# **Canine College**

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### **Executive Summary**

The purpose of this interactive animation project is to demonstrate some important principles of dog training -- positive reinforcement through praise and treats and the importance of timing -- through both text modules and allowing users to interact with a dog avatar. The user will learn how to teach the dog to "sit," lay "down," and "come," allowing them to transfer these skills to training their real dogs at home, and interacting with the animation will give users practice in learning the methods and re-enforce the importance of certain ideas, such as dogs' short attention spans creating a small window of time in which to reward a trick

This module is not intended for a specific age group; it has been designed to be informative enough for adults but easy enough to use for elementary-school aged children. The only true demographic that is the focus of this system is dog owners.

Three dog owners between the ages of 15 and 49 were asked to evaluate the module, and all three had overwhelmingly positive things to say about it. They all found the information interesting and useful, and all three commented that they would try this method for teaching their own dogs new tricks.

### **Part One: Peer Evaluation Summary**

Four of my classmates provided peer reviews on the first version of my project. My average score was 47.6; individual scores are detailed in Appendix A.

#### **Summary:**

Every single one of my peer reviewers commented on my navigation scheme and suggested I add breadcrumbs or a counter so users know what screen they are on in the "Information" section. This seemed to be the main complaint, and I absolutely agree with them; this will be added in the final version. A few people did mention that my animation was possibly not long enough, but there were altogether 628 frames of dog animation at 24fps; considering that is 26 seconds of overall animation, I figured it would be long enough to meet the requirements of the project. Having a longer animation for sit, down, and speak would defeat the purpose of the user only having two seconds to reward the dog, but I added other animations, such as the dog wagging its tail or looking bored and distracted when there is no treat, so that the animation isn't completely static when the user isn't interacting with it.

**Project Changes:** See Appendix B

**Part Two: Usability Testing** 

#### **User observations:**

Three dog owners were asked to evaluate this Flash module. Their observations and comments can be found in Appendix C.

#### Performance outcomes:

All three of the users, who are all dog owners, said that they feel like they learned something new from this module. Only one (participant 1) had ever really been involved in training his dog; participant 2 never showed much of an interest in training, leaving it to his wife, and participant 3 was a child when she got her dog, and her siblings did most of the training. All three users seemed to find the module entertaining and useful, and while it may not have shattered their preconceived conceptions of dog training, I feel like it gave them a new perspective on it.

#### **Usability form summary:**

The three users were asked to fill out usability forms evaluating their experiences with the Flash module. These can be found in Appendix D.

The scores were unanimously very positive. There were only a small handful of 4's, and nothing below that. The users did suggest a small amount of changes while I was observing them, all of which are documented in Appendix B; however, as they had no notion of the scope of the project or the limitations of my programming abilities going in, some of the suggestions were too involved for me to implement. I did, however, take that as a positive sign of the overall quality of the project. None of the users found any errors for me to fix.

#### **Project Reflections and Recommendations:**

I feel like the interaction and visual elements of my project were to a high standard. The background and buttons were perhaps not as ornate as they can be, but I'm very proud of my dog (which I drew by hand, then scanned into my PC and created in Illustrator before importing it into Flash and creating each of the animations.) I also feel like it's a very informative project for dog owners; I have used this method to teach my own dog about a dozen different tricks, and I think this content is very useful for any dog owner, even if just to give them a new perspective on training.

Above all, I wanted my navigation to be mostly liner so that the user did not have to think too much about where to go next. In his book <u>Don't Make Me Think</u>, Steve Krug emphasizes the importance of guiding users through one's site: "In general, I think it's safe to say that users don't mind a lot of clicks as long as each click is painless and they have continued confidence that they're on the right track—following what Jared Spool calls 'the scent of information'" (41). This principle guided the design in my

Flash module; I tried to walk the users through it, beginning-to-end, and then give them the option to go back and get help if they needed it.

I also used some of the knowledge I gained from the Performance Support Systems class I took this semester to develop the usability of this module. Even though my end goal was for users to learn dog training tricks well enough that they would carry it to training their own dogs, I used Just In Time training principles to develop the "Training" part of the module, in which a user tells the animated dog to do tricks and gives him a reward. The console at the top walks the user through each step, as per the recommendation of Cole et al. in their article "Just in Time Knowledge Delivery": "If the users of a system are adequately guided by the system itself toward the knowledge they need to accomplish their job, then the training requirements are drastically reduced" (Cole et al., 49). I wanted the module to guide them through each of the steps, both in the Information section and the Training section, so that users really <u>understand</u> the importance of consistency, timing, etc. when they are training their own dogs. After working with the animated dog, I hope that it would be easier.

