Time Lens App Summative Evaluation Report

**Completed as part of the Worcester Polytechnic Institute Interactive Qualifying Project by:
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METHODOLOGY

Museum Victoria members were invited to use the mobile application *Time Lens Episode I: Treasures and Gems* and provide feedback about how the application affected their museum experience. Non-member families were recruited to gain a wider range of opinions. We teamed up with an informational table promoting *Time Lens* to recruit non-member families. University engineering students from Worcester Polytechnic Institute were invited to review the application and focus on its technical aspects, such as the layout and interface. Evaluation discussions were conducted on Monday 4 November and Sunday 10 November.

PURPOSE

- Application gave a new perspective on museum visits. Not described as necessarily better or worse, just different. This new perspective was positive for members who had been through the museum many times before
- Museum visit was far more directed than usual wandering through galleries, application gave users a goal to their visit

BEHAVIOUR

Change in Group Dynamics:

- Drove child to find objects, museum trip became 'child-driven' as opposed to standard 'parent-driven' trip
  - Children were more engaged since they not have to wait for parents to look at something they did not find interesting
- Families felt encouraged to hunt through the museum
- Application took on average between 40-60 minutes to complete
- Brought families to places and objects they had not seen before

Potential Group Problems:

- Potential issue where multiple children wanted to hold the device
  - Fighting between siblings did not actually occur during our trials, however several parents foresaw problems emerging
- Application was too easy for older children in the groups

     ○ Older children would either answer everything, not giving the younger children a chance, or become uninterested in completing the application

CONTENT

Curious Curator and Themes:

- Curious Curator character was well received, but was not prominent throughout the application
    - Some groups did not even know who she was when asked
- Although enjoyable, the introduction animation was far too long. Some groups skipped it because they did not think it was necessary
- Groups were confused as to how finding treasures and gems related to the *Time Lens*. They seemed superfluous since they were not explained

Animations:

- Most groups enjoyed the animations and thought they were high in quality
- However, groups thought they were too long to hold the user's attention and did not have enough educational content within them

Questions:

- Riddles made questions far too easy to 'cheat'
- User was not required to be near an object to answer question
    - Questions were easy to guess so some groups lost incentive to actually go and find objects
    - 'Could have finished the entire thing just sitting in the lobby.'
- Some did not like how questions would not lead you to where an object was, just provided hint as to what it was
    - Knew what the object was but could not locate it

Content:

- Users wished application had more content from each gallery
    - More questions for each object or more objects to find
- Wanted more galleries to be featured
    - *Bugs Alive!* and *Mind: Enter the Labyrinth* were specifically mentioned
- Saw new objects despite having visited many times before
    - Fox, Thylacoleo, Bower Bird
    - One member family did not know about the marine life section of the *Science and Life* Gallery until using the application
- One object was located in Discovery Centre which was not open on Mondays
    - Could still see it from the window but difficult for the families searching for the object to find
    - Many skipped over it

Age Group:

- Tended to be 'just right' in terms of difficulty and length for the 6-7 year old children
  - Older children (8-10 year olds) said it was either too easy or too short

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FUNCTIONS

User interface was simple, but took getting used to. No instructions on how to use application or explanation of tabbed sections.

Navigation

- Most families found the presence of a map to be useful for traveling around museum
  - Some commented that map was too small and hard to read
  - Pins were confusing and didn't convey any information about exhibits
- First-time visitors found the map frustrating and lacking in detail
- Most groups travelled the museum in order of whatever gallery was closest to them, not in order of badges
  - Few groups planned out their destinations based on the map

Mechanics:

- Difficult to listen to audio in museum, would definitely need headphones to hear clearly
  - Having headphones though took away from the family experience
- Tabs at the top of the screen were too small for some people, making them difficult to press
- Wrong answers were greyed out after being chosen, and this system was not intuitive to everyone. Should have a red X instead
- Minor crashes in application for some users.   Did not affect overall experience
  - Families simply re-opened the application after it crashed

Badges:

- Liked competition aspect of application
- Badges themselves seen as pointless
  - Wished the ability to redeem for physical badges was more prominently advertised, nearly all groups had to be told afterwards that you could do this
- Did not understand purpose for intermediate badges e.g. History Harvester and Treasure Hunter
  - Never saw them before completion, did not add anything extra

Journal:

- Few groups accessed the journal during use of the application. Many did not know it existed
  - Most likely due to lack of instruction during introduction video

Marketing:

- Application needs to be better marketed in order to have any significant use
- For example, a family asked front desk if there was anything in particular for children that day and they were told there was not anything special
    - Could have advertised *Time Lens* application
    - Better awareness among people on museum floor

Character/Themes:

- Make main curator character more universal in application
    - This needs to be integrated naturally, groups did not want an increase in her appearance to feel 'forced'
- Some of the content was considered bland. Not enough detail

Way-finding:

- Suggestions of QR codes, Bluetooth, scanner, or taking a photo to make you actually find the exhibit to answer the question
    - Groups strongly recommended validation to make sure the user had arrived at the correct object and to cut down on the temptation to cheat
- Have hints more based around where to go, rather than what to find
- Map needs to be much more detailed in order to assist families who are less familiar with the museum

Functions/Content:

- Application should explain itself upon starting
    - Current method of trial and error makes users miss some features
- Sound should be played when a badge is earned for reinforcement
- More activities to earn alternate badges, not just find every object
- Search feature so children can find exactly what they want to around the museum
- Different difficulty levels to challenge children of different ages
    - Beginner, Intermediate, Expert
- Include content from every gallery
    - Have each area be its own badge
- Some sort of social media interaction
    - Share collected the badges, email pictures of objects to yourself, etc.

Table of Contents

Observational Checklist

Group 1

#Order of visit | Badge/Exhibit (POI) | Time Spent (MM:SS)

 2

Tech Time Traveler

3m

POI: None

 3

Fossil Finder

4m54s

POI: None

NA

Wet and Wild

0m

POI: None

 1

Forest Frolicker

12m30s

POI: None

NA

Marvelous Melbourne

0m

POI: None

Total Time: 1:00:00

Notes:

2 boys 1 girl. Oldest child showed most interest. Parent held device initially. Oldest cheated in Mind and Body exhibit and finished app.

Observational Checklist

Group 2

#Order of visit | Badge/Exhibit (POI) | Time Spent (MM:SS)

 5   Tech Time Traveler   11m43s

POI: None

 3   Fossil Finder   8m50s

POI: Qantassarus

 4   Wet and Wild   4m25s

POI: None

 2   Forest Frolicker   10m30s

POI: None

 1   Marvelous Melbourne   7m5s

POI: None

Total Time: 0:42:35

Notes:

Parent very active in helping children with app. Youngest child held device and watched animations most often.

Observational Checklist

Group 3

#Order of visit | **Badge/Exhibit (POI) |**   **Time Spent (MM:SS)**

 3   Tech Time Traveler   8m30s

POI: Mouse

 5   Fossil Finder   5m06s

POI: None

 2   Wet and Wild   9m50s

POI: Squid

 1   Forest Frolicker   9m

POI: Chimney

 4   Marvelous Melbourne   9m

POI: Phar Lap

Total Time: 1:00:10

Notes:

2 boys ages 9 and 7. Fought over device at beginning. Big kid took device first, after losing interest little kid took device.

Observational Checklist

Group 4

#Order of visit | **Badge/Exhibit (POI) |**   **Time Spent (MM:SS)**

NA   Tech Time Traveler   0m

POI: None

 2   Fossil Finder   9m37s

POI: None

 3   Wet and Wild   12m58s

POI: Squid

 1   Forest Frolicker   19m25s

POI: Bowerbird

 4   Marvelous Melbourne   17m

POI: None

Total Time: 1:00:00

Notes:

Mom held device. Spent a lot of time at the Marine Life exhibit.

