

## Report III (Sheri, Tom, and Aixia)

Preparation for the one-to-one evaluation began with the completion of instructional materials. The instructional materials are a Captivate interactive tutorial. The Captivate tutorial is based on the four levels of the Instructional Transaction Theory (ITT).

- **Level I** of the tutorial consists of an introduction to the Universal Reader (UR). The students will get a brief introduction to the UR software, the basic functions, and basic use of the program along with a demonstration.
- **Level II** follows the introduction; the students will follow along as the simulation takes them through the UR program while mimicking the actions of the tutorial.
- **Level III** will require the student to interact with the program and move to the next step with minimal prompting. For example the student will need to open the UR program before the tutorial moves on to the next level.
- **Level IV** will be completely independent the student will be asked to complete a variety of tasks related to the UR program. The student will have two chances to get an answer correct, if they do not get an answer correct after the second try the tutorial will pull them back to level II. Once they have completed level II again the student will then have another opportunity to try level IV.

The target audiences for this tutorial are Life Skills 1 students. These students follow the occupational track at school and have IEPs that require special conditions to be met during instruction. One such condition is read aloud. When preparing this tutorial the cognitive levels of the students were kept in mind. In other words the vocabulary used needed to be at an elementary school level. All observations were conducted in the exceptional children resource room on computers.

The entry behaviors required for this tutorial are basic computing skills mostly involving the use of a mouse and distinguishing between the two different buttons and their functions.

Three students were selected for the one on one evaluation. All three students are around the same cognitive ability, they were chosen because of the comfort levels around computers. Student one felt at ease using a computer. Student two felt mildly comfortable using a computer. While student three did not feel comfortable using a computer. Despite the fact that student two and three did not feel as comfortable using a computer only one question was missed by one student. *Which button on the mouse would you use to highlight?*

The formative evaluation is also build into our tutorial the following three questions were asked:

### **Formative evaluation**

**1. Which button on the mouse would you use to highlight?**    Left or Right

Right

Left

**2. To highlight a sentence which step would you choose?**

- a) Place cursor at beginning of sentence, hold right button, drag until end of sentence
- b) Place cursor at end of sentence, hold right button
- c) Place cursor at beginning of sentence, hold right button, drag over first word

**3. To open a new computer program you:**

- a) Double click the left button on a mouse
- b) Double click the right button on a mouse
- c) Single click the right button on a mouse

The entry behaviors were not an issue for our tutorial; from there each student was then asked to complete the tutorial. During this observation the teacher listened more than spoke. The students' comments were very interesting to hear during the tutorial. The majority of the comments were positive and the instant feedback really added to the motivational level of the students. Each student moved through the tutorial with ease. Once they were used to the UR voice and the basic idea of being led by the computer things went very well. The only major problems were glitches within the Captivate program. For example, at the end of section two the tutorial asked the student to click on the stop icon. There was a two to three second pause between the instructions and when the button could be activated. This was an easy problem to fix and once the students realized they had to wait a second before clicking the stop icon they moved on without any problems. There were a few other minor technical problems within the tutorial, after the one-on-one evaluations these problems were fixed.

After the initial run through with the three students an exit survey was given, that is also part of the tutorial.

The small group evaluation was conducted the same way as the one-on-one evaluations. The only difference was that the instructor was walking around the computer lab instead of sitting with each student. The computers had the Universal Reader tutorial pre-set. This was done to save time and to be sure the tutorial could be used on the computers before the students got there. The students were chosen by availability. There were twelve students total and the observations were conducted during their elective period. All students were from the Life Skills 1 course of study and all are about the same cognitively.

The Universal Reader program and basic functions were explained to the students. It was also explained that this program would be used in place of a person the next time text needed to be read to them. Amongst the group there were varying comfort levels when using computers but each student seemed genuinely interested and excited about this new program.

Each student began with the formative evaluation, since it is only three questions it did not take them very long and only two students missed a question. Again it was *Which button on the mouse would you use to highlight? Left or Right* It is believed the answer was wrong because the students mixed up left and right, then actually knowing the right answer to the question.

From there the students began the tutorial. The procedure went well considering the students were learning a brand new program. Once the students understood the

concept behind the tutorial they all went through it without much trouble. Evaluation was kept through observations and e-mail. The Captivate tutorial allows the instructor the chance to gather the data by e-mail. All of the information collected through the formative evaluation, assessment and exit surveys can be sent to the instructor.

Level IV on the tutorial is the assessment of the student. Each student is given a set of instructions through the Captivate tutorial and cannot move onto the next question without completing the predecessor. Each student is give two opportunities to complete the question correctly if after the second time the question is answered incorrectly the student is moved back to level II for further instruction. This data is collect by the Captivate program and e-mailed to the instructor.

Examples of the questions asked in level IV are:

1. Double click the Universal Reader Icon.
2. Open Microsoft Word.
3. Type the following sentence and then highlight it.
4. Click the Read Icon.
5. Click the Stop Icon.

