choices based on reasoned argument ▪ verify value of evidence ▪ recognize subjectivity	assess, decide, rank, grade, test, measure, recommend, convince, select, judge, explain, discriminate, support, conclude, compare, summarize	What is your opinion of -- ? How would you prioritize -- ? What judgment would you make about -- ? How would you evaluate -- ? What would you recommend -- ? How would you justify -- ?	Prepare a list of criteria to judge – Prioritize recommendations or criteria Prepare a case study Write a progress report

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Assessment Techniques

Reference:
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Techniques for Assessing Course/Topic-Related Knowledge and Skills

Assessing Prior Knowledge, Recall, and Understanding

- **Background Knowledge Probe -** Short, simple questionnaires prepared by instructors for use at the beginning of a course, at the start of a new unit or lesson, or prior to introducing an important new topic. Helps determine the most effective starting point for a given lesson and the most appropriate level at which to begin new instruction.

- **Focused Listing -** Focuses learners' attention on a single important term, name, or concept from a particular lesson or learning session and directs them to list several ideas that are closely related to that "focus point." Determines what learners recall as the most important points related to a particular topic.

- **Misconception/Preconception Check -** Technique used for gathering information on prior knowledge or beliefs that may hinder or block further learning.

- **Empty Outlines -** The instructor provides learners with an empty or partially completed outline of a presentation or assignment and gives them a limited amount of time to fill in the blank spaces. Helps identify how well learners have grasped the important points of a lecture, reading, or audiovisual presentation.

- **Memory Matrix -** A simple two-dimensional diagram, a rectangle divided into rows and columns used to organize information and illustrate relationships. Assesses learners' recall of important content and their skill at quickly organizing that information into categories provided by the instructor.

- **Minute Paper -** Asks learners to respond in two or three minutes to either of the following questions: "What was the most important thing you learned during this class? or "What important questions remains unanswered?" Provides a quick and simple way to collect written feedback on student learning.

- **Muddiest Point –** Ask learners to write a quick response to one question: "What was the muddiest point?" with the focus on a lecture, discussion, or assignment. Provides information on what learners find least clear or most confusing about a particular lesson or topic.

Assessing Skill in Analysis and Critical Thinking

- **Categorizing Grid -** Learners sort information into appropriate conceptual categories. Provides instructor with feedback to determine quickly whether, how, and how well learners understand "what goes with what."

- **Defining Features Matrix -** Learners are required to categorize concepts according to the presence (+) or absence (-) of important defining features. Provides data on learner analytic reading and thinking skills.

- **Pro and Con Grid -** Learners list pros and cons of an issue. Provides information on the depth and breadth of learners' ability to analyze and on their capacity for objectivity.

- **Content, Form, and Function Outlines -** Learners analyze the "what" (content), "how" (form), and "why" (function) of a particular message. Elicits information on the learners' skills at separating and

analyzing the informational content, the form, and the communicative function of a lesson or message.

- **Analytic Memos -** Learners write a one- or two-page analysis of a specific problem or issue. Used to assess learners' skill at communicating their analyses in a clear and concise manner.

Assessing Skill in Syntheses and Critical Thinking

- **One-Sentence Summary -** Learners answer the questions, "Who does what to whom, when, where, how , and why?" about a given topic, and then synthesize those answers into a single informative, grammatical, and long summary sentence.

- **Word Journal -** Learners first summarize a short text in a single word, and then write a paragraph or two explaining why they chose that particular word to summarize the text. This technique helps faculty assess and improve the learners' ability to read carefully and deeply, and the learners' skill at explaining and defending, in just a few more words, their choice for a single summary word.

- **Approximate Analogies -** Learners complete the second half of an analogy for which the instructor has supplied the first half. This allows instructors to find out whether their learners understand the relationship between the two concepts or terms given as the first part of the analogy.

- **Concept Maps -** Drawings or diagrams showing the mental connections that learners make between a major concept the instructor focuses on and other concepts they have learned. This provides an observable and assessable record of the learners' conceptual schema – the patterns of associations they make in relation to a given focal concept.

Assessing Skill in Problem Solving

- **Problem Recognition Tasks -** Learners are provided with a few examples of common problem types and are asked to recognize and identify the particular type of problem each example represents. Faculty are able to assess how well learners can recognize various problem types, the first step in matching problem type to solution method.

- **What's the Principle? -** Learners are provided with a few problems and are asked to state the principle that best applies to each problem. Instructors assess learners' ability to associate specific problems with the general principles used to solve them.

- **Documented Problem Solutions -** Prompts learners to keep track of the steps they take in solving a problem. This assesses how learners solve problems and how well learners understand and can describe their problem-solving methods.

- **Audio- and Videotaped Protocols –** Record learners talking and working through the process of solving a problem. Assess in detail how and how well learners solve problems.