Observational Checklist

Group 5

#Order of visit	Badge/Exhibit (POI)	Time Spent (MM:SS)
_5_	Tech Time Traveler	NA
POI: None		
_1_	Fossil Finder	NA
POI: None		
_2_	Wet and Wild	NA
POI: None		
_3_	Forest Frolicker	NA
POI: None		
_4_	Marvelous Melbourne	NA
POI: None		

Total Time: _1:00:00_

Notes:

Brought own devices. We were not able to observe times.

Observational Checklist

Group 6

#Order of visit	Badge/Exhibit (POI)	Time Spent (MM:SS)
_1_	Tech Time Traveler	10m
POI: None		
_2_	Fossil Finder	8m03s
POI: None		
_3_	Wet and Wild	7m
POI: None		
_4_	Forest Frolicker	10m
POI: None		
_5_	Marvelous Melbourne	8m
POI: None		

Total Time: 0:43:00

Notes:

One 11 year old boy.

Observational Checklist

Group 7

#Order of visit	Badge/Exhibit (POI)	Time Spent (MM:SS)
_1_	Tech Time Traveler	2m24s
POI: None		
_2_	Fossil Finder	5m27s
POI: None		
_3_	Wet and Wild	19m44s
POI: None		
_4_	Forest Frolicker	9m45s
POI: None		
_5_	Marvelous Melbourne	9m
POI: None		

Total Time: _1:08:00_

Notes:

One 9 year old boy.

Observational Checklist

Group 8

#Order of visit | Badge/Exhibit (POI) | Time Spent (MM:SS)

 1
                          Tech Time Traveler   1m42s

POI: None

 3
                          Fossil Finder   7m28s

POI: Thylacoleo

 4
                          Wet and Wild   7m18s

POI: Wedge-tailed eagle

 2
                          Forest Frolicker   8m41s

POI: None

 5
                          Marvelous Melbourne   6m

POI: Cole's Little Men

Total Time: 0:40:00

Notes:

One 7 year old girl. Visiting Family.

Observational Checklist

Group 9

#Order of visit | Badge/Exhibit (POI) | Time Spent (MM:SS)

NA_   Tech Time Traveler   0m

POI: None

_2_   Fossil Finder   14m1s

POI: Qantassarus

NA_   Wet and Wild   0m

POI: None

_1_   Forest Frolicker   8m

POI: None

_3_   Marvelous Melbourne   10m

POI: None

Total Time: 1:00:00

Notes:

2 Girls. Did not observe entire time. Girls lead mom around. Girls shared device and were very interested in the application

Observational Checklist

Group 10

#Order of visit | Badge/Exhibit (POI) | Time Spent (MM:SS)

NA   Tech Time Traveler   0m

POI: None

2   Fossil Finder   9m

POI: Qantassarus

1   Wet and Wild   14m

POI: None

3   Forest Frolicker   12m

POI: None

4   Marvelous Melbourne   7m30s

POI: None

Total Time: 0:42:30

Notes:

3 boys.

Recruited Member Family Discussion Guide

Group 1: 4 November 2013

1. **Usability**

   a. *Did Time Lens function correctly for the entirety of its use?*

   Yes, no problems; didn't kick out of the system, etc.

   b. *Did you experience any major issues with the layout of Time Lens?*

   No major issues experienced

2. **Navigation**

   a. *Tell us about the path you took around the museum.*

   Forest first, Fossils, then up through Mind and Body (Note: Child finished the application without going to all the exhibits, informing the observer in Mind and Body that he had completed the entire application)

   b. *Did you use the map within the application?*

   Started off looking on the map for the closest badge (forest). Used the map quite a lot. Some of the answers were found by going through the application, but some of the answers the child already knew, so they didn't always physically walk around all the places, he just answered them. Some were answered by accident when his hand slipped on the device.

3. **Group Dynamics**

   a. *Who held the device for the majority of the time?*

   At the start mostly the father, then oldest child held it for the remainder of the time.

   b. *Were there any disagreements over who should be in control of the application?*

No disagreements over device, only disagreements came over differing answers to a few of the questions. Little bit of jostling for position around the screen.

4. **Length**
   a. *How did you feel about the length of Time Lens and the amount of time you spent on it?*

   Thought that it was a good length.

5. **Content**
   a. *Do you feel the application included enough content from each exhibit?*

   Did not specifically answer.

6. **Education**
   a. *Are there any facts you learned using the application that you did not take from the museum prior to today's visit?*

   Learned from the chimney puzzle by reading the information labels.

7. **Challenge**
   a. *Were the riddles and puzzles challenging enough?*

   Child thought that the riddles were not too easy, particularly liked that some didn't rhyme; made it more challenging.

   b. *Did you feel the questions in the application encouraged you to hunt for an answer?*

   Did not specifically answer.

8. **Entertainment**
   a. *How did you like the Curious Curator character?*

   Did not watch the intro, so didn't really know about the Curator character.

   b. *Did you find the animations useful and interesting?*

Enjoyed animations

9. **Enhancement**
   a. *Did you discover anything new at the museum that you have not encountered before?*

   Yes, the chimney, they had known it was there but had never read the information about it. Also had never seen the bowerbird nest in prior visits.

   b. *Did the application enhance your overall experience at the Melbourne Museum?*

   Did not specifically answer.

10. **Major Changes**
    a. *Are there any specific changes you would make to Time Lens based on your experience?*

    Each time you earn a badge, make a sound or say "You've earned a badge!" or similar. Have application actually sense what room you're in, automatically bring up treasures/gems for that section e.g. GPS link.

    Additional Comments:

    Parent originally thought that there would be one device for each child, was surprised when there was one device for the family, but after further thought realized that it would be hard to supervise all of them if they had one each because they'd all want to go off in different directions, so he reversed his opinion of the one device.

    Overall thoughts of the application were that it was rather good, from both children and parent.

Recruited Member Family Discussion Guide

Group 2: 4 November 2013

1. **Usability**

    a. *Did Time Lens function correctly for the entirety of its use?*

    Yes, it worked throughout their entire museum visit.

    b. *Did you experience any major issues with the layout of Time Lens?*

    No, the layout was great!

2. **Navigation**

    a. *Tell us about the path you took around the museum.*

    The group would choose a place on the map and explore the exhibit through the use of *Time Lens.*

    b. *Did you use the map within the application?*

    Yes and no, the map was used to choose the next destination, but was not used for navigation until they needed to find the Biplane.

3. **Group Dynamics**

    a. *Who held the device for the majority of the time?*

    The kids shared the device through the museum visit.

    b. *Were there any disagreements over who should be in control of the application?*

    No disagreements

4. **Length**

    a. *How did you feel about the length of Time Lens and the amount of time you spent on it?*

The length of *Time Lens* was perfect for their museum visit, however they felt the lobby was an unnecessary part of the app.

5. **Content**
    a. *Do you feel the application included enough content from each exhibit?*

    Yes, they also felt that it was very informative and encouraged them to find information other than the objects it directed them to.

6. **Education**
    a. *Are there any facts you learned using the application that you did not take from the museum prior to today's visit?*

    The group learned about Thomas Edison's different inventions.

7. **Challenge**
    a. *Were the riddles and puzzles challenging enough?*

    The group felt that the riddles and puzzles were challenging, fun, and age appropriate.

    b. *Did you feel the questions in the application encouraged you to hunt for an answer?*

    Yes, it made them hunt around the museum and learn additional information that they would have otherwise missed.

8. **Entertainment**
    a. *How did you like the Curious Curator character?*

    The group liked the character, but didn't know much about her.

    b. *Did you find the animations useful and interesting?*

    Yes, the animations were fun and interesting.

9. **Enhancement**
    a. *Did you discover anything new at the museum that you have not encountered before?*

       They found the Biplane and Thylacole Carnifex for the first time.

    b. *Did the application enhance your overall experience at the Melbourne Museum?*

       The group felt *Time Lens* enhanced their museum visit by making it more directed than normal. It also gave them new experiences they hadn't had at the museum up to that point.

