Evaluation Report

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**Part One:  Peer Evaluation Summary**

**Navigation/Interface Design  - 3 points**

**Comments:**

- Interface is intuitive, but there isn't much there. Only six frames and one of them doesn't take me anywhere.

- Intuitive, not much interactions.  Can go between parts

- The design is intuitive and will make for users to easily navigate to other pages.  It is difficult, though to tell how meaningful the interactions will be since they are not done yet.

- The navigation isn't completely obvious.  From the home you don't know where to go first.  Once on the purpose page, there is not an enter button for the input text.

- Looks like all of your buttons work except for Investigation

System Status

**System Status – 3 point**

**Comments:**

- User is kept informed on most screens (less quiz) about their position in the movie with frame headings. Buttons' don't provide any rollover feedback.

- Headers give position, but I'd almost like the buttons to do something (change color with the one you're on maybe or highlight when over them)

- This could be a little clearer.  The headings do say the user's location in the project, but are not on every frame.  For example, it's missing on the quiz page.

- The menu is at the bottom is helpful, but if there is supposed to be a certain order of navigation, it should be indicated, especially from the home page.

- Titles on all accessible screens except quiz.

**User Control – 3 points**

**Comments**

- There are no places that the user feels trapped.  User can control user interactions.

- Easily change pages (though the investigation didn't work).

- The quit screen didn't work when tried to click the yes or no button.  Also there was not button to allow user to be greeted by name.  I was to fill my name out, but nothing came from there.

- Yes, the menu bar allows this option throughout the movie

- Had some trouble on the Quiz dragging the letters.  Couldn't drop anywhere.  In fact they stuck to the point when I moved to another screen to get out of Quit screen by choosing.

**Consistency and Standards – 5 points**

**Comments**

- As a whole the movie has a uniform look and feel

- Uniform

- Everything is consistent.  It is easy to navigate from page to page.

- Mostly

- Buttons at the bottom make it easy.

**Content – 4 points**

**Comments**

- Language is good.  Objectives are clear.  However I don't know if there is sufficient information on the variable page to understand what I am trying to do.

- Not sure who the audience is.  Not sure what I'm supposed to do on variables page.

- Grammar is fine, but some of the words and sentences, particularly in the quiz, get cut off.

- The choose your variable page could use a little more direction on what the user is supposed to do.  I didn't understand the connection from the choose your variable page to the quiz.

- Looks Good

**Visual Design – 4 points**

**Comments**

- Primary colors feel good.  May be a little simple or childish if not for a child.  Buttons easy to follow.

- The look and feel of the application looks good.

- Everything is easy to read and see.  Some of the text in the About page box is a little squished.  You may want to fix that.

- The colors and buttons are consistent in their design.  All of the text was easy to read.

- On the variable screen, I found it difficult to decide what I was supposed to type in the boxes.  I would make the instructions for the quiz a little larger.

**Animation Quality – 1 point**

**Comments**

- Didn't notice animations

- No animation yet

- Did not see any animation

- Not sure what to do after entering variables.  Seems I should submit something.  Screen seems scrambled.  Can't get to Investigation screen.  Can only get out of quit screen by using bottom buttons.

- I didn't see an animation

**Technical Performance – 1 point**

**Comments**

- Didn't notice sound or animations or movies

- No sound.  Animation isn't working yet.  Quiz doesn't work yet.

- This will obviously come later.  I had to give it a 1 because the project is not complete.  The drag/drop quiz does have some issues.  Picked up boxes stay on the screed even after navigating off the page, and I was able to drop them ever.  The boxes in the quiz didn't recognize my answers.

- One of the input boxes on the choose your variable page does not work.  Are you supposed to slide the weight scale?  The investigation button does not  work.  Once you pick up an answer on the quiz it will not drop.  The quit screen buttons are not working.