Assessing Skill in Application and Performance

- **Directed Paraphrasing -** Learners paraphrase part of a lesson for a specific audience and purpose, using their own words. Feedback is provided on learners' ability to summarize and restate important information or concepts in their own words. Allows faculty to assess how well learners have understood and internalized that learning.

- **Applications Cards -** Learners write down at least one possible, real-world application for an important principle, generalization, theory, or procedure that they have learned. Informs instructors how well learners understand the possible applications of what they have learned.

- **Student-Generated Test Questions -** Learners are asked to develop test questions from material they have been taught. Instructors see what their learners consider the most important or memorable content, what they understand as fair and useful test questions, and how well they can answer the questions they have posed.

- **Live Action Drill -** Groups of learners model processes, procedures or skills to demonstrate their ability to apply what they know by performing it.

Techniques for Assessing Learner Attitudes, Values, and Self-Awareness

Assessing Learners' Awareness of Their Attitudes and Values

- **Opinion Polls –** Ask learners to indicate agreement or disagreement with particular statements in order to discover their opinions about issues and topics covered in training.

- **Double-Entry Journals -** Learners begin by noting the ideas, assertions, and arguments in assigned readings that they find most meaningful and/or controversial. The second entry explains the personal significance of the passage selected and responds to that passage. Provides detailed feedback on how learners read, analyze, and respond to assigned texts.

- **Profiles of Admirable Individuals -** Learners are required to write a brief, focused profile of an individual in their field whose values, skills, or actions they greatly admire. Helps faculty understand the images and values learners associate with the best practice and practitioners in the discipline under study.

- **Everyday Ethical Dilemmas –** Present an abbreviated case study that poses an ethical problem related to learners' discipline or profession, and ask learners respond briefly and anonymously to these cases. Learners identify, clarify, and connect their values by responding to course-related issues and problems that they are likely to encounter. Faculty get honest reactions and information on what learners' values are and how they apply them to realistic dilemmas.

- **Course-Related Self-Confidence Surveys -** Learners answer a few simple questions aimed at getting a rough measure of the learners' self-confidence in relation to a specific skill or ability. Faculty assess their learners' level of confidence in their ability to learn the relevant skills and material and can more effectively structure assignments that will build confidence in relation to specific tasks.

Assessing Learners' Self-Awareness as Learners

- **Focused Autobiographical Sketches -** Learners are directed to write a one- or two- page autobiographical sketch focused on a single successful learning experience in their past that relevant to learning in a particular training session. Provides information about learners' self-concept and self- awareness as learners within a specific field.

- **Interest/Knowledge/Skills Checklist -** Learners rate their interest in various topics, and assess their levels of skill or knowledge in those topics, by indicating the appropriate responses on an instructor-created checklist. Informs instructors of their learners' level of interest in training topics and their assessment of the skills and knowledge needed for or developed through training.

- **Goal Ranking and Matching -** Learners list a few learning goals they hope to achieve through training and rank the relative importance of those goals. Assesses the "degree of fit" between the learners' personal learning goals and the training-specific learning objectives, and between the instructor and learner rankings of the relative importance and difficulty of the goals.

- **Self-Assessment of Ways of Learning** - Learners describe their general approaches to learning, or their learning styles, by comparing themselves with several different profiles and choosing those that, in their opinion, most closely resemble them. Provides a simple way to assess learners' learning styles or preferences for ways of learning.

Assessing Course/Topic Related Learning and Study Skills, Strategies, and Behaviors

- **Punctuated Lectures -** Learners and instructors go through five steps: listen, stop, reflect, write, and give feedback. Learners listen to lecture. Instructor stops action and asks learners to reflect on

what they were doing during the presentation, and how their behavior while listening may have helped or hindered their understanding of that information. They then write down any insights they have gained and give feedback to the instructor in the form of short, anonymous notes. Provides immediate, on-the-spot feedback on how learners are learning from a lecture or demonstration, and lets instructors and learners know what may be distracting. Helps learners to become more effective listeners.

- **Process Analysis -** Learners keep records of the actual steps they take in carrying out a representative assignment and comment on the conclusions they draw about their approaches to that assignment. This technique gives learners and instructors explicit, detailed information on the ways in which learners carry out assignments and shows faculty which elements of the process are most difficult for learners and, consequently, where instructors need to offer more instruction and direction.

- **Diagnostic Learning Logs -** Learners keep records of each class or assignment and write one list of the main points covered that they understood and a second list of points that were unclear. Provides information and insight into learners' awareness of and skill at identifying their own strengths and weaknesses as learners.