10. **Major Changes**
    a. *Are there any specific changes you would make to Time Lens based on your experience?*

       No changes.

Recruited Member Family Discussion Guide

Group 3: 10 November 2013

1. **Usability**

   a. *Did Time Lens function correctly for the entirety of its use?*

   Yes, but it needed a better way of ensuring that the kids couldn't cheat. The boys tried to answer questions without going to exhibit and mom had to stop it.

   b. *Did you experience any major issues with the layout of Time Lens?*

   Not being able to download it at the Melbourne Museum and onto their own devices.

2. **Navigation**

   a. *Tell us about the path you took around the museum.*

   Kids chose the path by badges. The seven year old was very excited to be leading group around museum. He was very competitive in trying to finish it.

   b. *Did you use the map within the application?*

   Yes, but were also able to get around museum through memory and experience at the Melbourne Museum.

3. **Group Dynamics**

   a. *Who held the device for the majority of the time?*

   Both the seven year old and the nine year old boy held the device.

   b. *Were there any disagreements over who should be in control of the application?*

   Originally, yes. The mom had to give the boys turns. Eventually the nine year old became bored with the app and the seven year old took the reins.

4. **Length**
   a. *How did you feel about the length of Time Lens and the amount of time you spent on it?*

   It was perfect for a short day trip to the museum.

5. **Content**
   a. *Do you feel the application included enough content from each exhibit?*

   Yes, although the family did not

6. **Education**
   a. *Are there any facts you learned using the application that you did not take from the museum prior to today's visit?*

   Yes, they learned new things from exhibits they had been to before.

7. **Challenge**
   a. *Were the riddles and puzzles challenging enough?*

   Yes, the kids had hard time finding the objects when they didn't cheat.

   b. *Did you feel the questions in the application encouraged you to hunt for an answer?*

   Not specifically answered.

8. **Entertainment**
   a. *How did you like the Curious Curator character?*

   Not specifically answered.

   b. *Did you find the animations useful and interesting?*

   The animations were really cool!

9. **Enhancement**
   a. *Did you discover anything new at the museum that you have not encountered before?*

   Taxidermy room

   b. *Did the application enhance your overall experience at the Melbourne Museum?*

   Yes, it was good for the kids to take a leadership role in guiding the family group around the museum, rather than the parents choosing an exhibit and the kids walking around aimlessly.

10. **Major Changes**
    a. *Are there any specific changes you would make to Time Lens based on your experience?*

    Better maps and more activities. There should be games within the app.
    Make it so you can't answer a question without being close to the object.

Recruited Member Family Discussion Guide

Group 4: 10 November 2013

1. **Usability**
   a. *Did Time Lens function correctly for the entirety of its use?*

   No problems, all worked well.

   b. *Did you experience any major issues with the layout of Time Lens?*

   Sometimes it was hard to click on an area. Squid was in a different area than the rest of the exhibits on the badge, no indication where it was.

2. **Navigation**
   a. *Tell us about the path you took around the museum.*

   Forest Gallery, Fossils, Wet and Wild (Science) and Melbourne.

   b. *Did you use the map within the application?*

   Did not really use the map, didn't need it since they've been here many times.

3. **Group Dynamics**
   a. *Who held the device for the majority of the time?*

   Mom did.

   b. *Were there any disagreements over who should be in control of the application?*

   No disagreements.

4. **Length**
   a. *How did you feel about the length of Time Lens and the amount of time you spent on it?*

Videos were a good length. But don't make the app any longer than it already is.

5. **Content**
   a. *Do you feel the application included enough content from each exhibit?*

   It was good that the app tried to mainly highlight the weird/wonderful stuff from exhibits, but more interesting content is needed to keep attention.

6. **Education**
   a. *Are there any facts you learned using the application that you did not take from the museum prior to today's visit?*

   Nothing from using the app, but the Children's Institutions exhibition was new, and learned quite a bit from that.

7. **Challenge**
   a. *Were the riddles and puzzles challenging enough?*

   They seemed to distract the child from looking around at the exhibit.

   b. *Did you feel the questions in the application encouraged you to hunt for an answer?*

   Definitely. To hunt for an answer and to find things as well. It was good to seek and look around at the exhibits rather than the screen.

8. **Entertainment**
   a. *How did you like the Curious Curator character?*

   Intro with the Curator didn't grab attention/interest at all.

   b. *Did you find the animations useful and interesting?*

   Animations themselves were well done, content in them not so much. The videos were at times bland, it would be good in addition to interactive displays at the exhibit.

9. **Enhancement**
    a. *Did you discover anything new at the museum that you have not encountered before?*

    Not linked to the app.

    b. *Did the application enhance your overall experience at the Melbourne Museum?*

    A bit distracting at first until they got the gist of it, then it was enjoyable.

10. **Major Changes**
    a. *Are there any specific changes you would make to Time Lens based on your experience?*

    Have it recognize where you are (near exhibit), start playing video automatically. Have multiple difficulty levels.

    Additional Comments:

    More active child paid less attention, didn't want to stop and wait a minute to watch a video. She wanted to just keep going. The younger more quiet child paid more attention to the videos.

Recruited Member Family Discussion Guide

Group 5: 4 November 2013

1. **Usability**

   a. *Did Time Lens function correctly for the entirety of its use?*

      App worked well, no major problems. One of the iPads had an error once but it was quickly resolved by just restarting the app

   b. *Did you experience any major issues with the layout of Time Lens?*

      They got some initial help with the app, no major problems with any of the layouts. Everything was intuitive.

2. **Navigation**

   a. *Tell us about the path you took around the museum.*

      Dinosaurs -> Animals -> Forest -> Melbourne -> Tech Time traveler
      Went to wherever was just the closest, not really in order of interest

   b. *Did you use the map within the application?*

      Yes, map made things easy to visualize. Definitely a major positive

3. **Group Dynamics**

   a. *Who held the device for the majority of the time?*

      Each kid had their own device (iPad)
      Would definitely suggest headphones to use the app
      Easy to cheat off of each other, perhaps some sort of randomizing factor to make it so kids are doing different parts at different times to prevent them from just copying answers

   b. *Were there any disagreements over who should be in control of the application?*

Both had an app so no disagreements. Sometimes there would be issues if one of the kids played the video earlier so they weren't exactly synched up so one of the kids will have to wait for the other to catch up.

4. **Length**
    a. *How did you feel about the length of Time Lens and the amount of time you spent on it?*

    Older child (9?) could definitely go on for longer. Would like the app to take up more time
    Younger child (6?) was pretty content with the amount of stuff to do.

5. **Content**
    a. *Do you feel the application included enough content from each exhibit?*

    More stuff, or at least the option for more stuff.
    Beginner / Intermediate / Expert difficulties
        -more stuff to complete for higher difficulties

6. **Education**
    a. *Are there any facts you learned using the application that you did not take from the museum prior to today's visit?*

    Had never visited the ground floor lobby down by the CSRIAC machine before

7. **Challenge**
    a. *Were the riddles and puzzles challenging enough?*

    Yes for younger child
    Questions were fairly easy for older children.
        -Make questions harder for different difficulties

    b. *Did you feel the questions in the application encouraged you to hunt for an answer?*

    Yes, questions made you look around. Stuff like Thylacoleo made you look around for a bit before actually finding the object.

