

Training Delivery Formats Evaluation Webinar

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Instructional Design Terminology

- ADDIE (Analysis, Design, Development, Implementation, and Evaluation)
- Active vs. Passive Learning
- Asynchronous vs. Synchronous Learning



What are the different types of training delivery formats?

- On-the-Job Training (OJT)
- Microlearning
- Packaged Training Video
- Online Web Conferences (Webinars and Webcasts)
- Live-Streamed Training (Synchronous Virtual Instructor-Led Training [vILT])
- Basic eLearning (Level 1)
- Enhanced eLearning (Levels 2 and 3)
- Classroom Training (Instructor-Led Training [ILT])
- Performance Aids and Tools
- Blended Learning

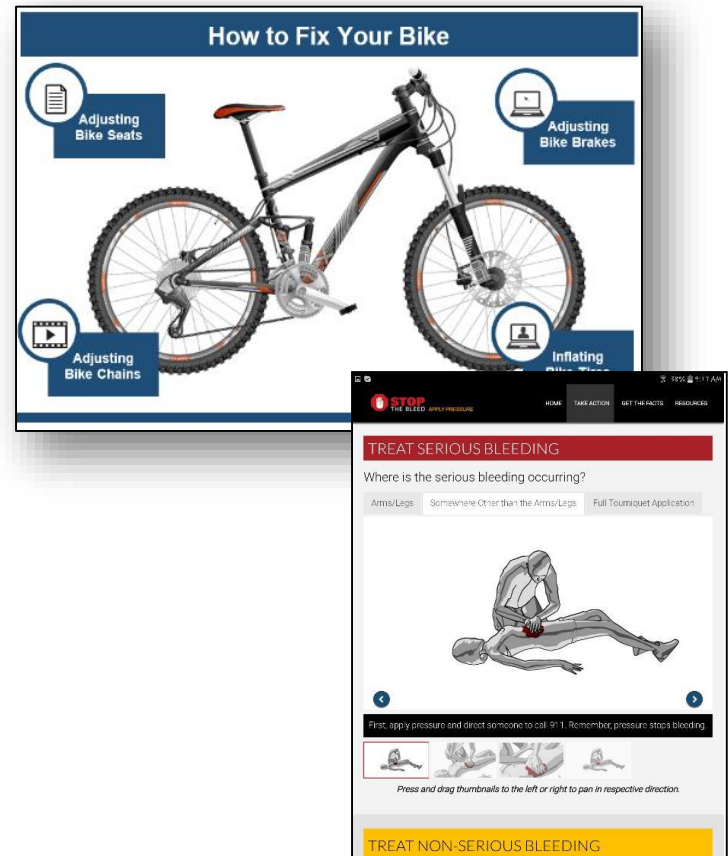
On-the-Job Training (OJT)

- Provides opportunity for learners to practice actual required behaviors needed to complete a task in their work environment
- Can be structured (formal) or unstructured (informal)



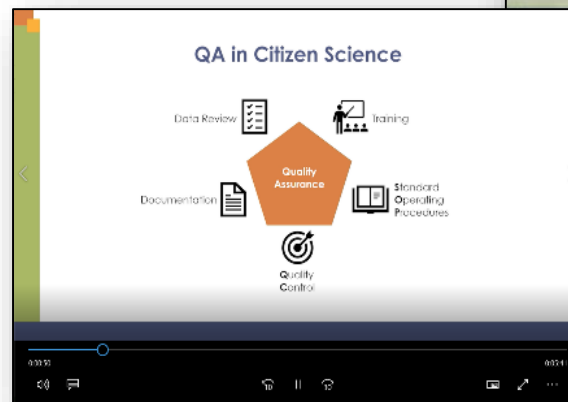
Microlearning

- Provides training that delivers content in short, focused bites (typically 1-5 minutes) that fits into a learner's workflow
- Focuses on a single learning objective and is usually accessed more than once
- Can be delivered in a variety of formats



