

Project Evaluations: How to Work with SMEs Online Tutorial

<http://www.designbydi.com/UCD/SME/>

Beverly Dianne Calhoun

IT 5600 Multimedia Authoring: Web, Spring Semester 2006

University of Colorado at Denver

Project Overview

Project Summary

It is often difficult to know what information to gather from a Subject Matter Expert (SME) when creating training. When instructional designers (IDs) know how to work with SMEs and are able to gather the proper information, they are likely to create better training.

I had an opportunity to provide online training for IDs to enhance their ability to work effectively with SMEs. I conducted a survey to ask learners who may be interested in this training course and their thoughts on working with SMEs. Even though many of the respondents had some strategies for working with SMEs they still felt that it was challenging.

Key Outcomes

IDs will learn various tactics and strategies that they may use when working with SMES. These tactics and strategies will help IDs improve the relationship they have with the SMEs they work with and allow them to gather the correct information for their projects.

Reflection

I learned that there are a lot of details to an Instructional Design project and it is best to have enough time to be able to the quality of work you have in mind. I learned that working with expert reviewers and content experts is really helpful in finding out where your project may need some clarity or revisions. Overall, I think my project turned out really well. I put a lot of work into the whole design process from the content to the technical aspects. The comments from my reviewers and program testers were good so that made me feel like I had succeeded in getting my training objectives across.

Demonstration of ILT Competencies

For students in the ILT program the ILT Competencies should be used as guidelines for creating instructional design. In this project the following ILT competencies will be addressed:

Reflective Practice

1. Take a systems view to understand the context of the project.
This competency is addressed from how the learner's needs were assessed, to developing the tasks, to creating the training, to the final evaluation.
2. Use cycles of reasoning as tools for problem-solving the various techniques and strategies used in the training.
This competency is addressed by using research and surveys and then analyzing the data to create the training.
3. Promote collaboration, partnerships, and relationships for full inclusion with stakeholders, clients, subject matter experts, team members, etc.
This competency is addressed by working with the learners through the surveys, course assessment, course user testing, and expert reviews.

4. Be a lifelong learner and professional
This competency is addressed by learning new software, such as, the Macromedia Suite 8 tools to create the online training. These tools would then be part of my toolset to continue creating future training.

Planning & Analysis

5. Conduct a needs assessment for learning or performance interventions
This competency is addressed by creating a survey for the learners, and using research results of experts in the IT field.
6. Conduct a learning or performance instructional analysis
This competency is addressed by using the results of the survey and research data to help in the development of the training.

Design & Develop

8. Apply various theories/strategies and current research, and consider local needs and constraints to design activities and experiences for learning.
This competency is addressed by using theories, such as, authentic or active learning strategies to help keep the learners engaged. These strategies include immediate feedback, games, and stories.
9. Design learning and performance products and resources that reflect an understanding of the diversity of learners and groups of learners
This competency is addressed by having online training that uses interactive learning with graphics. The training will engage the visual learner, the content learner, and the hands-on learners.
10. Develop products and resources to support learning and performance
This competency is addressed by providing an interactive experience through games, stories, and immediate feedback. Learners will also have a checklist about working with SMEs for future reference.

Evaluate & Assess

11. Evaluate effectiveness of programs, products, or practices
This competency is addressed through the user testing and expert reviews of the training before it is available to all users.
12. Assess student/participant learning
This competency is addressed through the checkpoints and final assessment at the end of the training.
13. Utilize research methods to investigate a learning or performance problem, issue, or trend.
This competency is addressed through the research I conducted on the performance problem and issues that IDs have when working with SMEs. I obtained the research through various internet searches, as well as, reading several articles found in online databases.

Implement & Change

14. Applying theories of diffusion, adoption, and change to a local problem, develop a change strategy is shown by using the data gathered from the survey and experts from my research to detail effective ways IDs should work with SMEs.
This competency is addressed with the active learning strategies that will give the IDs practice in how to deal effectively with SMEs in future interactions.

Management

16. Employing effective strategies to manage an Instructional Design project.

This competency is addressed in this project by planning the outline of my project and following the steps to completion. Managing my time to get the project completed by the deadline.