Overall, I feel my project meets its intended purpose. All three of the dog owners I observed during usability testing seemed to enjoy the project and find it useful, and all three claimed that they did indeed learn information they would use on their own dogs. If I had more time, I would have tried to find a brand new dog owner to use the module on and then follow-up to see how useful it really was in their training.

If I had more time, I probably would have made the training module more interactive. I feel like it does a good job of reinforcing certain principles, especially the timing one and to a lesser extent the importance of consistency, but I would have liked to design an activity that walked the user through the steps from beginning to end as detailed in the information section. However, that sort of interaction would have been far beyond the scope of this project or my abilities as a programmer; it may, however, be an interesting project to pursue in the future.

#### Works Cited

Cole, Kevin, et al. "Just-In-Time Knowledge Delivery." *Communications of the ACM*. 40.7 (July 2007): 49-53. Print.

Krug, Steve. Don't Make Me Think. 2nd ed. Berkeley, CA: New Riders, 2006. Print.

### **Appendix A: Peer Evaluation Scores**

| Peer Name        | Score |
|------------------|-------|
| Kristin Doll     | 48.5  |
| Nicholas Geary   | 49    |
| Sheila Cook      | 43    |
| Benjamin Englert | 50    |

### **Checklist for Peer Evaluations**

**Peer Name: Kristin Doll** 

### **Describe What You Used To Evaluate Project:**

• Computer Type: Dell intel Core 2 vPro inside, 2.99 GHz, 3.21 GB of RAM

• Browser and Version: IE 7.0

• Screen Size and Resolution: 1280 x 1024 32 bit 19"

Scale: 5 = Excellent, 4 = Very Good, 3 = Good, 2 = Acceptable, 1= Minimal, 0 = Unacceptable

| Description  | Points   | Comments  |
|--|----------|---|
|  | (1 to 5) |   |
| Navigation/Interface Design  Interface is intuitive, interactions meaningful, and user is able to navigate easily to different parts of the movie  | 5        | Mainly able to navigate linearly, but path makes total sense and you can go back via help if you need to.                           |
| User Location/ Orientation  User is kept informed about their location in movie  | 4        | You don't know how many screens there are and you don't know where you are in the presentation.                                     |
| User Control  User can control when information or animation is viewed, and when listening to audio; Can control order of interactions, and escape from places they unexpectedly find themselves in. | 4.5      | Again, navigation is linear, so can't control order of interactions, but control animations and audio. Can navigate out if need to. |

| Consistency and Standards  User can perform similar actions throughout project; Project follows standards such as menu location, button and audio controls, etc.  | 5    | All buttons are in the same place on different screens, consistent design throughout.                                |
|---|------|--|
| Content  Language is familiar and comfortable for intended audience. Follows basic rules of spelling and grammar.   | 5    | As stated in About page, language is applicable for both adults and children. No spelling or grammar errors noticed. |
| Visual Design  Colors, backgrounds, buttons, and text work together to create a clear and easy viewing experience. Buttons and text are easy to read.   | 5    | Consistent design, buttons are easy to read, text is all legible.  |
| Animation Quality  Animation works smoothly and appropriately   | 5    | Looks good! Not sure if it meets the 6+ second requirement, but it's probably close.                                 |
| Error Prevention and Feedback  Verifies empty fields or incorrect input (ex. Input letters instead of numbers). The user receives meaningful feedback concerning the nature interactions (e.g. input, drag/drop interactions, incomplete actions, etc.) | 5    | All feedback was applicable. Drag and drop was great and worked very well.   |
| Technical Performance  All multimedia elements (e.g., sound, animation, images, etc.) within the movie worked appropriately   | 5    | No errors noticed.   |
| Overall Critique  Overall impression of the project, based on project requirements and creativity   | 5    | Excellent job!! I thought the drag and drop treat idea was great and your images/animations were very nice!          |
| Total Points (50)   | 48.5 |  |

#### Other Comments:

The only thing I noticed that didn't work was that I couldn't Exit from the About page. Other than that, everything looked great and worked just like it should!