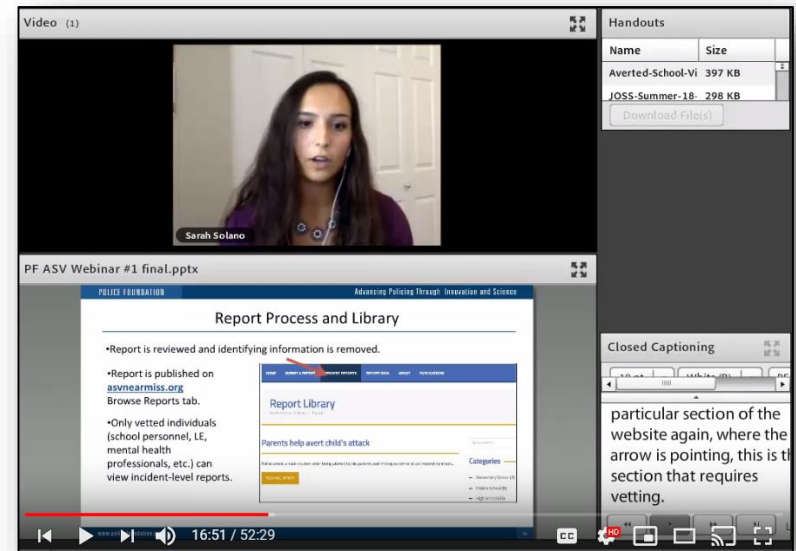
Packaged Training Video

- Provides one-way communication and instruction through use of video
- Can include live actors, 2D/3D animations/graphics, etc.



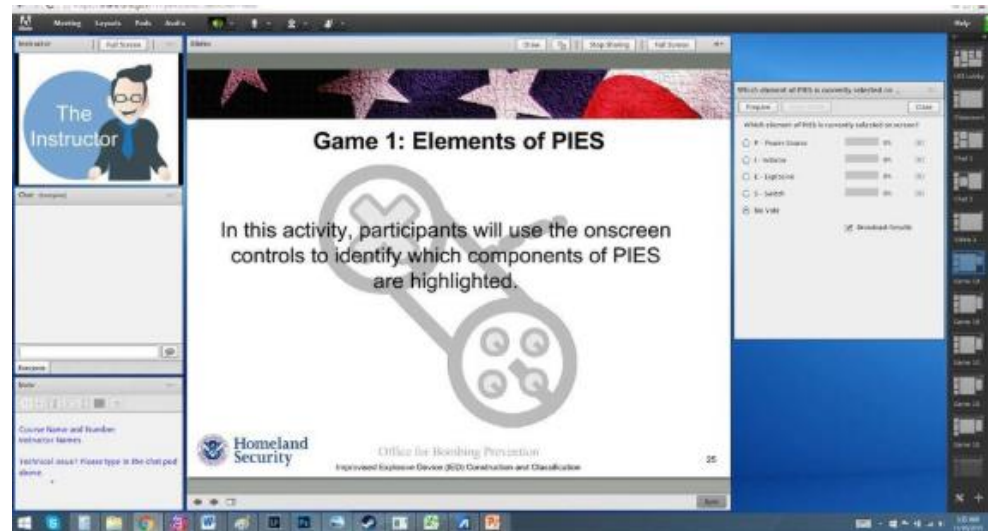
Online Web Conference (Webinars and Webcasts)

- Webinar
 - Provides two-way communication with limited interactivity through a live broadcast at a single point in time
- Webcast
 - Provides one-way communication with little to no interactivity



Live-Streamed Training (Synchronous Virtual Instructor-Led Training [vILT])

- Provides live, in-person classroom training where learners access instruction that is broadcast over the web/phone in real time
- Typically multiple training sessions are offered online across a certain period of time (such as a week or month)



Basic eLearning (Level 1)

- Provides training via the internet or digital device that is asynchronous
- Considered passive with little to no interactivity



eLearning Levels of Interactivity

Level 1 Interactivity: Low Media Richness/Page-Turner

- The learner acts solely as a receiver of information. The learner reads the text on the screen or views images, graphics, and simple animations and uses navigation buttons to move through the course. It also includes basic quizzes/knowledge checks. It can be considered a “page-turner.”

