

Appendices

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Appendix A. Visitor interviews

Script:

- Participate in research, answer a couple of questions. (max 2 min)
- Scoring of statements
- Ask about nationality and kind of ticket
- After visit a short talk, max 5 min. Return after visit to me here.

Voor bezoek:

Scoring (1 not true, 5 true)

1. I am interested in art.
2. I have a lot of knowledge about Vincent van Gogh.
3. I visit art museums on a regular basis.
4. I know how to behave in an art museum.
5. I am well prepared for my visit to the Van Gogh Museum.
6. I feel I know what to expect of my visit to the Van Gogh Museum.

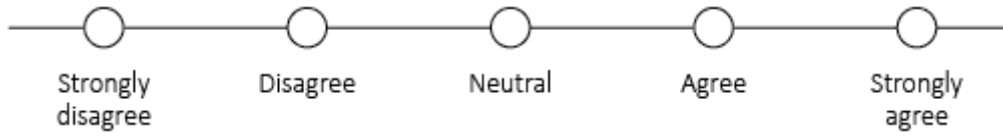
Demographics:

- Online ticket, offline ticket, voucher.
- Age
- Nationality
- Group composition
- Persons in group
- Description of person to match before and after visit research

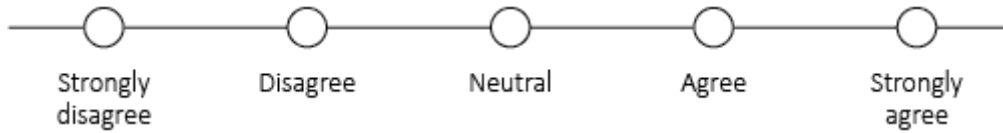
After visit: (record)

1. Why did you choose to visit the Van Gogh Museum?
 - a. For others?
 - b. For yourself?
 - c. For the content?
 - d. For a profession?
 - e. For the bucket list?
2. How did you experience the exhibition spaces?
 - a. Crowded?
 - b. Efficient to move around?
 - c. Easy to find your way?
 - d. Enough time to look at paintings?
 - e. Did you (want to) see all galleries?
3. Did you use a MMT during your visit?
 - a. Why (not)?
 - b. Would you like to be guided through the story of the exhibition?
4. (How) Did you prepare your visit to the VGM?
 - a. Practical: buy ticket, adres, floorplan
 - b. Content: life and work of Van Gogh
 - c. Setup of the museum (bottom to top)
5. What will you remember of today? What will stick?
 - a. Learned anything?
 - b. Surprised? Inspired?

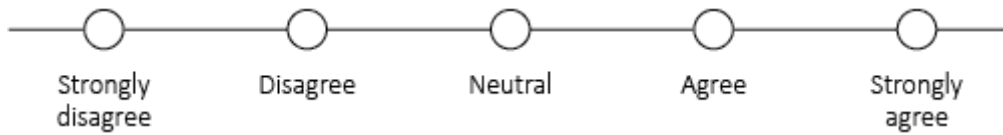
I am interested in art.



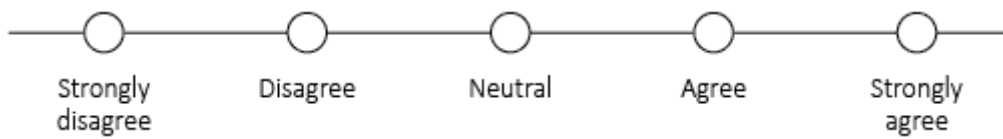
I have a lot of knowledge about the life and work of Vincent van Gogh.



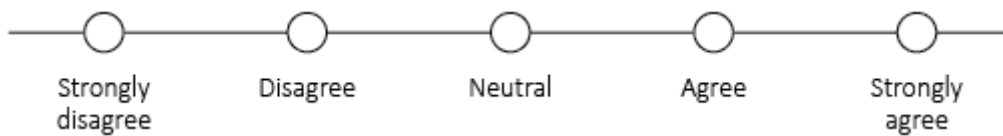
I often visit art museums.



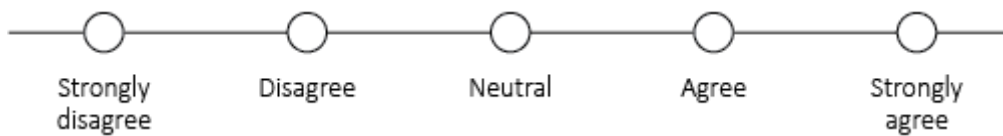
I know how to behave in an art museum.



I am well prepared for my visit to the Van Gogh Museum.



I know what to expect from my visit to the Van Gogh Museum.



Appendix B. Results of the visitor interviews

Participant 1

Participant 1

Description:

A man (30) from Argentina visiting the museum with his mother. They were in the museum for 2 hours.

Interview:

Q: Why did you visit the museum today?

It is an important stop to make in Amsterdam. I was interested in the story and think I should have been here once in my life.

Q: What did you think about the exhibition space?

It was nice, only a lot of people. We sometimes had to wait to see the paintings we wanted to see. It was easy to navigate the museum. It was a fluent experience.

Q: Did you see everything you wanted to see?

Yes, we saw the entire museum. Only we did not look at all the paintings in detail. We kind of browsed around the museum.

Q: Did you use an audio guide?

No.

Q: Why not?

We wanted to move through the exhibition quickly. And everything is also on the wall next to the paintings.

I thought 5 euros is a bit expensive. But it could have been nice to have some more context on some of the paintings.

Q: How did you prepare your visit?

We bought our ticket.

Q: Did you do any research on van Gogh before coming here?

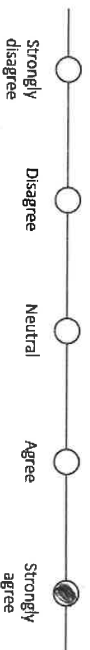
No, not in particular. But I had some knowledge about the works of van Gogh.

Q: Is there anything that you will remember in particular of today?

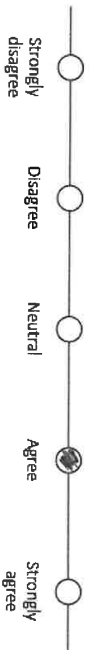
Not really. It is a really nice museum with a lot of beautiful works.

Maybe that it was such a short time in which he made all his paintings. It is very nice to see that he had developed himself that much during his short career.

