

P7. Experience Evaluation Plan

Team Experience Museums Project (EMP)

Project Description

For our project, we aim to design a product that enriches the museum experience for visitors. Finding a personal connection with exhibits is an important part of the museum experience, and access to information is essential to that. We hope to facilitate this process by equipping visitors with a product that helps them gain information on the exhibits and reflect on what they have viewed. Two key devices in our product are a hand-held tablet and a pen, both of which act as a personal digital assistant (PDA). Using the pen, users can tap barcodes on walls corresponding to exhibits and collect information on them, thus physically interacting with the museum. This information is transferred to a paired tablet, where users can view exhibits and take notes using the pen. Here, users can view a gallery of exhibits and save their favorites, interact with members of their group, and review a map of their journey through the museum. We hope that our product will make museums a more engaging and memorable experience for users of all backgrounds.

Part 1 - Basic Evaluation Plan

Purpose & Goals

EMP is conducting a usability test with a cardboard prototype of our two devices. Our two devices are used in a museum to allow for more learning and synthesis about art pieces. We have chosen three tasks for participants to complete. Our main motivation in conducting these tests is to evaluate the ease of “pick-up and use” functionality in our design. We hope that insight from evaluations with our prototype will allow us to improve on our design and contribute further to an enriching art museum experience.

Tasks

Task 1 - Use the map function to find and follow a pathway to an art piece

In this task, we ask participants to navigate to the map page on the tablet. They will use the map to choose a specific piece of art, which will be posted throughout the testing environment. The participant should then follow the displayed path and walk to the chosen piece.

This task will be considered complete once the participant physically arrives at the piece chosen on their tablet.

Task 2 - Scan artwork's code to find more information about an art piece that you are interested in, add the piece to notepad, then write reflections on the piece

In this task, the participants will have to change the pen tool to its scanning mode, then use the pen to 'scan' the QR code next to the piece of art. Once scanned, the participant will look at more information about the piece of art, then add the piece to their notes. In their notes, they should write a comment or reflection about the piece of work.

This task will be considered complete once the participant has written a personal reflection on the piece of art.

Task 3 - Leave 'museum' and review trip details, then save trip review to personal email

In this task, we will ask participants to conduct the final step of concluding their museum trip. Once they near the exit of the museum, participants will be prompted to confirm that they want to complete their trip. If the participant selects Yes, the application will take participants to the Trip Review page, where they will be able to view an overview of their time at the museum. Participants will then enter their personal email, and the overview of their trip will be sent to them so they can review it later.

This task will be considered complete once the participant has saved the trip and reached the final Thank You screen.

Test Environment

We are conducting this experiment in an on-campus study room to simulate the space of an art exhibit. The room provides a relatively quiet, open space and allows for displaying representative art pieces on the walls. We are placing different art pieces around the room as part of our test and will use the door to the room to represent the museum exit.

Method

We begin the usability testing by asking the participant's consent to record their audio and take notes on their process. We then ask our participants to answer our pre-test questions. Once they have answered the pre-test questions, we will read the user scenario to the participant. We will ask them to complete the three tasks. After each task, the participant will be asked about the difficulty of the task and the interest level in using the device. We will also prompt them to rate the difficulty on a scale of 1-5, with 1 being easy and 5 being the most difficult. Interest level will also be on a scale of 1-5, with 1 being a very uninteresting task, and 5 being the most interesting. Once completed with all the three tasks, we ask the participants to answer the post-test questions.

User Scenario

Imagine you are visiting an art museum. The museum has provided you with a tablet and pen as your ticket throughout the museum, and the devices will aid you in navigating the museum and learning about the art pieces.

Participant Profiles

Participant 1 - An undergraduate student who visits art museums when she goes on vacation internationally.

Participant 2 - A 19 year-old sophomore who enjoys taking Art History classes and learning about analyzing art pieces.

Participant 3 - A junior who enjoys going to art museums when he has the time.

Participant 4 - A 24 year-old graduate student who enjoys going to art museums often.

Participant 5 - A 19 year-old undergraduate student studying art who goes to art museums often for inspiration.

Facilitation Approach

Our team will rotate in roles for each participant. During our testing, we will have one facilitator, one 'computer,' and the other two members will be note-takers. Our roles will be as follows:

Participant	Facilitator	Computer	Note-Takers
1	Alli	Alex	Annie, Vishaka
2	Annie	Vishaka	Alex, Alli
3	Alex	Alli	Annie, Vishaka
4	Vishaka	Annie	Alex, Alli
5	Vishaka	Alli	Alex, Annie

Collected Data

EMP is planning to record audio of the session with the participant's consent. In addition, notes will be taken on key events, both positive and negative, which may come up during the evaluation. These notes will record which aspects of the design/prototype correspond to a particular event in addition to the participant's actions surrounding that event. Questions asked throughout the evaluation will also contribute to these notes.

Notes and audio will be synthesized afterward to generate general insights on the current state of our design in relation to the tasks we have specified. The tables below will be filled with data from our questions. Audio and notes will be preserved for further reference.

Participant 1:

Task	Difficulty	Interest
1	2	5
2	1	5
3	1	5

Participant 2:

Task	Difficulty	Interest
1	3	4
2	4	3
3	1	3

Participant 3:

Task	Difficulty	Interest
1	1	3
2	1	5
3	1	4/5

Participant 4:

Task	Difficulty	Interest
1	2	3
2	3	4
3	4	3

Participant 5:

Task	Difficulty	Interest
1	1	3
2	2	3/4
3	3	4

Pre-Test Questions

1. How often do you go to art museums?
2. What background do you have with art, if any?
3. How often do you use a tablet? What do you use it for?
4. Are you familiar with using a stylus?
5. Have you ever used an application or device when navigating an art museum?

Post-Test Questions

1. Which of these tasks would you use in an art museum?
2. When were you most frustrated using this prototype?
3. How likely would you use this product in an art museum if given the chance?