Final Report and Implementation Plan

By: Kyle Carsey, Lizz Corrigan, Maxine Dee, Steve Langman, Steven Naisbitt

The purpose of this report is to document the key information that has informed your project development to date and to set goals/priorities for finishing your Capstone project in the coming (spring) semester. You will include a final, detailed instructional analysis flow chart for your full system. This instructional analysis should include revisions as to the plans for your system based upon results from user testing with your prototype module.

- **Executive Summary**:
    - Project Stands: We need a better text use balance. We will include text in places where more *is* needed for clarity and usability purposes (e.g. buttons, explanations, need to know), and reduce text where it isn't needed (e.g. redundancy in scenarios and knowledge checks). We are exploring opportunities to replace text with images and video. We need to revisit and explore deep knowledge assessments and how to spark deep learning without resulting in guesses/skips.
    - What We Learned: Learners do like cute and fun stuff, but it's not sufficient for learning. We learned to not expect that users will know what to do or know what they are seeing. Instead, we need to include instructions or queues, even when the feedback, steps, expectations, and/or clicks seem obvious to us. We also need to be more thoughtful with our design. Too much text results in guessing and skipping ahead, but too little results in harmful confusion. We also were too repetitive; we reiterated simple concepts multiple times but failed to explain more complex topics.
    - Development Priorities: We need to create a consistent narrative/design (e.g. characters, colors, buttons, etc.) from start to end to guide learners through the module. Part of this requires us to include more short directions/buttons to queue learners and help navigation. Then, we need to rewrite/condense the bulk of content, scenarios and knowledge checks/quiz questions, reinforced with a need to know.

- **Brief Project Background**:
    - The role of HSU volunteers is to provide a safe, welcoming, and educational experience for visitors. There are multiple volunteers and not enough training staff or time in the day to train in-person. The HSU needs a simple, yet engaging, set of easily accessible, high-level e-learning modules which prepares volunteers to accurately answer critical questions, demonstrate exceptional interpersonal skills, and prevent dog/cat bites while on the job.

- **Problem/Challenge:**
  - There is a wide variety of learners, and prior knowledge will be varied. We must account for all types of learners and ensure our training is easy to understand and able to debunk misconceptions or (incorrect) prior knowledge. Volunteers are not paid to take the training or to work at the HSU. Many learners may even think they know the information already. So, we have to incorporate a strong need to know to combat potential lack of motivation for training. The training design must also incorporate for a tracking method so that learners will be held accountable for completion and their score.

- **Client Goals and Needs:**
  - Create an engaging, effective set of training modules that provides volunteers with the knowledge and communication skills necessary to provide HSU visitors with a welcoming and educational experience at the HSU.

- **Learner Analysis:**
  - Rhett is 30-year old staff member at the HSU. He sought out a HSU staff position because of a passion he has in helping and working with animals. He is no stranger to working with animals, being a dog owner himself and previously having worked at an animal shelter. When he was first hired by the HSU, he had very little prior knowledge of the HSU, including its services, history, and mission. Since being hired, Rhett feels the training did little to prepare him for communicating with the public about HSU's information, and he has focalized the need for a revised training program so he and other new hires can feel more comfortable and confident in what they do.
  - Sophie is a 21-year old volunteer at the HSU. While she has some experience working with animals, and does enjoy working with animals, she mainly is here for a school requirement. She began volunteering with no prior knowledge of the HSU's mission, purpose, history, etc. Even though she received training prior to her first shift, she still feels uncomfortable answering questions, and occasionally even relays incorrect information to visitors. Furthermore, she has now been scratched twice by animals, and feels this is because she did not receive the upfront training support. She feels new training would be beneficial to her and would make her experience better.

- **Learning and Performance Contexts**
  - We expect learners to learn incrementally throughout the system. In some modules, there will be isolation learning by topic, while other modules build on the knowledge of previous modules. The expectation is that by training completion, learners will have achieved the ultimate learning goals.
  - Learners will be expected to utilize an online system hosted on the the the HSU website. Learners will access the material from their personal devices, on their

own time. It will be expected that future volunteers complete the training before working at the HSU.
  - The learners will be expected to demonstrate the learning in person and on the telephone as a volunteer or employee of HSU. Summarize the context(s) in which learners will be expected to perform the skills (or use the knowledge) taught by your system
- **Final Learning Goals/Objectives**
  - Employees can effectively communicate HSU information with the public.
    - Employees will explain information about the HSU's basic key information, FAQS, and services to the public.
    - Employees will be able to deliver quality customer service.
  - Employees can effectively apply proper bite prevention techniques.
    - Employees will be able to display proper bite prevention techniques when in contact with an animal.
- **Instructional Approach**
  - Our group decided to include a 5-module e-learning system for learners to engage with in their beginning stages of training at the HSU. Our modules will begin with definitions and will guide the learners through multi-media content and text which will prepare them for periodic knowledge checks and assessments. We believe our content will meet the learners where they are, in terms of content and design preferences, supplemented with our andragogical knowledge. We are striving for balance between the wants of our stakeholder and the needs of the learners.
- **Summary of User Testing**
  - Participants for user testing:
    - We tested 4 females and 2 males.
    - Our participants were masters students and a professor at the University of Utah
    - Participants varied in age
  - Testing methodology:
    - We used a combination of audio and video recordings
    - The video was a screencast to capture user movement within our system
    - We also captured their audio and told participants to read and think aloud as they moved through our learning module
  - Data Gathered
    - We gathered data from the user testing and put the common themes into a chart. We then added up how many times we heard a reoccuring theme. The chart below shows our data collection.