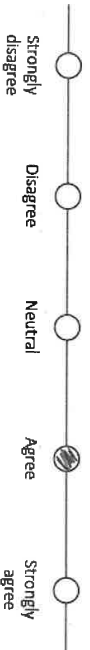
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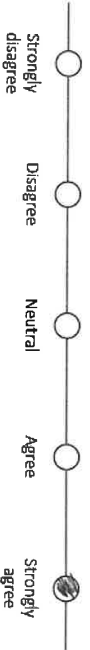
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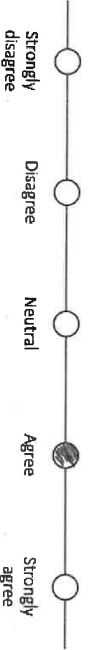
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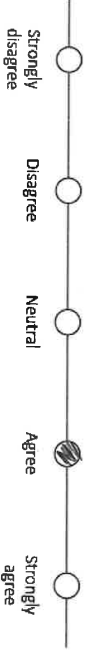
I know how to behave in an art museum.



I am well prepared for my visit to the Van Gogh Museum.



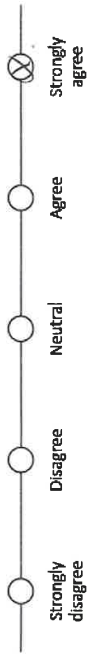
I know what to expect from my visit to the Van Gogh Museum.



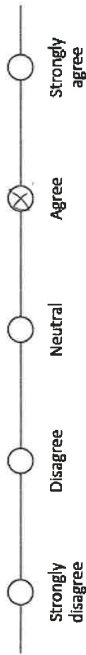
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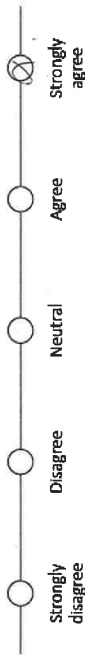
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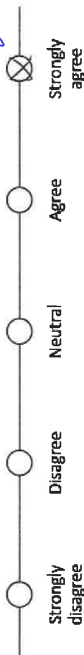
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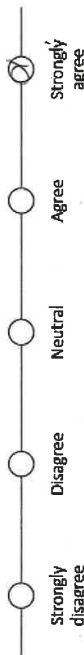
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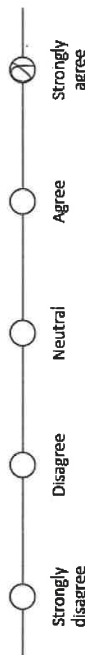
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u x Per museum
waar veel niet museum

Participant 2

Description:

Dutch lady of around 60 who was visiting with a friend. They were at the museum for a lecture from the vrije academie about the Dutch in Paris. She visited the museum for 3,5 hours.

Interview:

Q: Do you often visit a museum?
Yes very often. Not always like this -with a lecture-, but I go to a museum around four times a month.

Q: Have you been here more often?
Yes

Q: Are you using an audio tour?
Sometimes, but sometimes I find it annoying because everyone is in front of the same painting. It is not that I do it standard but sometimes I also think "well is nice for a bit of extra information" but it is not that I really tick everything.

Q: What do you think of regular guided tours?
I really dislike them. You know, all of those old women, like me, with their clubs, all standing behind a lady pushing at a painting. So that's what I actually think... Sometimes you get a lot of information that you're not really interested in. So in that respect I find the formula of a lecture in which, if it is a bit of a talker, you get all the information at once and then you can look at your convenience very good.

Q: What would your ideal museum visit look like? Do you enjoy being guided through an exhibition or are you discovering more of yourself?

I happened to be in a museum yesterday. I find that very nice. That is a very nice big museum. Very light, modern building. And then there are only six paintings. So not too crowded everything next to each other. And then you get a booklet about the artist. And at the painting only the name of the painter is visible, so not everyone is reading the labels. And they should also have many banks. So you can sit and just look around you. Then you can also look people, always fun to do.

Q: You are of the long look?
Well you do not have to look long at everything. But sometimes it is also so nice to philosophize with a painting and to see what you actually see. You should force people to do that.

Participant 4:

Description:

Two mexican woman (mid 40) that are in Amsterdam for a training and decided to visit the museum in their free time. They bought their tickets through Tours&Tickets and visited for 2.5 hours.

Interview:

Q: *So how was your visit? Did you like it?*

Yes, very much.

Q: *What did you like?*

I like everything, but...

The first floor is the best part. And the new exposition of the Dutch in Paris was great. I liked it very much. There were some artists I didn't know. Yes I like it.

Q: *Why did you plan to visit the van Gogh museum today? Why did you want to go here?*

We have already been here. But we had very little time so we thought it was the best to visit in a small amount of time.

This is the third time I've been here. And I like it very much. This is one of the most beautiful museums in the world. Because even though it's small they have a lot of things.

One thing I didn't like I didn't find some paintings that I saw before. I think they were moving around the world.

Yeah, that's also because of the renovations that are taking place.

Ah yeah. I think that was something bad.

It's also fine so other people can see it, but it should be clear what to expect when you plan to visit the museum.

Q: *You visited the museum already three times? In what time span?*

In ten years this is the third time.

Q: *How did you experience the exhibition space? Did you find it easy to find your way and was it crowded?*

No we had no trouble. It was busy, but not as busy as the other times. In some places there were a lot of people and I couldn't see the paintings. But that is in all museums.

Did you have a chance to see everything you wanted to see?

Yes.

Q: *Did you see the entire museum?*

No, not entirely. We went fast because we have to get back to the hotel. If we had used the audio guide I think we would have spend a lot of time here.

Q: *You didn't use the audio guide today?*

No because of the time.

Q: *Do you think it would have been nice to use an audio guide when you would have more time?*

Yes.

Q: *How did you prepare your visit today?*

We bought a ticket at the hotel. We planned a rough time. We couldn't come to the museum today we would go another place.

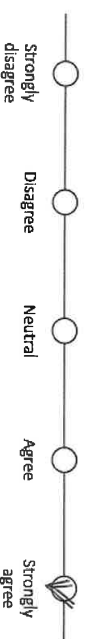
Q: *Did you do some research before coming here?*

No, nothing. I know about the museum and we wanted to come. And that's all.

Q: *Is there anything that you will remember of today?*

No not really. But I liked it very much. I can be here many times.

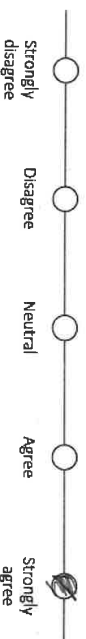
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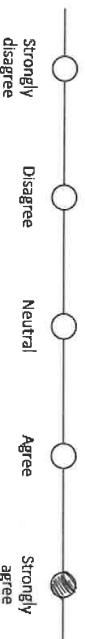
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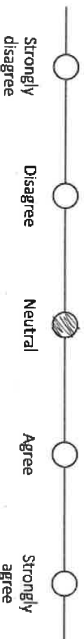
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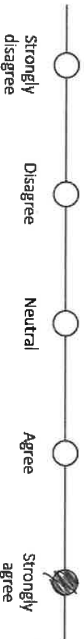
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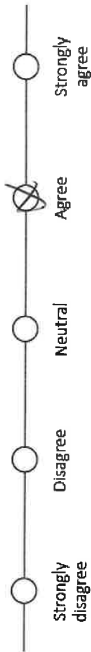
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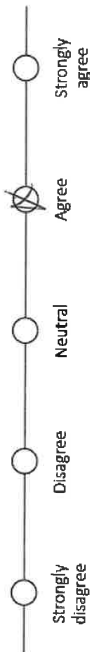
I know what to expect from my visit to the Van Gogh Museum.