### **Checklist for Peer Evaluations**

### **Peer Name: Nick Geary**

### **Describe What You Used To Evaluate Project:**

• Computer Type: Mac

• Browser and Version: Chrome version 18.0.1025.165

• Screen Size and Resolution: 13inch 1280x800

| Scale: | 5 = Excellent | 4 = Very Good | 3 = Good | 2 = Acceptable | 1= Minimal | 0 =Unacceptable |
|--------|---------------|---------------|----------|----------------|------------|-----------------|
|        |               |               |          |                |            |                 |

| Description                              | Point | Comments  |
|--|-------|---|
|  | s     |   |
|  |       |   |
|  | (1 to |   |
|  | 5)    |   |
| Navigation/Interface Design              | 5     | The project was very easy to navigate, and I didn't have    |
|  |       | a problem getting from screen to screen.                    |
| Interface is intuitive, interactions     |       |   |
| meaningful, and user is able to          |       |   |
| navigate easily to different parts of    |       |   |
| the movie                                |       |   |
| <u>User Location/ Orientation</u>        | 4     | When clicking through all of the screens it is easy to      |
|  |       | get lost on what number you are on. A counter in the        |
| User is kept informed about their        |       | corner would solve that problem.                            |
| location in movie                        |       |   |
| <u>User Control</u>                      | 5     | The path for this project is linear so you can't really get |
|  |       | lost in the screens. Volume for music also works.           |
| User can control when information or     |       |   |
| animation is viewed, and when            |       |   |
| listening to audio; Can control order of |       |   |
| interactions, and escape from places     |       |   |
| they unexpectedly find themselves in.    |       |   |

| Consistency and Standards                | 5     | All of the buttons are located in the same places         |
|--|-------|---|
|  |       | throughout the project. The project also keeps the        |
| User can perform similar actions         |       | same design all the way through.                          |
| throughout project; Project follows      |       |   |
| standards such as menu location,         |       |   |
| button and audio controls, etc.          |       |   |
| Content                                  | 5     | No noticeable errors in grammar, and the instructions     |
|  |       | were very easy to follow.                                 |
| Language is familiar and comfortable     |       |   |
| for intended audience. Follows basic     |       |   |
| rules of spelling and grammar.           |       |   |
| <u>Visual Design</u>                     | 5     | The design of the project is very clean and pleasing on   |
|  |       | the eyes.   |
| Colors, backgrounds, buttons, and text   |       |   |
| work together to create a clear and      |       |   |
| easy viewing experience. Buttons and     |       |   |
| text are easy to read.                   |       |   |
| Animation Quality                        | 4.5-5 | The animations might be a be short, but if they are not   |
|  |       | then you did an awesome job.                              |
| Animation works smoothly and             |       |   |
| appropriately                            |       |   |
| Error Prevention and Feedback            | 5     | Feedback from the drag and drop were immediate and        |
|  |       | I understood what had happened.                           |
| Verifies empty fields or incorrect input |       |   |
| (ex. Input letters instead of numbers).  |       |   |
| The user receives meaningful             |       |   |
| feedback concerning the nature           |       |   |
| interactions (e.g. input, drag/drop      |       |   |
| interactions, incomplete actions, etc.)  |       |   |
| <u>Technical Performance</u>             | 5     | I sound no errors while going through this project        |
|  |       |   |
| All multimedia elements (e.g., sound,    |       |   |
| animation, images, etc.) within the      |       |   |
| movie worked appropriately               |       |   |
| Overall Critique                         | 5     | You did an awesome job on this! It is very clean and      |
|  |       | easy to follow!   |
| Overall impression of the project,       |       |   |
| based on project requirements and        |       |   |
| creativity                               |       |   |
| Total Points (50)                        | 48.5- | The only reason for the .5 difference is if the animation |
|  | 49    | is not 6 seconds.   |