Formative Evaluation

I had several different points through the design/development process where I had formative evaluation. The first formative evaluation was from my instructors on my project proposal. Many of the comments were about the instructional design process. Since this was the first time I created a project like this by myself, I was not familiar with many of the steps. At the same time I worked on my project proposal I also sent out the first learner survey to see if there was a need for the course I wanted to develop. The results of the survey are in Appendix A. Many of the learners already worked with SMEs but felt challenged in the relationship. So, the overall results were that a course on working effectively with SMEs would be beneficial.

As the project progressed, I also had the content reviewed by an instructor who has experience in working with SMEs. Most of the comments pertained to adding clarity to the content and shortening the objectives to a more informal style. So, this step did not result in many changes but did give me confirmation that my content was appropriate.

The last formative evaluation was the expert reviewers. I asked for review basically in modules one and four as those modules encompassed all the elements in the course. I created a questionnaire asking for comments on the look and feel, whether the course accomplished the objectives, if common learning standards were followed, and what could be improved. Overall, there were comments to add page numbers, a discussion forum, and more interactivity between the learners to instructor. I felt all of these comments I was able to address except for the learners to instructor interactivity. My course is not designed to be a synchronous course.

It was helpful to have the survey and reviews to help me with the design/development process. I feel like the course is a much stronger course because of the suggestions and comments in the various evaluations.

Summative Evaluation

My plan for the summative evaluation was to conduct two surveys with the learners before and after they had taken my course. The initial survey determined the need for the course and what the learners already knew about how to work with SMEs. The second survey would confirm my decision to create this training course. Another summative evaluation method would be to analyze the information from both the surveys as well as the comments from my content and expert reviews to find areas where I might improve my course now or over time.

Pre-Course Learner Survey

Basically, the pre-course learner survey determined the need for my course. While many ILT students and professional IDs already have some skills and knowledge about the topic—they still felt that more could be learned. Some statistics are:

- 90.9% work with SMEs
- 72.2% have various strategies to work with SMEs
- 63.6% find it challenging to work with SMEs
- 90.9% feel that working with SMEs is important to the effectiveness of an instructional design project
- 72.2% would find a Job Aid or template useful when working with SMEs

So, this survey set of the road map for the design of my project.

Post-Course Learner Survey

The post-course learner survey asked the learners questions about everything from the content to the interactive elements to the final assessment. I had seven people volunteer to evaluate my course from the first survey but only two of the seven actually evaluated the course. Overall, the two learners felt the course worthwhile and that it would help them in their everyday work. They had some basic design suggestions, such as, the need for horizontal navigation, the use of second and third person references to “you” and “ID” and feedback on the assessment questions did not make sense. This survey confirmed for me that overall my course would be helpful to ILT students and professional IDs as a tool for working effectively with SMEs.

Analysis of Surveys and Reviewers Comments

Surveys

From the comments on the post-course survey, I addressed the navigation issue by changing the design of my website page width from 955 pixels to 790 pixels. This made the Next/Back navigation more prevalent on the page. I felt that actually changing the navigation to horizontal at this point would be too much of a design change and be time consuming. The uses of “you” and “ID” in the course were intentional as I wrote them as at times I was referring to “you” singular and at times I was referring to “IDs” in general, so this issue I’m not addressing in a change for the course. The last comment about the feedback being unclear on the final assessment is valid, and I tried to explain in the page before the user went to the assessment that the software did not allow me to give constructive feedback. I would in the future like to use different software and correct this issue but I did not have the time in this project to learn new software to resolve this issue.

Content Reviewer

The content reviewer offered several minor cosmetic comments to how the content should be worded. For instance, the objectives were originally written in a formal style and considering the audience and type of course he suggested making the objectives less formal and more succinct, so I rewrote the objectives in this manner. I felt that this took a lot of the wordiness out and made them brief and concise. The few other comments that were made were about clarifying what I trying to explain. All of these comments

were taken into consideration and reworded for clarity or removed from the course. I felt that the revisions that I made as a result of the content reviewer comments strengthened the conciseness of my course.

Expert Reviewers

Overall, the comments from the expert reviewer were minimal. Some of the suggestions for improvement would entail adding more functionality to my course. One suggestion was to have more chances for learner to instructor interaction, which is a very good suggestion but not the intent of my course at this time. The time restraints of the project prevented me from adding the type of functionality that would have added a more dynamic interface and interactivity. This would include the ability to have online interactivity between the instructor and learner.

Both expert reviewers suggested adding page numbers so the learner knows where they are and how many more pages are in the module. I added this to the top and bottom of each page near the Next/Back navigation.