8. **Entertainment**
   a. *How did you like the Curious Curator character?*

   Children liked the curator

   b. *Did you find the animations useful and interesting?*

   Children found the animations to be fun and interesting

9. **Enhancement**
   a. *Did you discover anything new at the museum that you have not encountered before?*

   1st floor by entrance, the Fox, the Thylacoleo

   b. *Did the application enhance your overall experience at the Melbourne Museum?*

   More of a different experience rather than a better or worse one
   Especially good for people who have been to the museum a lot before to sort of get a different view of it
   Saw less overall but focused more on what they did see

10. **Major Changes**
    a. *Are there any specific changes you would make to Time Lens based on your experience?*

    Riddle text size and font where kind of hard to read for younger age groups. Make text larger and make font something more standard such as Arial
    The riddle talking wasn't really working that well. Would have been useful
    Should be able to "rack up points" by completing tasks. Points can build over multiple trips to the museum
    Be able to update the app with "downloadable content" with new exhibits or a rotation of different stuff within each exhibit.
    Beginner, Intermediate, Expert difficulties to change difficulty of questions and amount of stuff to find in each exhibit

Recruited Member Family Discussion Guide

Group 6: 4 November 2013

1. **Usability**
   a. *Did Time Lens function correctly for the entirety of its use?*

      Functioned correctly for the device that that child held as well as the iPhone that the parent downloaded it on.

   b. *Did you experience any major issues with the layout of Time Lens?*

      No, thought it was pretty straightforward. Pretty easy to get a handle on.

2. **Navigation**
   a. *Tell us about the path you took around the museum.*

      Started with Science & Life.

   b. *Did you use the map within the application?*

      Did not use map, primarily badges. Used map initially to get bearings. Map was helpful to know exactly where you were in the museum, but other than that it wasn't used.

3. **Group Dynamics**
   a. *Who held the device for the majority of the time?*

      The child did. Parent didn't really get the chance to, partial reason why she downloaded it onto her personal device.

   b. *Were there any disagreements over who should be in control of the application?*

      No disagreements.

4. **Length**
   a. *How did you feel about the length of Time Lens and the amount of time you spent on it?*

   Felt it was too short. Add a couple more things in each exhibit, or more puzzles in each badge. Especially Melbourne Gallery, lot of interesting exhibits in there, like the boats.

5. **Content**
   a. *Do you feel the application included enough content from each exhibit?*

   Content was educational, but would like more content in each challenge. E.g. forest, include some content into the caves because there's interesting areas there, especially the live animals.

6. **Education**
   a. *Are there any facts you learned using the application that you did not take from the museum prior to today's visit?*

   Yes, sanitary pan. Enjoys going to Scienceworks and the Pumping Station.

7. **Challenge**
   a. *Were the riddles and puzzles challenging enough?*

   Rhyming was too easy, challenges in general too easy for an 11 year old.

   b. *Did you feel the questions in the application encouraged you to hunt for an answer?*

   Yes, took ages to find a fossil. Thyracine. Really liked having to hunt for it, thought it was a good challenge. Couldn't find phonograph because they were looking where it had been (Melbourne Gallery) not where it was now. Didn't find the computer.

8. **Entertainment**
   a. *How did you like the Curious Curator character?*

   Liked the character, but hard to see intro with multiple people.

b. Did you find the animations useful and interesting?

Liked animations, funny, liked the toilet coming alive and talking.

9. Enhancement

a. Did you discover anything new at the museum that you have not encountered before?

Actually missed more than they normally do, as they were concentrating on the application.

b. Did the application enhance your overall experience at the Melbourne Museum?

However, did enhance overall experience. Different way of exploring the museum, different reason for coming.

10. Major Changes

a. Are there any specific changes you would make to Time Lens based on your experience?

On each exhibit have a little scanner/QR code to prove you've been there. Don't have it rhyme, made it too easy.

Maybe have categories in the gallery where the hidden object is.

Have something in the app that made you look around the other exhibits as well.

In the animations/clips, want more content in those.

Additional Comments:

Parent commented that if they were to use the app often, she would use headphones, because it is often difficult to hear the sound with all the peripheral noise.

Parent downloaded application onto personal iPhone so they could both listen to things without interference.

General impressions: child thought it was good, fun and also educational. Parent commented that it was easy to cheat; the apps can actually stop you looking at things because you're so focused on the badge that you just go from challenge to challenge and miss out on everything else. But really did like these kinds of apps, since kids get bored just going around the museum, new way to explore since exhibits don't really change. Would use it again.

Recruited Member Family Discussion Guide

Group 7: 10 November 2013

1. **Usability**

   a. *Did Time Lens function correctly for the entirety of its use?*

      No, didn't realize there was sound until ¾ of the way through museum tour. Sound was off at beginning of tour.

   b. *Did you experience any major issues with the layout of Time Lens?*

      Didn't think it was good for more than one person, but for just one person the layout worked well.

2. **Navigation**

   a. *Tell us about the path you took around the museum.*

      For the most part the family went in chronological order, however they did skip around at some points to collect different badges.

   b. *Did you use the map within the application?*

      No, used floor maps and asked a museum staff member for directions at one point.

3. **Group Dynamics**

   a. *Who held the device for the majority of the time?*

      The son held the device for a majority of the time. Every so often the mother used the device.

   b. *Were there any disagreements over who should be in control of the application?*

      Mother wanted to go slower, while kid wanted to speed ahead to next badge area.

4. **Length**
   a. *How did you feel about the length of Time Lens and the amount of time you spent on it?*

   It was good, but didn't cover all of the exhibits the mom wanted to see.

5. **Content**
   a. *Do you feel the application included enough content from each exhibit?*

   It is good for children, but did not cover enough for an adult visiting with a child.

6. **Education**
   a. *Are there any facts you learned using the application that you did not take from the museum prior to today's visit?*

   Typically they don't go into the taxidermy room because it's too gloomy. Also discovered new facts about the T-rex and bowerbird.

7. **Challenge**
   a. *Were the riddles and puzzles challenging enough?*

   No, there needed to be more challenge involved with completing *Time Lens.* It was too easy.

   b. *Did you feel the questions in the application encouraged you to hunt for an answer?*

   Yes, the family found lots of different things other than the objects presented within the application itself.

8. **Entertainment**
   a. *How did you like the Curious Curator character?*

   Liked her, but didn't know much about her.

   b. *Did you find the animations useful and interesting?*

The animations were really cool, and the facts were interesting sometimes, but they didn't want to watch it all the way through.

9. **Enhancement**

   a. *Did you discover anything new at the museum that you have not encountered before?*

   Evolution Gallery.

   b. *Did the application enhance your overall experience at the Melbourne Museum?*

   The overall museum visit was enhanced by a goal for the child, but for the mom it took away from the visit because she was not able to slow the kid down from wanting to go to different exhibits.

10. **Major Changes**

   a. *Are there any specific changes you would make to Time Lens based on your experience?*

   There should be more content within each exhibit. It should also be longer. Overall they gave it a big thumbs up!

Visiting Family Discussion Guide

Group 8: 10 November 2013

1. **Group Dynamics**
   a. *Who held the device for the majority of the time?*

   Mostly the father held it, kid pushed all of the buttons themselves though

   b. *Were there any disagreements over who should be in control of the application?*

   No problems

2. **Navigation**
   a. *Was this your first visit to the Melbourne Museum*
      i. *If no: Did you visit something you wouldn't normally have?*

      Hadn't seen the squid, didn't actually find out where it was though while using the app but it informed them that it was somewhere in the museum.

   b. *Tell us about the path you took around the museum.*

   Basic path of whatever was closest.
   entrance->forest->dino->animal->melbourne

3. **Content**
   a. *Do you feel the application included enough content from each exhibit?*

   There could be more for frequent visitors.
   Good for people who are visiting the museum for the first time, gives them a general tour around and brings them to major locations and sights

4. **Entertainment**
   a. *Was Time Lens fun for your family? (Kids & Adults)*

   Yes

5. **Education**
    a. *Are there any facts you learned using the application that you did not take from the museum prior to today's visit?*

    Wouldn't have really looked at the scientific names otherwise
    Did more in depth reading of things that they had already seen

6. **Usability**
    a. *Did Time Lens function correctly for the entirety of its use?*

    No bugs were encountered

    b. *Did you experience any major issues with the layout of Time Lens?*

    Layout was intuitive and easy to use

7. **Length**
    a. *How did you feel about the length of Time Lens and the amount of time you spent on it?*

    Good overall length
    Could maybe be more for older kids or people who have been to the museum before

8. **Challenge**
    a. *Did your kid(s) feel challenged by Time Lens?*

    Good difficulty for 7 year old age group

9. **Major Changes**
    a. *Are there any specific changes you would make to Time Lens based on your experience?*

    Have an option for different age group categories
    Make the path between locations in the scavenger hunt more back and forth not as straight forward. Zigzag through entire exhibit to see stuff on the way to next stop.