### **Checklist for Peer Evaluations**

Peer Name: Sheila Cook

### Describe What You Used To Evaluate Project:

Computer Type: MacBook ProBrowser and Version: Safari 5.1.5

• Screen Size and Resolution: 17 inch 1920 x 1200

Scale: 5 = Excellent, 4 = Very Good, 3 = Good, 2 = Acceptable, 1= Minimal, 0 = Unacceptable

| Scale. 3 - Excellent, 4 - Very Good, 5 -  | goou, 2  | - Acceptable, 1- Willimai, 0 - Onacceptable  |
|---|----------|--|
| Description   | Points   | Comments   |
|   | (1 to 5) |  |
| Navigation/Interface Design Interface is intuitive, interactions meaningful, and user is able to navigate easily to different parts of the movie  | 4        | As I started through the course, the first thing that I realized was that there is only one way to go! This is fine if the point is to make sure that users go through the entire course before adopting the dog, but it was a little confusing at first because I did not know what my ultimate goal was. If at the beginning users could see a list of what they would be doing (1. course. 2. dog training activity).               |
| User Location/ Orientation User is kept informed about their location in movie  | 1        | This was the part that was most confusing to me because I didn't know where I was at any point! Adding some sort of indicator for which section of the course you are in may be helpful. In the course section, a completion indicator may be nice, too (page 2 of 5, etc.).   |
| User Control User can control when information or animation is viewed, and when listening to audio; Can control order of interactions, and escape from places they unexpectedly find themselves in. | 4        | Animation controls and audio controls seemed to be working properly! The dog animation was great! At first I didn't realize that I had to put the treat in the hand, so I kept trying to wave it in front of the dog's face. Not all of the order could be controlled, but this was intentional. One issue I had was when I clicked on "Help" I had to go through the entire course again before I could get back to the dog training. |
| Consistency and Standards User can perform similar actions throughout project; Project follows standards such as menu location, button  | 5        | Everything was very consistent in design and in functionality.   |

| and audio controls, etc.   |    |   |
|--|----|---|
| Content Language is familiar and comfortable for intended audience. Follows basic rules of spelling and grammar.   | 5  | The content seems very thorough and well-written.   |
| Visual Design Colors, backgrounds, buttons, and text work together to create a clear and easy viewing experience. Buttons and text are easy to read.   | 5  | Looks very nice! Clean, consistent, easy to read.   |
| Animation Quality Animation works smoothly and appropriately   | 5  | All of the animations seemed to work appropriately. I like how the dog wags its tail!   |
| Error Prevention and Feedback Verifies empty fields or incorrect input (ex. Input letters instead of numbers). The user receives meaningful feedback concerning the nature interactions (e.g. input, drag/drop interactions, incomplete actions, etc.) | 5  | The dog name was not restricted to letters, but did seem to be length restricted. The feedback for the drag and drop seemed very appropriate and helpful to the user in dog training. |
| Technical Performance All multimedia elements (e.g., sound, animation, images, etc.) within the movie worked appropriately   | 5  | All of the elements look great and seem to be working correctly!  |
| Overall Critique Overall impression of the project, based on project requirements and creativity   | 4  | I think this is a great project. It's really cute and the dog<br>animation part is fun, too. The information presented<br>seems valuable for training a dog. Nice work!               |
| Total Points (50)  | 43 |   |

### Other Comments:

Please see my screencast: <a href="http://www.screencast.com/t/fPtRRHWsqrvK">http://www.screencast.com/t/fPtRRHWsqrvK</a>

### **Checklist for Peer Evaluations**

### Peer Name: Benjamin Englert

### **Describe What You Used To Evaluate Project:**

• Computer Type: Dell Dual Core CPU @ 3.00 GHz

Browser and Version: Firefox 10.0.3
Screen Size and Resolution: 1440 x 900

### Scale: 5 = Excellent, 4 = Very Good, 3 = Good, 2 = Acceptable, 1= Minimal, 0 = Unacceptable

| Description                                   | Points   | Comments                                      |
|---|----------|---|
|   | (1 to 5) |   |
| Navigation/Interface Design                   | 5        | Great dog interaction set, interface is       |
|   |          | consistent. Only part of navigation I found   |
| Interface is intuitive, interactions          |          | less intuitive is the process of returning to |
| meaningful, and user is able to navigate      |          | the "lessons" (starts at first page) and then |
| easily to different parts of the movie        |          | back to the dog interaction set (good detail  |
|   |          | to change the button text to indicate a       |
|   |          | return as opposed to a first click in         |
|   |          | navigating to the interaction set).           |
| User Location/ Orientation                    | 5        | Each screen has a title that is appropriate   |
|   |          | to the material. No progression bar, not      |
| User is kept informed about their location in |          | really necessary.                             |
| movie   |          |   |
| <u>User Control</u>                           | 5        | Audio controls work well and are              |
|   |          | consistent. Interactions are great, allow     |
| User can control when information or          |          | user choice, and quitting function works      |
| animation is viewed, and when listening to    |          | well.   |
| audio; Can control order of interactions, and |          |   |
| escape from places they unexpectedly find     |          |   |
| themselves in.                                |          |   |
| Consistency and Standards                     | 5        | Everything is very polished. Locations are    |
|   |          | consistent.                                   |
| User can perform similar actions throughout   |          |   |
| project; Project follows standards such as    |          |   |
| menu location, button and audio controls,     |          |   |
| etc.  |          |   |

