

Assignment 5a & 5b
Formative Evaluation Plan & Report

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Formative Evaluation Plan

Overview and Purpose

The purpose of this instruction is for beginning instructional designers, from either academia administrations or commercial learning and development organizations, to write measurable and observable performance-based objectives from instructional, learner, and context analysis. The learners will access the learning materials via a Web-based instructional model.

The purpose of the formative evaluation is to collect data during the development phase of to determine if the instruction is effective and efficient.

- Does the instruction meet the requirements set forth in the instructional analysis?
- Does the instruction provide the learners with the knowledge, skills, and attitudes required to achieve the terminal objective of the course?

The materials need to be thorough enough to support the instructional effort without the guidance of an instructor, if not, then weaknesses need to be identified and remedied. The formative evaluation process will provide the direction necessary to achieve this.

Method

Participants and design. The participants are 10 Instructional Technology students recruited from Nova Southeastern's EDD 8008: Principles of Instructional Technology and EDD 7007: Principles of Distance Education courses. Each student will be subject to the same instruction—there are no special treatments being placed within the context of the instruction.

Materials and apparatus. The materials consist of an online participant questionnaire and a two problem transfer test. The participant questionnaire will solicit participant information such as age, gender, educational levels, and general information related to the instruction itself. Additionally, to measure the participants instructional design experience, the following question

will be asked: “Please put a check mark next to the level of instructional design experience that best identifies you. (a) less than one year experience in designing instruction, (b) greater than one year, but less than two, (c) between two and five years experience, or (d) greater than five years of instructional design experience.”

The two question transfer test will provide the learner with on screen text of a sample instructional goal analysis identifying the major steps required for the learner to obtain the specified skills. The chart will contain two major steps for that particular instructional chunk. The learners will be asked to write two complete performance-based objective statements that contain the four required components for the two major steps.

General Plan: The learners will complete the formative evaluation towards the end of the term to not disrupt current instruction. The learners will access the instructional materials via the Internet, and the evaluator will be the program itself. An e-mail will be sent to the participants providing them with information regarding the instructional content and reasons for completing the training. The e-mail will also provide the participants with a link to the course and a request that they complete the course in its entirety by April 23, 2006.

Appendix of Instruments

Questionnaire:

Age: _____ Gender: M F

Circle the highest completed Educational level:

HS Some College Bachelors degree Master's Degree Doctoral Degree

Please put a check mark next to the level of instructional design experience that best identifies you:

_____ Less than one year experience in designing instruction

_____ Greater than one year, but less than two

_____ Between two and five years experience

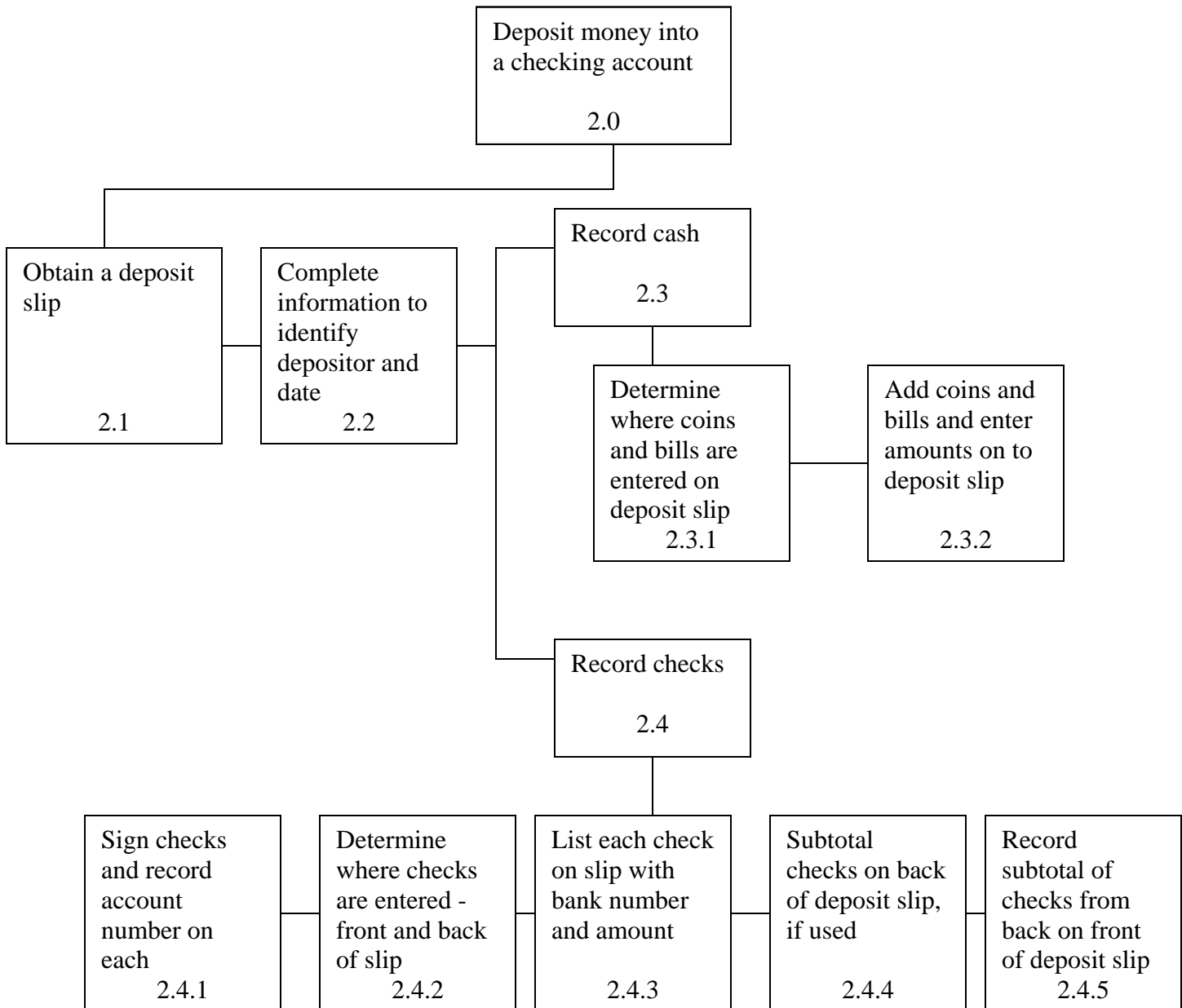
_____ Greater than five years of instructional design experience