Techniques for Assessing Learner Reactions to Instruction

Assessing Learner Reactions to Instructors and Teaching

- **Chain Notes -** Learners write immediate, spontaneous reactions to questions given by the instructor while the learning session is in progress. This feedback gives the instructor a "sounding" of the learners' level of engagement and involvement during lecture.

- **Electronic Mail Feedback -** Learners respond anonymously by E-mail to questions posed by the instructor.

- **Instructor-Designed Feedback Forms -** Learners answer questions on feedback forms or post-training online surveys which contain anywhere from three to seven questions in multiple-choice, Likert-scale, or short fill-in answer formats. Allows faculty to quickly and easily analyze data and use the results to make informed and timely adjustments in their teaching.

For Your Consideration:

How might some of the above learner assessment techniques be modified and adapted for use as active learning activities?

3 – 2 – 1

3 Most useful, meaningful, or intriguing things I learned today are:

1. _____

_____

2. _____

_____

3. _____

_____

2 Questions or concerns I still have after what I learned today are:

1. _____

_____

2. _____

_____

1 Next step I will take as a result of what I learned today is:

_____

_____

Background Knowledge Probes

Gather HIV/AIDS Experience Data on Training Registration Forms:

1. Include the HRSA Participant Information Form (PIF) in your advance registration materials.

2. Questions to ask on training pre-registration forms:

    A. In what year did you care for your first HIV-infected patient?

    B. What is your primary functional role in your current employment setting?

    C. How long have you been in your current practice/place of employment?

    D. Approximate number of HIV+ patients you see in a month:
        _____ Inpatient Care   _____ Outpatient Care

"SCOPE" or "PROBE" Posters:

Round-robin exercise done in small groups. Each group spends 2-5 minutes brainstorming responses to "SCOPE/PROBE" questions on chart paper posted around room. Afterwards, post all sheets in front of room and process with large group. Large group task is to review and comment on/add to the lists of responses.

SCOPE Example: HIV, Mental Health and Substance Use	PROBE Example: Routine HIV Testing
1. What **S**TRENGTHS/SKILLS do you bring as a person to your work in this field? 2. What **C**HALLENGES do you face to providing quality care for HIV+ patients with co-occurring mental health or substance use issues? 3. What **O**PPORTUNITIES for success exist at your clinical site for providing quality HIV care to HIV+ patients with mental health and substance use issues? 4. What **P**ERCEPTIONS exist at your clinical site/agency/program about HIV, mental health and substance use? 5. What **E**XPECTATIONS do you have for today's session?	1. What **P**ERCEPTIONS exist at your clinic about doing routine HIV testing with all patients? 2. What **R**ESPONSIBILITIES do you have for performing HIV testing at your clinic? 3. What **O**BSTACLES exist at your clinic to implementing routine HIV testing for all patients? 4. What are the **B**ENEFITS of doing universal risk assessment for HIV with your patients? 5. What **E**DUCATION is needed at your clinic site around doing routine HIV testing with all patients?

Responses can be typed up and kept in a "response journal" to refer to for future training program planning or needs assessment.

Sample HIV/AIDS Background Knowledge Probe:

Instructions: For each term, concept, or principle in bold print below, please check the box for the statement that best describes your current knowledge or practice.

HIV and AIDS:

☐ I have never heard of these terms before.

☐ I have heard of these terms before but I really don't understand what they mean.

☐ I have some idea of what these terms mean but the difference between them isn't clear.

☐ I have a clear idea of what these terms mean and can explain them both.

Opportunistic infections:

☐ I have never heard of this term before.

☐ I have heard of this term before but I really don't understand what it means.

☐ I have some idea of what this term means but I don't want to have to explain it.

☐ I have a clear idea of what this term means and can explain it.

Basic biological principles of HIV infection and natural history of HIV disease:

☐ I am unfamiliar with biological principles in both of these areas.

☐ I am somewhat familiar with biological principles in one of these areas.

☐ I am rather well acquainted with biological principles in one of these areas, but not both.

☐ I am somewhat familiar with biological principles in both of these areas.

☐ I am rather well acquainted with biological principles in both of these areas.

CD4+T-cell count vs. HIV viral load:

☐ I have never heard of these terms before.

☐ I have heard of these terms before but I really don't understand what they mean.

☐ I have some idea of what these terms mean but the difference between them isn't clear.

☐ I have a clear idea of what these terms mean and can explain their clinical relevance.

Ethical implications of AIDS exceptionalism:

☐ I am unfamiliar with the debate.

☐ I know that the debate exists but am unfamiliar with the opposing arguments.

☐ I know that the debate exists and am somewhat familiar with the arguments.

☐ I am familiar with the debate and can explain the opposing arguments.

☐ I understand the debate and its arguments and can explain the ethical issue involved.