Level 2 Interactivity: Intermediate Media Richness with Emulation

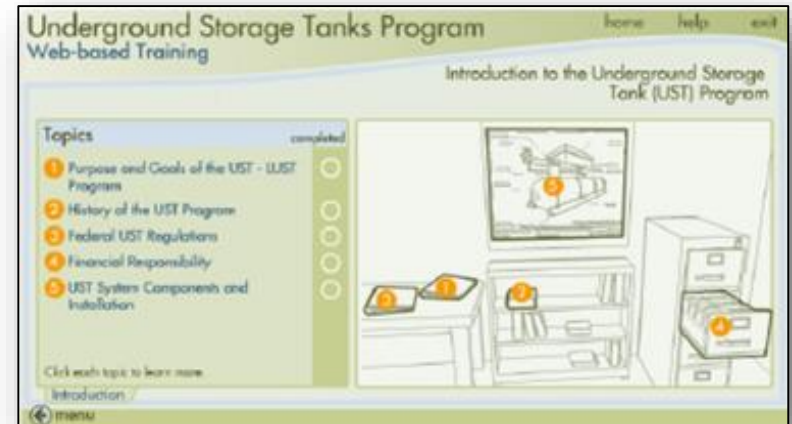
- The learner receives information but also makes simple responses to instructional cues and emulations. It includes liberal use of multimedia (audio, video, and animations). The navigation expands to menus, glossaries, and links to external resources. Also, it includes simple exercises such as drag-and-drop, matching, and identification components.

Level 3 Interactivity: Intermediate Media Richness with Low- to Moderate-Level Simulation

- The learner is directly involved in a realistic set of complex cues and responses through simulations. Level 3 interactivity is highly interactive and includes complex simulations where learners can enter data into fields and investigate scenario-based cases.

Basic eLearning (Levels 2 and 3)

- Provides training via the internet or digital device that is asynchronous
- Includes more complex animations and graphics than Level 1



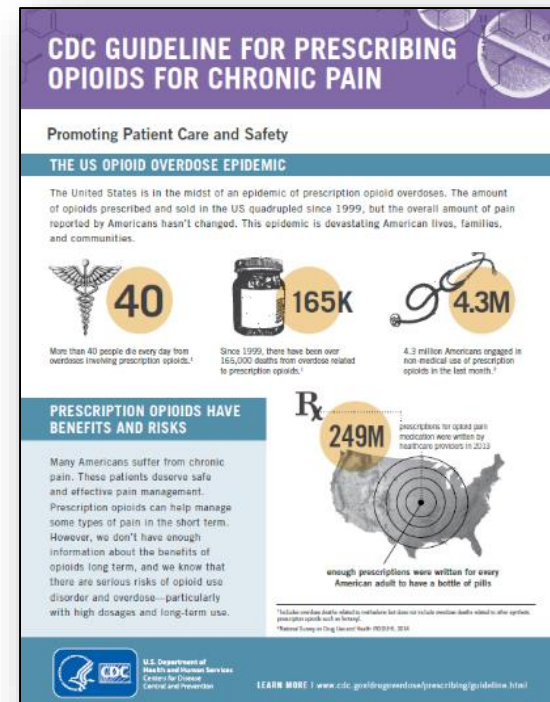
Classroom Training (Instructor-Led Training [ILT])

- Provides collocated training that is face-to-face and delivered in a live format
- Includes a combination of one more of the following:
 - Lectures
 - Exercises/activities
 - Role playing exercises
 - Group discussions
 - Guided practice
 - Pre- and post-work
 - Case studies



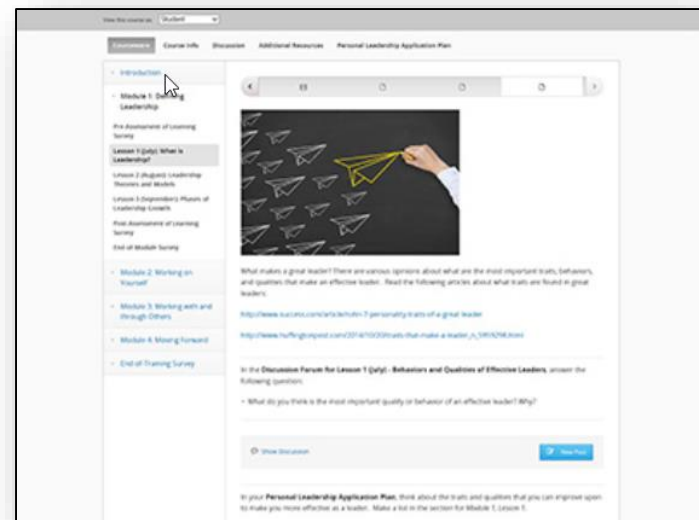
Performance Aids and Tools

- Provides a repository of information, processes, or perspectives that support work by directing and guiding performance
- Referred to as a “job aid”



