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EDUC-766 Sample Activities

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Sample Activities

Types of Activities

This project uses William Horton's framework for designing activities that complement each other. Under this framework there are three types of activities: Absorb, Do, and Connect. Absorb activities are those that present the learner with information. Some examples of absorb activities include reading, lecture, and podcasts. Do activities are just as they say, the learner practices what they've just learned. Examples of do activities include simulations, practice, laboratories, and games. Connect activities are those where learners connect what they've learned to what they already know or have experienced. Some great examples of connect activities include stories told by the learners, guided research, original works, job aids, and identifying additional examples. This project features activities from all three parts of the framework.

Universal Design for Learning (UDL) and Web Accessibility Considerations

Because this project is both self-paced web training and for senior citizens it requires some consideration for not only UDL items using multimedia enhancements, but web accessibility. The W3C Web Content Accessibility Guidelines (WCAG 2.1) are a comprehensive set of guidelines that include web standards for those that have sight and hearing challenges. The design anticipates that many of the senior citizen target audience will have these challenges and strives to mitigate any issues that arise due to them. Specific measures that are addressed in the design include larger text, color contrast for readability, closed captioning, alternate text, and audio recordings.

Learning Objectives and Activities

While the overall learning goal encompasses many facets of cyber safety, the sample project is focused on the password and authentication portion of the computer-based training (CBT) module.

The Terminal Objective:

Given recommended password criteria, learner will be able to construct a complex password and enable two-factor authentication. This objective has two enabling objectives that must be completed for it to achieve measurable success.

Enabling Objective 1:

Given password criteria, construct Complex Passwords.

Enabling Objective 2:

Given examples of login screens, execute successful two-factor authentication.

Because both enabling objectives are so closely related most of the activities are combined.

Activity 1 (Absorb - Presentation)

The first activity is an interactive slide presentation (Figure 1) that has two sections, one per enabling objective. The first section introduces the learner to EO 1: Given password criteria, construct Complex Passwords. This section features an interactive slide with tabs corresponding to each subtopic. Clicking on the labeled tab will bring up a corresponding table on the same slide featuring the subtopic and information. All tabs will be narrated.

Password subtopics are:

- Risks of a Single Password

- What makes a good password?

- Dos & Don'ts (Directly related to the Connect activity)

- How to construct a complex password

- Password managers

- Two-Factor Authentication (Transition topic that will lead learner to section 2)

The second section introduces the learner to EO 2: Given examples of login screens, execute successful two-factor authentication. The presentation begins with a description of what it is on the last bullet of the section 1 slide. Following this description is a video demonstration where the learner sees two methods of authentication: a phone text message and an email authentication request. For now, this video is a graphical placeholder. Once the learner has completed the video, they will be transitioned to a series of knowledge checks and simulations (the Do activity).

Password 101

Click on topics to reveal more information

- Risks of a Single Password
- What makes a good password?
- How to construct a complex password
- Password Managers
- Two-Factor Authentication

What makes a good password?

Do's

- ✓ Follow password requirements per website
- ✓ Use at least 8 characters
- ✓ Use at least 1 number and 1 symbol
- ✓ Use a mixture of upper and lowercase letters

Don'ts

- ✗ Use the same password for multiple sites
- ✗ Use strings of letters that form words
- ✗ Use keyboard patterns like "asdfghjk"
- ✗ Use names or personally identifiable information
- ✗ Use the word PASSWORD!

Figure 1. Activity 1 Absorb

Activity 2 (Do – Ungraded Quiz/Simulation)

The Do activity covers both enabling objectives. To reduce anxiety, instead of calling it an ungraded quiz, it is a knowledge check. These questions feature a combination of different question types including multiple choice, True or False, and two composition questions. The compositions are simulation based and will involve creating web-based scripting and interaction, at this point they are graphical representations only. They show only what they might look like and are not actually functional yet. One is password creation, and one is two-factor authentication simulation. Each question will be given feedback. As the Connect activities are tied to other activities, finishing the knowledge check will end the password and authentication module.

Knowledge Check

Construct a Complex Password

1. Download the [Password Tips & Tricks Quick Reference Guide](#)
2. Using the provided guide for requirements, construct a complex password
3. Click in the text input box below, enter your created password
4. Click the Submit button to see your results

Figure 2: Activity 2 Simulation 1

Knowledge Check

Execute Two-Factor Authentication




Figure 3: Activity 2 Simulation 2

Activity 3 (Connect – Rhetorical Question and Job Aid)

There are two connect activities, one for each enabling objective, and neither are standalone activities. The activity for passwords is a job aid in the form of a Password Tips & Tricks QRG. This job aid is presented to the learner when they reach the knowledge check section. The activity for two-factor authentication is a simple pair of rhetorical questions: “What types of websites do you use that require Two-Factor Authentication? What argument would you make for this type of technology?” The questions will be at the end of the slide portion of the two-factor authentication section of the lecture. They do not need to be answered and are simply there to get the learner to gain experiential context.



Figure 4: Activity 3 Job Aid

References

Horton, W. (2011). *E-Learning by design*. John Wiley & Sons.

[Web Content Accessibility Guidelines \(WCAG\) 2.0](https://www.w3.org/TR/WCAG20/). Ben Caldwell; Michael Cooper; Loretta Guarino Reid; Gregg Vanderheiden et al. W3C. 11 December 2008. W3C Recommendation. URL: <https://www.w3.org/TR/WCAG20/>