



CLEAR PRESENTS

PROJECT DOCUMENT

Introduction to CDC
Workplace Safety

Prepared For:
CDC

www.bl24109.wixsite.com



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MISSION

CLEAR'S MISSION IS TO MAKE LEARNING SIMPLE. WE APPROACH THIS WITH A DIVERSE DESIGN TEAM WITH VARIOUS STRENGTHS WHILE WORKING COLLABORATIVELY TO CREATE EFFECTIVE AND EASY TO USE INSTRUCTION.

LEARNING MADE SIMPLE

OUR TEAM

GREAT TEAMWORK



Lindsay
Mooreland-Head
Project Manager



Victoria Elder
Content Developer
& CDC Training SME



Deisy Pinto
Instructional
Strategist



Mary Peacock
Content Developer



Ben Turner
Multimedia Specialist
& Web Design

CONTACT INFORMATION

Lindsay Moreland-Head
lindsay.morelandhead@uga.edu

Victoria Elder
victoria.elder@uga.edu

Deisy Pinto
deisy.pintovega@uga.edu

Mary Peacock
mary.peacock@uga.edu

Ben Turner
benjamin.turner1@uga.edu



EXECUTIVE SUMMARY

The Occupational Health and Safety Office (OHSO) strives to provide a safe and healthy workplace for CDC's workforce, whether on campus or field deployment locations. This goal is accomplished through education and trainings, workplace inspections, risk assessments, active communication, collaboration with program staff, building managers, and safety managers, and the implementation of safety programs to minimize workplace hazards.

To help CDC's workplace culture of safety flourish, OHSO collaborates with the Quality Control Branch (QCB) training team to design innovative, quality training to meet the needs of the public health workforce in today's rapidly changing work environment.

The Centers for Disease Control and Prevention (CDC) requires all staff to complete annual training on safety in the workplace. Failure to comply results in the loss of physical access to CDC and CDC-leased facilities.

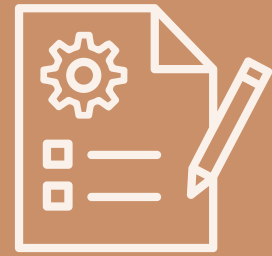


EXECUTIVE SUMMARY

During the FY22 compliance period an opportunity was identified as a method to reduce the data analyst workload during end-of-year (EOY) compliance while also tailoring the information for new versus existing staff.

To accomplish this, a new course will need to be designed, developed, and implemented using Articulate Storyline to be uploaded to the HHS LMS by the end of FY23 Q3.

NEEDS ASSESSMENT REPORT



INSTRUCTIONAL PROBLEM

All CDC employees must complete onboarding and orientation. A key training in the onboarding process includes CDC safety to prevent and minimize workplace injury. The current training has potential to increase efficacy and efficiency.

PURPOSE

The purpose of this eLearning module is to provide new CDC employees with an introduction to workplace (CDC facility or at home workspace) safety including reason for safety standards, mitigating risks, and reporting.

PREREQUISITIES

The only prerequisite is being hired by the CDC. There is no training that would need to be completed prior to this training.

CONTENT ANALYSIS & PERFORMANCE OBJECTIVES

PROJECT GOALS

The CDC Quality Control Branch (QCB) Training Team has requested the design and development of a new employee safety training for end of FY23 dissemination.

After discussions with the client, SME, and reviewing materials, the CLEAR team has identified overall project and content goals.



Rename Course

- Specific request from the client - make name of course more intuitive of content covered
- Keep name AND content evergreen



Create a 30-45 minute eLearning Module

- Specific request from the client - was hybrid in-person/eLearning and over 1 hour long previously
- Permission to cut content from history section



Focus content on new employees

- Specific request from the client - previously same content for new employees and current employee annual training

CONTENT ANALYSIS & PERFORMANCE OBJECTIVES



Developed for a hybrid workforce

- Given that many of the roles for the CDC have the option to work from home, at least part of the time, it is necessary to include home office safety



No end of course assessment

- Specific request from the client - based on feedback from prior course
- Will still include knowledge checks and end of course certificate

PERFORMANCE OBJECTIVES

CDC Safety Administration

- Recognize events in history that led to the creation of the Occupational Safety and Health Act of 1970 (OSHA).
- Identify employer & employee responsibilities to ensure a safe work environment.

Introduction to Workplace Safety

- Identify workplace hazards in a CDC or CDC-leased facility.
- Recognize home office safety hazards.
- Identify key considerations for safety hazard mitigation.

CDC Safety Reporting

- Identify CDC resources to assist with health and safety concerns.
- Recall the procedures for reporting hazardous conditions.

PROJECT TIMELINE

JANUARY

- Project idea development
- Create workflow
- Review content from client
- Launch website

MARCH

- Prototype 2 development (content into Articulate Storyline)
- Website development

MAY

- Final prototype completed
- Submit project and documentation
- Launch new course

FEBRUARY

- Prototype 1 (storyboard)
- Select instructional model and connect with content

APRIL

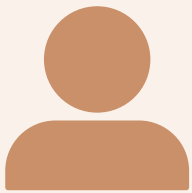
- Continued prototype and videos development
- Formative evaluation
- Develop final report

*** It should be noted that each month also included a reflection, presentations to class, revision of prototypes/plans based on feedback, and documentation.

LEARNER PROFILE



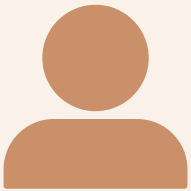
The audience for this course is all of the new CDC employees, contractors, and other government personnel going through the New Employee Orientation (NEO) or other onboarding processes as the result of being a new hire or re-onboarding (prior service) personnel. Learners may or may not have prior safety knowledge.



