Assignment 6: Summative Evaluation Plan

Level 1 Evaluation - Reactions

After the instruction, the learner will complete a summative evaluation survey (Appendix A) designed to gauge her attitude toward the training and her perception of its effectiveness and efficiency.

The survey begins with ten statements to which the learner indicates her level of agreement, ranging from "Strongly Agree" (5) to "Strongly Disagree" (1) with a sixth option of "Not Applicable" (0). The first three statements are identical to statements on the needs assessment survey. The fourth statement on the needs assessment survey is "I would like to be able to update the data mart." On the summative evaluation survey this becomes "I am confident in my ability to update the data mart." These items will help me to see if there was a change in the learner's attitudes and her perception of her knowledge and abilities. Ideally the learner's level of agreement with the first three statements will increase after instruction. However, both learners involved in this instance of instruction already strongly agree that the data mart is necessary for their work, so I hope to see no change in that rating.

The other six statements pertain to the effectiveness and efficiency of the training. In particular they are intended to assess the learner's satisfaction with the training materials and environment, the time spent on the training, and the instructor's preparedness and delivery. The eighth statement is "I need more training before I attempt to update the data mart." This is a negative phrasing of the fourth statement ("I am confident in my ability to update the data mart") and serves two purposes. First, since it is the only negative statement, it causes the learner to pause and reconsider the response scale, thereby discouraging her from completing the survey in a rote manner (and possibly prompting her to re-evaluate her previous responses). Second, it refines the learner's response to the fourth statement. If she does not feel confident in her ability to update the data mart, does she think more training is necessary? I will examine these two items in the context of the learner's performance, which I will have evaluated as part of the training. There may have

been mitigating circumstances that affected the learner's performance and therefore her confidence, such as software or network problems, environmental distractions, etc.

The next part of the survey is a checklist of twelve adjectives that may describe how the learner feels about the training. The learner's choices will paint a broad picture of her attitude toward the training. Additionally, many of the words were chosen to relate to the statements at the beginning of the survey. For example, if she chooses "useful" and "necessary," how does that coincide with her level of agreement with the statement "I think the data mart is necessary for my work"? If she chooses "demanding," "tedious," or "incomplete," how does that correspond to her confidence and perceived need for more training? By using two methods to gauge the learner's attitude toward and perception of the instruction, I can validate the responses and use them with greater confidence to improve the instruction.

The survey ends with an open-ended request for suggestions to improve the training. Any comments added here will also be examined in light of the other responses.

Level 2 Evaluation – Learning

The training begins with an introduction to the function of the data mart and its place in the reporting environment. In particular the learner must understand the flow of data from the source database (the PeopleSoft student information system) to the target database (the data mart) where it may be accessed by report writers and consumers. I'll use a graphical model of this process (Appendix B) to help the learner envision it during instruction. I will then give the learner a version of the model in which the data flow is out of order, and the learner will be required to arrange the components in the correct order. I've created two versions of this evaluation: one is the paper version in Appendix B; the other is an online version requiring the learner to click-and-drag the components into the correct positions. I created the latter version because I am strongly inclined to make this part of the training online and self-directed, and I wanted to be sure I'd be able to assess the learner's comprehension and recall using an online version of the instrument.

The next part of the training addresses the parameters used to extract data from the source database. After receiving instruction on the purpose of the parameters and the methods for determining the appropriate values to use, the learner will complete a brief quiz (Appendix C) requiring her to calculate the values for several parameters based on a given set of conditions. Because an incorrect calculation will invalidate the process of extracting the data, the learner must correctly determine every parameter value. If she fails to do so, I will examine her errors, ask how and why she answered as she did, and show her where she misunderstood or misapplied the principles. When she is confident that she understands, I will re-administer the quiz with different conditions.

The rest of the training covers the procedures for connecting to the data mart, setting and reviewing the values for the parameters, and running the jobstreams to update the data mart. For each procedure, I will describe its significance to the overall process. Then I will demonstrate the procedure, highlight potential problems or errors, and encourage the learner to ask questions. Once the learner is confident that she can perform the procedure, I will ask her to do so while I observe, using the instructor's guide as a checklist. If she errs during her performance, I will decide whether it is better to correct her then or wait until the end of the procedure. Some errors will be immediately evident to her and will need to be corrected when they occur, but other errors may manifest themselves later in the procedure. For these latter types of errors, I may wait until they become evident and then see if she is able to determine the cause. This will help the learner to see the importance of exactly following the procedure and to develop troubleshooting skills that will serve her in the future.

If the learner is unable to complete the entire process of updating the data mart without errors, and if I think the errors are the result of not understanding the procedures rather than carelessness, I may suggest a subsequent training session. To prepare for that session, I will examine her errors and modify the instruction accordingly. In this way my summative evaluation will allow me to analyze the learner's errors and adjust the instruction accordingly.