The 5 Main Points

Write down the main concept of today's session in one or two sentences:

_____

_____

_____

_____

_____

_____

_____

The five main points addressed in today's session are:

1. _____

2. _____

3. _____

4. _____

5. _____

Misconception/Preconception Check

<u>**Instructions:**</u>   **For each statement in bold print below, please circle the one most appropriate response:**

Most people now infected with HIV became infected through homosexual sex or intravenous drug use.

| Absolutely certain this is true | Pretty sure this is true | I have no idea whether this is true or false | Pretty sure this is false | Absolutely certain this is false |

You can tell someone has AIDS just by looking at them.

| Absolutely certain this is true | Pretty sure this is true | I have no idea whether this is true or false | Pretty sure this is false | Absolutely certain this is false |

People infected with HIV can't transmit the virus to others as long as their viral load is undetectable.

| Absolutely certain this is true | Pretty sure this is true | I have no idea whether this is true or false | Pretty sure this is false | Absolutely certain this is false |

You can't get HIV from oral sex.

| Absolutely certain this is true | Pretty sure this is true | I have no idea whether this is true or false | Pretty sure this is false | Absolutely certain this is false |

HIV is the same as AIDS.

| Absolutely certain this is true | Pretty sure this is true | I have no idea whether this is true or false | Pretty sure this is false | Absolutely certain this is false |

HIV is not the cause of AIDS because some people have symptoms associated with AIDS but are not infected with HIV.

| Absolutely certain this is true | Pretty sure this is true | I have no idea whether this is true or false | Pretty sure this is false | Absolutely certain this is false |

An HIV-infected mother cannot have children.

| Absolutely certain this is true | Pretty sure this is true | I have no idea whether this is true or false | Pretty sure this is false | Absolutely certain this is false |

HIV survives for only a short time outside the body.

| Absolutely certain this is true | Pretty sure this is true | I have no idea whether this is true or false | Pretty sure this is false | Absolutely certain this is false |

Showering after intercourse will prevent AIDS.

| Absolutely certain this is true | Pretty sure this is true | I have no idea whether this is true or false | Pretty sure this is false | Absolutely certain this is false |

The Muddiest Point

INSTRUCTIONS: In the next three minutes, please reflect on today's session and write a brief response to each of the following questions:

1. What was the most important point of today's learning session?

_____

_____

_____

_____

_____

2. What was the "muddiest" point? (In other words, what was least clear to you?)

_____

_____

_____

_____

_____

3. What would you like to hear more about?

_____

_____

_____

_____

_____

Applications Cards
These cards are formatted for printing on Avery 5389™ Post Card labels

Interesting IDEAS/TECHNIQUES from this session:

Some possible APPLICATIONS of those ideas/techniques to my work:

Interesting IDEAS/TECHNIQUES from this session:

Some possible APPLICATIONS of those ideas/techniques to my work:

HIV/AIDS Epidemiology Memory Matrix

INSTRUCTIONS: **Describe the current state of the HIV/AIDS epidemic by filling in the blank cells of the table below.**

	Gender	Ethnicity	Risk Factors
Local (City)			
Regional (State)			
National (Country)			
International (Global)			

HIV/AIDS Learning Interest Assessment

To help us accommodate your learning priorities, please rate your level of learning interest and your personal knowledge/skill self-assessment for each of the topics below by checking the appropriate column:

TOPIC AREAS	My learning interest in this topic area is:			My self-assessment of my knowledge/skill in this area is:		
	High	Medium	Low	High	Medium	Low
HIV prevention						
HIV risk assessment and sexual history taking						
Routine HIV testing in health care settings						
Identification of HIV infection						
Natural history of HIV disease						
Prophylaxis and treatment of HIV-related opportunistic Infections						
HIV-related malignancies						
Neuropsychiatric complications of HIV/AIDS						
Starting, stopping and changing antiretroviral therapies						
Adherence to anti-HIV therapies						
Adverse reactions to/side effects of anti-HIV medications						
HIV drug-drug interactions						
HIV drug resistance and resistance testing						
Complementary and alternative therapies for HIV						
Post-exposure prophylaxis						
Women with HIV/pregnancy/ perinatal transmission						
HIV, mental health and substance use issues						
Harm reduction						

Tips for Preparing Good Multiple Choice Assessment Questions*

Use the "One Best Answer" Format

- A **stem** (e.g., a clinical case presentation) and a **lead-in question**, followed by a **series of choices**, typically one correct answer and four distractors

- Avoid "True/False" questions

- Avoid problematic negative questions such as:

  - "Each of the following is correct EXCEPT . . .?"

  - "Which of the following statements is NOT correct (or NOT true)?"

- Avoid using "all of the above" and "none of the above"

- Avoid using " a and c only," "b and d," etc.