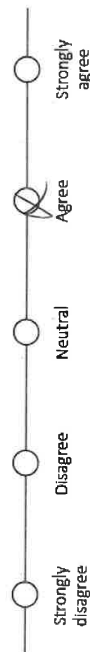
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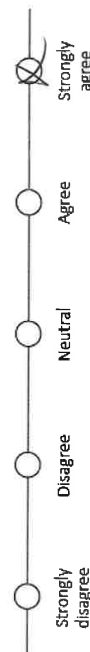
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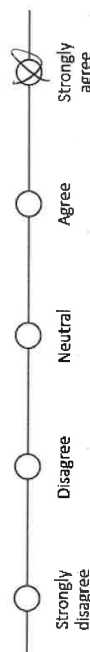
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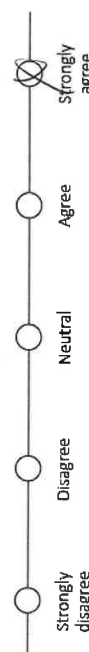
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I know what to expect from my visit to the Van Gogh Museum.



Participant 5

Description:

An American family (parents (40) and 1 child (14)) who bought their tickets online and visited for 2 hours.

Interview:

Q: So how was your visit? Did you like it? It was really nice. The paintings are beautiful and the story of van Gogh is really interesting. I learned a lot today.

Q: Why did you plan to visit the van Gogh museum today? We wanted to visit the museum because it is an important landmark. Because we are in Amsterdam and we also wanted to do something cultural while here. Van Gogh is a big name, and I am interested to learn more about him.

Q: Did you see the entire museum? Yes. We moved all the way up to the third floor.

Q: How did you experience the exhibition space? Did you find it easy to find your way and was it crowded? It was not crowded, we had space to see all paintings. And move around. Navigating was also easy. The exhibition is logical and I knew how to move around, also by looking at other people.

Q: Did you use the audio guide today? Yes, it gave us more context on the paintings. It is nice to hear the information so you don't have to stand that close to read it. It also gives more information than the text at the paintings.

Q: Do you feel you had a chance to see everything you wanted to see? Yes, we moved around the entire museum. We did not see every painting but only the most interesting ones. The audio guide helped by finding the interesting must see paintings.

Q: Did you see the temporary exhibition? No, we did not have time for that.

Q: How did you prepare your visit today? Did you do some research on van Gogh? We bought a ticket online. But did not look up anything about van Gogh.

Q: Is there anything in particular that you will remember of today? I did not know he cut off his ear himself. I thought that was an accident. But I learned that he did that himself and he even gave his ear to a woman.

Participant 9:

Description:

A french couple (25) visiting amsterdam. They were not particularly interested in van Gogh but felt like it was a good visit. They bought their tickets at the museum and visited for little over 2 hours.

Interview:

Q: *Did you see the entire museum?*

Yes, we saw all three floors and at the beginning we read everything. But at the end we just looked at the paintings.

We didn't have the audio guide.

Q: *Why?*

Five euros! It's a bit expensive. But maybe with the audio we would have been more concentrated.

Q: *Do you visit art museum regularly?*

Not, for me not. But my girlfriend does. I didn't go to any art museum before.

Q: *So why did you choose to visit the museum?*

To be cultural.

For me it was just for feeling good.

Ah, but you also like van Gogh paintings.

Q: *Did you also visit the rijksmuseum?*

No

Q: *Are you planning to?*

That depends on the weather. If it is raining then yes.

Q: *What did you think about the exhibition space? Was it busy?*

There was a lot of people in front the paintings, but I had a good impression of the works.

Q: *Did you think it was easy to navigate around the exhibition?*

Yes. We did take a plan but we didn't use it. With the audio guide it would have been even easier.

Q: *Did you prepare your visit?*

We didn't. We only bought a ticket outside.

Q: *No research before you came her?*

No. It may be useful though.

Q: *Did you have a look at the website?*

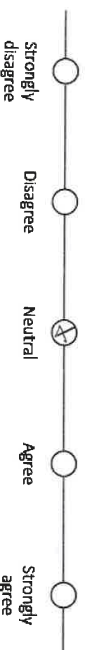
No (ashamed)

Q: *Is there anything that you will remember of today?*

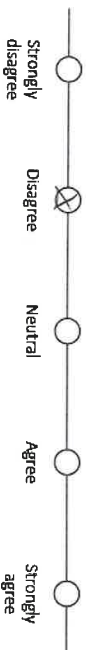
I didn't know anything about van Gogh, so its all new. I have the global picture of his life now. I learned some things but not anything in particular.

9

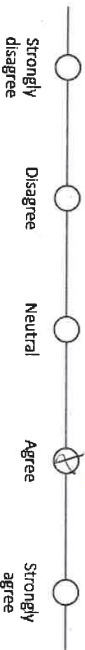
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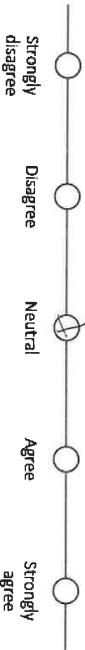
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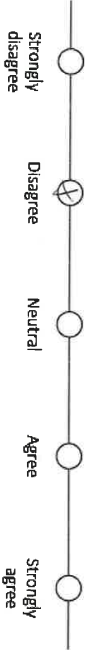
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I am well prepared for my visit to the Van Gogh Museum.



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Participant 6

Participant 10

Description:

Three friends from the USA and Germany who visited Amsterdam for a couple of days. Around 25 years old. Entered with online tickets and visited the museum for a total of 1,5 hours.

Interview:

Q: So what did you think?

It was very good, very informative. I was told a good story, I'm happy we came.

Yeah. What do you guys think?

I liked the layout of the floors and the years.

And she liked the gift shop.

I did.

Q: Yeah? What did you buy?

What did I buy? I bought bookmarks, coloring books and a book on him.

Cool. So why did you come here today?

Because it is famous and it's an important landmark. That's pretty much why.

Yeah, same.

Q: What did you think about the exhibition itself? What did you think about the layout, was it busy?

