

Report III

Section 1

Results of Evaluation

Part 1: One-To One Formative Evaluation

The materials for the module were presented in two formats. The pre and post-test, along with an entry behavior survey, were presented in print form. The module itself is a web-based module that was created using PowerPoint and Macromedia Captivate. The learners came to the computer lab at Rocky Point Primary to participate in the self-instructional module.

Three learners were selected for the one-to-one evaluation. We chose three learners that possessed a wide range of experience and attitudes. All three participants in the one-to-one evaluation were women ranging in age from 22 to 42. The three participants involved all expressed an interest in working on the module. Since the training took place after work hours, we could not demand that people participate. All of our learners volunteered to participate in the training. So, the criterion for selecting our learners was based mostly on selecting those who volunteered. All three possessed college level education. Their experience with computers and technology was varied. The participant's experience ranged from a high level of competency to very little experience with computers.

The one-to-one formative evaluation took place in the computer lab at Rocky Point Primary. During the one-to-one evaluations, the learners were presented with a desktop computer to access the learning module from a CD that contained the module. The module can also be access from any computer via the Internet. We have posted the files on the county web page for teachers to access. Each learner was given a laptop, a data projector, and all the necessary cables.

Participant #1 is a woman in her forties who has had some experience with technology. She brought a positive attitude toward technology with her to the training. This person was selected because she expressed a willingness to participate in the trial. She is the type of learner that analyses situations and directions well, and she will give very detailed constructive input about the model. She also has a strong background in writing and editing, so we are hoping that she will comment on the writing and grammar within our module.

To begin the module, I assembled all the necessary equipment together in the computer lab for participant #1. Participant #1 actually brought her own laptop to the training. Although she has some experience using a laptop, she has never connected her laptop to a data projector. She was excited about learning the

steps to do this task. After inserting the cd into the computer, the learner started the lesson by clicking on the correct icon on the disc. Starting and loading instructions were provided with each disc.

During the module, Participant #1 made the following comments and suggestions. The learner liked the background music, but commented that it was too loud in certain areas. This learner also pointed out a few grammatical errors. She also commented that she felt we had used too many exclamation points in the text of the demonstration. She also discovered that on two slides the words disappeared before the narration had finished. Participant #1 also noted that one of the slides did not advance when clicked. This learner enjoyed positive responses such as “Good Job”.

Participant #2 is a very young female, instructional assistant who has also expressed an interest in participating in the training. She has had some experience with computers, but not formal instruction. She has a positive attitude about technology and the training. Having not had any formal computer training, I am interested in her attitude. I am wondering if she will become frustrated if she encounters problems during the module.

To begin the module, I assembled all the necessary equipment together in the computer lab for participant #2. This learner had very little experience with using a laptop and no experience using a data projector. She was excited about learning the steps to do this task. After inserting the CD into the computer, the learner started the lesson by clicking on the correct icon on the disc. Starting and loading instructions were provided with each disc.

Participant #2 made the following comments and suggestions. This learner really enjoyed the background music and she did not think that the music was too loud. She felt that the slides that explained the difference between a laptop and a desktop were too easy. She also enjoyed the positive feedback that was given when a correct answer was given. She also pointed out that two slides did not advance when clicked on.

Participant #3 is also a female teacher with 12 years experience working in the classroom and as a media specialist. She has had a lot of experience with computers and some experience with computer training. She brought a very positive attitude to the training. She had had experience using a laptop and a data projector.

To begin the module, I assembled all the necessary equipment together in the computer lab for participant #3. She was interested about learning the steps to do this task. Even though she had used a data projector in the past, she felt that she would benefit from a refresher course. After inserting the cd into the computer, the learner started the lesson by clicking on the correct icon on the disc. Starting and loading instructions were provided with each disc.