Recruited Member Family Discussion Guide

Group 9: 5 November 2013

1. **Usability**
   a. *Did Time Lens function correctly for the entirety of its use?*

      No, Time Lens crashed a few times. There weren't any other technical issues other than that.

   b. *Did you experience any major issues with the layout of Time Lens?*

      The questions and directions were ambiguous during the Fossil Finder badge.

2. **Navigation**
   a. *Tell us about the path you took around the museum.*

      The girls decided to start out at the Forest Exhibit. From there it was wherever they wanted to go. *Time Lens* only affected the exhibits they visited not the path they took.

   b. *Did you use the map within the application?*

      Yes, the girls have been to the museum many times and were able to use the map to navigate themselves to the next badge location.

3. **Group Dynamics**
   a. *Who held the device for the majority of the time?*

      The older girl held the device for the entirety of the museum visit. Both girls shared the application and colluded to answer the questions. The mother followed her children and did not play a large part in completing *Time Lens.*

   b. *Were there any disagreements over who should be in control of the application?*

No, the iTouch was shared between the girls and there were no disagreements as to who should control the app.

4. **Length**
   a. *How did you feel about the length of Time Lens and the amount of time you spent on it?*

   Both girls felt the app should be longer. They were able to complete it much faster than the time allotted.

5. **Content**
   a. *Do you feel the application included enough content from each exhibit?*

   No, there should have been more content from each exhibit included in the application. The content was sparce.

6. **Education**
   a. *Are there any facts you learned using the application that you did not take from the museum prior to today's visit?*

   The girls learned facts about the dinosaurs that they did not know prior to their museum visit. They thought the app sent them to places they had not been before and liked the variety it included.

7. **Challenge**
   a. *Were the riddles and puzzles challenging enough?*

   No, there needed to be more challenge involved with completing *Time Lens.* It was too easy and they could have completed it without going into the exhibits.

   b. *Did you feel the questions in the application encouraged you to hunt for an answer?*

   Yes, especially during the Fossil Finder badge part of *Time Lens.*

8. **Entertainment**
   a. *How did you like the Curious Curator character?*

Yes, but not very present throughout app.

b. Did you find the animations useful and interesting?

The animations were really cool, but a lot of the time they skipped the videos to answer the next set of questions.

9. **Enhancement**
   a. Did you discover anything new at the museum that you have not encountered before?

   The Thylacoleo Carnifex.

   b. Did the application enhance your overall experience at the Melbourne Museum?

   The overall museum visit was enhanced by a goal. Because the app directed them to answer a question it gave them an objective to complete.

10. **Major Changes**
    a. Are there any specific changes you would make to Time Lens based on your experience?

    There should be activates that you have to complete to earn the alternate badges that you get for collecting gems vs. treasures.

Additional Comment: Girls are top of their class and may not reflect their age groups ability to complete *Time Lens*.

Recruited Member Family Discussion Guide

Group 10: 4 November 2013

1. **Usability**
   a. *Did Time Lens function correctly for the entirety of its use?*

      Application shut off after one of the videos played. Child described it as "the iPhone shut off" only once after playing an animation clip.

   b. *Did you experience any major issues with the layout of Time Lens?*

      No major issues with technical experience.

2. **Navigation**
   a. *Tell us about the path you took around the museum.*

      To begin, the group started using the map and picking a pin that was on the ground floor since that was their beginning location. Mother says the boys took turns picking pins for the next two. For the last, the two boys found the badge page and used that to complete the application.

   b. *Did you use the map within the application?*

      Mother tried to use her fingers to expand the map and make it larger, but this wasn't possible within the app. She found it small and difficult to read

3. **Group Dynamics**
   a. *Who held the device for the majority of the time?*

      The two boys shared the device since the mother tried to allow for each boy to be in charge of one destination each. Mother held it to read some of the clues since they seemed "somewhat complicated for the age group."

   b. *Were there any disagreements over who should be in control of the application?*

There were some minor disagreements between the two boys about who would be holding the device. Mother tried to manage this by reading some of the clues herself.

4. **Length**
    a. *How did you feel about the length of Time Lens and the amount of time you spent on it?*

       Mother said they would use the application as "part of their visit" due to the age group but would not use it for the entirety of their visit. She also felt it worked well as an "activity within the visit." It would have been too long if they tried to complete it fully. She also enjoyed that the application did not require completion because as members, they visit frequently for shorter amounts of time.

5. **Content**
    a. *Do you feel the application included enough content from each exhibit?*

       Mother believed the application did not enhance each exhibit. The clues did not necessarily lead you very well, and since they knew where some things were they were able to find them. The children were also able to guess some of the answers. That made the application "doable" but she did not feel it was like a treasure hunt that led you around. This made them feel uncertain if they were using the application correctly. She felt they would have had to look through the entire area which would be time consuming.

6. **Education**
    a. *Are there any facts you learned using the application that you did not take from the museum prior to today's visit?*

       The children felt like they learned new things. The mother felt the same way.

7. **Challenge**
    a. *Were the riddles and puzzles challenging enough?*

       The boy says he felt the questions were "okay." The mother agreed, adding in that the rhymes were helpful. However, they felt some of the question did not rhyme perfectly.

b. *Did you feel the questions in the application encouraged you to hunt for an answer?*

The boy says some of them could be figured out. The children and the mother agreed that some were easy to guess, while a few caused you to probe a bit deeper.

8. Entertainment

a. *How did you like the Curious Curator character?*

The boys did remember the character after a brief reminder; he says he found her "a bit strange" because of the big glasses. Mother also noted here that she did not see the beginning animation because it was hard to share the small device.

b. *Did you find the animations useful and interesting?*

Both the more and the children felt the animations were useful and child said they gave "more information." Mother did see some of the videos and enjoyed them.

9. Enhancement

a. *Did you discover anything new at the museum that you have not encountered before?*

The mother said that she had not adventured into the aquatic section as much; however the boy said he had adventured there when he came at another time with his grandmother so he was familiar with it. Mother agreed that it pushed you to go to new places.

b. *Did the application enhance your overall experience at the Melbourne Museum?*

The mother had to explain this question a little bit more to the boys. He was unsure about it. The mother asked him if he would say he would really be adamant about using the application on another visit. The boy said he would say he wanted to use the application better. The mother said she liked the "discrete nature of the sections" because it kept the length down and made it

more appropriate for a range of ages. She liked you could go for one badge and didn't need to collect all of them. There wasn't a feeling that they had to complete the application by collecting all the badges. She compared this to other galleries they had explored that had applications that were too long and needed to be completed for an achievement. However, she commented that it wasn't intuitive about collecting the badges when they started using the map and says they "maybe missed the point" at first.

10. **Major Changes**
    a. *Are there any specific changes you would make to Time Lens based on your experience?*

    The boy says maybe they could ask "more questions" rather than the rhyming riddles. The mother says she would have it rather lead you to item and ensure that you have made it to the item with a code or something similar. She wished it was a better guide and had more directions since she had to keep track of three children and it wasn't "sustainable" to venture around the entire exhibit. She also wanted the questions to be made so that you had to go to the item and couldn't answer the questions if you didn't.