| Content   | 5        | Well polished.                                |
|---|----------|---|
| Language is familiar and comfortable for          |          |   |
| intended audience. Follows basic rules of         |          |   |
| spelling and grammar.                             |          |   |
| Visual Design                                     | 5        | Color scheme is great, great polish on        |
| visual Design                                     |          | interface and interactions. The only thing I  |
| Colors, backgrounds, buttons, and text work       |          | think would be better as a user is if the     |
| together to create a clear and easy viewing       |          |   |
| experience. Buttons and text are easy to          |          | "previous" and "next" buttons were a little   |
| read.   |          | more visible/overt.                           |
| Animation Quality                                 | 5        | Everything works smoothly. Intro movie        |
| Animation Quanty                                  | 3        | goes off without a hitch, although since the  |
| Animation works smoothly and                      |          | focus is on the animation, maybe making       |
| appropriately                                     |          | the buttons for the movie smaller? I love     |
| арргорпассту                                      |          |   |
|   |          | the timing mechanism of the interaction       |
| Form Draw and Foodback                            | _        | section.                                      |
| Error Prevention and Feedback                     | 5        | Dog name has a check for empty field,         |
| Verifies empty fields or incorrect input (ex.     |          | interactions have great feedback!             |
| Input letters instead of numbers). The user       |          |   |
| receives meaningful feedback concerning           |          |   |
| the nature interactions (e.g. input,              |          |   |
|   |          |   |
| drag/drop interactions, incomplete actions, etc.) |          |   |
| <u> </u>  | 5        |   |
| <u>Technical Performance</u>                      | 5        |   |
| All multimedia elements (e.g., sound,             |          |   |
| animation, images, etc.) within the movie         |          |   |
| worked appropriately                              |          |   |
| Overall Critique                                  | 5        | Fantastic project, great interaction idea, if |
|   |          | you were going to change anything, maybe      |
| Overall impression of the project, based on       |          | creating an even more comprehensive           |
| project requirements and creativity               |          | navigation scheme would improve user          |
|   |          | interaction.                                  |
| Total Points (50)                                 | 50       |   |
| Other Comments:                                   | <u> </u> |   |

# **Appendix B: Problem Rankings**

| Source<br>(UT,<br>PE) | Issue<br>Priority<br>(Low,<br>Medium,<br>High) | Issue Description   | Recommendation   | Changed<br>(Yes/No)  |
|-----------------------|--|---|--|--|
| PE                    | High   | Even though the navigation is fairly linear, the user sometimes wasn't sure where, exactly, he or she was | Add "x of 5" or breadcrumbs to the page  | Yes  |
| PE                    | High   | "Exit" button on "About" page<br>does not work  | Fix it   | Yes  |
| PE                    | Medium   | User wasn't sure what section he or she is in   | Add something to the top so the user can tell what section of the course he or she is in | No – While one user made this comment, none of the other peer reviewers seemed to have a problem with it (aside from wanting to know where they were within the information section, which was changed). There are already titles on every page, so I didn't think it was necessary. |
| PE                    | Low  | Buttons on the title page are a bit bigger than they need to be   | Make them smaller  | Yes  |
| PE                    | Medium   | Previous/Next buttons are not as noticeable as they should be, since                                      | Make them look more like buttons   | Yes  |

|    |        | they are just text  |  |   |
|----|--------|---|--|---|
| PE | Low    | In Information screen #3, there is a small grammatical error  | Change "Making" to<br>"Make"                   | Yes   |
| PE | Medium | Since the "Give Treat" button has<br>a different function, it should look<br>different than the other buttons | Change color of button                         | Yes   |
| PE | Low    | Show dog with treat when "Give Treat" button is clicked   | Move treat to dog                              | No – I tried to implement it, but it didn't work out very well so I decided to scrap it. "Give Treat" resets the treat to the box so that the user can do another trick, and giving the treat to the dog and making the user reset it adds an unnecessary layer of complication to the process. |
| PE | Medium | Content is light; more content needed   | Add a video                                    | Yes   |
| UT | Low    | Confusing to have to click "Change Collar Button" to change collar color                                      | Make it so you don't have to click that button | No – I think the button is clearly visible, and since nobody else had a problem with it (and I'm not sure how to do it without an onClick event handler for that button), I'm not going to change   |