Another great suggestion was to add a discussion forum at the end of the course to augment my SME interactive scenario activity. This suggestion would add some of the learner to learner activity by allowing learners to discuss issues in a discussion forum. So, I added a link to each of the main pages in the course that allows learners to go to the discussion forum and discuss any topics about the course.

Overall, I incorporated many of the comments and suggestions from reviewers of my course. I think the added functionality will improve the overall experience that the learners have when taking the course. I hope to read many comments on the new discussion forum that will add to the body of knowledge that I have collected in the course.

Self Evaluation

Overall, I felt that this experience was really valuable to my growth as an Instructional Designer. I was able to complete the whole ID process from determining my learning beliefs to analyzing the summative evaluation information of the course. In my project diary log I answered the following self-evaluation questions that summarize what I felt about my project.

1. What instructional design processes were the most valuable to me?
Actually doing the whole instructional design process by myself was a great experience. I have been on a few teams and have always been the technical person and have never really been able to do many of the instructional design tasks, such as, the project proposal, creating the interactive activities, and working with the content and expert reviewers.
2. What did I learn about the ID process from doing a design project?
I learned that there are a lot of details to the project and it is better to have enough time on your side to be able to the type of work you have in mind. I learned that

working with expert reviewers and content experts is really helpful in finding out where your project may need some clarity or revisions.

3. What do I need to learn more about or have more experience with?
I need to learn more about how to use tools that help you create good assessments and other interactive pieces like games. I had to use a lot of free tools that did not do what I really wanted them to do and I would have liked to create the checkpoints and final assessment a different way. If I had more experience with Flash and databases, I might have had time to implement these activities in a more useful and interactive way for me and the learners.
4. During the learning of ID principles and processes, what did I learn about myself?
Wow, I learned quite a bit. That doing a project all by yourself is very hard. There are many details to the project as a whole and in a team situation you would be able to divvy up the tasks and have plenty of time during a semester to get all the work done. I learned to keep a log of deadlines, and that the project proposal was actually a great tool to help me keep track of everything that I said I was going to accomplish. I learned that since I like an active approach to learning that I tend to include a lot of activities or want to try to include a lot of hands-on experiential activities for the learners to keep them engaged.
5. How might you use this process in future instructional designing work?
The process I went through made the work easier to construct throughout the whole project. Defining my learning beliefs and allowed me to then design a project that was more active and hands-on than I thought I would be able to. I was able to research ways to make the experience for the learners more engaging and use software tools to create interactive activities to make the learning more engaging.

Appendix A

Pre-course ID Survey

Hello everyone,

I am conducting a survey on how we, UCD/ILT students and professionals, work with Subject Matter Experts (SMEs) while managing and/or developing instructional design projects. Many ILT students and professionals will at one time or another need to work with SMEs and knowing how to do that effectively is a great skill to have in the Instructional Design (ID) field. My intent is to find out how ILT students and professionals are currently working with SMEs and then create an online training course to address areas where ILT students and professionals may lack the knowledge or the skills to work effectively with SMEs.

Please click on the link below to answer ten questions; five short questions where you select a Yes, No, or N/A answer and five fill-in-the-blank questions. It should take you no longer than 8 minutes to complete the survey depending on the length of your answers. The answers will be tallied through the my3q.com website and emailed to me, so you only need to submit your answers. Please complete the survey by the end of the day, Friday, March 24, 2006.