Usability Issues

	Navigation	Content	Organization	Interaction	Severity
Navigation issues with assessments	3		3		Critical
Random "clicks" on the module.	3				Moderate
Confused by navigation panel	1			1	Moderate
Immediate lack of intuitive navigation (FAQs)	4				Moderate
No button for assessment section	1				Moderate

Learning Issues

	Navigation	Content	Organization	Interaction	Severity
Confusion caused by unexpected color choice in scenario animation	3				Moderate
Inconsistent visual message				2	Moderate
Confused by repetitive scenarios and content		4			Critical
Lack of directions		5			Critical
Assessments too much information on screen, overwhelmed		5			Critical
Miscommunicated learning objectives		3			Moderate
Color overload made it difficult to choose where to go/look	2				Moderate
No indication that module is finished				4	Moderate

Usability – Major Findings: We chunked our major problem areas into the following categories. Each image header describes the problems area:

Consistent narrative/design

Add simple directions / Clear buttons and in-module navigation
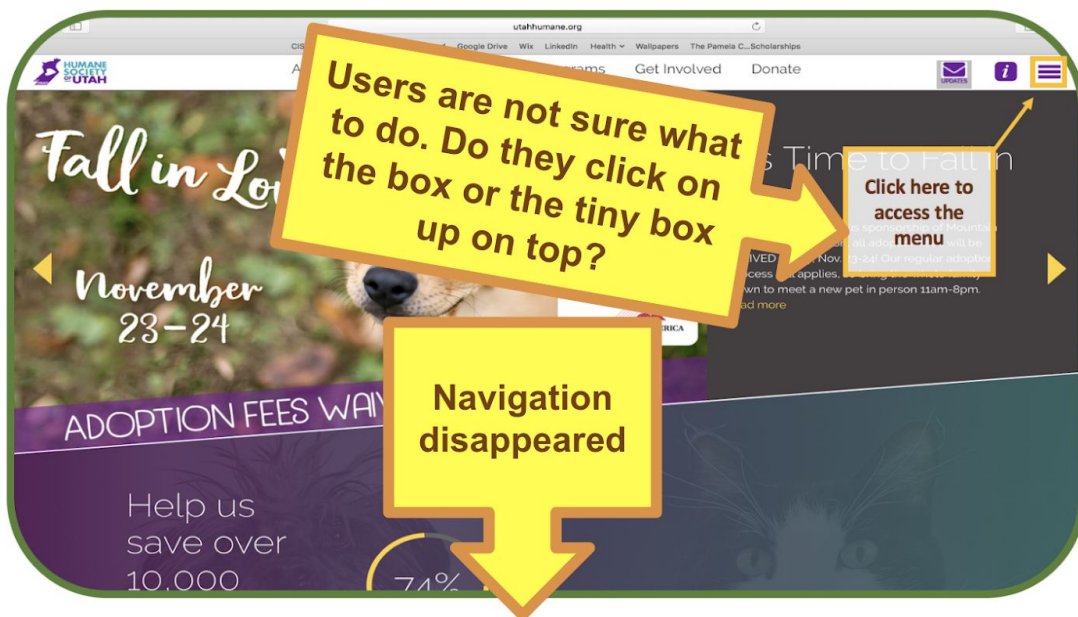
Clear buttons and in-module navigation, cont.
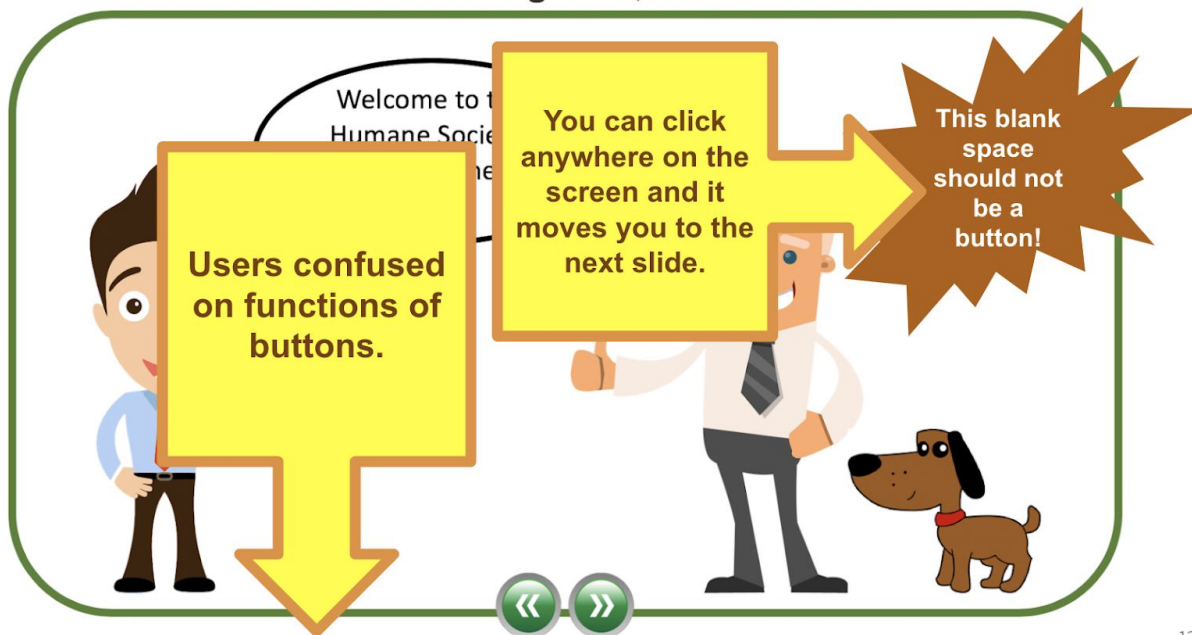
Learning – Major Findings:
- Our learning activities were very repetitive for simple concepts.
- We need to simplify our scenario questions
- Modify what we are assessing
- Create a need to know