Additional Comments: Mother asked if the application was actually "up and running" now because she wasn't familiar with it. She agreed it was not very well known. The mother led the boys back into the room after exiting because they wanted to comment that they really liked the app. The other boy who was quieter during the discussion said he wanted to know how the application was made.

Non-Member Family Discussion Guide

Group 11: 10 November 2013

1. **Group Dynamics**
   a. *Who held the device for the majority of the time?*

      Mother, device is owned by her

   b. *Were there any disagreements over who should be in control of the application?*

      Seemed to work well

2. **Navigation**
   a. *Was this your first visit to the Melbourne Museum*
      i. *If no: Did you visit something you wouldn't normally have?*

         First visit to the museum

   b. *Tell us about the path you took around the museum.*

      Started at kid playground
      Went left to right then top floor

3. **Content**
   a. *Do you feel the application included enough content from each exhibit?*

      Yes, there would have been too much if there was any more

4. **Entertainment**
   a. *Was Time Lens fun for your family? (Kids & Adults)*

      Yes, it was a lot of fun to search and look for stuff

5. **Education**
   a. *Are there any facts you learned using the application that you did not take from the museum prior to today's visit?*

Good to slow down and look at stuff in depth while trying to answer questions. Looked at other things thinking they might be the answer and learned about them even though they weren't exactly in the app

6. **Usability**
   a. *Did Time Lens function correctly for the entirety of its use?*

      No issues were encountered

   b. *Did you experience any major issues with the layout of Time Lens?*

      App was supposed to automatically lead into the next gem after completion of a video, some questions didn't do that and they had to manually go to the next one.

7. **Length**
   a. *How did you feel about the length of Time Lens and the amount of time you spent on it?*

      Spent about 3-1/2 hours on app, combined with just also looking around at stuff in app exhibits.

8. **Challenge**
   a. *Did your kid(s) feel challenged by Time Lens?*

      Younger 5 year old found questions to be difficult, Older 7-1/2 year old had an easier time. Older child helped the younger child out.

9. **Major Changes**
   a. *Are there any specific changes you would make to Time Lens based on your experience?*

      App was good, no ideas for major changes

Non-Member Family Discussion Guide

Group 12: 10 November 2013

1. **Group Dynamics**
   a. *Who held the device for the majority of the time?*

      Father held for most of the time

   b. *Were there any disagreements over who should be in control of the application?*

      No disagreements, child could have held if she wished to

2. **Navigation**
   a. *Was this your first visit to the Melbourne Museum*
      i. *If no: Did you visit something you wouldn't normally have?*

         Several things they hadn't seen before:
                 Thylocoleo, various stuff in Marvelous Melbourne section

   b. *Tell us about the path you took around the museum.*

      Dinosaurs -> Rainforest -> fauna -> melbourne

3. **Content**
   a. *Do you feel the application included enough content from each exhibit?*

      Yes, good for what it was, would have been happy to keep going although if there was more content

4. **Entertainment**
   a. *Was Time Lens fun for your family? (Kids & Adults)*

      Yes, it was lots of fun

5. Education

    a. *Are there any facts you learned using the application that you did not take from the museum prior to today's visit?*

    Probably not, just a different way to discover them

6. Usability

    a. *Did Time Lens function correctly for the entirety of its use?*

    No issues were encountered

    b. *Did you experience any major issues with the layout of Time Lens?*

    There was a little bit of getting used to, soon worked it out though. Problems could stem from having a smaller device.

7. Length

    a. *How did you feel about the length of Time Lens and the amount of time you spent on it?*

    About an hour on the floor
    Would have kept going if there was more, happy to spend the time
    Knew where sections of the museum were so that cut down on searching time.

8. Challenge

    a. *Did your kid(s) feel challenged by Time Lens?*

    A little bit hard for a 6 year old
    Difficulty could be brought down a bit for a younger audience or at least have an option to

9. Major Changes

    a. *Are there any specific changes you would make to Time Lens based on your experience?*

    Nothing in particular jumps to mind

Recruited Member Family Discussion Guide

Group 13: 10 November 2013

1. **Usability**

   a. *Did Time Lens function correctly for the entirety of its use?*

   The boys felt that it was odd or confusing that the wrong answer "went gray" if you had incorrectly selected it. They suggest a red 'X' or something more obvious. They had at first thought that something had gone wrong with the application.

   b. *Did you experience any major issues with the layout of Time Lens?*

   The family agreed that it was unclear when opening the app how to get to the questions and begin the game. They also described the map as a "rough" description. The map didn't show how much the application actually encompassed.

2. **Navigation**

   a. *Tell us about the path you took around the museum.*

   They took a random order the first time they used the application. The mother pointed out that since the boys are twins, random order worked best so that the mother and father could engage the boys separately since they split up the first order. Today, they went to Fossil Finder first since it was closest to the activity room they began at. Mother asked boys what they would do if they were only with one parent or only had one device, and they said they would have to find a way to share it. Mother suggests using audio recorders, or a way to make it more publicized.

   b. *Did you use the map within the application?*

   Mother claimed that if you didn't know the museum the map in the application wouldn't be useful. It felt that the map didn't guide you around and when you clicked on a pin it only showed an image, rather than how to get there.

3. **Group Dynamics**

   a. *Who held the device for the majority of the time?*

      Each boy had their own device that they brought from home.

   b. *Were there any disagreements over who should be in control of the application?*

      Since the boys are twins, the mother feels they have good ways of sharing things. She imagines that if there was only one device, the older may hog it and try to control the visit. She also pointed out that the boys have similar interests and if all the children weren't interested it would be difficult.

4. **Length**

   a. *How did you feel about the length of Time Lens and the amount of time you spent on it?*

      The boys felt the length of the application was good. The boy repeats that he really liked the videos, but some of them didn't provide enough information. The videos added a decent amount of length to the application but didn't always add lots of additional information. The length of application is a good way of concentrating on the museum.

5. **Content**

   a. *Do you feel the application included enough content from each exhibit?*

      The boys desired "more" from the exhibits and the application. Mother addresses that there is an issue with the range of ages for it. She also felt that the boys would have struggled if she did not assist them. She thought the rhyming clues were well thought out, but needed to be more literal. She wished that they actually led you to the object and that they were more specific and fitting for the object description. The mother described wanting something on the exhibit or like an arrow for confidence and the boys wanted a "tip" so they knew they had it right. Some of the wording is also complex and "yucky" at some points in time.

6. **Education**
   a. *Are there any facts you learned using the application that you did not take from the museum prior to today's visit?*

   The boys say they learned about "creatures." Boys were unsure if they had really learned anything new. One of the boys commented he felt he learned more about the history and what it meant. They also felt that kids will like the videos because they don't want to read all the panels and explanations. They want to find something that makes them "know they've done something correct." Mother says she felt she learned some new things as well and saw a few different objects they've never seen before and saw the museum in a "different way" seeing things they normally wouldn't look at or notice before.

7. **Challenge**
   a. *Were the riddles and puzzles challenging enough?*

   Boy felt that the rhyming was sometimes bad because you could guess some because it was obvious what rhymed. He pointed out that you had to search for the treasures, but the gems you could guess. He also commented it was too challenging to search for some of the answers so he guessed instead.

   b. *Did you feel the questions in the application encouraged you to hunt for an answer?*

   Mother said she had to help and prod for the clue. The rhymes were good in content, but didn't point out the critical words well. She says it would be better if the rhyme was complete and then say 'What am I?'

8. **Entertainment**
   a. *How did you like the Curious Curator character?*

   The group felt that the character was fitting. The mother commented that she liked it was female. They also felt that the character goes away and the boys said they thought it was 'okay.'

   b. *Did you find the animations useful and interesting?*

The group felt the introduction was a little bit long. The boy commented throughout the discussion that he liked the animations.

