

Instructional Design Document: Self-paced Training for Technical Writers

Problem Analysis

SMSP Corporation needs to train new technical writers on the SMSP software suite without impacting the productivity of other writers, trainers, and engineers.

As the SMSP software suite grows, SMSP Corporation has had to hire new technical writers to complete the required product documentation. To get up to speed with SMSP, new writers read the existing product documentation, begin using a test system, and listen to WebEx training sessions conducted by seasoned trainers. In addition, they work closely with experienced writers, trainers, and engineers, who guide them through the process of accessing and using test systems and understanding documentation conventions related to the product.

This training process takes a great deal of time and effort, and the results can be inconsistent, depending on the diligence and persistence of the new writer and the content of the training sessions he or she listens to (some sessions might be more comprehensive than others). Further, team productivity decreases when experienced writers, trainers, and engineers need to split their time between their own project responsibilities and the task of training new writers.

The technical writer training must be consistent, repeatable, and scalable. Further, the training must not require extensive involvement from experienced team members. As a result, this instructional design document recommends the creation of a self-paced eLearning module (a standalone multimedia product) to teach technical writers about the SMSP software suite.

Target Audience

The target audience of this instructional design project is experienced technical writers who are new to SMSP Corporation or the SMSP software suite. These writers have proven technical writing skills, and skills with web-based software systems, but they have little or no experience with the SMSP product suite. Further, these writers are often located in different geographic locations, which limits face-to-face interactions with other writers, trainers, and engineers.

As a group, technical writers have well-developed writing and editing skills, and they enjoy learning new systems and technologies. They are user advocates whose primary goals include becoming expert users of the systems they document so that they can provide useful user assistance, such as online help and user guides. Technical writers are highly

motivated to learn on their own, and they take responsibility for their own learning experiences. As a result, technical writers are likely to excel when using self-paced training, because such training shifts “responsibility from instructors to learners” (Brown 2006, p. 272).

Technical writers are skilled in working with a wide variety of authoring tools, content-management systems, source-control systems, and computer operating systems, including Windows, Macintosh, and Linux. In addition, technical writers are familiar with graphical user interfaces, and they are skilled at navigating the Internet and web-based software using web browsers. However, technical writers might not be familiar with tasks users perform when using the SMSP software suite, such as general system management tasks, installing patches, and running scripts on managed devices.

Technical writers will use the proposed training module in the context of their day-to-day work both prior to beginning documentation projects and as reference material during the documentation process.

Learning Objectives

At the conclusion of the instruction, learners (technical writers) will be able to:

1. List the four versions of SMSP.
2. List the three primary tasks customers perform using SMSP.
3. Use the SMSP interface to:
 - a) Log in to the Technical Publications test system.
 - b) Identify whether the Organization component is enabled on the test system and navigate to the appliance settings.
 - c) Apply license keys to the system to enable and disable the Organization component.
 - d) Enable application control on a managed device.
 - e) Enable metering for a software application.

These learning objectives require learners to demonstrate skills in the cognitive domain (comprehension and knowledge levels).

Assessment Instruments

The following test instruments, or assessment items, will be used to assess learner success in meeting the learning objectives. These assessment items are authentic and based on actual tasks that learners perform. The first two items are short-answer questions. The next five items are checklists, and the criteria for success is that the learner is able to complete each task.

1. List the four versions of SMSP.
2. List three primary tasks customers perform using SMSP.
3. Log in to the SMSP interface of the test system set up for Technical Publications.

Task	Yes	No
1. Locate the URL of the Technical Publications test system.		
2. Log in to the SMSP interface of the system.		

4. After logging in to the SMSP interface, identify whether the Organization component is enabled and navigate to the system-level settings.

Task	Yes	No
1. Log in to the SMSP interface.		
2. Navigate to the system-level settings.		

5. Using the SMSP interface, apply license keys that disable and enable the Organization component.

Task	Yes	No
1. Log in to the Organization-level SMSP interface.		
2. Go to the appliance license settings page.		
3. Apply a license that disables the Organization component.		

6. Using the SMSP interface, enable application control (software blacklisting) on an SMSP-managed device.

Task	Yes	No
1. Log in to the Organization-level SMSP interface.		
2. Select an application to blacklist, and mark the application as not allowed.		
3. Apply the ApplicationControl label to a managed device.		

7. Using the SMSP interface, enable metering for an SMSP-managed software application.

Task	Yes	No
1. Log in to the Organization-level SMSP interface.		
2. Enable metering for a software application.		
3. Apply the metering label to a managed device.		

Instructional Strategies

The instructional strategies used to accomplish the learning objectives include a modified set of Gagne's events of instruction described by Dick & Carey (Dick, 2009). These strategies include:

1. Gaining the learner's attention and informing the learner of the learning objectives. This will be done at the beginning of the training module.
2. Stimulating recall of prerequisite knowledge. Prerequisite knowledge includes an understanding of how to use web browser software and web-based software interfaces.
3. Presenting the material to be learned. This includes all of the content required to meet the learning objectives.
4. Enabling the learner to practice the new skills and providing feedback regarding performance correctness. This will be accomplished using software simulations.
5. Assessing the performance. Checklists will be used to assess learner's ability to accomplish tasks related to the learning objectives.

In addition, this project uses principles of constructivist instructional design in that:

- it presents real-world problems for learners to solve within the SMSP product interface resulting in authentic learning experiences.
- the content is presented in such a way as to enable to learner to construct mental models of the SMSP product and the ways in which customers use it.
- the self-paced nature of the training allows for a great deal of learner control and self-directed learning.

Instructional Materials

The instructional materials for this instructional design project consist of a training module that will use screen captures, software simulations, and illustrations to describe the features of the SMSP software suite. In addition, these media will incorporate interactive elements and animations that are appropriate for the subject and audience. Audio and video will be incorporated as needed, and the module will include accessibility features, such as closed captioning. Because learners are expected to access the module using desktop or laptop computers over high-speed networks, there are no output requirements for mobile devices, small screens, or low-bandwidth network connections.

References

- Brown, K. (2006). Using computers to deliver training: Which employees learn and why? *Personnel Psychology, 54*(2), 271-296
- Dick, W., Carey, L., & Carey, J. (2009). *The Systematic Design of Instruction*. Upper Saddle River, New Jersey. Pearson Education, Inc.

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