Our participants did like the overall flow of the system. They also were mostly able to answer our assessment question and meet our learning objectives.

Simplify scenarios, knowledge checks, modify assessment questions

Best Practices For Communication

Include a Need-to-Know

...rt Module

Priorities for Revision and Future Development
- ○ Priorities for revising the current prototype?
  - ■ Remove repetitive text and condense objectives
  - ■ Prioritize our objectives
  - ■ Create a narrative
  - ■ Strengthen navigation within module(s)
  - ■ Create a valuable need-to-know to motivate our users
- ○ Major priorities for developing the system to completion next semester?
  - ■ Simplify overall message of system
  - ■ Create high-quality video and audio content throughout system
  - ■ Move our prototype into a deliverable package such as Canvas, Captivate or Bridge

Usability	Learning Issues
● Navigation issues with assessment ● Random "clicks" on the modules. ● Confused by navigation panel ● Pathway for finding FAQS was confusion ● Navigation on finding FAQS disappeared ● No button for assessment section	● Black "cloud" confusion and intention is ambiguous ● Repetitive visual messages ● Repetitive scenarios ● Intent for finding FAQs was ambiguous ● Cognitive overload on assessment sections ● First section of module is confusing (FAQS or supervisor) ● Color overload ● No indication that module is finished

- **Revised, Detailed Instructional Analysis (FULL SYSTEM)**

Link: https://www.lucidchart.com/invitations/accept/4b2320e5-b22d-4c7f-ac1c-1e7e3c6036ed
Photo:

GOAL TWO
Employees can effectively apply proper bite prevention techniques.

3 Employees will be able to display proper bite prevention techniques when in contact with an animal.

- 3.6 Apply proper bite prevention techniques (i.e., approach vs. stand still, stand still vs. retreat, pet vs. don't pet)
- 3.5 Appraise the situation to include: external environmental factors, potential triggers, animal behaviors
- 3.4 Differentiate the examples and non-examples characteristics of dogs and cats in a variety of situations
- 3.2 Articulate animal physical features associated with each area of bite risk (i.e., cowering, growling, ears back, hackles up, etc.)
- 3.1 Describe animal emotions that lead to bites (i.e., anxiety, fear, anger, shock)

2 Employees will be able to deliver quality customer service.

- 2.4 Apply positive communication skills
- 2.3 Recognize the characteristics of positive communication
- 2.2 Articulate the need for positive communication skills
- 2.1 Define key elements of positive communication (i.e., verbal skills, body language)

GOAL ONE
Employees can effectively communicate HSU information with the public.

1 Employees will explain information about the HSU's basic key information, FAQS, and Services to the public.

- 1.3 Employees will be able to describe the services provided at the Humane Society of Utah.
  - 1.3.3 Analyze and evaluate the appropriate services for the animals and visitors at the Humane Society of Utah.
  - 1.3.2 Identify common misconceptions in services
  - 1.3.1 Define services provided in the Humane Society of Utah to the public (i.e., spaying/neutering, hours, adoption process, stray animals, vaccination, adoption center)

- 1.2 Employees will be able to differentiate the information and common misconceptions of the frequently, frequently asked questions of the Humane Society of Utah.
  - 1.2.4 Apply knowledge of HSU misconceptions to conversations with visitors
  - 1.2.3 Recognize opportunities to explain rationale for HSU approaches/policies
  - 1.2.2 Identify common misconceptions & FAQ (i.e., local organization seperate from worldwide, funding, no-kill, open-admission)
  - 1.2.1 Define importance of responding to FAQ and how outcomes affect HSU

- 1.1 Employees will be able to efficiently explain the principles and key information of the Humane Society of Utah to the public.
  - 1.1.3 Identify information resources (i.e., FAQ page, manager)
  - 1.1.2 Recite basic information of the HSU
  - 1.1.1 Define basic information of the HSU: history, building, donors, mission, founders, and purpose