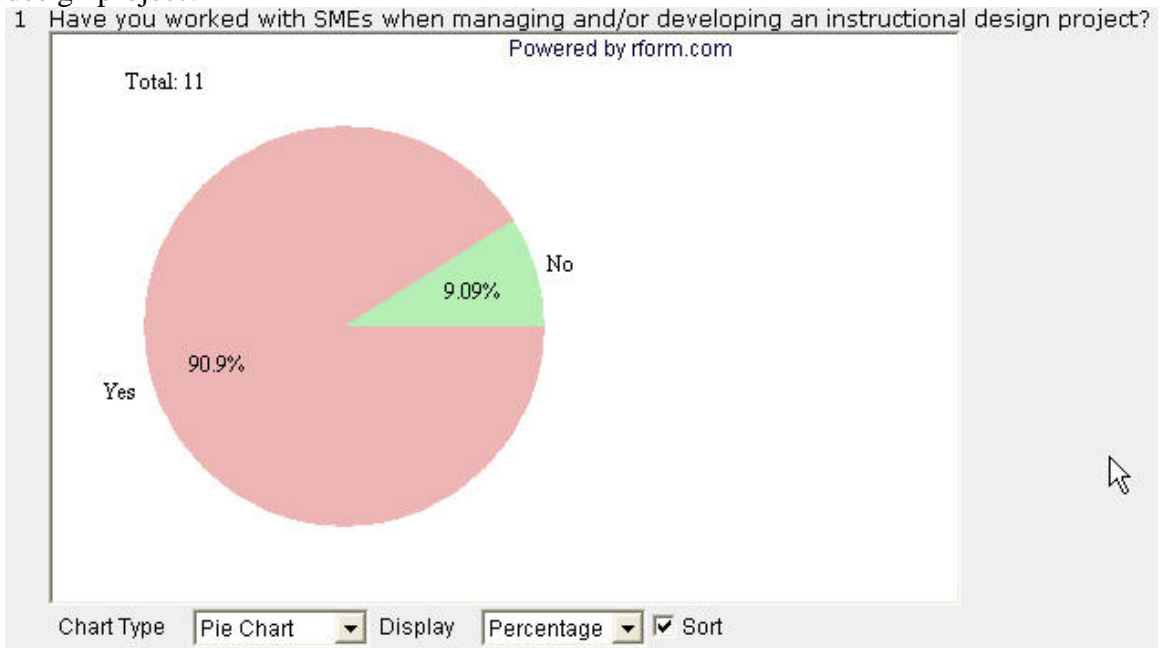
<http://www.my3q.com/go.php?url=dpeach2959/49202>

The results of the survey answers will be incorporated in my needs assessment paper. No names will be used. Thank you for your participation! Dianne Calhoun

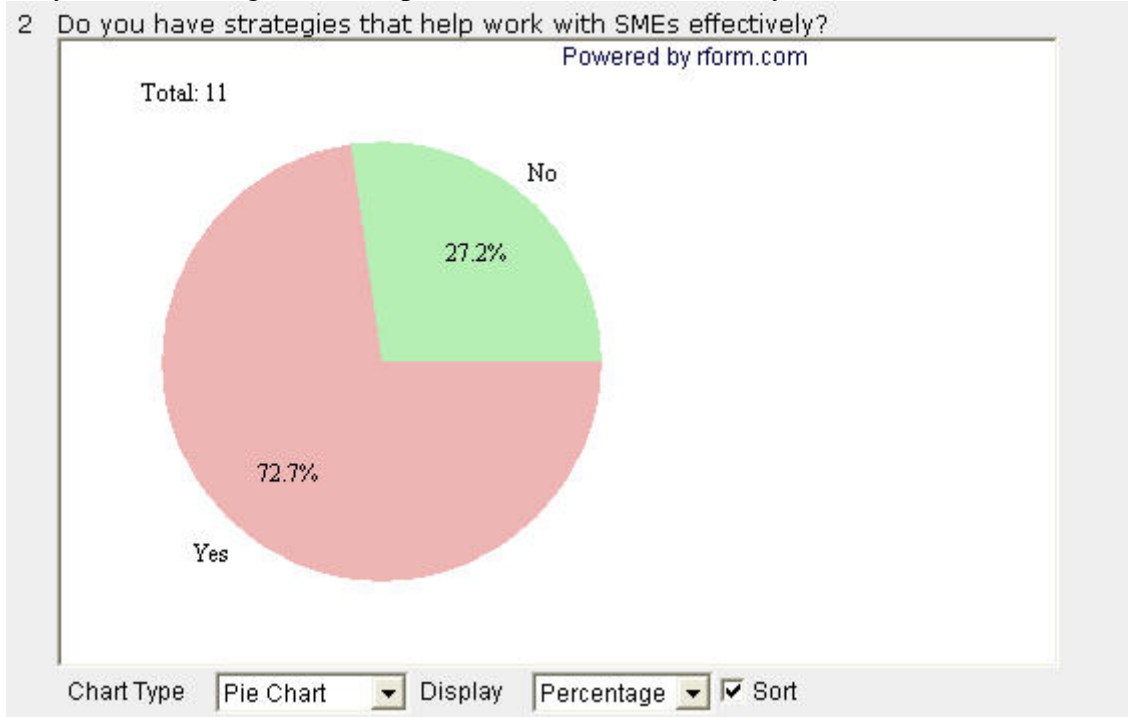
Questions on Survey:

Questions 1-5: “Yes”, “No”, and “N/A”. Questions 6-10: fill-in-the-blank answers.