Each of these tasks is completed within the tutorial.

Here is the breakdown of the Level IV assessment and how the twelve students did using the tutorial:

<b>Level IV Tasks</b>	<b># Of students Right on first try</b>	<b># Of students Right on second try</b>	<b># Of students that had to Redo Level II</b>
Double Click UR Icon	10	2	0
Double Click Word Icon	11	1	0
Type sentence	12	0	0
Highlight the sentence	8	4	0
Single click Read Icon	12	0	0
Single click Stop Icon	9	3	0

The data we collected during our Level IV assessment was compiled into this chart. The first column of the chart list each question the student was asked. The second column gives the number of students that answered the question correctly on the first try. The third column gives the number of students that answered the question correctly on the second try and the third column gives the number of students that had to go back and redo Level II of the tutorial.

### **Exit survey**

Please circle the number that best reflects your experience using this tutorial, and explain why or why not you agreed or disagreed.

- 4: Strongly Agree**  
**3: Agree**  
**2: Disagree**  
**1. Strongly Disagree**

<b>Question</b>	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>	<b>Comments</b>
<b>Was the Universal Reader voice easy to understand?</b>	4	3	2	1	
<b>Did you understand all of the vocabulary used? Please write any words you were unsure of in the comments section.</b>	4	3	2	1	
<b>Did you like working alone with the computer?</b>	4	3	2	1	
<b>Were the directions easy to understand?</b>	4	3	2	1	
<b>Did you like to listen to the Universal Reader voice?</b>	4	3	2	1	
<b>Were the tasks to difficult?</b>	4	3	2	1	
<b>Will you use the Universal Reader program on your own?</b>	4	3	2	1	
<b>Would you like to have other self-instructional lessons on the computer?</b>	4	3	2	1	

**Would you rather have had your teacher explain the Universal Reader program to you or did you like just using the computer?**

Based on the feedback from this evaluation there were not many changes that needed to be made with the instruction end of the tutorial. But as mentioned earlier there were a few minor technical issues that needed to be resolved. Their biggest concern was with Level I (the introduction was not very clear). Adding an audio clip to the introduction explaining what the Universal Reader program is and what it can do solved this problem. The technical issues mostly revolved around timing. Using Captivate is a great way of introducing a self-instructional module but a lot of work goes into the design

of the tutorial. There is a lot of back and forth type of working using this program. One of the changes that were made concerned our first round of assessment questions, some of the questions we could not use because we could not get them to work properly in Captivate. Another problem that arose was fitting the tutorial on the computer monitor. Each monitor is a little different so there was some minor edits that had to be done to ensure consistent use among a variety of monitors. The exit survey results were great the students clearly enjoyed using this program. Only two questions had answers that were not strongly agree. Additionally, the results had to be recorded manually since the feedback is sent to the instructor via e-mail. If this product was to be adopted by a system, they would either have to allow the students to e-mail or purchase additional software such as Breeze.

### **Questions:**

*Did you like working alone with the computer?* Only two students did not respond with a strongly agree: they responded with an agree.

*Were the directions easy to understand?* Only two students did not respond with a strongly agree: they responded with a disagree.

*Would you rather have had your teacher explain the Universal Reader program to you or did you like just using the computer?* Only two said they would rather have a person read to them.

From the beginning to the end this was a time consuming process. The majority of our group was basically familiar with the Universal Reader program so that was not too big of an issue. Making this assessable for mentally handicap students was a bit of a struggle. By far the most time consuming aspect of the whole process was creating the Captivate tutorial. Since this was the first time the two of the three of us had used Captivate it took a lot of time to get anything done. Like other Macromedia products Captivate has a high learning curve, once that curve is beat things move a lot faster.

Here is a more concise breakdown of the time spent on each section:

1. **Needs Assessment:** This part of the process did not take that much time about one and a half to two hours. Two members of this group has already spent time working with the target audience and have a good understanding of the cognitive levels and how they relate to using a computer and new programs.
2. **Task Analysis:** This part of the process took a bit longer. There were some disagreements among the group members if certain tasks should be included. These minor issues were resolved when we started our performance objectives and discussion among the group members. The over all process took roughly five hours.
3. **Performance Objectives:** This section was not to difficult once we looked at our task analysis again we realized that there were some adjustments to be made once we make the minor adjustments the objectives came easily. Over all three to five hours were spent.
4. **Instructional Module Development:** This by far was the most time consuming part of the whole process. Whenever a new program is being

implemented there are always problems. Especially when using a program like Captivate. This is a fantastic program but it has a very high learning curve. At least 30+ hours were spent adding the various components to the Captivate tutorial.

5. **One-On-One Evaluation/Large Group Evaluation:** Each evaluation took 20 to 25 minutes. The Captivate tutorial only last approximately 10 minutes. The remaining 10 to 15 minutes was spent completely the formative evaluation and the exit survey.