EMPLOYEE

Federal civil service staff

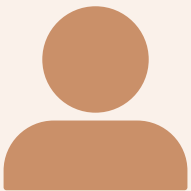
- Full-time Equivalent (FTE)
- Senior Executive Service (SES)



PRIOR SERVICE

Returning to federal service

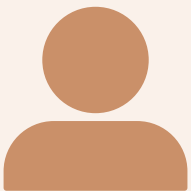
- Prior military
- Prior civil service



CONTRACTOR

Government or service contractors

- Hired to perform an identifiable task



OTHER

Staff needing temporary CDC access

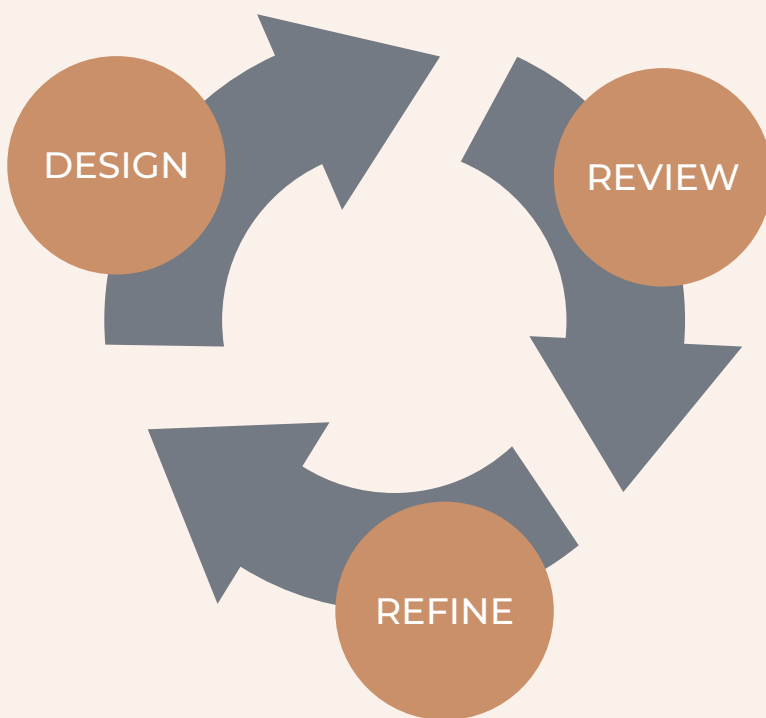
- Political appointees
- Guest researchers & Fellows

HOURS SPENT

	JAN	FEB	MAR	APR	MAY
LINDSAY	10	20	20	40	5
VICKI	20	15	30	70	8
DEISY	10	25	25	30	5
MARY	10	15	20	25	2
BEN	10	15	20	25	3

DEVELOPMENT MODEL

RAPID PROTOTYPING



DESIGN:

- Create storyboard/prototype

REVIEW:

- Test and obtain feedback

REFINE:

- Iterate on the prototype

Rapid prototyping allowed us to embrace the iterative process. It allowed us to present our ideas and obtain feedback to improve each prototype, delivering a refined end-product.

Rapid prototyping also afforded us the opportunity to reflect on design decisions and processes to increase design efficiency and efficacy.

INSTRUCTIONAL MODEL

PEDAGOGICAL THEORIES

We focused on connectivism and constructivism.

Connectivism states that learning happens through connections. People connect through their roles and responsibilities and environment. This theory helps new employees connect historical events to current regulations and their personal role in the context of their work environment to promote a culture of safety.

Constructivism states that learning is constructed through meaningful, real-world experiences. It focuses on transfer context and how the knowledge will be used. The goal to have new employees be safe in their work environment that relates directly to their role and responsibilities.

INSTRUCTIONAL MODEL

To focus on the learner Gagne's 9 Events has been chosen for use with our pedagogical theories for content instruction. It is a time-tested proven model that many learners have experience with. It is implemented through a variety of modes such as video, user interactions, knowledge checks and downloadable resources.

INSTRUCTIONAL MODEL

GANGE'S NINE EVENTS

1

- Capture attention by getting name and asking reflective question

2

- Slide dedicated to objectives and purpose of education

3

- Prompted question to ask why safety is important to the learner

4

- Information presented as text, audio, and video as appropriate throughout

5

- After information is presented, references and job aids made available

INSTRUCTIONAL MODEL

GANGE'S NINE EVENTS

6

- Knowledge check questions throughout to test knowledge and elicit performance

7

- Feedback given immediately at each knowledge check to confirm knowledge or redirect

8

- Performance at knowledge checks gathered for insight into performances

9

- Cases of the Safety Triangle combined with filing a safety report as this is how the content would be used real world

SOFTWARE SPECIFICATIONS

Articulate Storyline aids in accesibility and can be used with a variety of browsers. The supported browsers at time of documentation are:

WINDOWS	MAC	MOBILE
<ul style="list-style-type: none">• Microsoft Edge (latest version)• Google Chrome (latest version)• Firefox (latest version)	<ul style="list-style-type: none">• Safari (latest version)• Google Chrome (latest version)• Firefox (latest version)	<ul style="list-style-type: none">• Safari in Apple iOS/iPadOS (latest version)• Google Chrome (latest version) in Apple iOS/iPadOS (latest version)• Google Chrome (latest version) in Android OS 6 or later

NOTES ON STORYLINE'S ACCESSIBILITY FROM ARTICULATE'S WEBSITE

"Storyline 360 supports WCAG 2.1 Level AA, including screen readers, keyboard navigation, visible focus indicators, and more."

"Storyline 360 supports Revised Section 508 accessibility standards, including screen readers, keyboard navigation, visible focus indicators, and more."

"Storyline 360 courses work with the latest versions of NVDA, JAWS, VoiceOver, and TalkBack in our supported browsers"

SCREEN DESIGN SPECIFICATIONS

DESIGNED WITH A VARIETY OF SCREENS IN MIND

New employees of the CDC will likely be taking this course on a laptop or desktop computer. However, there is a chance they may need to complete their training on a phone or tablet. Because of this, we were selective about the program used to build the course and user-tested a variety of screen orientations. Additionally, we ensured that videos and text was adequately displayed on each screen type.