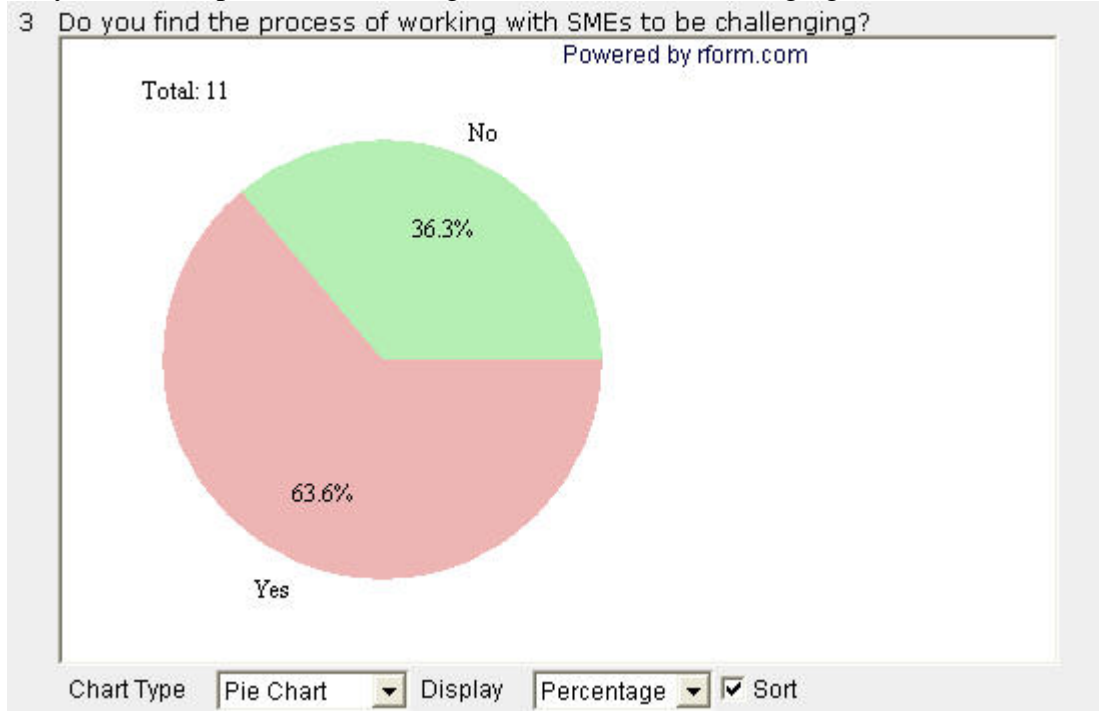
1. Have you worked with SMEs when managing and/or developing an instructional design project?



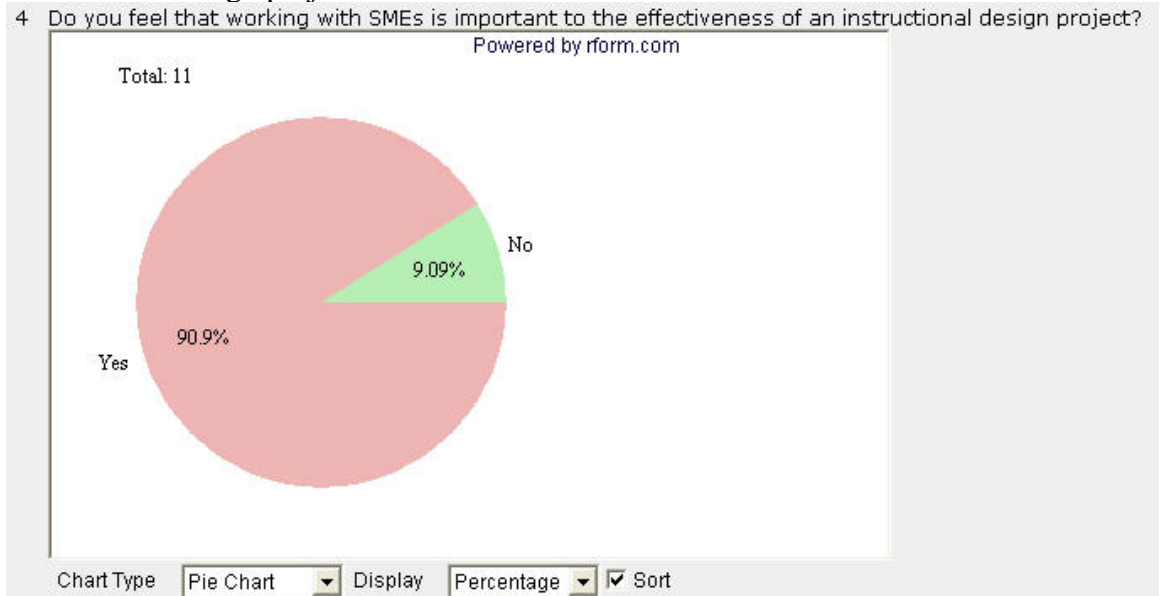
2. Do you have strategies that help work with SMEs effectively?