- Couldn't get these to work.

| Source (UT,PE) | Issue Priority (Low, Medium, High) | Issue Descriptions | Recommendation | Changed (Yes/No) |
|---|---|---|---|---|
| PE | High | Animation does not work – the animation did not work. | Put the animations into the project in order to meet guidelines.  Animations added were:  Shape tween in the first screen, a set of 6 animations for the user to collect data from, animation on the quit screen. | yes |
| PE | High | Technical Performance – no sound files | Added sound in the first frame.  The user can control the sound level (high, medium, or low) or | Yes |

| | | | whether the sound is on or off. | |
|---|---|---|---|---|
| PE | High | The input text enter button does not work | Fixed the button to where the users name is added to the instructions on the quiz on the next page | Yes |
| UT | Low | Navigation was not completely intuitive | Added comments to buttons and to the directions to direct the user through the Animation project. | Yes |
| PE | High | Quiz does not work | Improved ActionScript on the quiz frame to get the letters to drop | Yes |
| PE and UT | Low | User kept inform of status in the project | Added a change in color to the buttons and made certain each page had titles for the user to refer to. | Yes |
| PE | High | Quit screen buttons did not work. | Improved the actionscript to have the quit screen show a movie clip when the user declares they are done with the project. | Yes |
| UT | Low | Visual display | Improved the graphics and color of the project. I also changed fonts to improve readability | Yes. |
| UT | Low | Variable screen – users were confused as to what to do with choosing the variable. | Made changes to the directions on the screen trying to clear the issue. A secondary issue popped up in that the input variables did not carry over to the experimental design screen. Screen was deleted in the end because of family feedback that the variable screen was still confusing and trying to do too much. | Yes |
| UT | High | Adding the worksheet to the animation project for users to click on and print out. | After several attempts, the actionscript would not work properly. This part of the project is still not fixed | No |

**Part Two – Usability Testing**

**User Observations** - Three students volunteered to provide feedback for my project.  The students were from my classroom.  The students completed the usability test on May 8, 2008 using Internet Explorer.  The students are pretty Internet savvy.  The three tasks they completed were:  (1) Input name and click the enter button, (2) Complete the drag and drop quiz (3) Collect data on the worksheet and transform the data into a graph.

For task 1, students were able to complete the task quickly and easily.  The difficulty rating was a 1.  Comments from the students included, "This is too easy," and "Surely you learned more than this, Mrs. German."  Students did like the fact that the animation was personalized and wanted to know how to do this.

For task 2, students had to spend more time with this task.  Previously in the school year, we had covered motion, so I was hoping the task would prove to be easier for the students to accomplish.  Once students stopped and thought about what the graphs mean, they were able to finish the task.  The average ranking for this task was a 2.  Comments from the students included, " I know I should know this, but I forgot," and "I remembered the constant motion graphs being a straight line, but the other two graphs threw me for a loop."  The 3rd student commented "This was still easy once you remembered how to read the graph."

For task 3, students went to the individual clips and estimated the distance the truck traveled in centimeters.  The average ranking of this section was also a 2.  Students were able to easily move from the clips.  The only comment that stood out was in reference to having to estimate the distance the truck traveled.  The ruler lines of 50 centimeters each made it more difficult for the students to estimate.

**Usability Form Summary: (average scores from the sheets are shown)**

1.  I think the Flash website was easy to use and navigate – 4

2.  I was not overwhelmed by the numerous options and complexity of the Flash website – 4

3.  The Flash website performed the way I expected – 4

4.  I found it easy to determine my location in the Flash website – 4

5. All interaction elements, such as buttons or moveable objects work as expected – 3

6. I thought the visual design was pleasing – 4

7. The content was easy to understand and was aligned with the purpose of the Flash website – 3

8. I found the technical functioning very good regarding audio, video, animation speed, and etc. – 3

9. The media (text, audio, video, and animation) work together to form one cohesive program. – 4

10. My overall experience with the Flash website was very good. – 4

**Project Changes – The usability testing project changes are incorporated into the table in Part one.**

**Project Recommendations -** My approach to this project was one of a teacher looking to find ways to incorporate Flash into her science classroom. While my focus was to learn Flash to design projects for my students to complete, I also wished to be able to design learning interactions for my students as well. I have a great deal of training in curriculum development and assessment which I tried to incorporate into this project. I felt that I "bit off more than I could chew". While working on practicing good education pedagogy, I got bogged down in what I tried to accomplish with the project. Meaning, I wanted to do more than I was ready to do with my understanding of Flash. When I scaled back my expectations and re-designed my project to include only working elements, I was proud of the result. If I had more time, I would attempt to scale up the project to include a section where students picked up objects and designed their own investigations instead of using pre-done movie clips. Plus I would either use a timer to develop a stopwatch for students to time the animation after setting the distance the object travels or reverse the situation for the student to decide how long the animation should run for with a user input and then use the side ruler to measure the distance. I would spend the time necessary to learn XML in order for students to input their data into the project instead of a worksheet and manipulate the data into a graph of their results. Lastly, there would be post questions for students to answer to measure their learning.