B. Dianne Calhoun
IT 5600 Online Project
Spring 2006

Expert Review for How to Work with SMEs Online Course

Protocol:

Background information related to the e-learning program:

1. **Target audience and learner characteristics:**
    a. Age Range: 20-80
    b. Gender: Any
    c. Educational/Professional Level: Some college to Graduate level or a professional in the work place
    d. Achievement Level: An ID who works with SMEs or wishes to work with SMEs
    e. Prerequisite Knowledge/Skills: Basic computer programs to create documents or programs; basic communication ability, wiliness to work with others
    f. Socioeconomic Background: Lower to Upper Middle
    g. Learning Style Preference: Desire to learn independently; self motivated
    h. Motivation: Middle to high
    i. Attitudes: Social, communicator, self-motivated with a desire for self-improvement
    j. Expectations: High
    k. The audience for this program consists of student or professional IDs who need to work effectively with SMEs when designing educational training. These individuals could be undergraduate or graduate college students or professionals in the work place.
2. **Instructional goals and objectives:**
    a. Identify three roles of a SME and of an instructional designer
    b. Indicate three strategies or tactics for working effectively with SMEs that are most appropriate for various situations
    c. Identify which listening techniques should be used when working with SMEs for the best results
    d. Match the questioning techniques to the best SME situation
    e. Arrange the activities for working with SMEs to designate when the activities would occur during the SME relationship
    f. Indicate whether the SME or the instructional designer is responsible for project tasks in the SME meeting
3. **Instructional design strategies used in the program:**
    a. The overall instructional approach uses some direct instruction where the learner will view information about specific techniques or strategies used when working with SMEs. Then there will also be some more active or constructivist approaches with the use of interactive feedback, stories, and case studies. These last more active instructional approaches allow the learner to take a more active role in the learning so that there will be more retention of the learning. These approaches are good for the audience in this training as in the ID field IDs create more active learning content and thus expect to see that type of strategy in the learning they take.

b. The rationale for active learning activities is summed up by this statement by Malcolm Knowles, a leading learning theorist. Knowles (1980) suggests that adults in a work situation would want to learn skills associated with their job. As adults recognize the need to learn they may initiate the process of learning experiences and tend to offer personal experiences that raise the level of reflection in the learning. Then as they practice the learning skills or knowledge in a safe learning environment, the student's experience a higher level of accomplishment. As a result, the learners may then feel more confident to apply the new knowledge or skills in the actual work environment.

c. The reason for using the learning activities that I have chosen is to give the learner a chance learn new skills they may use in their work as IDs. Especially the interactive activities should allow the learners to retain what they learn and then be able to use that knowledge or skill at a later time in their work.

4. **The status of the program's development and possibilities for change:**
   a. The course is ready for user testing.
5. **Please make note of every usability problem found. For each problem, identify the heuristic it violates, and then give it a severity rating using the severity scale below. If the problem cannot be attributed to a violation of a specific heuristic, please make a note of this.**

Severity Scale
1) cosmetic problem only; need not be fixed unless extra time is available
2) minor usability problem; fixing this should be given low priority
3) major usability problem; important to fix; so should be given a high priority
4) usability catastrophe; imperative to fix before this product is released

6. **After all the usability problems are found, please go back though them and give each one an extensiveness rating using the extensiveness scale below**

Extensiveness Scale
1) this is a single case
2) this problem occurs in several places in the program
3) this problem is widespread throughout the program

B. Dianne Calhoun
IT 5600 Online Project
Spring 2006

E-Learning Usability Heuristics

1. <u>Visibility of system status</u>: The e-learning program keeps the learner informed about what is happening, through appropriate feedback within reasonable time.

Sample questions to ask yourself:

a. Does the learner know where they are at all times, how they got there, and how to get back to the point from which they started?

b. Does the learner have confidence that the e-learning program is operating the way it was designed to operate?

c. Additional comments:

2. <u>Match between system and the real world</u>: The e-learning program's interface employs words, phrases and concepts familiar to the learner, rather than system-oriented terms. Wherever possible, the e-learning program utilizes real-world conventions that make information appear in a natural and logical order.

Sample questions to ask yourself:

a. Does the e-learning program's navigation and interactive design utilize metaphors that are familiar to the learner either in terms of traditional learning environments (e.g., lectures, quizzes, etc.) or in terms related to the specific content of the program?

b. Is the cognitive load of the interface as low as possible to enable learners to engage with the content, tasks, and problems as quickly as possible?

c. Does the e-learning program adhere to good principles of human information processing?

d. Additional comments:

3. <u>User control and freedom</u>: The e-learning program allows the learner to recover from input mistakes and provides a clearly marked "emergency exit" to leave an unwanted state without having to go through an extended dialogue.

Sample questions to ask yourself:

a. Does the e-learning program allow the learner to move around in the program in an unambiguous manner, including the capability to go back and review previous sections?

b. Does the e-learning program allow the learner to leave whenever desired, but easily return to the closest logical point in the program?

c. Additional comments:

4. <u>Consistency and standards</u>: The e-learning program is consistent in its use of different words, situations, or actions and it adheres to general software and platform conventions.