STYLE GUIDE

While creating our storyboard and prototypes, we were mindful of CDC branding. We utilized CDC branding guide for our module using their approved fonts, colors, and vendors.

CDC
CENTERS FOR DISEASE
CONTROL AND PREVENTION

LOGO USAGE

Communications outside CDC, including with other parts of government, should use the CDC logo.

CDC and OCOO logos should never be combined. Logos should never be combined with other graphics unless part of an approved campaign.

TYPE & STYLING

Consistent use of our brand typography is critical to brand recognition.

Visuals such as photographs, graphs, and icons should add to your message, not take away from it.

PRIMARY COLOR PALETTE

#00439C	#545656	#005FDF	#003D91	#000000	#FFFFFF

Calibri
ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz1234567890!@#%&*'()

Franklin Gothic Demi
ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz1234567890!@#%&*'()

Emergency Centers Required for All
Check
The information provided on this screen will remain current as long as you are currently logged in during the session.
Your response must be timely. Please do not delay in providing your input. Your response will be used to inform the next steps.

QR CODE
SIGN IN
CDC

"Sign In" "Open Menu" and "Use Franklin Mask"

FORMATIVE EVALUATION PLAN

Pre-test:

<https://forms.gle/GeC3mafVSnWKNdRPA>

Post-test: <https://forms.gle/JZUSkp6bkRyGfgVt7>

Prototype link:

CONTEXT & OVERALL PLAN

The goal of our evaluation plan is to obtain feedback not only on the content but also the user interface. Our assessment of usability and effectiveness includes both alpha and beta testing.

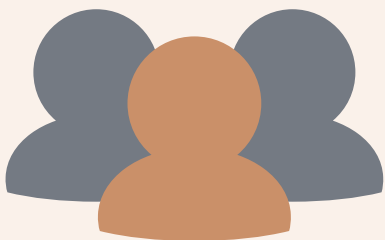
Alpha testing by our team assesses usability and interactions. The team reviewed content displaying correctly. Multimedia displaying/playing correctly.

Beta testing will include usability and learning efficiency. Beta testers will take a pre- and post-test for learning efficiency. The post-test will also have places for them to provide feedback on usability features.

FORMATIVE EVALUATION PLAN

DESIGN

A pre- and post-test was developed in Google Form. They were embedded into Articulate Storyline Review (intro slide and conclusion slide) for ease and encouragement of completion. The surveys asked minimal questions to get actionable feedback with minimal time required from users.



BETA TESTERS

Unable to share with actual employees

- Those that have the potential to work at the CDC
- 3-5 beta-testers
- Removal of sensitive content

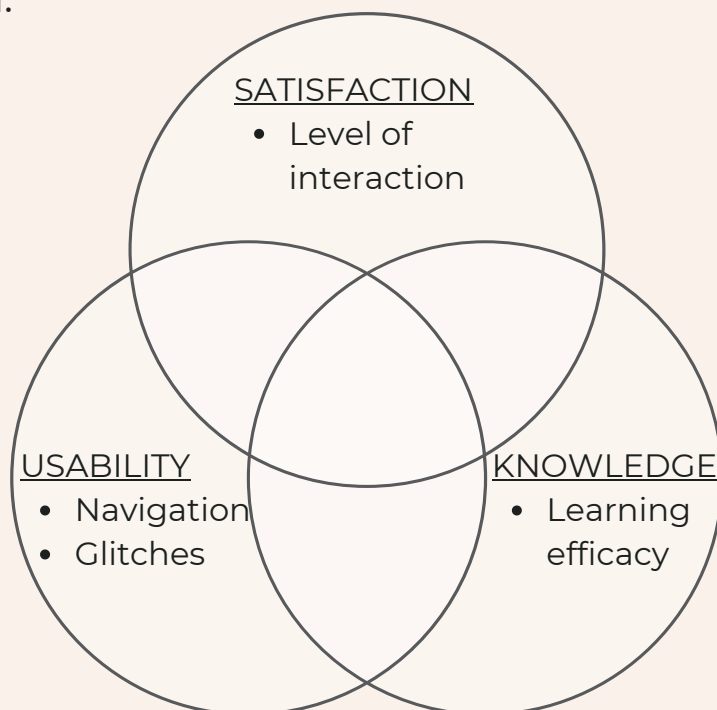
BETA TESTING FOCUS

USABILITY	EFFICACY
<ul style="list-style-type: none">• Clear directions & navigation• Multimedia works seamlessly• Interaction displays appropriately	<ul style="list-style-type: none">• Content flowed to promote learning• Assess knowledge & satisfaction• Obtain feedback

FORMATIVE EVALUATION PLAN

ANALYSIS PLAN

We analyzed the data generated from the beta-testing with a pre- and post-test. The pre-test contained a baseline interest of the tester in the subject and simple knowledge checks related to learning objectives. The post-test contained the same knowledge questions followed by questions related to usefulness, ease of use, ease of learning, and satisfaction. Additionally, a final free-text response was included for overall comments to enhance our design.



FORMATIVE EVALUATION TOOLS

Pre-Survey

Thank you for taking your time to complete this pre-test for the Introduction to CDC Workplace Safety. This information will help us improve this eCourse for future users. We greatly appreciate your time and thoughtful responses.

How would you rate your knowledge of OSHA and safety in the workplace? *

	1	2	3	4	5	
Not knowledgeable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very knowledgeable

How interested are you in taking this course? *

	1	2	3	4	5	
Not interested at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very interested

Have you ever had to report an incident? *

- Yes
- No

What events led to the creation of OSHA? (Select all that apply) *

- Unsafe work environments
- No building safety regulations
- Lack of roadway safety
- Increase in company lawsuits

If I work from an at home office, CDC safety does not apply to me. *

- True
- False

Every safety concern and incident should be reported through myCordity. *

- True
- False

FORMATIVE EVALUATION TOOLS

Post- & Satisfactory survey

Thank you for taking your time to complete this post-test & satisfaction for the Introduction to CDC Workplace Safety. This information will help us improve this eCourse for future users. We greatly appreciate your time and thoughtful responses.