EXAMPLE SET:

A 34-year-old woman has had severe watery diarrhea for the past 4 days. Two months ago, she had infectious mononucleosis. She abuses drugs intravenously and is seropositive for HIV. Physical examination shows dehydration and marked muscle weakness.

1. Which of the following laboratory abnormalities is most likely?

   A. Decreased serum K+ concentration
   B. Decreased serum Ca2+ concentration
   C. Increased serum HCO3- concentration
   D. *Increased serum Na+ concentration
   E. Increased serum pH

2. In evaluating the cause of the diarrhea, which of the following studies is most appropriate?

   A. Colonic biopsy to identify *Giardia lamblia*
   B. Culture of the oral mucosa for *Candida albicans*
   C. Duodenal biopsy to identify *Entamoeba histolytica*
   D. Gastric aspirate to identify *Mycobacterium avium-intracellulare*
   E. *Stool specimen to identify Cryptosporidium

3. Further studies to evaluate her HIV infection show a helper to suppressor T lymphocyte ratio of 0.3. Which of the following actions of HIV best explains this ratio?

   A. Induction of helper T lymphocyte proliferation
   B. Induction of suppressor T lymphocyte proliferation
   C. *Infection of cells with CD4 receptor
   D. Infection of macrophages
   E. Stimulation of leukotriene synthesis

The Basic Rules for One-Best-Answer Items

1. **Each item should focus on an important concept, typically a common or potentially catastrophic clinical problem.**
   Don't waste time with questions assessing knowledge of trivial facts. Focus on problems that would be encountered in real life. Avoid trivial, "tricky," or overly complex questions.

2. **Each item should assess application of knowledge, not recall of an isolated fact.**
   The item stems may be relatively long; the options should be short. Clinical vignettes provide a good basis for a question. Each should begin with the presenting problem of a patient, followed by the history (including duration of signs and symptoms), physical findings, results of diagnostic studies, initial treatment, subsequent findings, etc. Vignettes may include only a subset of this information, but the information should be provided in this specified order. For basic questions, patient vignettes may be very brief; "laboratory vignettes" are also appropriate.

3. **The stem of the item must pose a clear question, and it should be possible to arrive at an answer with the options covered.**
   To determine if the question is focused, cover up the options and see if the question is clear and if you can answer it based only on the stem. If not, rewrite the stem and/or options.

4. **All distractors (incorrect options) should be homogeneous.**
   They should fall into the same category as the correct answer (e.g., all diagnoses, tests, treatments, prognoses, disposition alternatives). Rewrite any dissimilar distractors. Avoid using "double options" (e.g., "do W and X;" do "Y because of Z"). All distractors should be plausible, grammatically consistent, logically compatible, and of the same (relative) length as the correct answer. Order the options in logical or numerical order, or in alphabetical order.

5. **Avoid technical item flaws that provide special benefit to test-wise examinees or that pose irrelevant difficulty.**
   Technical item flaws include absurd options, lengthy answers, grammatical errors, and absolute terms such as "always," "never, or "all."

Do **NOT** write any questions such as, "Which of the following statements is correct?" or "Each of the following statements is correct EXCEPT." These questions are unfocused and have heterogeneous options.

Subject each question to the five "tests" implied by the above rules. If a question passes all five, it is probably well-phrased and focused on an appropriate topic.

Types of Questions

Guess my drug	Predict physical findings	Identify underlying cause/diagnosis
Guess my toxic exposure	Predict lab findings	Identify cause of drug responses
Guess my diet	Predict sequelae	Identify drug to administer
Guess my mood		

Sample Lead-ins and Option Lists

- **Which of the following is (abnormal)?**

sites of lesions	*list of hormones*
list of nerves	*types of cells*
list of muscles	*list of neurotransmitters*
list of enzymes	*list of toxins, molecules, vessels, spinal segments*

- **Which of the following findings is most likely?**

  list of laboratory results
  list of additional physical signs
  autopsy results

  DNA analysis results
  serum levels
  results of microscopic examination of fluids, muscle or joint tissue

- **Which of the following is the most likely cause?**

  list of underlying mechanisms of the disease
  medications that might cause side effects

  drugs or drug classes
  toxic agents
  hemodynamic mechanisms, viruses, metabolic defects

- **Which of the following should be administered?**

  drugs
  vitamins
  amino acids

  enzymes
  hormones

- **Which of the following is defective/deficient/nonfunctioning?**

  enzymes
  feedback mechanisms
  endocrine structures

  dietary elements
  vitamins

Additional Templates

A (*patient description*) has a (*type of injury and location*). Which of the following structures is most likely to be affected?

A (*patient description*) has (*history findings*) and is taking (*medications*). Which of the following medications is the most likely cause of his (*one history, PE or lab finding*)?

A (*patient description*) has (*abnormal findings*). Which [additional] finding would suggest/suggests a diagnosis of (*disease 1*) rather than (*disease 2*)?