|    |        |   |   | it. The functionality works as intended.   |
|----|--------|---|---|--|
| UT | Low    | Nothing happens when you click "Exit" button and confirm you do want to exit  | Have the window close or something happen                                     | No – it's out of<br>the scope of the<br>project, in my<br>opinion. I have<br>an exit page that<br>confirms that the<br>user wants to<br>exit, per the<br>guidelines. |
| UT | Medium | Either sound volume is too loud, or video volume is too low; the user had to turn the video up to hear it, but when the sound came back on it was very loud | Decrease the volume of<br>the music (even though<br>there are volume buttons) | Yes  |

## **Appendix C: Summary of Users and Usability Tests**

# Participant 1

|                 | Participant 1       |  |  |  |  |  |  |
|-----------------|---------------------|--|--|--|--|--|--|
| User<br>Profile | Age / Gender        | 29/M   |  |  |  |  |  |
|                 | Internet Experience | Advanced   |  |  |  |  |  |
|                 | Profession          | Instructor, College level  |  |  |  |  |  |
| Test            | Usability Test      | User read the "Observation script" (Appendix E), given a few                           |  |  |  |  |  |
| Context         | Method              | minutes to familiarize themselves with the module, then walked through the three tasks |  |  |  |  |  |
|                 | Date of Test        | April 28, 2012   |  |  |  |  |  |
|                 | Platform / Browser  | Windows 7, Firefox   |  |  |  |  |  |

## Summary of Observations

|   | Task 1  | Task 2   | Task 3                                    |
|---|---|--|---|
| Task Description                        | Navigate through entire module without problems | Name their dog and choose a collar color   | Interact with three "training" activities |
| Time spent to complete the task(s)      | 8 minutes                                       | 1 minute   | 1 minute                                  |
| *Difficulty rating in completing task   | 1   | 2  | 1   |
| Errors or problems identified by a user | No problems.                                    | Clicked on the text<br>for "choose collar<br>color" for a while<br>before he figured out | No problems.                              |

|  |  | that he had to click the color box.   |  |
|--|--|---|--|
| Overall user comments (likes and dislikes) | "Very informative and concise. I liked the video." | "It's sort of confusing<br>that I have to click<br>the box to change<br>color." | "These were cool to watch, although they were basically the same for informational purposes."  "Your animations look really good." |

<sup>\*</sup>Difficulty rating: 1 = easy, 2 = okay, 3 = difficult

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|                 | Participant 2       |  |  |  |  |  |  |
|-----------------|---------------------|--|--|--|--|--|--|
| User<br>Profile | Age / Gender        | 49/ Male   |  |  |  |  |  |
| Trome           | Internet Experience | "Uber"   |  |  |  |  |  |
|                 | Profession          | Manager  |  |  |  |  |  |
| Test            | Usability Test      | User read the "Observation script" (Appendix E), given a few                           |  |  |  |  |  |
| Context         | Method              | minutes to familiarize themselves with the module, then walked through the three tasks |  |  |  |  |  |
|                 | Date of Test        | 4/30/2012  |  |  |  |  |  |
|                 | Platform / Browser  | Win 7 / Firefox  |  |  |  |  |  |

|  | Task 1   | Task 2  | Task 3  |
|--|--|---|---|
| Task Description                           | Navigate through entire module without problems                                | Name their dog and choose a collar color          | Interact with three "training" activities   |
| Time spent to complete the task(s)         | 5 minutes  | 1 minute  | 1 minute  |
| *Difficulty rating in completing task      | 1  | 1   | 1   |
| Errors or problems identified by a user    | "Sound could be louder in video."  | None  | None  |
| Overall user comments (likes and dislikes) | "Awesome advice."  "Either the music is too loud, or your video is too quiet." | "The collar color<br>selection is really<br>neat" | "Nice, Clear instructions."  "Dragging the treat is really smooth"  "I hit exit. What now? You should make the page close." |