Answer the following questions as they pertain to the instruction:

1. What made the instruction interesting?
2. In your own words, explain what you were supposed to learn?
3. Explain how the materials were directly related to the objectives?
4. Were sufficient practice exercises included, if not what exercises would you like to see included?
5. What was relevant about the feedback you received on the case study exercises?
6. Did the instruction hold your attention, if not why?
7. Was the instruction too long, too short, or just enough?
8. Was the instruction easy to follow or difficult to understand? Explain your answer.
9. Did you have problems with any parts of the instruction? If yes, where?
10. Were the illustrations appropriate or distracting?
11. What did you like most and why?
12. How would you change the instruction if you could?

Transfer Test:

Write a complete objective statement that contains the four required components for step 2.3 and 2.4. As you write the two statements, label each of the components as it appears in the statement. Make sure you take into account any sub-steps that are required to accurately create the objective statement.



Formative Evaluation Results

One-on-One/SME Review

The one-on-one/subject matter expert (SME) review was completed with an experienced instructional designer who was familiar with performance objectives. The purpose of this review was to identify any glaring content inaccuracies, confusing explanations, and presentation errors. The SME provided succinct feedback that the content was free of inaccuracies, yet reported that sections of Lesson 4 and Lesson 5 might pose a challenge for the target learner as certain explanations were confusing. The majority of feedback received from the SME review centered on presentation errors. The following list itemizes the general presentation errors identified.

- The note-type text that appeared on random pages was difficult to read because the type size was too small and color was too close to the background color.
- The page numbering was not accurate throughout all lessons.
- The Practices, although instructionally good, should have been interactive to engage the learner.
- The tables and graphics were blurry and hard to read throughout all lessons.
- There were random spelling errors throughout all lessons.
- When reviewed on a screen at 1024x768, the text appeared blurry. This resulted in a distraction from concentrated learning.
- The course lacked visual media entertainment. More media elements such as photographs, illustrations, or animations could improve the visual appeal of the course.
- Navigation instructions were inaccurate. Specifically, the direction to return to the lesson menu actually returns the learner to the course-level menu.

Small Group Review

A small group of 19 learners were contacted and asked to be the Pilot evaluators of the course. Although the prime number of learners was 10, the larger group was selected because there was a required understanding between the instructional design team and the 19 evaluators that the task would be entirely voluntary.

Expecting to not receive complete participation, the instructional design team chose to contact extra learners.

As suspected, complete participation did not occur. Only two completed evaluations were returned to the instructional design team with feedback, one of which was from the SME who completed the evaluation form after the one-on-one review. A discussion on the reason for such a limited response follows in the next section of this report. Overall, the feedback received was promising and echoed what the SME reported. The instructional content was good and appropriate.

Figures 1 through 4 show the demographic data collected as part of the evaluation. Even with the limited responses, a few trends are noticed. Both responses were by females who have completed a Masters degree and have at least two years of experience.