Participant #3 enjoyed the platform of the module. She was very interested in learning more about Macromedia Captivate. She thought the music was a nice touch, but she too remarked that the music was too loud in certain parts. She also pointed out that one or two slides did not work properly when clicked. She also felt that we needed more explanation in step 1 of "You Try It" She felt that the instructions needed to be more specific. She enjoyed getting the positive feedback during the module, but she did not feel that more encouragement was needed. She noticed that the word "welcome" was said three times during the opening pages.

Changes to the Module as a Result of Our One-to-One Evaluation

We made quite a few changes as a result of the feedback that we received during the one-to-one evaluation. First, we lowered the sound level of the background music considerably. We removed several of the exclamation points. We felt they were unnecessary. We fixed several of the slides that did not advance properly. We also slowed down the transitions between the slides where the print disappeared before the narration finished. We also removed the word "welcome" from some of the beginning slides. Two of the participants also felt that the pictures of the RGB cables were a bit confusing, so we tried to get pictures that more clearly represented examples/non-examples of RGB cables.

Part 2: Results of Small Group Evaluation

The small group evaluation took place in the school's computer lab. Learners for the small group evaluation volunteered for participation. We had emailed the staff the information about the purpose of the module and 11 teachers on staff responded that they would like to participate. One individual had to drop out of the small group activity due to another obligation. The learners averaged thirty minutes to complete module and assessments.

Each learner was given a brief explanation of the purpose and organization of the module when they arrived at the computer lab. The participants were given an assessment booklet that included an entry behavior survey, a pretest and a post-test. Each learner was seated in front of a desktop computer. The lesson was loaded from a CD that contained loading and opening instructions. Next to each computer was a desk that included a data projector, a laptop, and all the necessary cables and cords, unplugged. The instructional module was created using PowerPoint and a beta version of Macromedia Captivate. Learners were instructed to follow all information in the order it was presented and complete assessments when instructed to do so. Everyone was motivated to participate in this learning module and all learners were excited about being able to apply this skill in their classroom.

The small group consisted of ten learners. Each learner was given an entry behavior survey to complete. (See appendix) The survey asked the learner to rate their use and comfort level with computers and data projectors. A score between 8 and 6 indicated solid experience with computers and data projectors. A score between 5 and 3 indicated some computer and data projector experience. A score below 3 indicated that the learner had little experience or confidence in the use of computers and data projectors. Four of our learners scored between 6 and 8. Four of our learners scored between 3 and 5. Two of our learners scored below 2. So, we concluded that the skill level of our learners varied from a high level of skills and confidence to a very low level of skill and confidence, with a significant number of learners somewhere in the middle.

After the learners completed the entry survey, they were given the pretest. The pretest (see appendix) consisted of two parts. Part 1 focused on the identification of laptops, data projectors, cables, and plugs. Part 2 was concerned with the ability to complete the procedural steps of the module. After completing the module, each learner clicked on the captivate icon to begin the module

All learners understood the purpose of the module and understood they could not interact with the instructor or other students while working on the module. All learners completed the module without intervention from the instructors.

Scoring of the Entry Behavior Survey

Each response in the entry behavior survey was given a numerical score. A score of 2 represented a solid skill level as judged by the student. A score of 1 represented an average skill level as judged by the student. A score of 0 as judged by the student indicated very little knowledge or experience in that area. The scores were then added up and we created a scoring rubric. (See Results of Entry Behavior Survey)

Results of Entry Behavior Survey

Based on the results of the Entry Behavior Survey, we felt that students 1 and 2 probably didn't really need to take the module. It appears that they already possessed the requisite skills to connect and use a data projector with a laptop. On the other hand, two of our learners (students 9 and 10) had very little computer knowledge going into the training. After observing the learners taking the entry behavior survey, we felt that student 3 clearly overstated her skill level when it came to the use of computers and data projectors. We base that statement on our own personal knowledge and interactions in the workplace. The majority of our students, students 4 through 8, did very well on the entry survey. They appeared to have solid computer skills and they were interested in learning more about the use of the data projector.