[1 Switch account](#)



Not shared

Knowledge Check

What events led to the creation of OSHA? (Select all that apply) *

- Unsafe work environments
- No building safety regulations
- Lack of roadway safety
- Increase in company lawsuits

If I work from an at home office, CDC safety does not apply to me. *

- True
- False

Every safety concern and incident should be reported through myCority. *

- True
- False

FORMATIVE EVALUATION TOOLS

USEFULNESS

This course gave me the essential tools to identify employer and worker * responsibilities to ensure a safe work environment.

1 2 3 4 5
Strongly disagree Strongly agree

This course taught me how to identify workplace hazards in a CDC or * CDC-leased facility.

1 2 3 4 5
Strongly disagree Strongly agree

The course gave me the necessary tools to Recognize home office * safety hazards.

1 2 3 4 5
Strongly disagree Strongly agree

This course has clearly pointed out the procedures for reporting * hazardous conditions.

1 2 3 4 5
Strongly disagree Strongly agree

[Back](#)

[Next](#)

[Clear form](#)

FORMATIVE EVALUATION TOOLS

EASE OF USE

The course is easy to navigate *

1 2 3 4 5

Strongly disagree Strongly disagree

I noticed inconsistencies as I worked through the course *

1 2 3 4 5

Strongly disagree Strongly agree

Back

Next

Clear form

EASE OF LEARNING

The information is presented in a familiar language *

1 2 3 4 5

Strongly disagree Strongly agree

The content of the course flowed well. *

1 2 3 4 5

Strongly disagree Strongly agree

Back

Next

Clear form

FORMATIVE EVALUATION TOOLS

SATISFACTION

The course was engaging *

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

I am satisfied with the course. *

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

Please provide any comments on how we might improve the course. *

Your answer _____

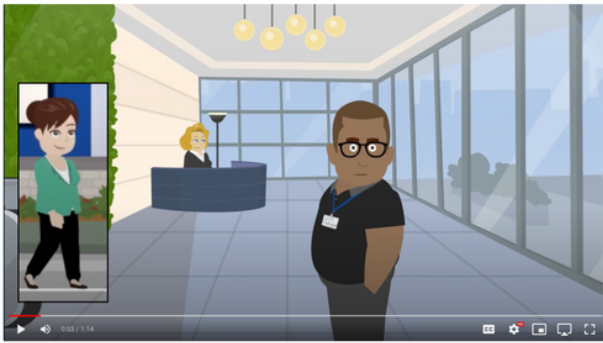
Back

Submit

Clear form

STORYBOARD

We used Google Slides for our storyboard (prototype 1). This allowed us to collaborate and work simultaneous on the project from different locations. Upon review of content, we could leave feedback and ask questions to enhance awareness of content across all sections. Additionally, the storyboard was presented to the client in February and the team gathered feedback to aid in developing prototype 2.

Lesson Title:	Slide ID:	Programming/Interactions
Visual: 		Video starts playing automatically Add sign entryway or show a short clip of Gibson walking in Gibson and Taylor meet and walk out to car to chat history
Audio: Gibson: Hello there! I'm Gibson, a CDC supervisor. You must be Taylor, the new employee I'm meeting with to discuss safety and why it is important. Taylor: Hi, Gibson. Nice to meet you. I imagine safety is important to prevent work injuries. Gibson: That is definitely part of it. There are a variety of reasons we focus on safety. Let's take a trip back in time to see some of the working conditions that were hazardous with employees being put in danger prior to the creation of Occupational Safety and Health Administration (OSHA).		Reviewer Comments
Feedback:		

SAMPLE CLIENT SIGN-OFF FORM



PROJECT CLIENT ACCEPTANCE & SIGN-OFF FORM

The project, "Introduction to CDC Workplace Safety" , has been measured against planned deliverables.

Project goals: Update CDC's new employee safety training in form of eCourse of 30-45 minute, provide new course name, remove end of course assessment

I have reviewed project goals and deliverables sent to client meet agreed upon goals to the best of my knowledge. By signed O acknowledge all deliverables have been sent to the client.

Project Manager Signature & Date

Please check the appropriate statement.

The project deliverables are accepted.

The project deliverables are accepted pending resolution of issues as noted below.

The project deliverables are not accepted (for reasons listed below).

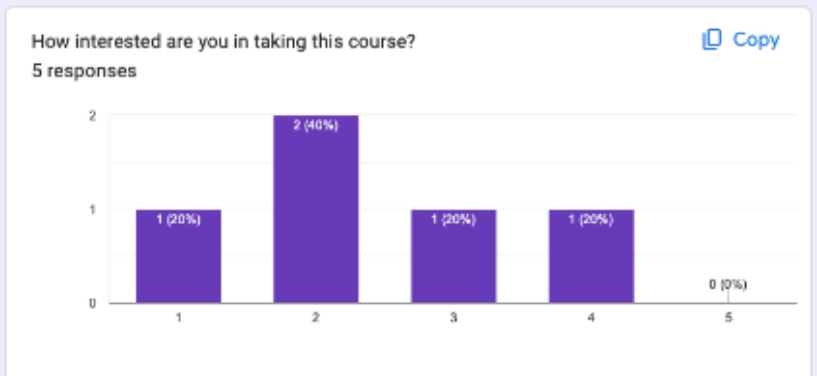
Issues needing resolutions/Reasons for not accepting:

Client Signature & Date

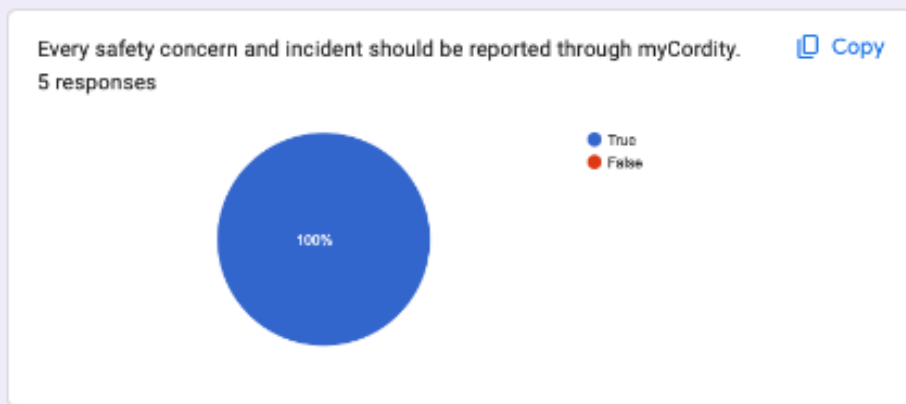
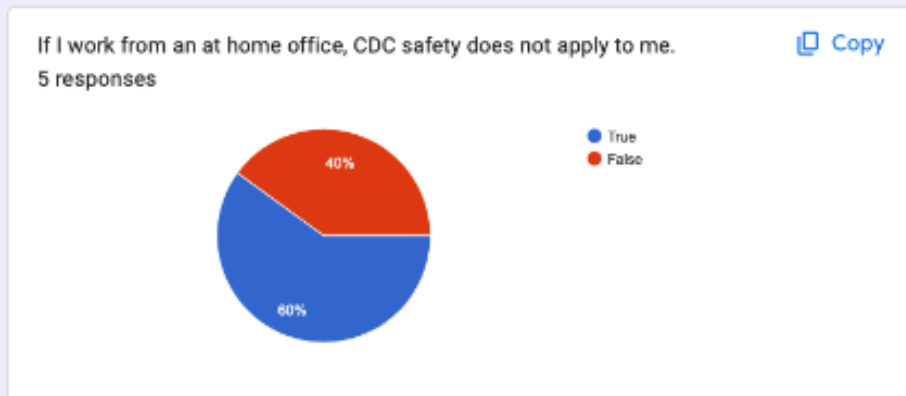
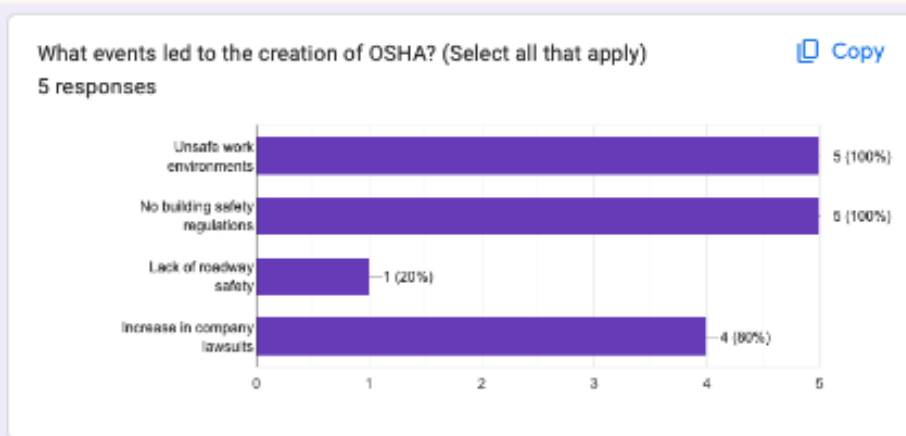
FORMATIVE EVALUATION REPORT

Our results from the formative evaluation results were helpful in preparing our final product. We had a total of 5 beta-testers of those that had the potential to work for the CDC or were previously employed there.

From our pre-survey we found that: 1) There is not general high interest for this course. 2) Some have history with OSHA and/or safety reporting of some kind. 3) There is room to increase CDC workplace safety knowledge.



FORMATIVE EVALUATION REPORT



Question 1

- While all 5 respondents answered the 2 correct answers, there were 5 incorrect selections
- 4/5 answered with at least one additional answer

Question 2

- 2/5 answered correctly

Question 3

- All answered incorrectly

FORMATIVE EVALUATION REPORT

The post-survey provided us with information in regards to increasing knowledge, usability, and user satisfaction.