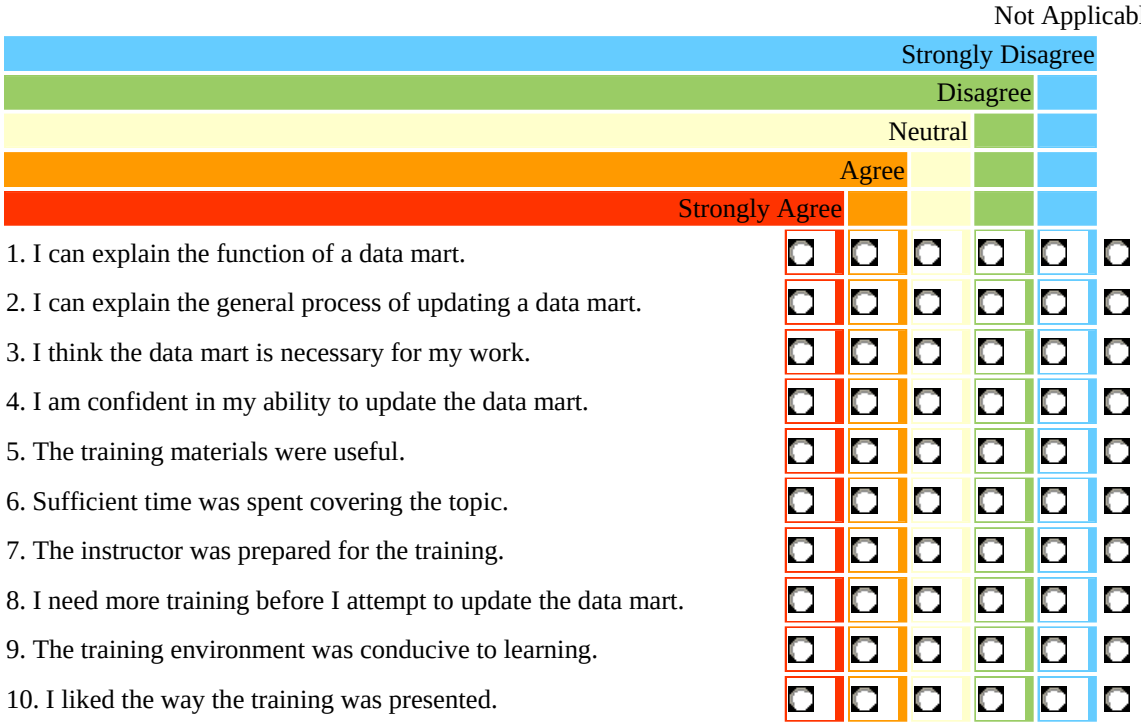
Level 3 Evaluation - Transfer

The data mart is updated twice each quarter, once on the census enrollment date and again after the quarter to capture final enrollment data. Once the learner has successfully completed the training, I will ask her to update the live data mart at the appropriate times. I will again observe, only this time I will prevent her from doing anything that may corrupt the integrity of the live data mart. If she makes errors, I will suggest another training session as described above. This will ensure that the learner retains and is able to apply the knowledge and skills obtained in the training. It will also alert me to necessary modifications of the training. If, for example, the learner correctly follows the procedures and still produces errors, it may be that the procedures have changed (because of software upgrades, the addition of new parameters or jobstreams, etc.).

Appendix A – Summative Evaluation Survey

Institutional Research Data Mart
Evaluation of Training

Instructions: The following questions are designed to evaluate the effectiveness and efficiency of the training you received. Select the option that best describes your attitude toward the following statements.



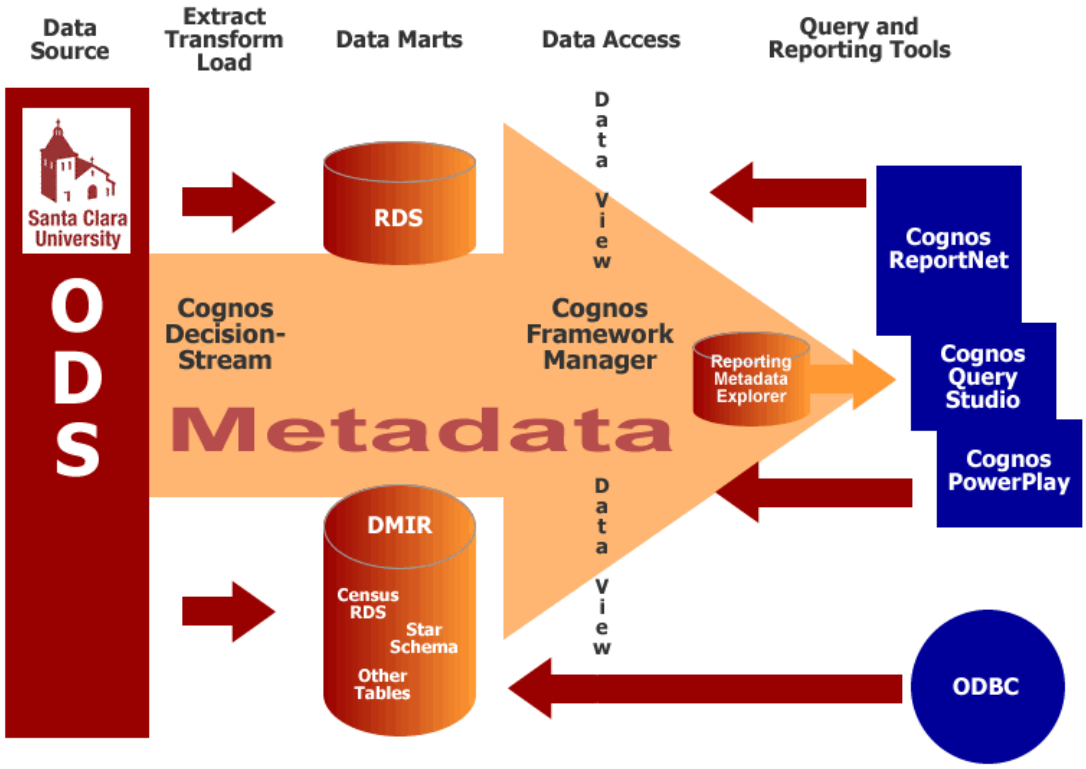
Check each word that describes the training you received:

☐ Useful	☐ Interesting	☐ Necessary	☐ Easy
☐ Demanding	☐ Tedious	☐ Challenging	☐ Incomplete
☐ Fun	☐ Successful	☐ Instructive	☐ Irrelevant

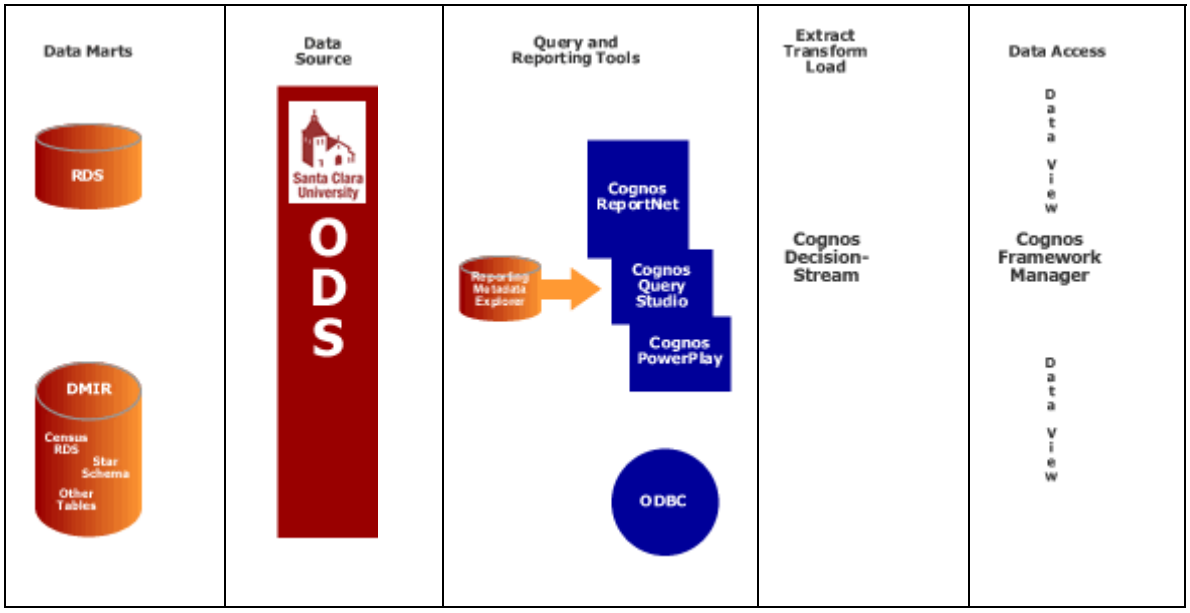
Comments: Please tell me anything else that you think might be helpful in improving this training.

Appendix B – Reporting Data Flow Model

Graphic of model to be used for instruction:



Graphic modified and cut up for evaluation:



Appendix C – Calculating Parameter Values Quiz

It is fall quarter of 2005 (i.e. 2700 in PeopleSoft) and you need to update the data mart for census enrollment of all programs except the School of Law. The census date is October 9, 2005. Write the appropriate value for each parameter.

1. CENSUS_RUN = _____
2. CENSUS_DATE = _____
3. CENSUS_TERM = _____

Given the conditions described above, place a check mark next to each of the following programs that should **not** be included in the CENSUS_CAREER parameter.

4. ARTS _____
5. BUSN _____
6. CNED _____
7. CPED _____
8. ENGR _____
9. LAWS _____
10. UGRD _____

Given the conditions described above, place a check mark next to each term that should be included in an annual extract of degrees conferred.

11. 2560 (Summer 2004) _____
12. 2600 (Fall 2004) _____
13. 2620 (Winter 2005) _____
14. 2640 (Spring 2005) _____
15. 2660 (Summer 2005) _____
16. 2700 (Fall 2005) _____
17. 2720 (Winter 2006) _____
18. 2740 (Spring 2006) _____
19. 2760 (Summer 2006) _____
20. 2800 (Fall 2006) _____