<sup>\*</sup>Difficulty rating: 1 = easy, 2 = okay, 3 = difficult

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|                 | Participant 3       |  |  |  |  |  |  |
|-----------------|---------------------|--|--|--|--|--|--|
| User<br>Profile | Age / Gender        | 15 / Female  |  |  |  |  |  |
|                 | Internet Experience | Medium   |  |  |  |  |  |
|                 | Profession          | Student  |  |  |  |  |  |
| Test            | Usability Test      | User read the "Observation script" (Appendix E), given a few minutes to familiarize themselves with the module, then |  |  |  |  |  |

| Context | Method             | walked through the three tasks |
|---------|--------------------|--------------------------------|
|         | Date of Test       | 4/29/12                        |
|         | Platform / Browser | Windows 7 / Chrome             |
|         |                    |                                |

## Summary of Observations

|  | Task 1  | Task 2                                   | Task 3   |
|--|---|--|--|
| Task Description                           | Navigate through entire module without problems | Name their dog and choose a collar color | Interact with three "training" activities            |
| Time spent to complete the task(s)         | 5 min   | 1 min                                    | 2 min  |
| *Difficulty rating in completing task      | 1   | 1  | 1  |
| Errors or problems identified by a user    | None  | None                                     | None   |
| Overall user comments (likes and dislikes) | "I like the music"  "Good information"          | "Oh, it's so cute!"                      | "I really like the animations."  "That was so cool!" |

<sup>\*</sup>Difficulty rating: 1 = easy, 2 = okay, 3 = difficult

## **Appendix D: Usability Forms**

|   | Strongly<br>Disagree |   | Neutral |   | Strongly<br>Agree |
|---|----------------------|---|---------|---|-------------------|
| 1. I think the Flash website was easy to use and navigate   | 1                    | 2 | 3       | 4 | 5                 |
|   |                      |   |         |   |                   |
| 2. I was not overwhelmed by the numerous option s and complexity of the Flash website                             | 1                    | 2 | 3       | 4 | 5                 |
|   |                      |   |         |   |                   |
| 3. The Flash website performed the way I expected   | 1                    | 2 | 3       | 4 | 5                 |
|   |                      |   |         |   |                   |
| 4. I found it easy to determine my location in the Flash website (i.e., path, linear or hierarchical order, etc.) | 1                    | 2 | 3       | 4 | 5                 |
|   |                      |   |         |   |                   |
| 5. All interaction elements, such as buttons or movable objects, worked as expected                               | 1                    | 2 | 3       | 4 | 5                 |
|   |                      |   |         |   |                   |
| 6. I thought the visual design was pleasing   | 1                    | 2 | 3       | 4 | 5                 |
|   |                      |   |         |   |                   |
| 7. The content was easy to understand and was   | 1                    | 2 | 3       | 4 | 5                 |

| aligned with the purpose of the Flash website   |   |   |   |   |   |
|---|---|---|---|---|---|
|   |   |   |   |   |   |
| 8. I found the technical functioning very good regarding audio, video, animation speed, and content display   | 1 | 2 | 3 | 4 | 5 |
|   |   |   |   |   |   |
| 9. The visual design and media (text, audio, video, and animation) work together to form one cohesive program | 1 | 2 | 3 | 4 | 5 |
|   |   |   |   |   |   |
| 10. My overall experience with the Flash website was very good.   | 1 | 2 | 3 | 4 | 5 |

|   | Strongly<br>Disagree |   | Neutral |   | Strongly<br>Agree |
|---|----------------------|---|---------|---|-------------------|
| 1. I think the Flash website was easy to use and navigate                             | 1                    | 2 | 3       | 4 | 5                 |
|   |                      |   |         |   |                   |
| 2. I was not overwhelmed by the numerous option s and complexity of the Flash website | 1                    | 2 | 3       | 4 | 5                 |
|   |                      |   |         |   |                   |
| 3. The Flash website performed the way I expected                                     | 1                    | 2 | 3       | 4 | 5                 |