Blended Learning

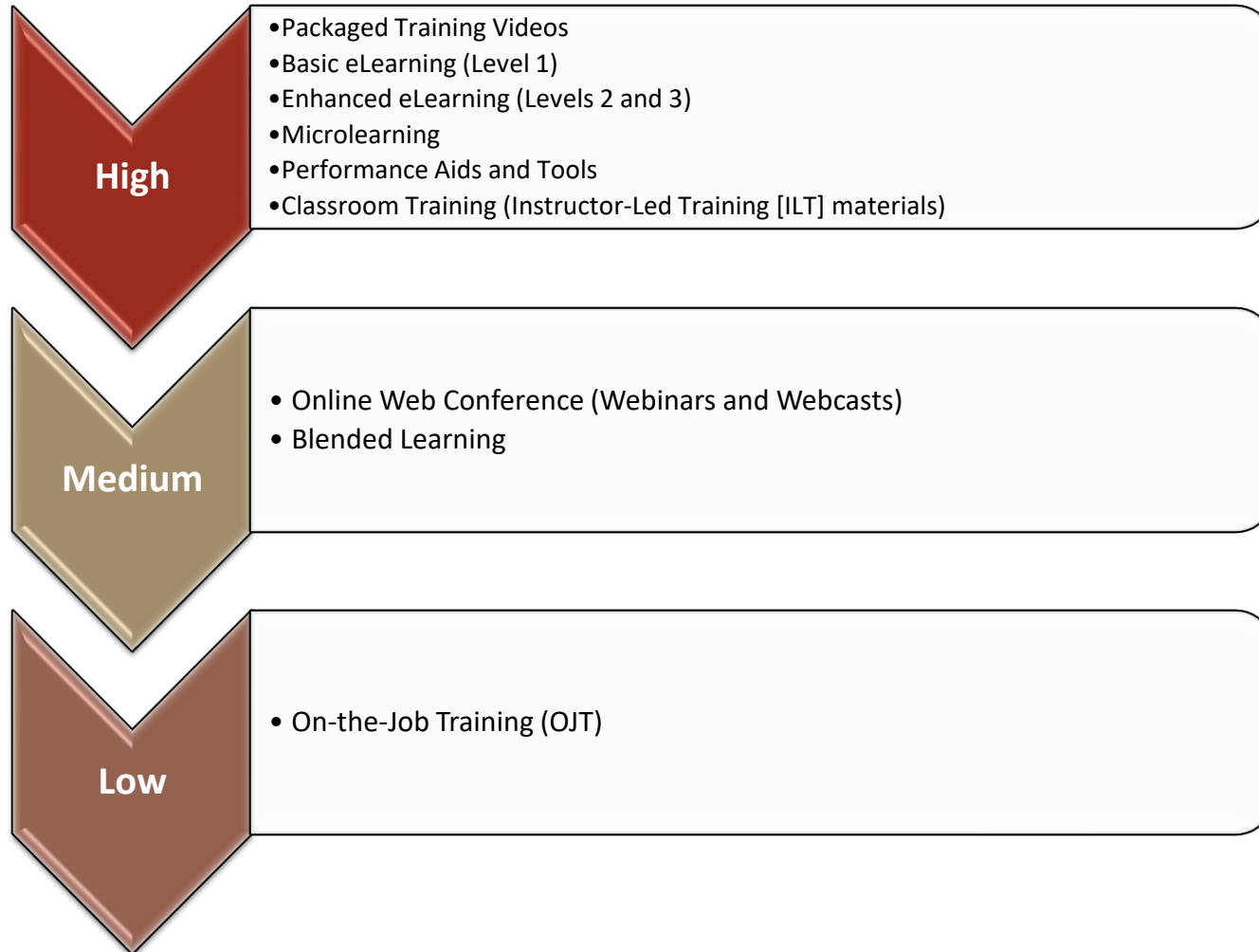
- Provides a mix of different training delivery formats
- Could be an ILT course combined and enhanced with a self-paced format such as eLearning, videos, etc.



How do these training delivery formats compare?

- Portability (i.e., ability to view on different devices)
- Accessibility (e.g., Section 508 compliance)
- Scalability (i.e., # of learners it could accommodate)
- Ease of Updating
- Resource Requirements (i.e., staffing/people)
- Development Costs (e.g., actual costs, level of effort [LOE])
- Provider Computer and Other System and Equipment Requirements
- User System Requirements
- Timing and Recommended Length
- LMS Platform Requirements
- Effectiveness as Adult Learning Tool

Portability



Audience

- Audiences can be *any* for microlearning, videos, online web conferences, vILT/ILT, and eLearning, but depends on a variety of factors such as learner level/skill set, type of learning preferred, etc.
- OJT is typically for newly hired employees, interns, or someone new in a position.