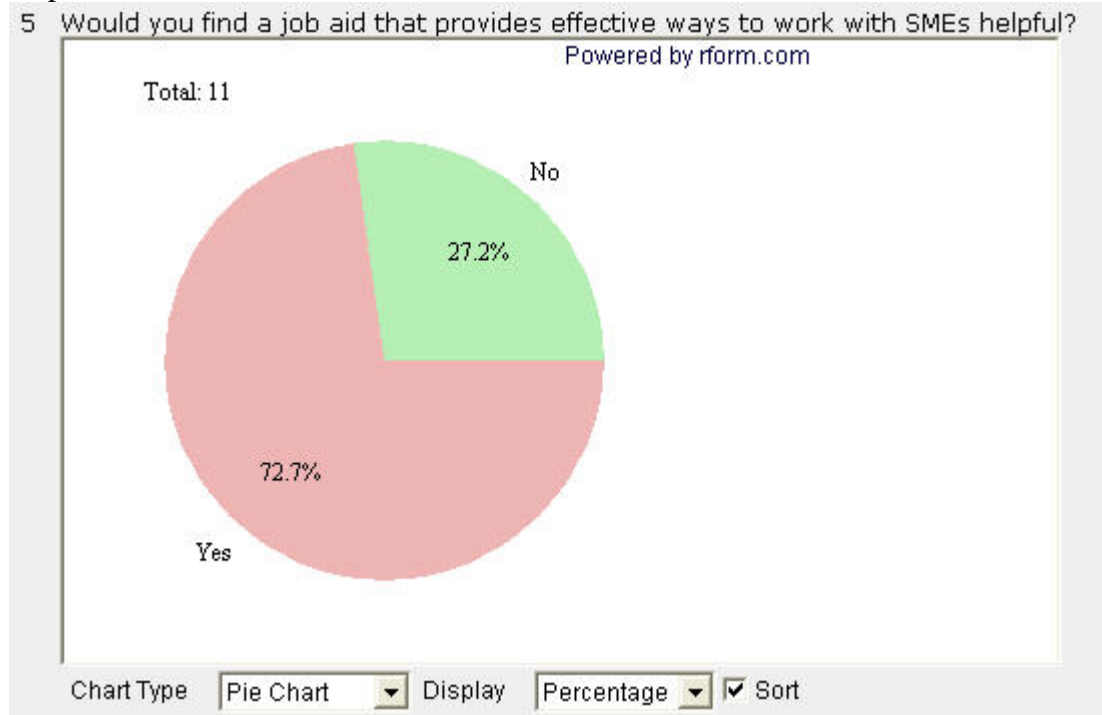
3. Do you find the process of working with SMEs to be challenging?



4. Do you feel that working with SMEs is important to the effectiveness of an instructional design project?



5. Would you find a job aid that provides effective ways to work with SMEs helpful?



6. What steps or strategies do you use before meeting with a SME?
- Provide SME with as much notice as possible, flag for them the topics I want to talk about.
 - Meeting face-to-face if possible. Writing up a list of content needed to meet the objectives. Studying the content as much as I can.
 - I send a letter of introduction that explains who I am, what the project is and what their role will be.
 - Never have worked with one
 - Define objectives and outcomes.
 1. Make a list of very specific questions. 2. Make a list of materials that you need from the SME in relation to the content as well as the format you need it in (diskette, hard copy, etc). 3. Clearly lay out the objectives of the project and my role in it. (not necessarily in this order).
 - Use 1st meet as an ice breaker, get to know one another
 - It is critical to explain everyone's role on the project. For example, if I have an editor assigned to the project, then the SME needs to know that so he/she does not take the time to "edit" a document. It is also important for the SME to either participate in or at least review any analysis documents and understand the "big picture" of the project. I also find that terminology is a big "issue" so it is important to have a glossary for everyone on the team, with definitions everyone can accept and use. It is surprising how long it sometimes takes to get this glossary written but it really does help reduce "friction" later.