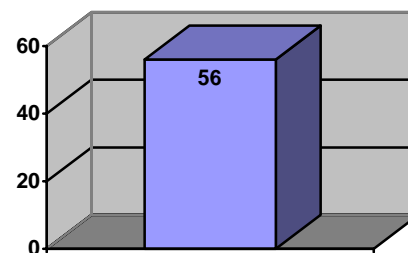


Figure 1. Age Range of Evaluators

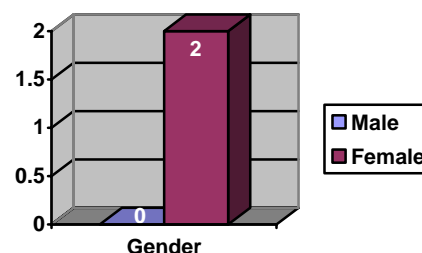


Figure 2: Gender of Evaluator

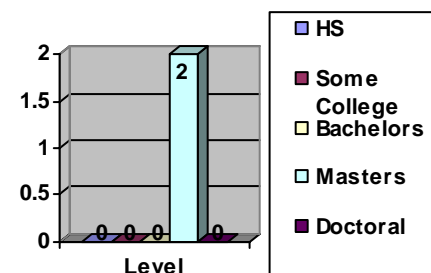


Figure 3. Level of Education of Evaluator

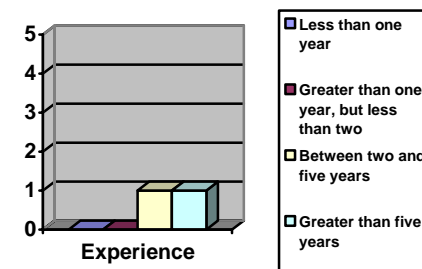


Figure 4: Experience of Evaluator

The next section of the evaluation form asked the evaluators to provide feedback directly related to the instruction. These responses were narrative comments entered by the evaluators that provide insight as to the opinion held by the evaluator. The feedback was consistent across both responses. Generally, the instruction was appropriate, topics were interesting, and sufficient practices were included. No alarming or comments were received that the instructional design team identified as requiring major course revision.

The final section of the evaluation prompted the evaluators with a knowledge transfer test. The evaluator was asked to review sample instructional analysis data and to write two performance objectives. A review of the one response received for the transfer test (Figure 5) shows that the learner may be able to transfer most of the knowledge to the performance setting, yet there may be challenges.

- Is the Audience identified?
- Is the Behavior measurable and observable?
- Is there a Condition?
- Are Criteria Present?

Objective 1: The customer (A) will accurately (CR) count (B) and record (B) cash on a bank deposit slip.

Objective 2: The customer (A) will endorse (B) checks and accurately (CR) complete (B) the bank deposit slip denoting checks.

Figure 5. Transfer Test Analysis

In terms of complete performance objectives, the audience is clearly identified; although the condition statement is not clear in either objective; more than one behavior has been included as part of each objective; and the criterion statement may not be specific enough. More analysis of other transfer test objective statements would assist in identifying if this is an isolated case or if the instruction requires revision.

General Discussion

The instructional design team recognizes that the results received from the small group evaluators are less than optimal. During the evaluation time period, there was speculation that a technical error may have occurred. To address this speculation, the instructional design team conducted some troubleshooting to try and validate the suspicion. It was identified that the evaluation form submission requirement may have been too vague for the evaluators. The minimal requirement to have an email client available during the course was problematic, threefold. For one, the requirement does not specify the type of email client necessary. In this case, locally installed software, such as Microsoft Outlook, is necessary. A Web-based email client such as Yahoo or Hotmail does not qualify. Secondly, the minimum requirement does not specify that the email client must be running at the time of completing the course and evaluation form to submit the results. Thirdly, and finally, the evaluation form does not offer a success or fail message to the user.

A follow-up email was sent to all evaluators informing them of the newly discovered technical error. A text-based evaluation form was included and each evaluator was asked to complete this form, rather than the online evaluation. This email did prompt some general communication that evaluators beyond the one evaluator whose feedback was received, had in fact, completed the course and evaluation. No further evaluation was received from these individuals. This technical error is very likely the reason for the limited number of responses received.

Recommended Revisions

The feedback received from the evaluators conveyed a message that the course is generally good. The SME reviewer was able to identify many presentation errors that require

revisions. Additionally, the instructional design team will be assessing the visual appeal of the course and would like to incorporate more media elements, including photographs, illustrations, animations, and optional narration. Finally, a review of Lesson 4 and Lesson 5 content will occur to identify and simplify the content that was identified as confusing. If the project schedule can accommodate an additional formative evaluation period, the team would like to subject the course to another Pilot review, before signing off on the course materials.