It was a little bit busy but not too bad.

No, not too bad. Still spacious at the same time.

It was good to see some other artist, like painters.

Oh, that influenced him. Yeah I really liked that. It was a good story.

Q: Did you also see the temporary exhibition?

No.

Q: Did you see all galleries, all three floors?

Yeah, we saw all van Gogh floors. But not the temporary ones.

Q: Did you think it was easy to navigate the exhibition?

Yeah for sure.

Well I got lost, but I got lost everywhere.

I was just following the crowds of people. So yes, it was not too bad.

Q: Did you use an audio guide?

No we didn't.

Q: Why not?

Because there is writing on the wall that we just read.

Because I like to develop my own thoughts. I don't like to listen.

Well if I would have been for free I would have used it.

Yeah yeah. They charge for that right?

Q: Yes, it's five euros. But you didn't know they charged for that?

No, I like to explore the exhibition by myself so I didn't even consider using the guide.

Q: How did you prepare your visit for today?

We bought our tickets in advance. That was really the only thing. But we didn't look up anything. I didn't look up anything.

No.

I usually look up afterwards. I'm really interested.

Yeah. We came across a new painting that we really liked. The summer XXXXX??.

Yeah. That one really stood out for us. Which I have never seen before.

Yeah me neither.

Q: Did you learn anything specific that you will remember? A painting or a fact?

I didn't know that he killed himself. That he shot himself in the chest and then he died two days later.

I didn't realize he lived as long as he did in Paris and in Arles. Yeah, I didn't know that was that long. So that was interesting.

He was friends with a lot of artists.

I also didn't know that when he died it was his sister in law that was really responsible for pushing on his work. That was pretty cool.

Oh wasn't that his wife?

No it was Theo's wife. Theo died six months after and then his wife inherited all his work.

And his brother also paid him allowance.

Theo was like a great brother. I need a Theo.

Q: So it wasn't really crowded downstairs?

It was crowded, but not too bad. It was spacious so it felt okay.

Q: Did you feel like you had a chance to see everything you wanted to see?

Yeah. I wish the starry night was here... That seems a bit ridiculous.

Where is that?

It's in New York.

Q: How was the attention span for you? Did you feel like you started concentrated and then it faded?

It came in waves. I wasn't super interested in the present life area. It was nice but there were too many people. When there's a lot of crowds I lose concentration.

And we skipped some of the paintings because there were so many people.

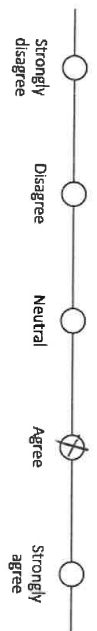
And it was harder, the paths were more narrow. It was harder to keep concentration.

Versus the big nice open room when he was in Paris, that was nice because there was a lot

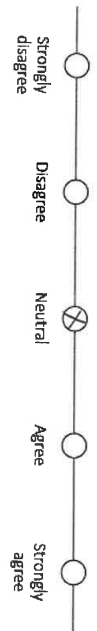
of space. That was like high concentration.

10

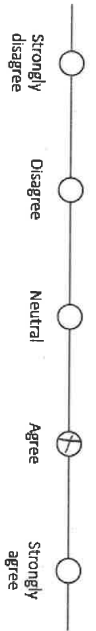
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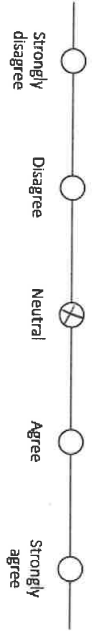
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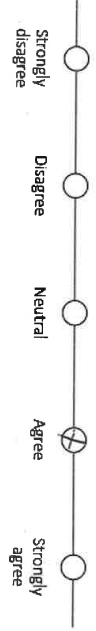
I often visit art museums.



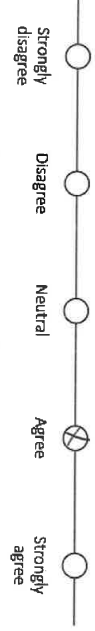
I know how to behave in an art museum.



I am well prepared for my visit to the Van Gogh Museum.



I know what to expect from my visit to the Van Gogh Museum.



Appendix C. Technology framework

Indoor positioning systems

Indoor positioning systems can use several technologies. The main technologies are Wi-Fi, Bluetooth, LiFi and computer vision. Each of these technologies has its own advantages and disadvantages (tandfonline, n.d.).

- Wi-Fi: Uses the smartphones of visitors as a marker in space. The location of this marker is calculated as a result of the signal strength of different Wi-Fi networks. Visitors can be tracked through the entire museum using this technology. The technology is accurate between 2 and 3 meters (Infsoft, 2015).
- LiFi: Uses the existing lighting grid in a space to send messages to the smartphone of visitors. Not only do visitors have to carry a smartphone, the camera of their phone should be able to see the lights (Philips Lighting, n.d.).
- Bluetooth: This technology works in roughly the same way as a Wi-Fi system. It needs a smartphone to operate but is more accurate, down to 0,5 meter accuracy (Infsoft, n.d.).
- Ultra wideband: Is a short range radio technology similar to bluetooth. It has a higher accuracy but requires more power (Infsoft, 2017).
- Computer vision: This system is based on multiple cameras in the space that can recognize visitors and track them through space. This system does not require anything at the visitor end but is less accurate because people can get out of view of the camera system. The system is best compared to systems used by the motion pictures industry for motion capture (cvlab, n.d.).

Of these technologies Wi-Fi and Bluetooth are the most common. These systems can be implemented relatively easily and do not require an action at the side of the visitor apart from carrying a smartphone

and making sure the Bluetooth connection is working.

Possibilities for indoor positioning systems

Many organizations across different fields are currently implementing indoor positioning systems to improve visitor experience and gather relevant data (Museums and the web, n.d.). Most of these systems are used to provide better wayfinding to visitors. Real time maps with the visitor location is one of the most used applications for this.

Some museum take this application a step further by providing position based information to visitors. Based on their current location, visitors receive multimedia information about that specific area of the exhibition. Examples of this are exhibitions at the Groninger Museum (Groninger museum, 2015) and at the Royal BC Museum (Forbes, 2012). A similar application to position based information is the creation of treasure hunt games for children. These games let children search for clues in exhibits to unlock information.

From a museum organization perspective, one of the most important reasons to implement indoor positioning systems is to gather data about the movement of visitors. From this data can be concluded which content is watched in which order, which routes visitors take through exhibitions and how interesting different objects are.

At the moment there is no known application of an indoor positioning system that is used as a means of crowd control. Using the gathered data in real time to create a feedback loop system that can change content or routing through a space is the next step the Van Gogh Museum wants to take.