| 4. I found it easy to determine my location in the Flash website (i.e., path, linear or hierarchical order, etc.) | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
|   |   |   |   |   |   |
| 5. All interaction elements, such as buttons or movable objects, worked as expected                               | 1 | 2 | 3 | 4 | 5 |
|   |   |   |   |   |   |
| 6. I thought the visual design was pleasing   | 1 | 2 | 3 | 4 | 5 |
|   |   |   |   |   |   |
| 7. The content was easy to understand and was aligned with the purpose of the Flash website                       | 1 | 2 | 3 | 4 | 5 |
|   |   |   |   |   |   |
| 8. I found the technical functioning very good regarding audio, video, animation speed, and content display       | 1 | 2 | 3 | 4 | 5 |
|   |   |   |   |   |   |
| 9. The visual design and media (text, audio, video, and animation) work together to form one cohesive program     | 1 | 2 | 3 | 4 | 5 |
|   |   |   |   |   |   |
| 10. My overall experience with the Flash website was very good.   | 1 | 2 | 3 | 4 | 5 |

| Strongly | Neutral | Strongly |
|----------|---------|----------|
|          |         |          |

|   | Disagree |   |   |   | Agree |
|---|----------|---|---|---|-------|
| 1. I think the Flash website was easy to use and navigate   | 1        | 2 | 3 | 4 | 5     |
|   |          |   |   |   |       |
| 2. I was not overwhelmed by the numerous option s and complexity of the Flash website                             | 1        | 2 | 3 | 4 | 5     |
|   |          |   |   |   |       |
| 3. The Flash website performed the way I expected   | 1        | 2 | 3 | 4 | 5     |
|   |          |   |   |   |       |
| 4. I found it easy to determine my location in the Flash website (i.e., path, linear or hierarchical order, etc.) | 1        | 2 | 3 | 4 | 5     |
|   |          |   |   |   |       |
| 5. All interaction elements, such as buttons or movable objects, worked as expected                               | 1        | 2 | 3 | 4 | 5     |
|   |          |   |   |   |       |
| 6. I thought the visual design was pleasing   | 1        | 2 | 3 | 4 | 5     |
|   |          |   |   |   |       |
| 7. The content was easy to understand and was aligned with the purpose of the Flash website                       | 1        | 2 | 3 | 4 | 5     |
|   |          |   |   |   |       |
| 8. I found the technical functioning very good regarding audio, video, animation speed, and content display       | 1        | 2 | 3 | 4 | 5     |

| 9. The visual design and media (text, audio, video, and animation) work together to form one cohesive program | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
|   |   |   |   |   |   |
| 10. My overall experience with the Flash website was very good.   | 1 | 2 | 3 | 4 | 5 |

### **Appendix E: Observation Guide Script**

Thank you for agreeing to join me here today so I can observe you using the website I am creating for my final project in Flash Authoring Systems. Your experience working with the Flash website will help me to refine the design and operation, which can make it easier and more effective to use. During this experience, please remember that you are not being tested. Rather, we are working together to help me create a better project. If anything I ask you to do seems difficult to you or confusing, this is not a reflection on your ability, skill, or knowledge; your experience will help me figure out what improvements are needed in my design.

In order for me to understand what you are doing and thinking about, I'd like to ask you to do a few things while you try out the website. The first, and most important, is that you should constantly verbalize what you are thinking about while you are doing something -- if you are confused, say what confuses you and why. If you like something (like text or design), please say so. For example, if you were trying to play an audio or video file, or open a link to another page or image you might say: "Now I am clicking on the audio link to play this song".... If you encounter a problem, or are confused say something like: "this does not make sense to me, I can't get this video to play by clicking on the play button." Basically, I'd just like you to verbalize both the action(s) you are attempting, and what you are thinking while attempting it. Try not to ask me too many questions on how things *should* work, unless you are really stuck. Just try to perform the task(s) to the best of your ability.

Ok are you ready?... Do you have any questions before we start?

First, I'd like to ask you how much experience you have using computers and the Internet. Would you consider yourself a novice user, an average user, or an advanced user?

Ok, now let's begin. Please take a few minutes to explore the Flash website.

Now that you are finished exploring, here are some things I would like you to try...

- I want you to navigate through the entire module and let me know if you experience any problems with the navigation, or if you get lost. Remember to verbalize what you are doing and thinking while you work.
- I want you to name your dog whatever you'd like and choose a different color for its color. Remember to verbalize what you are doing and thinking while you work.
- I want you to work through each of the three training activities: sit, down, and speak. Remember to verbalize what you are doing and thinking while you work.

Well, that's it! We're done.

| Thank you again for helping me figure out what might make my web showcase better. Do you |
|--|
| have any questions or final thoughts?  |
|  |
|  |