Scoring and Results of Pretest and Post-test (See Results of Module Pre and Post-tests)

The pretest and post-test contained 18 possible correct answers. A point was given for each correct answer. The highest score possible was 18/18.

After comparing the results of the pretest and post-test, we determined that all students made gains, except for student 1 who scored a perfect score of 18 on the pre-test and post-test. The average student gain from pretest to post-test was 5 points. Student 9, who had the least amount of knowledge entering the training (pretest score of 5), made the largest gain (13 points), by scoring a perfect 18 on the post-test. Student 3, who scored high on the entry behavior test, improved only 1 point from pretest to post-test. (A score of 13 to a score of 14) We concluded from those results, that student 3 did not have as solid skills as was previously thought. Five students made gains of 7 points or more from the pretest to the post-test.

After completing the module, we asked the learners to assess their skills by taking apart the equipment and re-assembling the pieces. All of the students were able to do so with surprising ease. Many of the students remarked how easy the process seemed to be. All of the students seem happy and no one appeared frustrated.

Recommendations for Revisions of Materials

First, based on the feedback gained in the one-to-one setting, we made changes to the format of the instructional module itself. We reduced the background sound as suggested by the learners. We fixed the broken links within the Macromedia Captivate. The Captivate files loaded slowly from the web, so we burned stand alone CD's so that users can play the learning module from any computer. We plan to put those CD's with data projectors in the schools, so that individuals can access the learner module as they prepare to use the equipment.

Recommendations for Revisions of the Tests and Procedures

As stated earlier in report III, part 1, we made quite a few changes to the module. We lowered the sound level of the background music considerably. We removed several of the exclamation points. We felt they were unnecessary. We fixed several of the slides that did not advance properly. We also slowed down the transitions between the slides where the print disappeared before the narration finished. We also removed the word welcome from some of the beginning slides. Two of the participants also felt that the pictures of the RGB cables were a bit confusing, so we tried to get pictures that more clearly represented examples/non-examples of RGB cables. Also, one student pointed out that

question 2 in the pretest was confusing. She stated that all the pictures in question 2 projected some sort of data, so in essence they all could be considered “data projectors” Based on that insight, we plan to revise the pictures used in the pre and post-test. Also, we felt that the correct answer for question 4 was confusing and needs to be changed. We felt that the picture representing the correct answer did not effectively represent a power cable for a laptop computer.

Section 2

Planning Log		
Activity	Description	Time Spent
Brainstorming	Brainstormed Ideas for Project Assessed the various needs for teachers in the county	2 hours
Needs Assessment	Determined greatest need was learning to set up data projector	4 hours
Conducted Learner Analysis	Observation;	4 hours
	Interviews with possible learners;	4 hours
	Learner Analysis	2 hours
Conducted Task Analysis	Development of Objectives	2 hours
	Initial Task Analysis	3 hours
	Task Analysis Trial	1 hour
	1st Revision of Task Analysis	2 hours
	2nd Revision of Task Analysis	2 hours
	Final Revision of Task Analysis	2 hours
Performance and Learning Context Analysis	Site Research	5 hours
	Reporting of Learning and Performance Context	2 hours

Performance Objectives	Creation of Performance Objectives	2 hours
	Revision of Performance Objectives	2 hours
	Final Revision of Performance Objectives	2 hours
Assessments	Creation of Assessment Items	3 hours
	Revision of Assessment Items	2 hours
Module Creation	Creation of PowerPoint Outline	4 hours
	Creation of Captivate Project	10-12 hours
Evaluation Tools	Creation of Evaluative Tools	5 hours
One-on-one trial	Trial of final Product	2 hours
	Evaluation of trial	2 hours
Revision of Module	Editing of Captivate Project	3 hours
Small Group Trial of Module	Trial of final Product	1 hour
	Evaluation of trial	3 hours
	Total Time in Hours:	<u>77</u>