Accessibility

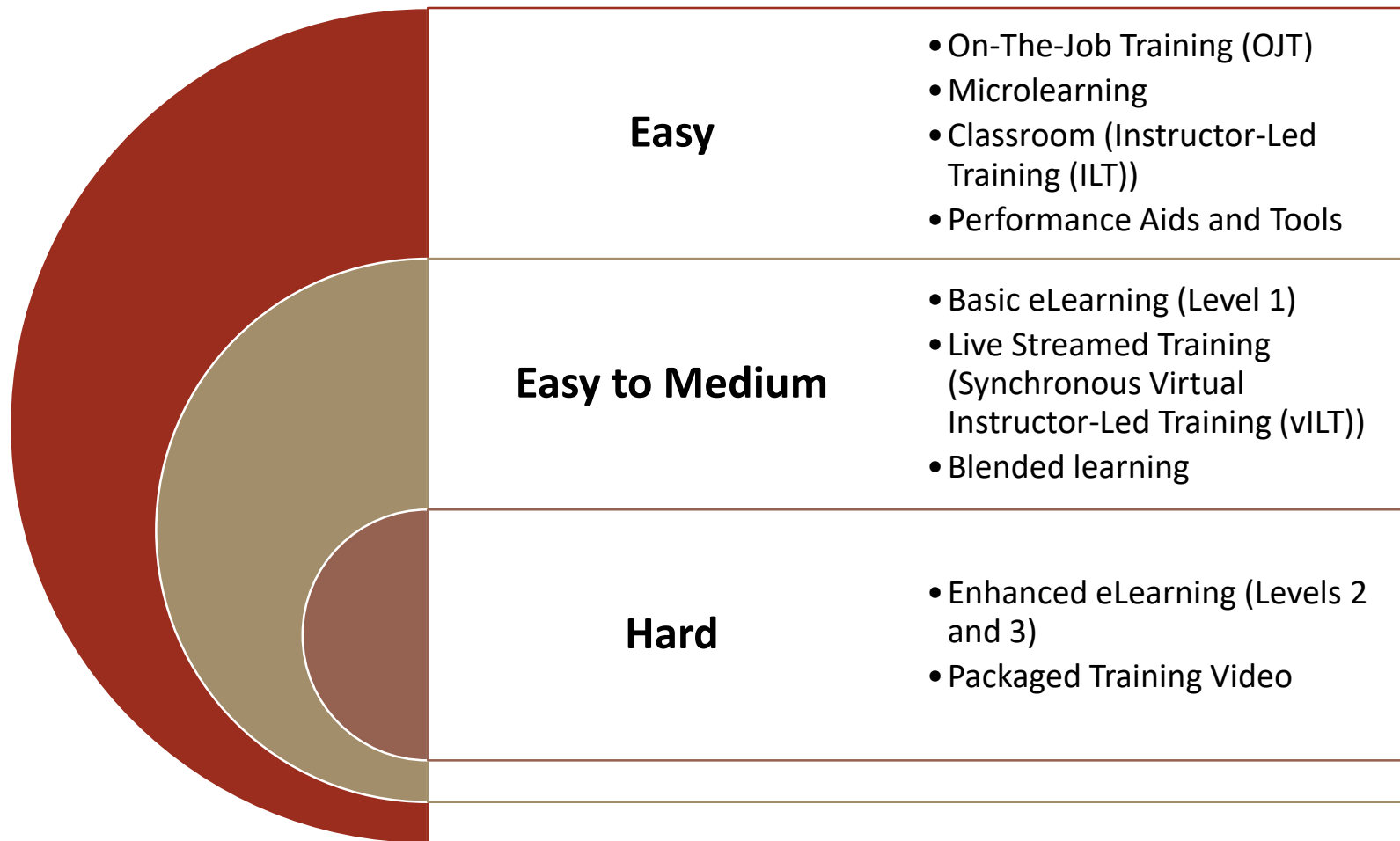
- All training products for Federal agencies must be developed to be Section 508 compliant
- Can depend on complexity of interactions and media used specifically for vILT and eLearning products