Knowledge Questions

- Improved scores = effective instruction

Usability Questions

- No navigation concerns noted
- No multimedia or other glitches noted

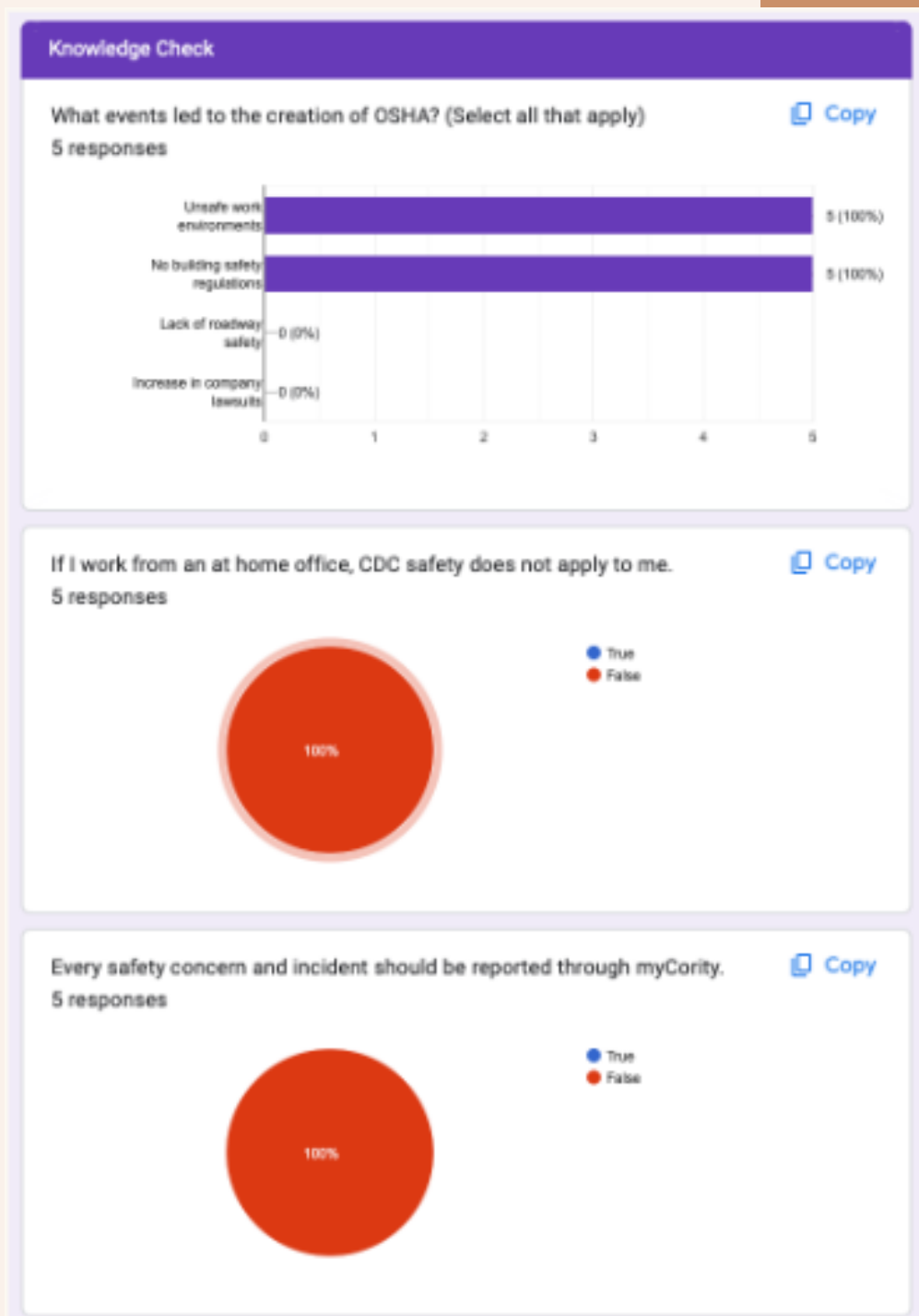
Satisfaction Questions

- Revisit selected design choices as needed
- Assess level of interaction

The comments provided in the post-survey were helpful for other considerations and changes made in the final product.

- Menu inclusion limited by client wishes, but ideally we would oblige this request
- Consider more scenarios (time might be a constraint)
- Consider different, diverse characters in videos
- Client request: can't skip videos

FORMATIVE EVALUATION REPORT



FORMATIVE EVALUATION REPORT

Results of Post-Survey Knowledge Questions Relative to Pre-Survey

Question 1

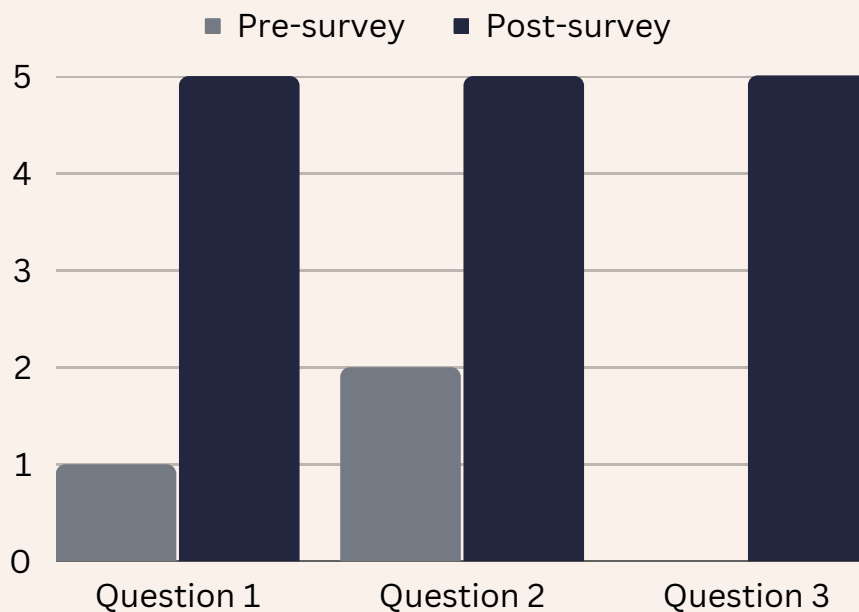
- All 5 respondents now answered correctly
- Previously 1/5 were correct