9. **Enhancement**
   a. *Did you discover anything new at the museum that you have not encountered before?*

      The mother said that the application encouraged the group to "look with fresh eyes" and view things from a "different angle." She definitely believed it brought new things.

   b. *Did the application enhance your overall experience at the Melbourne Museum?*

      First time they used it, boys didn't want to come. She explains that they asked and looked at the ticket booth if there was anything good for kids. They learned about it from a table. She wished they were told about it or that it was marketed better. She mentioned here to place an icon on exhibits around the museum. She says there is lots of potential for the application. Boy says that children would like it a lot if they knew more about it. She also mentioned that QR codes were used at another museum she visited and she found them useful.

10. **Major Changes**
    a. *Are there any specific changes you would make to Time Lens based on your experience?*

       They wished the riddles were more challenging and made you search more. The mother also wished the staff and volunteers were more knowledgeable about the application and that it was better marketed.

Additional comments: Boys said they had a lot of fun. He also immediately pointed out that the animations were very good and it excited him. The more talkative of the two was very adamant about how much he liked the videos and brought it up often.

Peer Review Discussion Guide

Peer Group 1: 4 November 2013

1. **Usability**
   a. *What did you think of the layout of Time Lens?*
      i. *Menus, question pages, badges etc…*

      Fairly organized. On the map, couldn't tell if the app was just slow or if they just kept missing the pushpins. They were small and hard to press. Volume was low.

      Videos didn't flip when the screen was turned. The audio shorted out for a bit and it was hard to read the subtitles. App kept crashing at Blue Gem sections.

   b. *How easy was it to navigate Time Lens?*

      It was rather easy, no problems navigating.

2. **Content**
   a. *What did you think of the content of Time Lens itself?*
      i. *Riddles, Animations, Age appropriate, etc…*

      Seemed good. Rhyming made it too easy. The clues didn't direct to where the hidden things actually were in the gallery. Some direction would be helpful. Example: while searching for the squid, they didn't realize how to get to Marine Life from the wildlife gallery.

   b. *Did you think the theme of Time Lens was appropriate?*

      Yes, the theme/scavenger hunt approach was good.

   c. *Do you feel Time Lens included enough content from each exhibit?*

      They only included a small percentage of exhibits. For each badge, more exhibits/challenges should be included. Videos were a little boring.

3. **Challenge**
   a. *What do you think about the difficulty of the questions?*

      Rhyming made it too easy to figure out the answer.

4. Navigation

    a. How did you feel about Time Len's ability to lead you around the museum? (open ended or more structure)

    It was too open ended. More structure is needed

5. Length

    a. How did you feel about the length of Time Lens and the amount of time you spent on it?

    If more structure is added, more stuff should be added to the app (more exhibits in the badges)

6. Education

    a. Did you think Time Lens had enough educational value?

    With the objects mentioned, yes. But the app can also take away from the additional exhibits not mentioned, so you lose the educational value from those.

7. Entertainment

    a. Did you have fun using Time Lens? (fun for 6-12?)

    It was fun. Not bad, but a little bland for the average kid.

8. Group Dynamics

    a. Did you encounter anything that might be a problem for kids using Time Lens? (running off, being loud etc…)

    The kids might have trouble sharing if there was only device and a lot of kids.

9. Major Changes

    a. What changes, if any, would you suggest for a new Time Lens?

    Take picture with the exhibit, app reads it to prove you've been there only then can you move on. Have the app interact with the exhibits, maybe use QR code or equivalent?

10. Enhancement

    a. In what ways do you imagine Time Lens affecting museum visits?

Not specifically answered.

b. Positive or negative?

It helped positively for those exhibits that were included in the application.

Peer Review Discussion Guide

Peer Group 2: 4 November 2013

1. **Usability**
   a. *What did you think of the layout of Time Lens?*
      i. *Menus, question pages, badges etc…*

      Confusing at first, directions were not laid out
      Easy to use once they got the hang of it though

   b. *How easy was it to navigate Time Lens?*

      Very easy, map was excellent and pics showing where to start were a great tool to know where to be

2. **Content**
   a. *What did you think of the content of Time Lens itself?*
      i. *Riddles, Animations, Age appropriate, etc…*

      Riddles were age appropriate
      Not really any point to the app because you didn't actually have to go to the exhibits, could just sit somewhere and guess all the answers
      Rhyming made things really easy

   b. *Did you think the theme of Time Lens was appropriate?*

      Indifferent
      Didn't really know about it
      Maybe would like more if it was integrated well, not just thrown in for the sake of it

   c. *Do you feel Time Lens included enough content from each exhibit?*

      Depended on each exhibit
      It was kind of short, might be better for kids since they usually have lower attention spans

3. **Challenge**
   a. *What do you think about the difficulty of the questions?*

      See above (might be too easy, but could be good for age group)

4. **Navigation**
    a. *How did you feel about Time Len's ability to lead you around the museum? (open ended or more structure)*

    > Liked more Open-enededness in app
    > Museums are good because they're open ended, you can go wherever you want
    > Allows for looking at other stuff if you want to take a quick break from the app

5. **Length**
    a. *How did you feel about the length of Time Lens and the amount of time you spent on it?*

    > See Above (Maybe kind of short, but could be good for kids)

6. **Education**
    a. *Did you think Time Lens had enough educational value?*

    > Not really
    > It's more interactive than educational
    > Learned more from the museum itself, not really from the app

7. **Entertainment**
    a. *Did you have fun using Time Lens? (fun for 6-12?)*

    > Probably if they were the intended age group
    > Should be less text based

8. **Group Dynamics**
    a. *Did you encounter anything that might be a problem for kids using Time Lens? (running off, being loud etc…)*

    > Running off can definitely be a problem
    > Headphones are recommended as the volume is a bit quiet

9. **Major Changes**
    a. *What changes, if any, would you suggest for a new Time Lens?*

    > Make it more of a part of the exhibits
    > Make physical badges you can receive more prominent

Include a search feature so people can find what they want
Different modes for traveling around the museum

10. Enhancement

    a. In what ways do you imagine Time Lens affecting museum visits?

        Can improve visit for kids, draw them in with a game to get their interest in the exhibits
        Makes it an adventure
        Most helpful for people that are not already interested in exhibits, so maybe target app at people who wouldn't normally come

    b. Positive or negative?

        Different, not necessarily good or bad

Peer Review Discussion Guide

Peer Group 3: 4 November 2013

1. **Usability**
   a. *What did you think of the layout of Time Lens?*
      i. *Menus, question pages, badges etc…*

      Good Overall, button to go to the next screen was somewhat awkward. Videos should go to the next page on the app automatically. Sometimes you have already walked by the next object on the scavenger hunt so maybe the order could have been changed around.

   b. *How easy was it to navigate Time Lens?*

      Not that difficult, perhaps a good difficulty for 6-10 year olds.

2. **Content**
   a. *What did you think of the content of Time Lens itself?*
      i. *Riddles, Animations, Age appropriate, etc…*

      Rhyming was bad
      Questions were harder than they (the group) would have thought.
         -Didn't see "Big Red" anywhere for Phar Lap
      Animations were

   b. *Did you think the theme of Time Lens was appropriate?*

      Story was ok, ended abruptly
      Kind of hard to understand what exactly is happening and it didn't have anything to do with treasures and gems

   c. *Do you feel Time Lens included enough content from each exhibit?*

      Good amount of content; it encouraged you to read other exhibits on the way to the next one.