Appendix D. Existing solutions

Museum projects using digital media

Artlens Wall

The Artlens Wall at the Cleveland Museum of Art is a 12 meter long interactive touch display that shows all artworks of the permanent exhibition in the museum. The wall displays these artworks grouped by theme and provides an orientation experience in the exhibition. Visitors can search the artworks and create their own specific route and audio tour through the exhibition (Cleveland Museum of Art, n.d).



Figure 71. Artlens Wall at the Cleveland Museum of Arts

Australian museum

The Australian museum in Sydney has implemented beacon technology on different levels (Australian museum, 2014). Their Aztecs exhibition uses beacon technology to enhance the audio tour through the exhibition. Beacon technology activates a pop-up in the audio tour based on the location of the visitors.

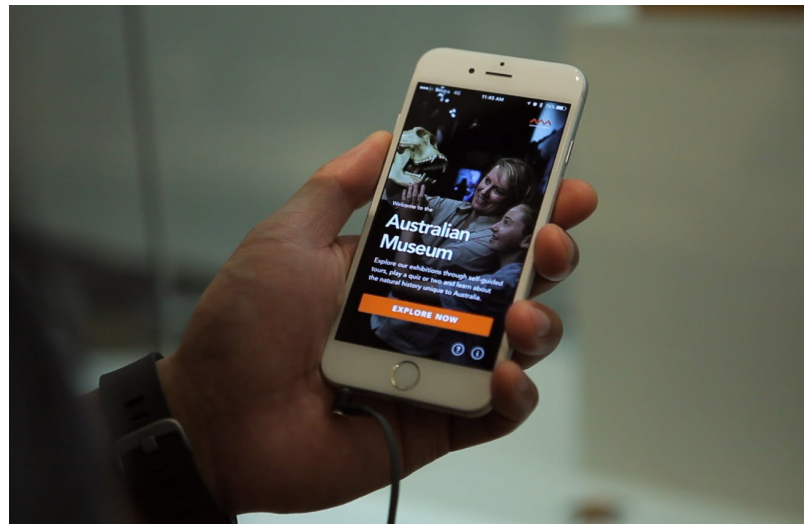


Figure 72. App using beacons at the Australian Museum

The museum has also developed a game using beacon technology. During this game children from 8 to 11 years old search the exhibition for clues to complete games about the exhibition (Australian museum, 2015).

Eldheimar Museum

The Eldheimar museum choose to design their 1100 m2, two story exhibition without the use of any labels around objects (IOT Journal, 2015) . Instead they created an audio tour that is beacon activated. Their goal was to create a seamless experience while leaving the visitor free to move wherever they want. To achieve this 80 bluetooth beacons were installed which trigger custom android devices to play location specific audio fragments.

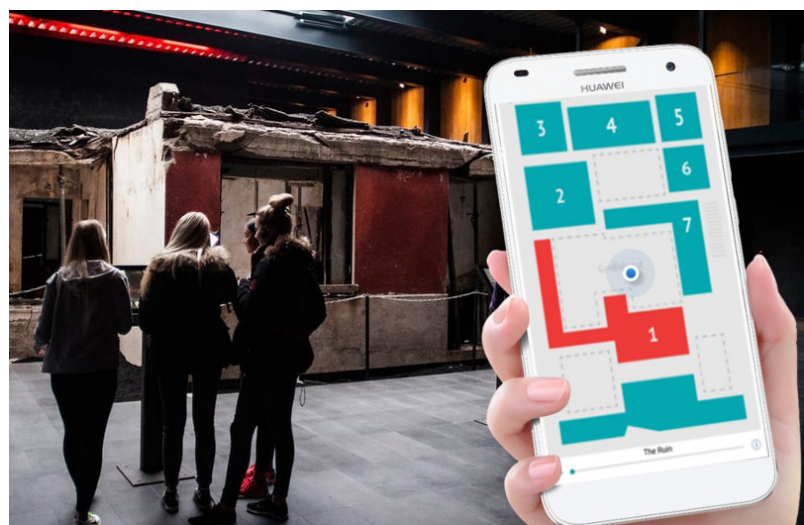


Figure 73. App using beacons at the Eldheimar Museum

Appendix E. Results from the additional testing

Tested scenarios

1. An entirely free choice. The iPad application displayed the two tour options which were presented in an identical way. Visitors could select one of these options after which the application displayed the directions of the tour.
2. Choice based on raw data. The iPad application displayed the two options with the addition of information about the number of visitors that choose a specific option. Visitors could select an option after which the application displayed the directions to the start of the tour.
3. Recommended option. The iPad application showed the two tour options of which one of the options had a different color to make the other option more prominent.
4. No choice. The iPad application directly showed one of the tours, including the directions, without allowing visitors to make a choice between the tours.

Form

Even though the form of the prototype (i.e. a screen, audio instruction or printed instruction) was not to be tested, it was a surprise to see how bad the iPad actually performed in getting the attention of visitors. An estimated 90% of the visitors walked by the prototype without noticing it.

Originally the test was meant to be using a large iPad floor stand which would have helped with getting the attention of visitors but due to a delay in shipment of this stand the test had to use a far less prominent microphone stand. Although the original stand might have helped in raising attention it is doubted that it would have been enough.

Some of the people that did notice the prototype read the text on the screen but did not know that the iPad was there to be interacted with. Visitor read both options but did not try to touch the prototype.

To try to solve both of these issues two quick changes were made to the prototype. The first change was to introduce a new icon on the screen which would indicate that visitors had to select an option (Figure 74). The second change was to make parts of the screen animated to attract more attention to the device.

Although these changes did improve both the attention and the touch problem, the conclusion that can be drawn from this test is that yet another screen with arrows in the museum is not a suitable form for splitting the visitor flow. Visitors are already saturated with wayfinding objects.

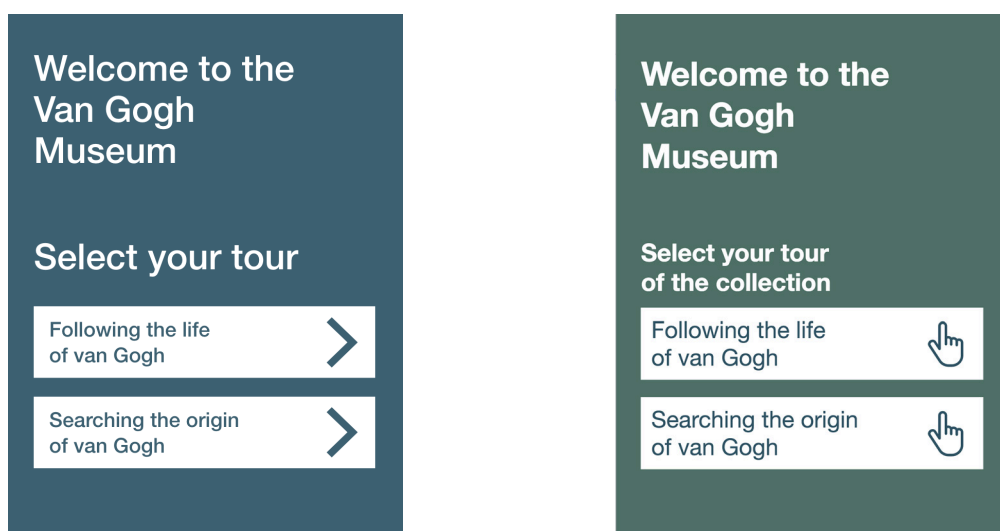


Figure 74. Changes to the prototype

Decision making

Visitors that did interact with the prototype were questioned shortly after their interaction in a brief conversation style interview.