- i. Organize priorities & objectives of the meeting; -Know as much about the subject as possible (Research); -Research background of SME; -Write questions; -Bring method of recording; -Bring business card
 - j. Agenda
 - k. I prepare questions, research the topic, get to know as much as I can about the SME
7. What steps or strategies do you use during the meeting with a SME?
- a. Asking their opinion, trying to build a personal rapport to have them want to support our training product.
 - b. Informal interviewing then more specific questions.
 - c. I have a clear idea going in of what I need to accomplish and this will have been communicated in the introductory email. Then, I let the SME do most of the talking. I ask clarification questions where necessary. At the end of the meeting, I always tell the SME the next steps and give them a timeline of when I might need their help again.
 - d. Never have worked with one
 - e. Flexibility.
 - f. Patience! Normally I set out an agenda with check boxes so we know what we need to do (if we haven't had a chance to do this collaboratively by e-mail first).
 - g. Listen Listen Listen
 - h. I have a form for SMEs where I ask them to "rate" changes. 1= critical change; it needs to be corrected or someone will get hurt. 2 = important change that needs to be addressed but it could wait. 3 = change we need to consider in the future and/or if time and resources permit.
 - i. -Discuss objectives and priorities; -Listen and encourage brain storming from the SME; -checkoff questions as they are answered; -Setup future communications
 - j. Flexibility, many tools in toolkit
 - k. Listen, take notes
8. What steps or strategies do you use after meeting with a SME?
- a. Follow up with the SME to thank them for their investment of time, keep them posted on how the product is going.
 - b. Writing up everything that I can think of.
 - c. I develop a draft of the project and then send it back to the SME for approval. If I have questions for follow up, I contact the SME.
 - d. Never have worked with one
 - e. Document and distribute outcomes of meetings to make sure what was determined is clear and agreed upon.
 - f. Summarize the meeting and what was covered as well as send the checklist with things marked off and things that still need to be covered.
 - g. Capture and reflect information gathered
 - h. Since I don't find design and development a linear process, I don't exactly know what to say about "steps after meeting with a SME." Design and development, for me, are iterative as the team learns and grows together.

SMEs are usually helpful if they are an integral part of the team and understand the goals of the project.

- i. -immediately type out and organize notes; -Immediately write down more questions as they come up; -send copy of notes to SME and ask for additions and corrections; -Thank SME for meeting and verify next meeting by email
 - j. Notes
 - k. send copy of minutes, thank the SME
9. Please describe why you feel that working with a SME is either challenging or not challenging?
- a. Working with a SME is particularly challenging for me because they are recruited to help with our project in a fairly disconnected manner - I do not get to meet them or build rapport before they have to jump straight into a lot of work. Also, we never get to meet face-to-face, which would be hugely beneficial.
 - b. Getting access to SMEs is difficult because their time is limited. The transfer of their expertise is often difficult to capture if you don't know the subject.
 - c. The biggest challenge I have found working with SME's has to do with SME's being in remote locations. It is difficult to convince them that I have deadlines and that they need to respond to my emails or voicemails in a timely manner. On more technical projects, it can be difficult to convince the SME that all of their detailed knowledge is too much for the learner to handle and it can be difficult working with them to scale it down.
 - d. The info they provide helps guide design
 - e. As SMEs are so comfortable with the process that sometimes they forget to mention the smaller details.
 - f. I think it is challenging because people really don't have a culture of collaboration - it is almost a culture of know everything or nothing. Each has their fears about interacting (egos, self-esteem, etc.) and each has their own personality. Professionalism, focus, and well communicated objectives as well as expectations (the latter usually from bosses) really helps two individuals get together and work effectively.
 - g. It's a people issue, one really needs to build rapport with the stakeholders.
 - h. SMEs are not "remove and replace" entities but they are sometimes treated as such. "Thanks for the info, now go away." SMEs should be part of the team from beginning to end in order to create a solid team that trusts and respects each other. Like most project "problems" this too is often a management problem, e.g., the SME has not been given enough time to be a fulfilled member of the team.
 - i. Not challenging because I am a very organized person who enjoys listening to and learning from others
 - j. Challenging because: -content is king; -SME are often trainers, but not ID. Glad you are doing this - it is often trivialized. Would suggest that you

focus on making your recommendations non-linear. Complex problem that cannot have a linear solution.