A (*patient description*) has (*symptoms and signs*). These observations suggest that the disease is a result of the (*absence or presence*) of which of the following (*enzymes, mechanisms*)?

A (*patient description*) follows a (*specific dietary regime*). Which of the following conditions is most likely to occur?

A (*patient description*) has (*symptoms, signs, or specific disease*) and is being treated with (*drug or drug class*). The drug acts by inhibiting which of the following (*functions, processes*)?

A (*patient description*) has (*abnormal findings*). Which of the following (*positive laboratory results*) would be expected?

Following (*procedure*), a (*patient description*) develops *(symptoms and signs)*. Laboratory findings show *(findings)*. Which of the following is the most likely cause?

A patient has *(symptoms and signs).* Which of the following is the most likely explanation for the *(findings)*?

A (*patient description*) has *(symptoms and signs).* Exposure to which of the *(toxic agents)* is the most likely cause?

Which of the following is the most likely mechanism of the therapeutic effect of this *(drug class)* in patients with *(disease)*?

A patient has *(abnormal findings)*, but *(normal findings)*. Which of the following is the most likely diagnosis?

Sample Lead-ins for Writing Items Related to Clinician Tasks

Health and Health Maintenance
Which of the following immunizations should be administered at this time?
Which of the following is the most appropriate screening test?
Which of the following tests would have predicted these findings?
Which of the following is the most appropriate intervention?
For which of the following conditions is the patient at greatest risk?
Which of the following is most likely to have prevented this condition?
*Which of the following is the most appropriate next step in management to prevent
    [morbidity/mortality/disability]?*
Which of the following should be recommended to prevent disability from this injury/condition?
*Early treatment with which of the following is most likely to have prevented this patient's
    condition?*
Supplementation with which of the following is most likely to have prevented this condition?

Mechanisms of Disease
Begin with a clinical vignette of a patient and his/her symptoms, signs, history, lab study findings, etc., then ask a question such as:
Which of the following is the most likely explanation for these findings?
Which of the following is the most likely location of the patient's lesion?
Which of the following is the most likely pathogen?
Which of the following findings is most likely to be increased/decreased?
A biopsy is most likely to show which of the following?

Diagnosis
Begin with a patient description (including age, gender, symptoms and signs and their duration, history, physical findings on exam, findings on diagnostic and lab studies) then ask a question such as:
Which of the following is the most likely diagnosis?
Which of the following is the most appropriate next step in diagnosis?
Which of the following is most likely to confirm the diagnosis?

Management
Which of the following is the most appropriate initial or next step in patient care?
Which of the following is the most effective management?
Which of the following is the most appropriate pharmacotherapy?
Which of the following is the first priority in caring for this patient?

On Your Own

Purpose:	To challenge participants to become active learners and problem-solvers
Suggested Uses:	▪ Introduction activity right at the beginning of a session ▪ Good for participants who do not know each other ▪ Ideal for smaller groups (less than 25 participants)
Time Required:	15 minutes
Materials Needed:	None

Instructions for Trainer/Facilitator:

Instructions **2 minutes**	<u>This activity should be conducted at the very beginning of a training session.</u> *Briefly welcome the group and explain:* *"I am are going to leave the room for five minutes, and when I return, I want each of you to be able to introduce five classmates to me on a first-name basis. At least two of them must be people you have not met before."* **Give no further instruction on how they are to learn the names of others.** *Then leave the room* for FIVE MINUTES.
Group Processing Discussion **10 minutes**	▪ When you come back five minutes later, *acknowledge* the energy level in the room. ▪ *Ask for a volunteer* to introduce you to five participants. As they are introduced, *repeat their names and welcome them* to the training. ▪ Do this two or three times, or until you have been introduced to all the participants. ▪ *Ask* for one or two comments about how the group set up communication to accomplish the task: *What principles of learning or group process took place?* ▪ <u>*Summarize:*</u> *The purpose of this activity is to try and "suspend the passive mindset" that so many of us bring to a training session, so we can become more active learners and problem-solvers.* ▪ *Thank the group* for participating in the activity.

Learner Expectations and Experience

Purpose:	To assess learner needs and experiences, and allow participants to express concerns.
Suggested Uses:	▪ At the beginning of training ▪ To increase comfort level within a group
Time Required:	30 minutes
Materials Needed:	1. Chart paper, markers, and masking tape 2. "Course Overview" Handout for this training session

Instructions for Trainer/Facilitator

Preparation – Prior to Training	**Prepare "SCOPE" posters:**
	
	▪ Write each of the following questions at the top of a piece of chart paper/newsprint (one question per sheet):
	
	   1. What **S**trengths/skills do you bring as a person to your work in this field?
	
	   2. What **C**oncerns do you have about working with HIV+ patients with co-occurring mental health or substance use issues?
	
	   3. What **O**bstacles exist to working effectively HIV+ patients with mental health and substance use issues?
	
	   4. What **P**erceptions exist about HIV infection, mental health and substance use?
	
	   5. What are some **E**xpectations you have for today's session?
	
	     NOTE: Questions 2, 3, & 4 may be modified for other topics as appropriate to the training session.
	
	▪ Post each question around the room on the wall or on easels. **The questions should be covered so the participants cannot see them until you are ready to begin.**

Opening and Small Group Introductions **7 minutes**	1. *Welcome participants* and review any opening "housekeeping" items. Then *explain* that you are going to break into small groups to briefly discuss the topic and agenda for today's session. 2. *Quickly divide participants* into five small-group teams. 3. *Ask participants to quickly introduce themselves* one at time to their group mates: name, profession/ discipline, agency/program they are representing, and current job role.
Instructions **3 minutes**	1. *Ask* the teams to select/volunteer a "scribe" and give a marker to each scribe. 2. *Explain* that when instructed to begin, each team will get up and go to one of the questions posted around the room.

[You may assign each team to start at a specific question, if desired.]

3. *Explain* that each team will have <u>two minutes</u> to quickly list responses to each of the posted questions, and that when you call "Time!" each group is to move clockwise to the next question and continue until each team has had the opportunity to respond to all of the questions. Scribes should take their markers with them and continue to record team responses to each question.

Small Group Exercise: Round-Robin Poster **10 minutes**	1. Ensure the group understands the task, then *give the signal to begin*. 2. Allow each team <u>two minutes</u> at each poster, then *give the signal to move* to the next one, until each team has responded all of the questions. 3. When each team has responded to all of the questions, *ask them to return to their seats* and stay in their small groups.
Large Group Discussion/ Processing **10 minutes**	1. Move the question sheets to the front of the room and post them where they are visible to the group. 2. *Briefly review the responses* to each question. *Ask* if there are any other concerns, expectations or strengths that they have that are not listed. Keep the questions posted on the wall and refer to them at the end of the session to ensure that concerns have been addressed or that participants know where to get more information. 3. Summarize by acknowledging and highlighting the similarities in fears and concerns expressed by the group, and the personal strengths each participant contributes to their job setting as well as to this training session. 4. Give out or refer participants to the Course Overview Handout for this training and briefly review the Learning Objectives and Course Outline.

Birthday Lineup

Purpose:	To demonstrate the importance of setting up communication using a "new language" in new settings
Suggested Uses:	• Icebreaker • Communication Skills Demonstration • Cultural Competence Training • Before any session where participants need to be divided randomly into small groups
Time Required:	15 minutes
Materials Needed:	Two sheets of chart paper/newsprint, marker and masking tape

Instructions for Trainer/Facilitator

Preparation	1. Prior to the session, prepare and hang the two pieces of chart paper/newsprint: • Write "January 1st" on one piece and "December 31st" on the other. • Post the signs at opposite ends of the room, in a manner that will allow participants to stand in a line between the two signs.
Instructions **2 minutes**	2. *Explain to the group* that they will be taking a few minutes to explore the importance of establishing "user-friendly" ways of communicating. 3. *Tell them* that for the next few minutes they can no longer speak, "mouth" words, use their hands for sign language, etc. **TRAINER TIP:** Depending on the group, you may wish to take fewer or more communication means away from them. It should be challenging, but not to the point that the group will not be able to do the activity. 4. Point out the signs at each end of the room that say "January 1st" and "December 31st." *Explain* that the group must quickly line up IN ORDER (from January to December) according to their birthday, month and day only – not by year. **They must do this without speaking, signing etc.** Remind the group of everything you told them they may *not* do in Step 3.
Group Exercise **3 minutes**	5. *Tell the group "Go!"* and allow them approximately 3 or 4 minutes to get in line. Take longer if necessary. Before you go on, make sure that everyone is in a place and *ask them* if they feel that they are in the correct place. *Tell them* to take a few more seconds to change if necessary. **TRAINER TIP:** To help with group process discussion, observe to see who establishes a pattern to communicate month and day, how others follow that pattern, and problems that may occur.

6. After everyone is lined up, *ask each person* to call out their birthday, month and day. Make corrections and move anyone that is in the wrong place.

7. Ask participants to remain in the line while for brief group process discussion.

Group Processing Discussion

10 minutes

8. Use the following questions as a guide to processing the activity. As appropriate, emphasize the influence of language and communication in delivering culturally competent HIV care:

- *What took place to get into this order?*

- *How were the various means of communication developed? Who developed them?*

- *How well did everyone understand the "new language?"*

- *What would have made this activity easier?*

  TRAINER TIP: Guide to the conclusion that the task would have been much easier if the group would have been able to talk in a familiar language first to determine what this new means of communication would be, and *then* not been allowed to talk, etc.

- *How can you relate this activity and learning new forms of communication to working with people from different and varying backgrounds in a counseling session or clinical encounter?*

- *Now that you have done this activity, imagine being a new patient/client going into a clinic for the first time and hearing terms you have never heard, etc. What do you as a clinician need to do to help the patient/client feel more comfortable communicating with you in the clinic environment?*

- Discuss the importance of observation and listening in order to understand "where a person is coming from" and the importance of adapting the way in which you communicate and what you communicate with each person on an individual basis.

9. Remind the group that there is no one language, set of customs or ideas that can be applied to all people from one culture, and that many people often identify with more than one culture. Thank the group for participating and return them to their seats.

10. [OPTIONAL: Break the line up into smaller groups by numbering off participants as necessary.]

The Wright Family Challenge

Purpose:	To demonstrate the importance of and challenges to listening
Suggested Uses:	• Icebreaker • Communication skills-builder • Before any session where participants need to be divided randomly into small groups
Time Required:	20 minutes
Materials Needed:	1. "Life with the Wright Family" story 2. One piece of individually wrapped candy for each person in the group

Instructions for Trainer/Facilitator

Instructions
 	
2 minutes
	1. Group participants into a circle:
	   • seated on the floor or in chairs; or
	   • seated in small groups around round tables; or
	   • entire group standing in a circle.
	
	2. Give each person a piece of candy and *tell them not to eat it yet!*
	
	3. *Explain* that you are going to read them a story, and every time they hear any word that sounds like "right" or "left," they are to pass their piece of candy to the person on their right or left, depending on what they heard.

"Life with the Wright Family" Story **8 minutes**	4. *Start reading the story slowly* until everyone catches on to the task. 5. *Stop after a few passes* and ask how they are doing. If necessary, have participants redistribute the candy so that everyone has a piece again. 6. *Continue reading the story*, getting faster as you go. When you finish, let the laughter die down; then, 7. Tell the group they may eat the candy. Remain in the circle for group processing discussion.

Group Processing Discussion
 	
10 minutes
	8. Use the following questions as a guide to discussing the activity and stressing the importance of active listening:
	
	   • *What was happening during this activity?*
	
	   • *What made the activity difficult to accomplish?*
	
	   • *What impact did other people's actions have on your ability to stay up with the story?*
	
	   • *How did you feel during the activity?*

- *What would have made the activity easier to accomplish?*

- *How hard was it to listen and pass the objects at the same time?*

- *How much of the story can you remember?*

- *What can this activity tell us about communication?*

- *How hard were you concentrating during the activity? How hard were the people on either side of you concentrating?*

- *How does this level of concentration compare with what you do when someone is talking to you?*

- *Describe a situation you have had where someone was not really listening to you when you were telling them something (ask for one or two volunteers). How did that make you feel?*

9. Remind the group of the power of active listening and thank them for participating. Return the participants to their seats.

10. [OPTIONAL: Break the circle up into smaller groups by numbering off participants.]

Life with the Wright Family

One day the Wright family decided to take a vacation. The first thing they had to decide was who would be left at home since there was not enough room in the Wright family car for all of them. Mr. Wright decided that Aunt Linda Wright would be the one left at home. Of course, this made Aunt Linda Wright so mad that she left the house immediately, yelling, "It will be a right cold day before I return!"

The Wright family now bundled up the children: Tommy Wright, Susan Wright, Timmy Wright, and Shelly Wright, and got in the car and left. Unfortunately, as they turned out of the driveway someone had left a trash can in the street, so they had to turn right around and stop the car. They told Tommy Wright to get out of the car and move the trash can so they could get going. Tommy took so long that they almost left him in the street. Once the Wright family got on the road, Mother Wright wondered if she had left the stove on. Father Wright told her not to worry; he had checked the stove before they left and she had not left it on. As they turned right at the corner, everyone started to think about other things that they might have left undone.

No need to worry now; they were off on a right fine vacation. When they arrived at the gas station, Father Wright put gas in the car and then discovered that he had left his wallet at home. So Timmy Wright ran home to get the money that was left behind. After Timmy had left, Susan Wright started to feel sick. She left the car saying she had to throw up. This, of course, got Mother Wright's attention, and she left the car in a hurry. Shelly Wright wanted to watch Susan Wright get sick, so she left the car too. Father Wright was left with Tommy who was playing a game in the back seat.

With all of this going on Father Wright decided that this was not the right time to take a vacation, so he gathered up all the family and left the gas station as quickly as he could. When he arrived at home, he turned left into the driveway and said, "I wish the Wright family had never left the house today!"