While using test scenarios 1 and 2, almost all visitors wanted to see both options before choosing one. Visitors mentioned they were looking for the differences but could not find any besides the names of the tours. Visitors mentioned that they were unsure if they would see the entire exhibition but expected that to be so.

When interacting with test scenario 2, one visitor couple thought the visitor count number was a number they should enter in their multimedia guide.

When interacting with test scenario 3, the urge for visitors to see both options was less. Some visitors mentioned that the other option looked like it was disabled and they did therefore not try it.

Test scenario 4 worked better than expected, most visitors who encountered the directions followed them without any other consideration. This was particularly clear when putting the directions towards the third floor on the screen. Even though this is not a logical route to take when arriving in the Rietveld building, a lot of visitors did so.

During observations and interviews it became clear that making the decision on which tour to follow is a group activity. Visitors were discussing among each other and made a common decision on which tour to take.

Unlike what was predicted when choosing the tour names for this prototype, visitors described that making a choice between two similar options is very hard. It is unclear for visitors what the differences between the tours is and if the tours offer the same content. Visitors mentioned that they would like the option of selecting a theme related tour that would better suit their interest.

Position

During the testing the prototype was moved several times to increase the interaction with visitors. Interesting to observe was that visitors need some time between arriving in the Rietveld building from the escalator and their first interaction with new information. This is because entering the Rietveld building from the escalator is an information rich moment for visitors in which they are introduced to a new location that is quite different from the one they just came from. After leaving the escalator visitors are orienting themselves by looking at the architecture and other visitors. All while they have to keep moving forward so they do not block the escalator exit. Only after visitors have taken a few steps and are over the initial orientation do they start to consider in which direction to go to start the exhibition. At this point they are open for information to support them in that process.

An illustration of the positions tried during testing can be found in Figure 75. The first and second positions in this illustration are too close to the escalator. When the prototype was placed in position 3 and 4 it received more attention.

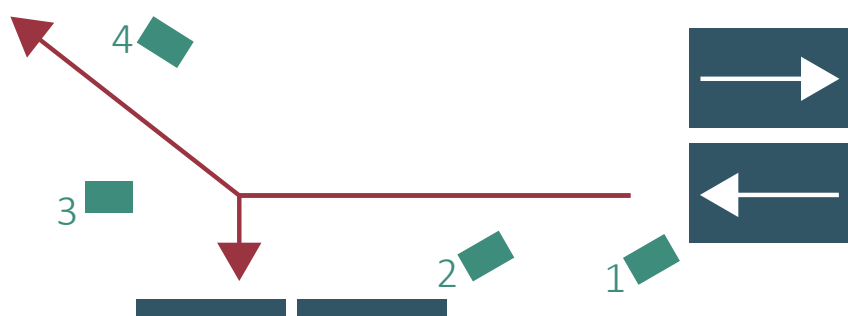


Figure 75. Tested positions

Appendix F. Ideation on tour names

Start at floor 0	Start at floor 3
From the beginning	Back in time
The development of van Gogh	The history of van Gogh
The technique of van Gogh	The life of van Gogh
The life of van Gogh	The works of van Gogh
	Searching the origin of van Gogh
	The succes of van Gogh
Following the life van Gogh	Analyzing van Gogh

Appendix G. Technical feasibility

For connecting the multimedia guide to the system the design uses a wireless data connection to the multimedia tour. Registering the multimedia guide at the interface surface is done by using a NFC tag places in the multimedia guide devices. A NFC reader in the table identifies this tag.

The interface of the interactive table is projected onto the surface of the table by using several projectors that are placed overhead. The interactive multi touch aspect of the design can be provided by proven systems of computer vision (Agarwal, 2007).

Agarwal, A., Izadi, S., Chandraker, M., & Blake, A. (2007, October). High precision multi-touch sensing on surfaces using overhead cameras. In *Horizontal Interactive Human-Computer Systems, 2007. TABLETOP'07. Second Annual IEEE International Workshop on* (pp. 197-200). IEEE.

Appendix H. Task analysis of the design

1. Activating the introduction

- 1.1. Placing the multimedia guide on the surface of the interface
- 1.2. Putting on the headphones of the multimedia guide
- 1.3. starting the introduction to the exhibition
- 1.4. reading or listening to the introduction
- 1.5. skipping the introduction to the exhibition