k. It's challenging because you never know if the SME is going to be easy or hard to work with.

10. Would you be willing to evaluate the online course "Working with SMEs" once it is completed? If yes, please send me your name and email address to dpeach2959@aol.com and put "Evaluate SME course" in the subject line of the email. I will send you further details when the course is finished.

Appendix B

Post-course ID Survey

Hello everyone,

I want to thank you so much for volunteering to evaluate the “How to Work with SMEs” online training course. The time allotted for completing the course and evaluating the course will last from April 27, 2006 until May 02, 2006. So, if you could complete the course and evaluation by those deadlines I would really appreciate it. After, the results are compiled I will put them in my Formative evaluation report.

Here is the link to the course: <http://www.designbydi.com/UCD/SME/>

The link to the user course evaluation survey is <http://www.my3q.com/go.php?url=dpeach2959/17129>, and it will also be located on the Conclusion page of the course.

The results of the survey answers will be incorporated in my evaluation report. No names will be used.

Again, thank you for your participation! If you have any questions or any issues with the timeline please let me know. Thanks, Dianne Calhoun

Questions on Survey:

Response values: Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree

Training Quality

1. The overall quality of the training I received was high.
1 Neutral, 1 Strongly Agree
2. The training will be beneficial to me in my job or school work.
1 Agree, 1 Strongly Agree
3. I was well informed about the objectives of this course.
1 Neutral, 1 Strongly Agree

Course Presentation

4. The online training method of content delivery was appropriate for this course.
1 Agree, 1 Strongly Agree
5. The course structure was easy to understand and navigate.
2 Strongly Agree
6. The topics were presented in a logical order.
2 Strongly Agree
7. The language in the course was clear and easy to understand.
1 Disagree, 1 Strongly Agree

8. The course activities stimulated my learning.
1 Agree, 1 Strongly Agree
9. The activities in this course gave me sufficient practice and feedback.
1 Disagree, 1 Strongly Agree
10. The test(s) in this course were accurate and fair.
1 Neutral, 1 Strongly Agree
11. The difficulty level of this course is appropriate.
1 Agree, 1 Strongly Agree
12. The pace of this course is appropriate.
1 Agree, 1 Strongly Agree

Course Objectives

13. The course objectives are clear to me.
1 Disagree, 1 Strongly Agree
14. The course covered the content that I expected.
1 Agree, 1 Strongly Agree

Course Materials

15. The Job Aids added to my overall learning experience.
1 Agree, 1 Strongly Agree
16. The Resources added to my overall learning experience.
1 Neutral, 1 Strongly Agree
17. The stories added to my overall learning experience.
1 Agree, 1 Strongly Agree
18. The games added to my overall learning experience.
2 Strongly Agree
19. The crossword puzzles added to my overall learning experience.
2 Strongly Agree

Course Results

20. I accomplished the objectives of this course.
1 Neutral, 1 Strongly Agree
21. I will be able to use what I learned in this course.
1 Agree, 1 Strongly Agree

Extras

22. How would you improve this course?
 - *I felt that the objectives were poorly worded and it was unclear what the learner should come away with after completing the course.
 - *In Module one, you alternate between using "IDs" and "you" to refer to the learner. You need to be consistent and either use 2nd person or 3rd person, but not both.
 - *horizontal navigation was needed

23. What is least valuable about this course?
*links to citations
*none
24. What is most valuable about this course?
*The crossword puzzles, games and stories were all very effective I thought.
*Content and forms
25. Do you have any other comments?
*The feedback from the test was nonsensical to me. I didn't understand what the numbers meant or how to tell if my answer was right or wrong.
*Thanks - great job and I'd like to "use" your site in the future. Good luck.
26. Please enter your name and email in case I need to clarify any of the comments you give me.