Sample questions to ask yourself:

a. Does the e-learning program function properly as long as the computer's screen resolution, memory allocations, bandwidth, browsers, plug-ins, and other technical aspects meet the required specifications?

b. Does the e-learning program include interactions that are counter-intuitive with respect to common software conventions?

c. Does the e-learning product adhere to widely recognized standards for interactions (e.g., going back in a Web browser)?

d. Additional comments:

5. <u>Error prevention</u>: The e-learning program is carefully designed to prevent common problems from occurring in the first place.

Sample questions to ask yourself:

a. Is the e-learning program designed so that the learner recognizes when he/she has made a mistake related to input rather than content?

b. Is the e-learning program designed to take advantage of screen design conventions and guidelines that clarify meaning?

c. Additional comments:

6. <u>Recognition rather than recall</u>: The e-learning program makes objects, actions, and options visible so that the user does not have to remember information from one part of the program to another. Instructions for use of the program are visible or easily retrievable.

Sample questions to ask yourself:

a. Does the interface of the e-learning program speak for itself so that extensive consultation of a manual or other documentation does not interfere with learning?

b. Are icons and other screen elements designed so that they are as intuitive as possible?

c. Additional comments:

7. <u>Flexibility and efficiency of use</u>: The e-learning program is designed to speed up interactions for the experienced learner, but also cater to the needs of the inexperienced learner.

Sample questions to ask yourself:

a. Is the e-learning program designed to make the best use of useful graphics and other media elements?

b. Does the program allow keyboard short cuts that make frequent interactions as efficient as possible?

c. Additional comments:

8. <u>Aesthetic and minimalist design</u>: Screen displays do not contain information that is irrelevant, and "bells and whistles" are not gratuitously added to the e-learning program.

Sample questions to ask yourself:

a. Are the font choices, colors, and sizes consistent with good screen design recommendations for e-learning programs?

b. Are extra media features (e.g., streaming video) in the e-learning program supportive of learning, motivation, content, or other goals?

c. Does the e-learning program utilize white space and other screen design conventions appropriately?

d. Additional comments:

9. <u>Interactivity</u>: The e-learning program provides content-related interactions and tasks that support meaningful learning.

Sample questions to ask yourself:

a. Does the e-learning program provide too many long sections of text to read without meaningful interactions?

b. Does the e-learning engage the learner in content-specific tasks to complete and problems to solve that take advantage of the state-of-the-art of e-learning design?

c. Does the e-learning program provide a level of experiential learning congruent with the content and capabilities of the target audience?

d. Additional comments:

10. <u>Message Design</u>: The e-learning program presents information in accord with sound principles of information-processing theory.

Sample questions to ask yourself:

a. Is the most important information on the screen placed in the areas most likely to attract the learner's attention?

b. Does the e-learning program follow good information presentation guidelines with respect to organization and layout?

c. Are graphics in the e-learning program used to clarify content, motivate, or serve other pedagogical goals?

d. Additional comments:

11. <u>Learning Design</u>: The interactions in the e-learning program have been designed in accord with sound principles of learning theory.

Sample questions to ask yourself:

a. Does the e-learning program provide for instructional interactions that reflect sound learning theory?

b. Does the e-learning program engage learners in tasks that are closely aligned with the learning goals and objectives?

c. Does the e-learning program inform learners of the objectives of the program and remind them of prior learning?

d. Additional comments:

12. <u>Assessment</u>: The e-learning program provides assessment opportunities that are aligned with the program objectives and content.

Sample questions to ask yourself:

a. Does the e-learning program provide opportunities for self-assessments that advance learner achievement?

b. If appropriate to the context, do assessments provide sufficient feedback to the learner to provide remedial directions?

c. Are higher order assessments (e.g., analysis, synthesis, and evaluation) provided wherever appropriate rather than lower order assessments (e.g., recall and recognition)?

d. Additional comments:

13. <u>Media Integration</u>: The inclusion of media in the e-learning program serves clear pedagogical and/or motivational purposes.

Sample questions to ask yourself:

a. Is media included that is obviously superfluous, i.e., lacking a strong connection to the objectives and design of the program?

b. Is the most appropriate media selected to match message design guidelines or to support specific instructional design principles?

c. If appropriate to the context, are various forms media included for remediation and/or enrichment?

d. Additional comments:

14. <u>Resources</u>: The e-learning program provides access to all the resources necessary to support effective learning.

Sample questions to ask yourself:

a. Does the e-learning program provide access to a range of resources (e.g., examples or real data archives) appropriate to the learning context?

b. If the e-learning program includes links to external World Wide Web or Intranet resources, are the links kept up-to-date?

c. Are resources provided in a manner that replicates as closely as possible their availability and use in the real world?

d. Additional comments:

15. <u>Learning Management</u>: The e-learning program enables learners to monitor their progress through the material.

Sample questions to ask yourself:

a. Does the learner know what he/she is doing and how he/she is doing within various parts of the e-learning program?

b. Does the learner perceive options for additional guidance, instruction, or other forms of assistance when it is needed?

c. Does the learner possess an adequate understanding of what he/she has completed and what remains to be done within any specific unit (e.g., a course) of e-learning?

d. Additional comments:

16. <u>Content</u>: The content of the e-learning program is organized in a manner than is clear to the learner.

Sample questions to ask yourself:

a. Is the content organized in manageable modules or other types of units?

b. Is the content broken to appropriate chunks so that learners can process them without too much cognitive load?

c. Does the e-learning program provides advanced organizers, summaries, and other components that foster more efficient and effective learning?

d. Additional comments: