

Playtesting Document

Research Question: Can the use of augmented reality in education assist a student in better understanding a topic.

Demographic:

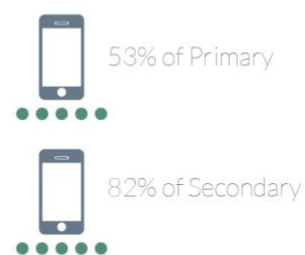
The overall target market for this application is broad, it is applicable to users of all ages that have an interest in learning about specific topics or events that have occurred in contemporary history. For the sake of testing I have marginalised this into three different markets.

Demographics

According to UNESCO Institute for Statistics roughly 17% of the world's population is in education, roughly 1.29b.



Students with access to smart devices



Primary:

The most prominent market for this application is for children aged 6 – 11, this would cover the majority of those who are currently in primary education. The aim is that there would be a greater retention in students this age group as they would be fascinated with the novelty side of augmented reality. Design wise, the corresponding book is geared at a more child orientated audience.

Secondary:

The secondary demographic applicable to benefit from this application is those aged 12 – 18, this would be targeting users currently studying history at a secondary school level. Current teaching methodologies are failing to engage student with their topics of interest. A more interactive approach would be beneficial to all.

Tertiary:

The final demographic applicable to find some beneficial use out of an application like this would be users in a 18+ bracket would may have an interest in educating themselves in on key contemporary topics.

Warm Up Discussion:

In the warm up I shall probe the user group for past experiences using augmented reality and to gage any interest they may have in storytelling , reading and history.

- Tell me about you experiences with learning course material in school?
 - Where you able to successfully engage with the content being thought?
- Tell me about some augmented reality games you play.
- What do you like most about these games?

- Tell me about historical events or characters that you find interesting?
- When was the last time you may have studied or googled information on a historical event?

Playtesting Sessions Plan:

Selection and Description of Evaluation Techniques:

When creating my testing process, I needed to weigh up if I wished to lean more towards formative or summative evaluation techniques. As the fidelity mock-up was very refined from the previous stage I decided to take a more summative approach, primarily I am hoping to lean towards a co-discovery walkthrough combined with a cognitive walkthrough while encouraging my participants to think aloud throughout each stage.

Co- Discovery:

This process is an enhanced adaption of the most commonly used type of user testing, the **think aloud protocol**. Users are grouped in pairings and talk aloud in a natural manner to each other while attempting to complete various predefined tasks. The talk aloud technique allows evaluators to gauge the users train of thought so that it can be followed and erroneous assumptions about the system may be noted as we follow through the process.

Co-Discovery facilitates a more realistic usability testing than a single user scenario, as people tend to prefer to work in teams when attempting to accomplish a singular goal. Users often find it easier and more natural to vocalize thoughts with a colleague or peer present. This technique also allows the evaluators to quantify the time that is taken for various tasks, the number of tasks accomplished correctly, errors that need to be handled. From this we can make more qualitative judgements in relation to the success (or lack thereof) in relation to the system we are testing.

Cognitive Walkthrough:

In association with the co-discovery technique I also did a cognitive walk through with all my participants. The idea of this was to determine the systems learnability for new or

infrequent user. The idea is to verbally issue usability tasks to my participants and allow them to collaboratively work together throughout the process.

General Observation:

I personally had predefined concepts (which I realized later were misconceptions) in relation to the general look and feel of the overall device. When conducting my testing groups one of the first things I did was observe the participant's initial reaction to the device. I asked them to look, hold, feel the device and verbalize their initial thoughts of what they thought the device was and could do.

Discussion of Game Experience:

This is the final stage that will take place after a user has had some time to interact with my application. A qualitative exploration into their thoughts and recommendations will be conducted. Please find below a list of questions intended for post play session.

General Information:

- What's your first reaction in relation to this application?
- Can you describe what you thought the intended purpose was?
- How hard do you generally find it to (from 1 – 10) to learn facts and information from books?

Overall Appeal:

- Could you discuss what you liked about the design aesthetic?
- Could you discuss what you did not like about the design aesthetic?
- Can you comment on your individual thoughts of the book and the app?
- Discuss what drew your attention initially.
- How could the aesthetic be changed or made better?
- Opinion on the overall design style i.e. colours, artwork, user interface?

Functionality and Interest:

- Did you find it easier to grasp topics through an interactive medium rather than traditional text based learning?
 - If yes, discuss what elements you felt aided.
- What did you like most?
- What did you dislike the most?
- Discuss (if any) which aspects you felt confusing.
- Were you able to learn how to play easily?
- What did you have to do it make this work?
- Were you able to identify the correlation between the app and the book? i.e. could you identify the points that were interact actable easily.
- What's your overall feeling of the application?
- If the entire application was to change and you could only keep one current feature what would it be?
- Did you feel engaged by the application and would you use it again?
- How would you describe this application to someone who has never played it? What would you tell them?
- Describe (if any) the benefits of such an application?
- What market or audience do you feel this would be best suited too?
- Discuss how easily you could navigate and explore 3D objects presented to you?