Scalability

<i>Training Delivery Format</i>	<i>Scalability</i>
On-the-Job Training	Dependent on EPA division/office/organization capabilities and staffing resources
Microlearning	Unlimited, but dependent on LMS and other server space where hosted
Packaged Video Training	Unlimited, but dependent on LMS and other server space where hosted
Online Web Conference (Webinars and Webcasts)	Typically, up to 1,500 people but dependent on the license; for breakout sessions, five or fewer
Live-Streamed Training (Synchronous Virtual Instructor-Led Training)	25 to 30 or fewer; for breakout sessions and/or activities, five or fewer
Basic eLearning (Level 1)	Unlimited, but dependent on LMS and other server space where hosted
Enhanced eLearning (Levels 2 and 3)	Unlimited, but dependent on LMS and other server space where hosted
Classroom Training (Instructor-Led Training)	Dependent on training requirements, cost, and facilities used, but ideal to limit size to 25 to 30 or fewer; for breakout sessions/activities, five or fewer
Performance Aids and Tools	Unlimited
Blended Learning	Dependent on components used

Ease of Updating



Resource Requirements

- **OJT**

- Peers (experienced coworkers/employees)
- Managers
- Sometimes human resource team members

- **Microlearning**

- Project manager/training lead
- Instructional designer(s)
- Multimedia programmer(s)
- Graphic designer(s)
- Voiceover artist(s)
- Subject matter experts (SMEs)

- **Packaged Video Training**

- Media producer/director and/or project manager/training lead
- Instructional designer(s)
- Multimedia programmer(s)
- Graphic designer(s)
- 2D artist(s)
- 3D modeler(s) and 3D animator(s)
- 2D animator(s) (for motion graphics)
- Voiceover artist(s)
- Sound engineer(s)
- Camera operator (for live action video)
- Music director/composer (optional)
- Production assistant(s) (for live action video)
- SMEs

Resource Requirements (Cont'd)

● **Online Web Conference**

- Project manager/training lead
- Instructional designer(s)
- Multimedia programmer(s)
- Graphic designer(s)
- Facilitator(s)/Instructor(s)
- Webinar/webcast moderator(s)
- Webinar/webcast technical support
- SMEs

● **vILT**

- Project manager/training lead
- Instructional designer(s)
- Multimedia programmer(s)
- Graphic designer(s)
- Facilitator(s)/Instructor(s)
- Webinar/webcast moderator(s)
- Webinar/webcast technical support
- SMEs

Resource Requirements (Cont'd)

- **Basic eLearning (Level 1) and Enhanced eLearning (Levels 2 and 3)**

- Project manager/training lead
- Instructional designer(s)
- Multimedia programmer(s)
- Graphic designer(s)
- 2D artists, 3D modeler(s), and 3D animator(s) (for Level 3 only)
- Voiceover artist(s)
- SMEs

- **Classroom Training**

- Project manager/training lead
- Instructional designer(s)
- Multimedia programmer(s)
- Graphic designer(s)
- Facilitator(s)/Instructor(s)
- SMEs

- **Performance Aids and Tools**

- Project manager/training lead
- Instructional designer(s)
- Graphic designer(s)
- SMEs

Average Development Costs and Level of Effort (LOE)

- **OJT**

- Varies and depends on EPA capabilities, staffing resources, employee skill sets, and type of OJT component used

- **Microlearning**

- Varies and depends on length, format, complexity/stability of content, and LMS administration (if hosted).
- Typically a quarter of the cost and LOE of a Level 1 eLearning course

- **Packaged Training Videos**

- Varies and depends on training need, budget, special effects, complexity/stability of content, LMS administration (if hosted) and length/complexity of script

- **Online Web Conferences**

- Varies and depends on training need, budget, complexity/stability of content, LMS administration, and size of the audience
- Web conference software and license would be needed
- Multiple platforms could be used including Adobe Connect, GoToMeeting, and Zoom