3. **Challenge**
   a. *What do you think about the difficulty of the questions?*
      Non-rhyming questions were good
      "Hard enough for us"

4. **Navigation**
   a. *How did you feel about Time Len's ability to lead you around the museum? (open ended or more structure)*

      Should look into Graph theory to determine the most efficient path
      Could be quickest or one that lets you see the most stuff
      App should automatically check off where you've been

5. **Length**
   a. *How did you feel about the length of Time Lens and the amount of time you spent on it?*

      Didn't finish it all, only did Forest and Melbourne areas
      Could be able to finish in multiple trips
      App should email reports on the details of the Time Lens trips you took during the museum visit

6. **Education**
   a. *Did you think Time Lens had enough educational value?*

      Learned stuff through the museum, not the app
      -however app did lead them through the museum
      App brings you to spots to learn, not necessarily teaching you itself

7. **Entertainment**
   a. *Did you have fun using Time Lens? (fun for 6-12?)*

      Fun, good amount of enjoyment
      Gets you to be interactive with stuff not normally interested in
      -Become interested in that stuff

8. **Group Dynamics**
   a. *Did you encounter anything that might be a problem for kids using Time Lens? (running off, being loud etc…)*

      Not everyone could have map, person without didn't know where to go
      Riddles might be too long to read out to groups if multiple kids have only one device with the app

9. **Major Changes**
   a. *What changes, if any, would you suggest for a new Time Lens?*

   > QR codes or Bluetooth to make sure you're actually at the exhibits and not cheating

10. **Enhancement**
   a. *In what ways do you imagine Time Lens affecting museum visits?*

   > Gets you looking through everything
   > Adds incentive to go through stuff you normally didn't care about

   b. *Positive or negative?*
   > Different, not necessarily good or bad

Peer Review Discussion Guide

Peer Group 5: 4 November 2013

1. **Usability**
   a. *What did you think of the layout of Time Lens?*
      i. *Menus, question pages, badges etc…*

      They did not enjoy the overall layout. They commented that it was "bad" and "confusing." They also commented you had to press down hard to get a response from the application.

   b. *How easy was it to navigate Time Lens?*

      They found the navigation of the application easy and relatively intuitive.

2. **Content**
   a. *What did you think of the content of Time Lens itself?*
      i. *Riddles, Animations, Age appropriate, etc…*

      They believed the riddles were age appropriate and that the rhyming was useful because if children were struggling they could fall back on that as a way to answer the question.

   b. *Did you think the theme of Time Lens was appropriate?*

      The group did not think there was evidence of a theme throughout the application, but they did also not see the importance of watching the introduction video so they skipped that.

   c. *Do you feel Time Lens included enough content from each exhibit?*

      They believed that the puzzles and riddles felt out of order, similarly to how they were generally confused by the layout. The group agreed they wished there was a more specific route built into the application. Additionally, they wished there were better instructions because they weren't sure how to approach some of the puzzles, especially the one with clues and pictures.

3. **Challenge**
   a. *What do you think about the difficulty of the questions?*

The group felt these were on point for the age group. They thought it was useful that children could also draw on prior knowledge if necessary to answer the questions.

4. **Navigation**
   a. *How did you feel about Time Len's ability to lead you around the museum? (open ended or more structure)*

   The group felt the navigation was "choppy" at best. They described the order as "weird" but acknowledged that it did bring you around to many different parts of the museum.

5. **Length**
   a. *How did you feel about the length of Time Lens and the amount of time you spent on it?*

   The length seemed just about right. Since they were able to complete it quickly, they thought it would be good for the specific age group it was designed for.

6. **Education**
   a. *Did you think Time Lens had enough educational value?*

   The group commented that they learned about Phar Lap from the application, but did not indicate if they personally took anything from it.

7. **Entertainment**
   a. *Did you have fun using Time Lens? (fun for 6-12?)*

   The group generally enjoyed using the application. They commented that it was good for children to have something to listen to and look at. It makes it more interesting that just reading panels or looking at static objects.

8. **Group Dynamics**
   a. *Did you encounter anything that might be a problem for kids using Time Lens? (running off, being loud etc…)*

   The group found it weird to keep switching between screens like the map, badge page, and journal. They also found that after collecting a gem, it would skip back to the home page so the sequence of gem collection within each exhibit was confusing.

9. Major Changes

   a. What changes, if any, would you suggest for a new Time Lens?

   The group thought it was most important to have the application have a solid starting point. They wanted it to act as more of a roadmap.

10. Enhancement

   a. In what ways do you imagine Time Lens affecting museum visits?

   They thought that applications were good because they caused children to be more engaged. Another comment was that kids like technology and hands-on interaction so this is a good method to attract that audience.

   b. Positive or negative?

   Overall, it was positive. Even being in an older age group, the group learned something and took something away from it.

Major Conclusions from Evaluation

A. *Time Lens* effectively engages families with kids ages 6-8
B. *Time Lens* gives a different perspective to the normal museum visit
C. Kids lead the museum visit for families when using *Time Lens*
D. The interface was confusing
E. The badge system was ignored by most users
F. Animations were a bit too long, but the content was interesting
G. There was not enough content
H. The amount of time it took to complete was perfect
I. The map was hard to use
J. The layout of gems and treasures was confusing
K. Questions and riddles were too easy
L. Kids above 8 were typically bored by *Time Lens*
M. The narrative was absent after the intro
N. There was a lack of theme through the app
O. Parents felt they saw less than a they would during a normal museum visit

Recommendations for New Application
Based on findings from Summative Evaluation

- Create a sequel *Time Lens* **(A, B, C)**
    - Some families are already familiar with the name
    - Potential to become a brand and suite of apps at the Melbourne Museum
- Target age group: kids 8 to 12 **(A, L)**
- Make a game-like interface **(D)**
    - Tab system confused users of the first *Time Lens*
    - Kids of this age are used to smartphone games and that interface style
- 2D image stills for intro and application **(F)**
    - 3D animations were too long and skipped often
    - 3D animations a monetarily expensive
    - 3D animations make the app size too large
    - Wide range of actions available with 2D drawings
- Jungle-Adventure Theme **(N, M)**
    - Tropical colors that reflect Museum Victoria's color scheme
- Have a persistent protagonist **(M)**
    - A "Courageous Curator" that pays homage to adventure film heroes.
    - Persistent through the app guiding the user and congratulating them.
- Create a collection system where players collect items **(E)**
    - Once an item is found it will be added to the players collection shelf

- o Allow players to build their own shelf and share it on FB or through email
- Include questions of different difficulties **(K)**
- Give players incentive for completing the application **(E, L)**
  - o Gold and Silver medals for completing harder questions
- Include all galleries **(G, O)**
- Separate galleries into different sections in the application **(H, J)**
- Include a zoom-able map with illustrations that link to galleries **(I, J)**

Objects for Consideration

Our team trekked the museum looking for "Wacky and Wonderful" objects that could be used as a part of *Time Lens Episode II.* We listed below object we believe to be suitable for the application. These are just samples, and they are by no means a concrete facet of *Time Lens.* We hope that the design team can consult with curators to determine more ideal objects when development commences.

- **First Peoples**
    - Stone Axe
    - Pocket Compass & Sundial
    - Messages Sticks
    - One of the Canoes
    - Tooth Necklace
    - Spirit Mask
    - Paddles or Sails
- **Melbourne Gallery**
    - Bull's Head
    - Carlton Teddy Bear
    - Judith Durham's Coat and Tunic
    - Radio
- **Dinosaur Walk**
    - Anhanguera
    - Deinonychus
    - Anomalocaris
    - Arthropleura or Meganeura
- **Evolution Gallery**
    - Bird of Paradise
    - Regent Honeyeater
    - Scorpion (located in forest floor magnifying glass area)
    - One of the Bats
- **Bugs Alive!**
    - Queen Termite
    - Walking Sticks
    - Dermesid Beetle
    - Spider Webs
- **Marine Life**
    - Leafy Sea Dragon
    - Flying Fish
    - Mantis Shrimp
    - Viper Fish

- **Dynamic Earth**
  - Zircons
  - Jubilee Diamond
  - Sulphur
  - Zebra Rock
  - Gold Bar
  - Crocoite
  - Libyan Desert Glass
  - Pangaea