Training Delivery Formats Evaluation Webinar

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Presented by: Alison Dougherty, Lead Learning Solutions Designer and Stacey Townsend, Director, Organizational Development
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

High
- Packaged Training Videos
- Basic eLearning (Level 1)
- Enhanced eLearning (Levels 2 and 3)
- Microlearning
- Performance Aids and Tools
- Classroom Training (Instructor-Led Training [ILT] materials)

Medium
- Online Web Conference (Webinars and Webcasts)
- Blended Learning

Low
- On-the-Job Training (OJT)
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

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

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
</table>
| Easy           | - On-The-Job Training (OJT)  
                 - Microlearning  
                 - Classroom (Instructor-Led Training (ILT))  
                 - Performance Aids and Tools |
| Easy to Medium | - Basic eLearning (Level 1)  
                 - Live Streamed Training (Synchronous Virtual Instructor-Led Training (vILT))  
                 - Blended learning |
| Hard           | - Enhanced eLearning (Levels 2 and 3)  
                 - Packaged Training Video |
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)

<table>
<thead>
<tr>
<th>Level of Interactivity</th>
<th>Estimated Development Hours</th>
<th>Estimated Average Cost</th>
</tr>
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<tbody>
<tr>
<td><strong>Level 1</strong></td>
<td>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.</td>
<td>On average, 1 finished hour of WBT (Level 1) can cost approximately $10,054 but can be cost-effective for large scale deployments.</td>
</tr>
<tr>
<td><strong>Level 2</strong></td>
<td>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.</td>
<td>On average, 1 finished hour of WBT (Level 2) can cost approximately $18,583 but can be cost-effective for large scale deployments.</td>
</tr>
<tr>
<td><strong>Level 3</strong></td>
<td>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.</td>
<td>On average, 1 finished hour of WBT (Level 3) can cost approximately $50,371 but can be cost-effective for large scale deployments.</td>
</tr>
</tbody>
</table>
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 ($)
- Microsoft Word and PPT ($)

### Classroom Training (ILT) Materials and Performance Aids and Tools
- Microsoft Word, PPT, and Visio ($)

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**Low Cost** - $

**Medium Cost** - $$

**High Cost** - $$$
• 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

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<tr>
<th>Training Delivery Format</th>
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<th>Recommended Length</th>
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<tr>
<td><strong>On-the-Job Training</strong></td>
<td>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.</td>
<td>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.</td>
</tr>
<tr>
<td><strong>Microlearning</strong></td>
<td>Anytime, on-demand.</td>
<td>Typically, 1–5 minutes in length depending on the format used.</td>
</tr>
<tr>
<td><strong>Packaged Video Training</strong></td>
<td>Anytime, on-demand.</td>
<td>Research shows that videos should be shorter in length (on average about 2–3 minutes) to increase engagement and knowledge retention.</td>
</tr>
<tr>
<td><strong>Online Web Conference (Webinars and Webcasts)</strong></td>
<td>Depends on the subject matter, audience availability, and the time needed to cover the content.</td>
<td>Typically, learners lose interest after two hours, so it is recommended webinars/webcasts be less than two hours in length.</td>
</tr>
<tr>
<td><strong>Live-Streamed Training (Synchronous Virtual Instructor-Led Training)</strong></td>
<td>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.</td>
<td>Each session should be less than two hours in length to ensure optimal engagement and knowledge retention.</td>
</tr>
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## Timing and Recommended Length (Cont’d)

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<tr>
<td><strong>Basic eLearning (Level 1)</strong></td>
<td>Anytime, on-demand.</td>
<td>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.</td>
</tr>
<tr>
<td><strong>Enhanced eLearning (Levels 2 and 3)</strong></td>
<td>Anytime, on-demand.</td>
<td>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.</td>
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<tr>
<td><strong>Classroom Training (Instructor-Led Training)</strong></td>
<td>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.</td>
<td>Can vary greatly and depend on the subject matter, audience availability, and the time needed to cover the content.</td>
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<tr>
<td><strong>Performance Aids and Tools</strong></td>
<td>Anytime, on-demand.</td>
<td>Depends on many factors including subject matter, complexity, and budget.</td>
</tr>
<tr>
<td><strong>Blended Learning</strong></td>
<td>Depends on the components that will be part of the blended learning solution.</td>
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</table>
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

<table>
<thead>
<tr>
<th>Training Delivery Format</th>
<th>Active, Passive, or Both?</th>
<th>Cognitive</th>
<th>Affective</th>
<th>Psychomotor</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-the-Job Training</td>
<td>Active</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Microlearning</td>
<td>Both</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Packaged Video Training</td>
<td>Passive</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Online Web Conference (Webinars and Webcasts)</td>
<td>Passive</td>
<td>X</td>
<td>X</td>
<td></td>
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<td>Both</td>
<td>X</td>
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<td>Passive</td>
<td>X</td>
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<td></td>
</tr>
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<td>Enhanced eLearning (Levels 2 and 3)</td>
<td>Both</td>
<td>X</td>
<td>X</td>
<td>X (Level 3)</td>
</tr>
<tr>
<td>Classroom Training (Instructor-Led Training)</td>
<td>Active</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Performance Aids and Tools</td>
<td>Passive</td>
<td>X</td>
<td></td>
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<tr>
<td>Blended Learning</td>
<td>Depends upon components used</td>
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Questions?
Thank you!