- **vILT**

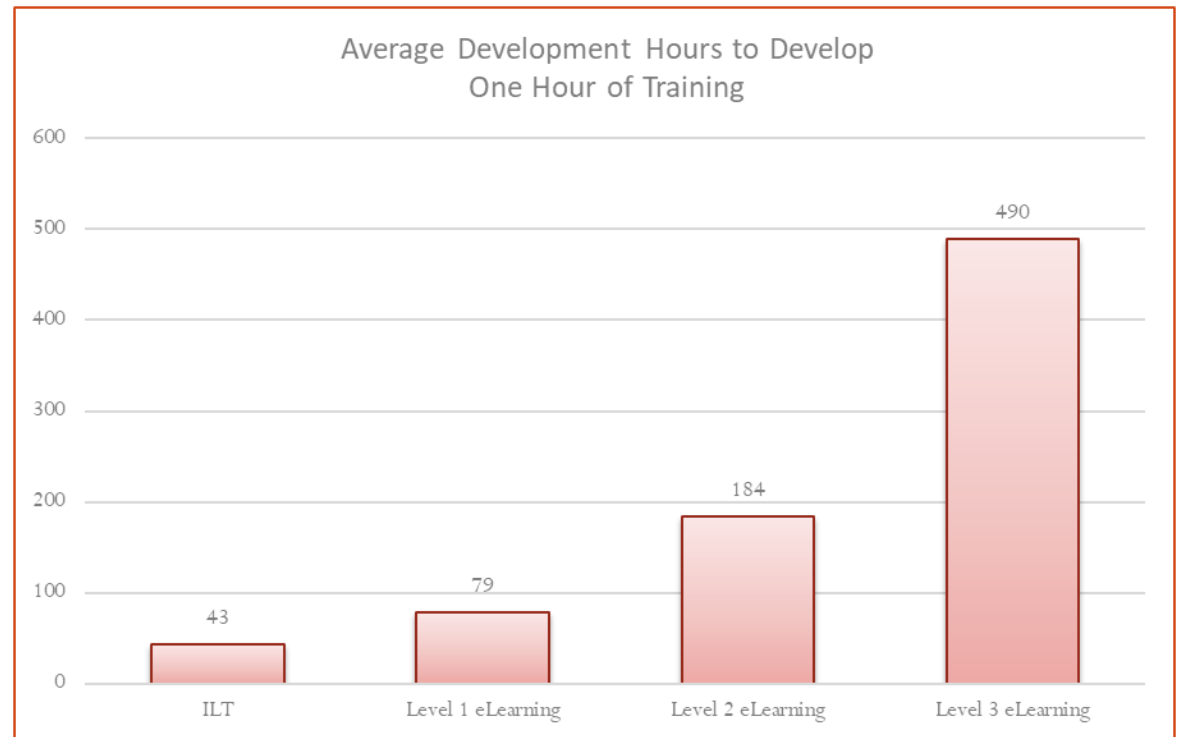
- Varies and depends on length, complexity/stability of content, etc. Costs can be less than ILT because travel and lodging costs are not included.

Average Development Costs and Level of Effort (LOE) (Cont'd)

Level of Interactivity	Estimated Development Hours	Estimated Average Cost
Level 1	Development hours can range from 49 to 125 (not including reviews and revisions), depending on the amount of interactivity. On average, it can take 79 development hours per 1 hour of Level 1 WBT.	On average, 1 finished hour of WBT (Level 1) can cost approximately \$10,054 but can be cost-effective for large scale deployments.
Level 2	Development hours can range from 127 to 267 (not including reviews and revisions), depending on the amount of interactivity. On average, it can take 184 development hours per 1 hour of Level 2 WBT.	On average, 1 finished hour of WBT (Level 2) can cost approximately \$18,583 but can be cost-effective for large scale deployments.
Level 3	Development hours can range from 317 to 716 , depending on the amount of interactivity. On average, it can take 490 development hours per 1 hour of Level 3 WBT.	On average, 1 finished hour of WBT (Level 3) can cost approximately \$50,371 but can be cost-effective for large scale deployments.

Average Development Costs and Level of Effort (LOE) (Cont'd)

- For ILT, development hours range from **22 to 82** hours. On average it takes **43** development hours per 1 hour of ILT.

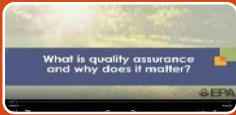


Provider Computer and Other System and Equipment Requirements



On-the-Job Training

- Microsoft Word and PPT (\$)



Packaged Training Video

- Adobe Creative Cloud (Illustrator, Photoshop, Audition, Premier Pro, After Effects, and Character Animator) (\$-\$\$)
- 3D Studio Max (\$\$\$)
- TechSmith Camtasia (\$)
- VideoScribe or PowToon (for simple animations) (\$)



Microlearning and eLearning

- Articulate Storyline 360 (\$\$\$)
- Trivantis Lectora (\$\$\$)
- Adobe Captivate (\$)
- Custom Code
- Adobe Creative Cloud (Illustrator, Photoshop, Audition, and Premier Pro) (\$-\$\$\$)
- TechSmith Camtasia (\$)
- Microsoft Word and PPT (\$)