Question 2

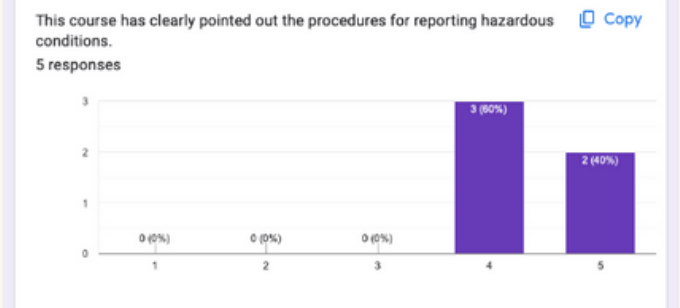
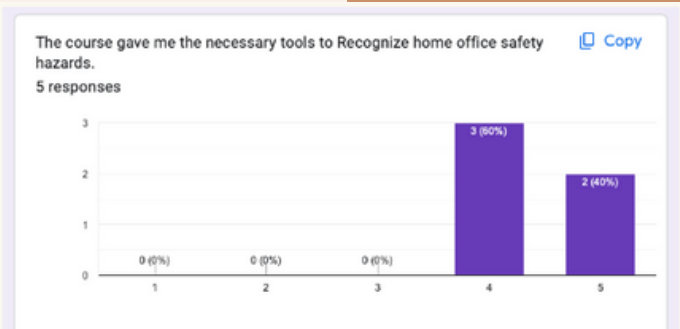
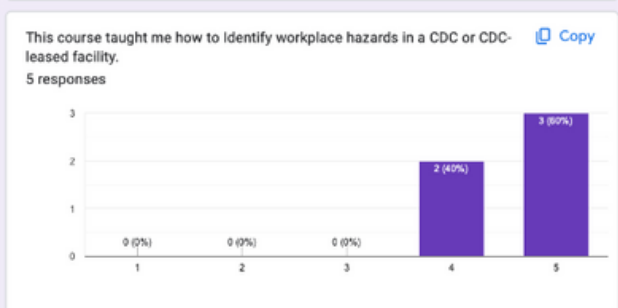
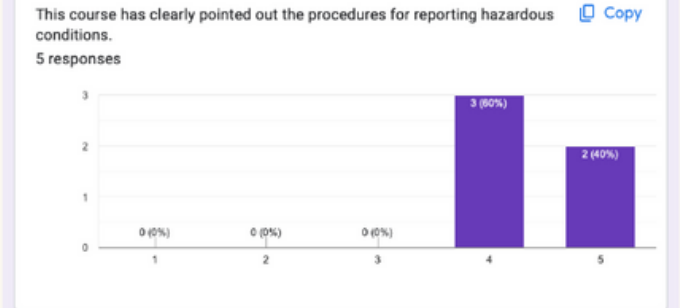
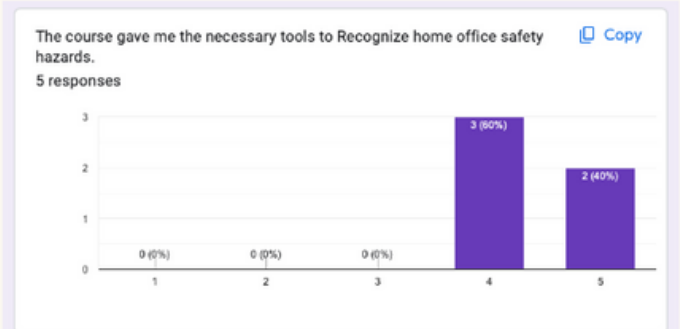
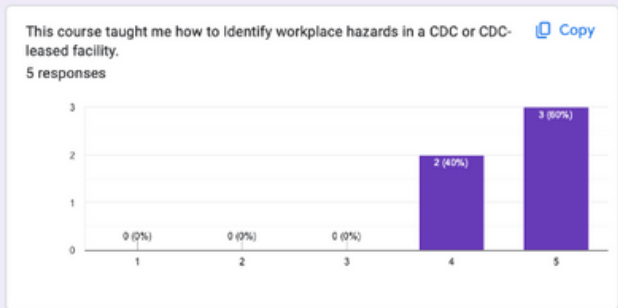
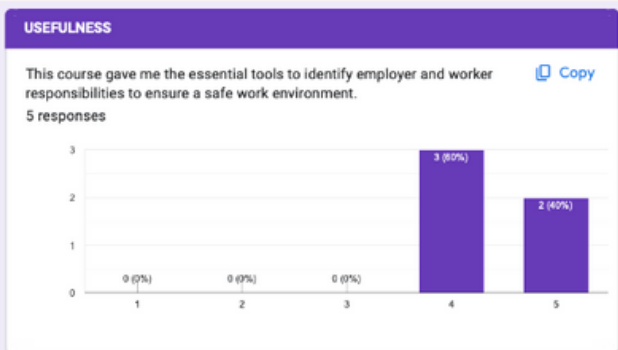
- All 5 respondents now answered correctly
- Previously 2/5 were correct

Question 3

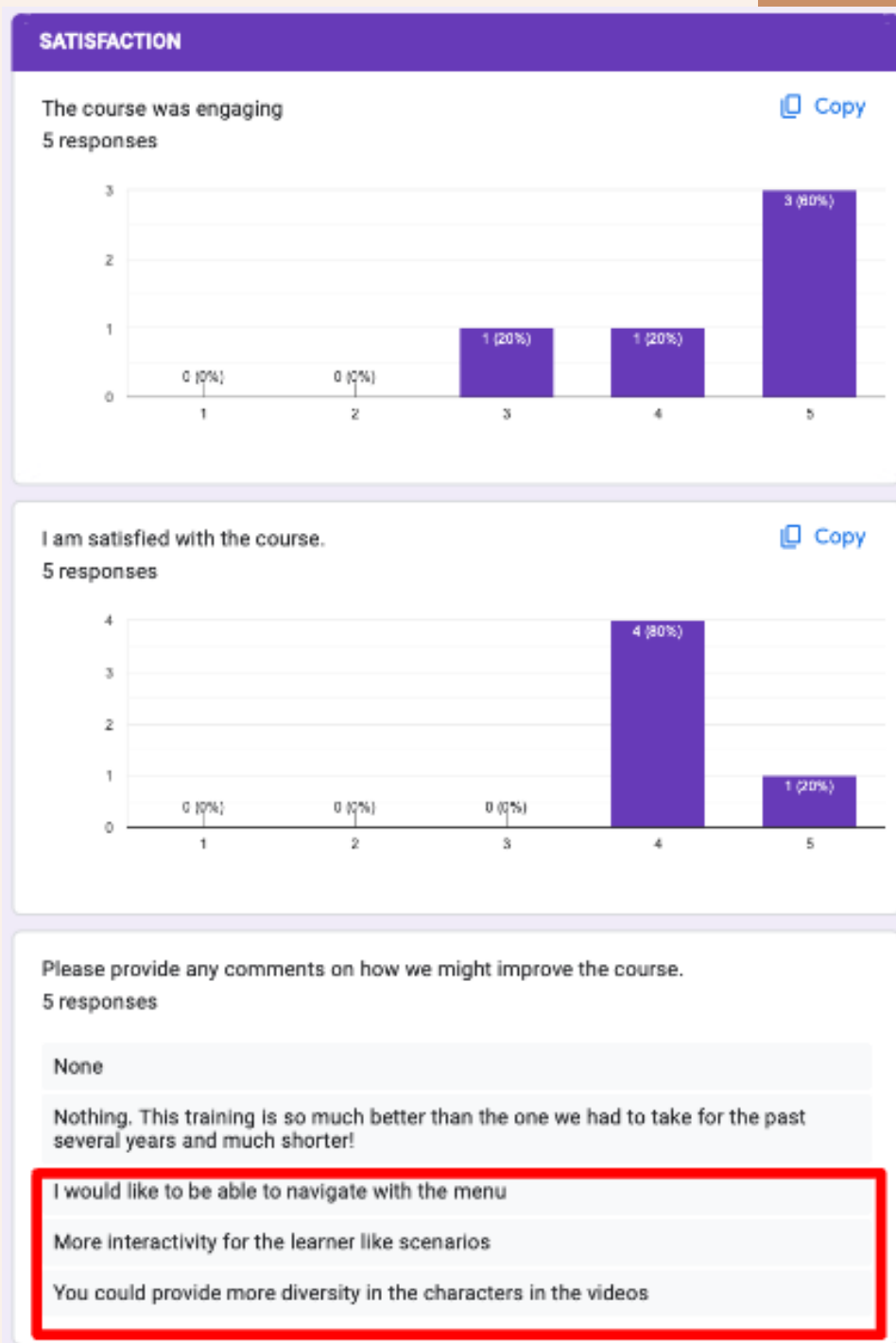
- All 5 respondents now answered correctly
- Previously 0/5 were correct