2. Creating a personal multimedia guide

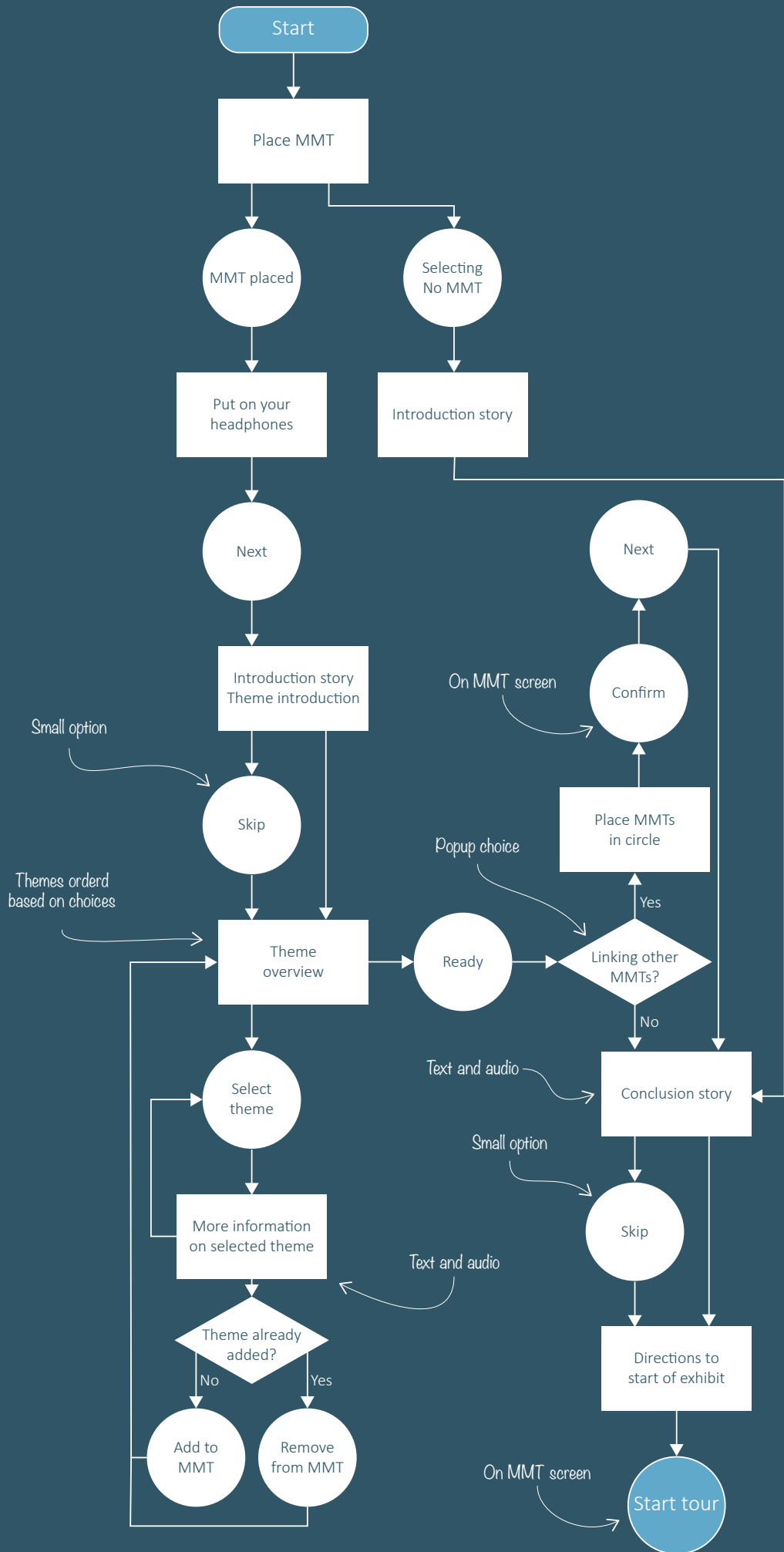
- 2.1. selecting a topic from the overview
- 2.2. reading or listening to information about the topic
- 2.3. adding a topic to the multimedia guide
- 2.4. removing a topic from the multimedia guide

3. Link multiple multimedia guide devices to a group

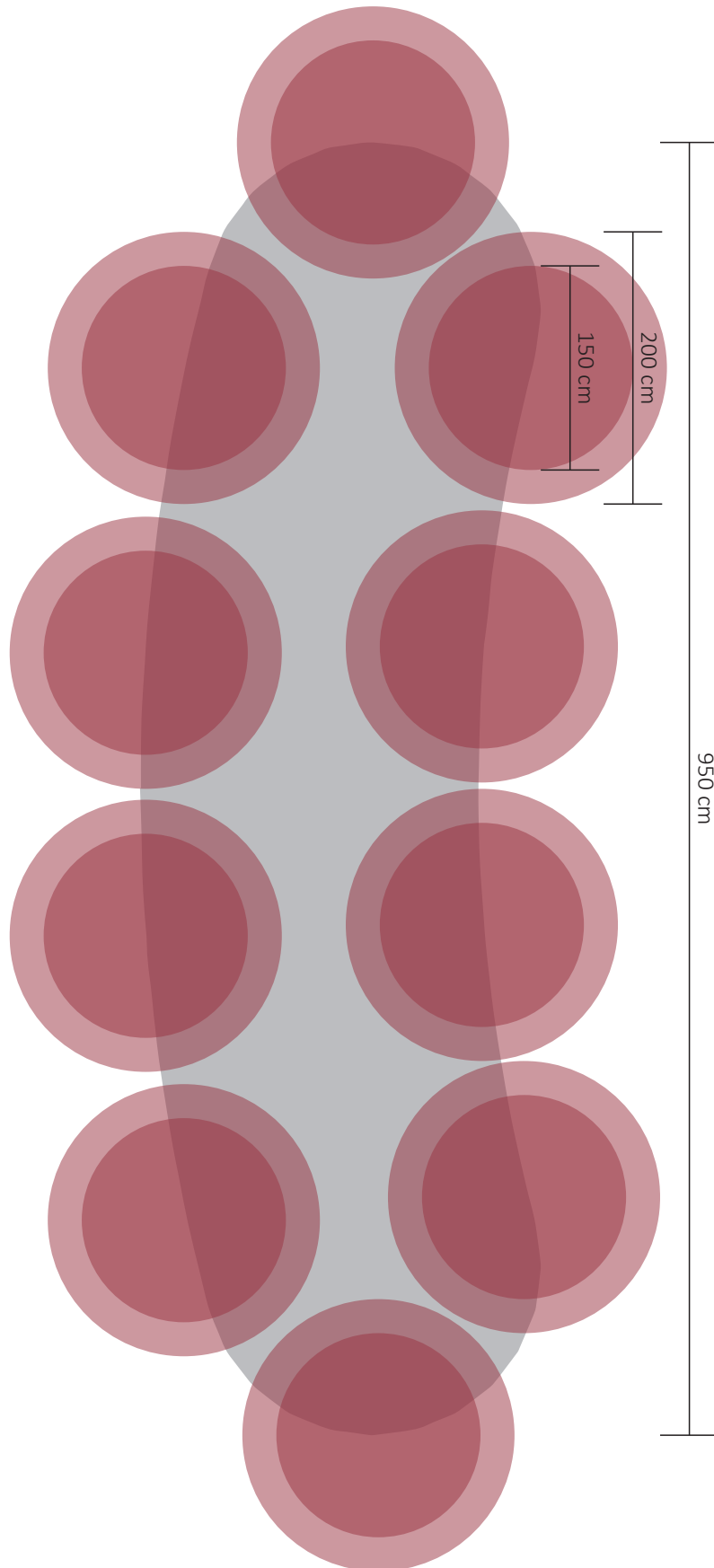
- 3.1. Starting the linking process
- 3.2. Putting devices in the circle projected on the surface
- 3.3. Confirming the link between the devices

4. Finishing the creation process

- 4.1. Click a "I am ready to start the tour" button
- 4.2. Listening or reading the concluding part
- 4.3. Following the instructions in the audio or on the screen about direction and use of the multimedia guide.
- 4.4. Click start on the multimedia guide
- 4.5. Leave the design