Online Web Conferences and Live-Streamed Training (Synchronous Virtual Instructor-Led Training)

- Adobe Connect (\$)
- GoToMeeting (\$)
- Zoom (\$)
- Microsoft Word and PPT (\$)

Low Cost - \$

Medium Cost - \$\$

High Cost - \$\$\$

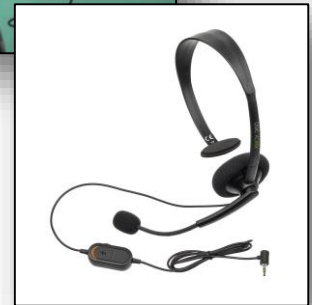


Classroom Training (ILT) Materials and Performance Aids and Tools

- Microsoft Word, PPT, and Visio (\$)

Provider Computer and Other System and Equipment Requirements (Cont'd)

- Equipment needed for each training delivery type varies
- Special equipment can be used for video, vILT, and online web conferences, ranging from basic to advanced



User System Requirements

- Most training delivery formats can be developed to work on modern devices, including the latest browsers (Internet Explorer 11, Edge, Apple Safari, and Google Chrome)



Timing and Recommended Length

Training Delivery Format	Timing	Recommended Length
On-the-Job Training	Depends on when the need to learn a new skill (or set of skills) is high; for example, directly following new employee onboarding, or over a period of time when an employee is transitioning into a new role, possibly because of promotion or succession planning.	Depends on the employer and/or HR to align with a probationary period, transitioning to a new role, completing an apprenticeship program, completing a certification, etc.
Microlearning	Anytime, on-demand.	Typically, 1–5 minutes in length depending on the format used.
Packaged Video Training	Anytime, on-demand.	Research shows that videos should be shorter in length (on average about 2–3 minutes) to increase engagement and knowledge retention.
Online Web Conference (Webinars and Webcasts)	Depends on the subject matter, audience availability, and the time needed to cover the content.	Typically, learners lose interest after two hours, so it is recommended webinars/webcasts be less than two hours in length.
Live-Streamed Training (Synchronous Virtual Instructor-Led Training)	Depends on the subject matter, audience availability, budget, and the time needed to cover the content. Typically, a vILT course offers multiple sessions spread out over a certain period of time.	Each session should be less than two hours in length to ensure optimal engagement and knowledge retention.

Timing and Recommended Length (Cont'd)

Training Delivery Format	Timing	Recommended Length
Basic eLearning (Level 1)	Anytime, on-demand.	Depends on many factors including subject matter and budget but should be short in length or broken up into multiple modules to ensure optimal engagement and knowledge retention. Typically, eLearning modules can be 30 minutes to 1 hour in length.
Enhanced eLearning (Levels 2 and 3)	Anytime, on-demand.	Depends on many factors, including subject matter and budget, but should be short in length or broken up into multiple modules to ensure optimal engagement and knowledge retention. Typically, eLearning modules can be 30 minutes to 1 hour in length.
Classroom Training (Instructor-Led Training)	Can vary greatly and depend on the subject matter, audience availability, and the time needed to cover the content. Typically, ILT is broken up over a series of days or even weeks/months.	Can vary greatly and depend on the subject matter, audience availability, and the time needed to cover the content.
Performance Aids and Tools	Anytime, on-demand.	Depends on many factors including subject matter, complexity, and budget.
Blended Learning	Depends on the components that will be part of the blended learning solution.	Depends on the components that will be part of the blended learning solution.

LMS Platform Requirements

- LMS requirements are dependent on the training delivery format used and its capabilities.
- All products can be developed to work on an LMS.
- Videos, online web conferences, and vILTs can be standalone but can also be developed to work on an LMS.



Effectiveness as an Adult Learning Tool

Training Delivery Format	Active, Passive, or Both?	Cognitive	Affective	Psychomotor	
On-the-Job Training	Active	X	X	X	
Microlearning	Both	X	X		
Packaged Video Training	Passive	X	X		
Online Web Conference (Webinars and Webcasts)	Passive	X	X		
Live-Streamed Training (Synchronous Virtual Instructor-Led Training)	Both	X	X		
Basic eLearning (Level 1)	Passive	X	X		
Enhanced eLearning (Levels 2 and 3)	Both	X	X	X (Level 3)	
Classroom Training (Instructor-Led Training)	Active	X	X	X	
Performance Aids and Tools	Passive	X			
Blended Learning	Depends upon components used	Depends upon components used			

Questions?



Thank you!