FORMATIVE EVALUATION REPORT



FORMATIVE EVALUATION REPORT



PROJECT ACTIVITY LOG ANALYSIS

SERVICE	DESCRIPTION	RATE	HOURS	LINE TOTAL
Needs Assessment	Analysis of client need	\$70	15	\$1050
Project Planning	Outline of project Division of work Timeline creation	\$70	30	\$2100
Prototype 1 Design & Development	Storyboard course	\$70	30	\$2100
Prototype 2 Design & Development	Development in Articulate Storyline Creation of videos	\$70	40	\$2800
Prototype 3 Design & Development	Refining course in Storyline Updating content & removing glitches	\$70	40	\$2800
Subject Matter Expert Consultation	Interviews with SME to gain insight into content	\$70	10	\$700

PROJECT ACTIVITY LOG ANALYSIS

SERVICE	DESCRIPTION	RATE	HOURS	LINE TOTAL
Alpha Testing	Gather feedback from team	\$70	5	\$350
Evaluation Tools Development	Development pre- & post-survey for beta testing	\$70	2	\$140
Beta Testing	Gather feedback from prospective users	\$70	2	\$140
Evaluation Execution & Analysis	Review of beta testing results Implementing feedback	\$70	5	\$350
Video Production	Creation and editing of videos in Vyond	\$70	40	\$2800
Final Design & Development	Final course development in Storyline	\$70	60	\$4200

PROJECT ACTIVITY LOG ANALYSIS

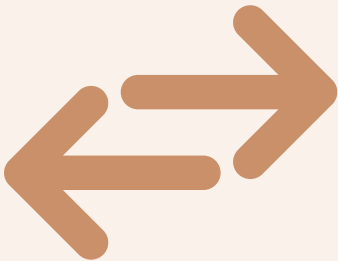
SERVICE	DESCRIPTION	RATE	HOURS	LINE TOTAL
Project Updates	Meeting with client to review prototypes	\$70	2	\$140
Project Documentation	Comprehensive document creation of project	\$70	40	\$2800
Weekly Meetings	Team to maintain on task	\$70	11	\$770
Record Keeping	Logging updates & tracking progress	\$70	8	\$560
Project Website	Creation and maintenance of project website	\$70	10	\$700
TOTAL.			350	\$24,500

IMPLEMENTATION GUIDE

CONSIDERATIONS FOR IMPLEMENTATION



The total course should take about 30-45 minutes to complete pending the learner's engagement.



The course is designed to be evergreen and requires minimal updates on an annual basis.



The last screen of the course serves as a certificate of completion and can be saved for the employee's records.



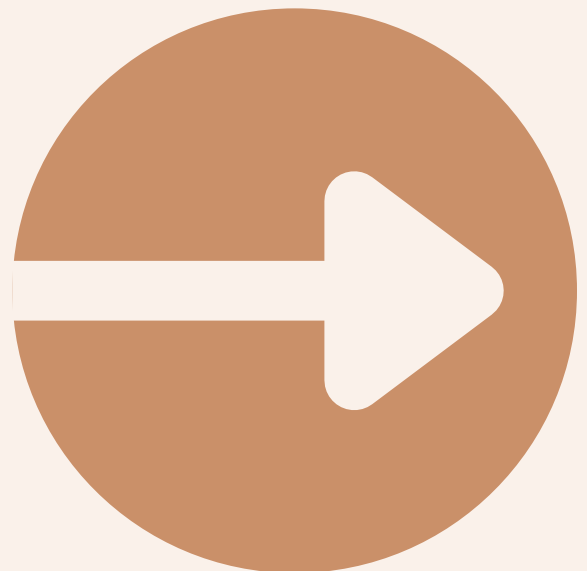
While there is no end of course assessment, knowledge checks have been used throughout. Additionally, there is a question to indirectly gauge learning and obtain feedback that is incorporated at the beginning and end of the course asking the new employee why safety is important.

EXTENSION PROPOSAL

NEXT STEPS

We are proud of the final project, and it is ready to be used by our client. We will pass along files to the the CDC QCB for implementation to the CDC's LMS. The content is evergreen so we recommend an annual to biannual review of the content.

Additionally, we are considering submitting this project to various awards with key CDC information redacted. We are reviewing submission guidelines for AECT DDL Award and the Nova Southeastern University Award for Outstanding Practice. We will continue to explore other awards opportunities.



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