Appendix I. Size study

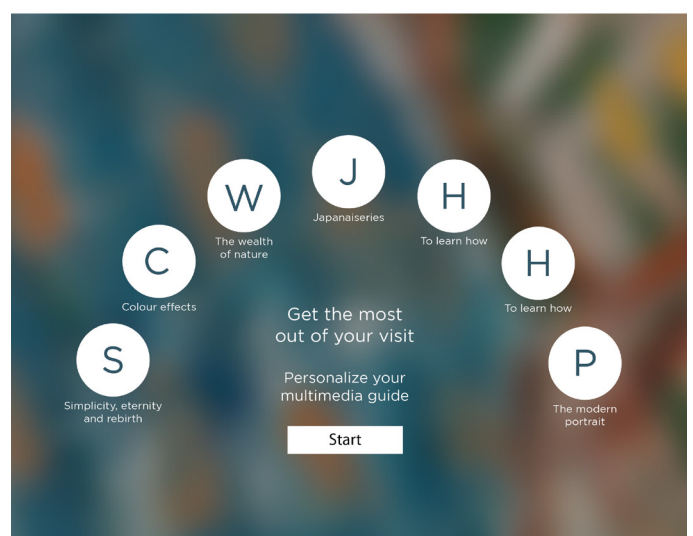
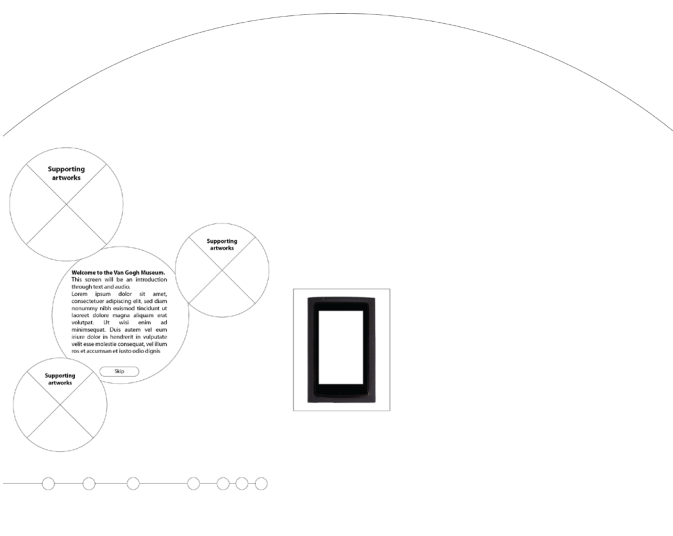
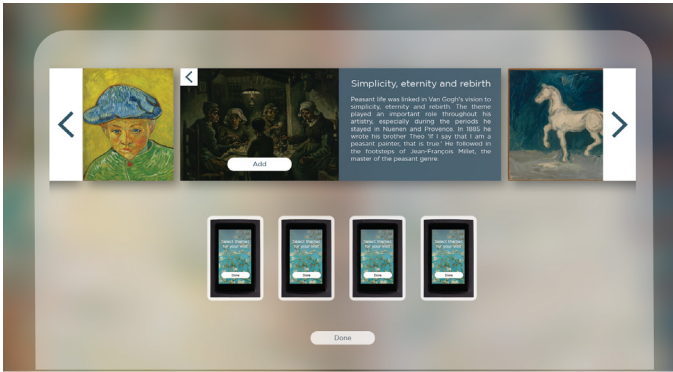


Based on:

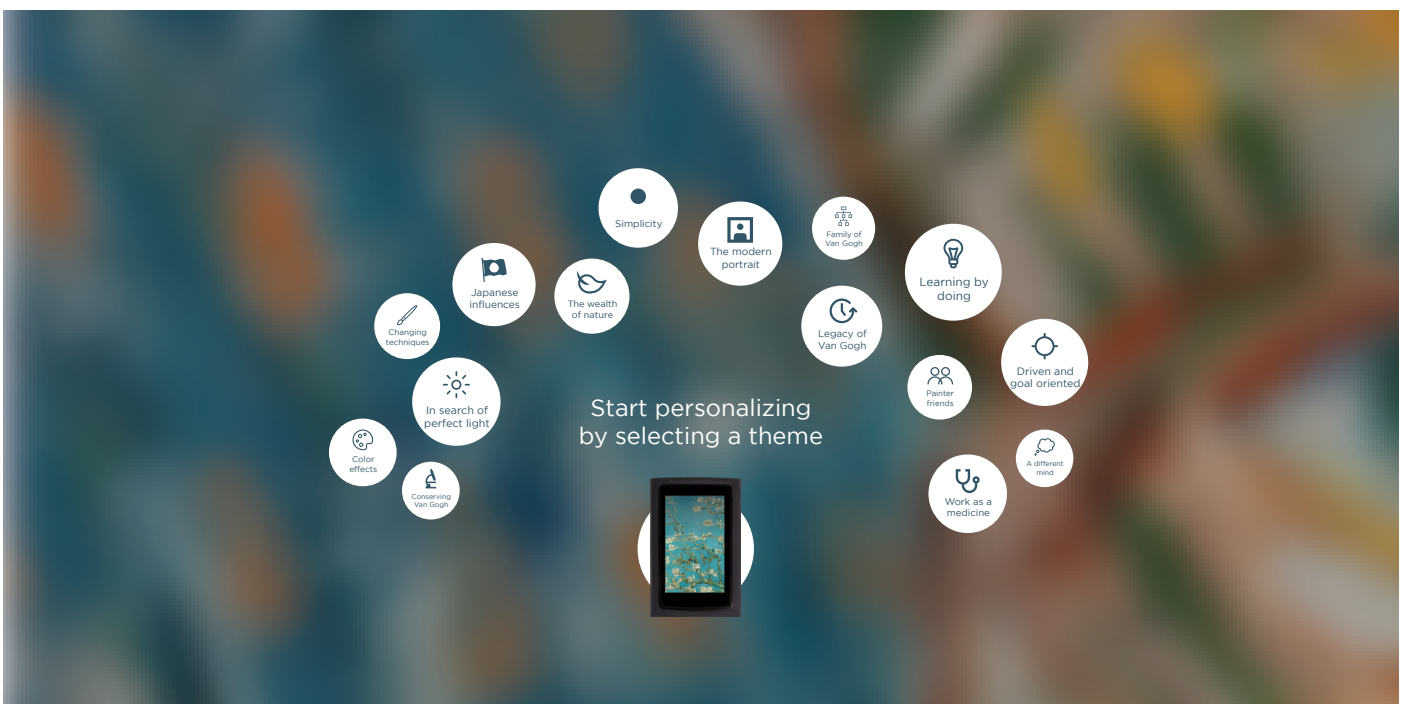
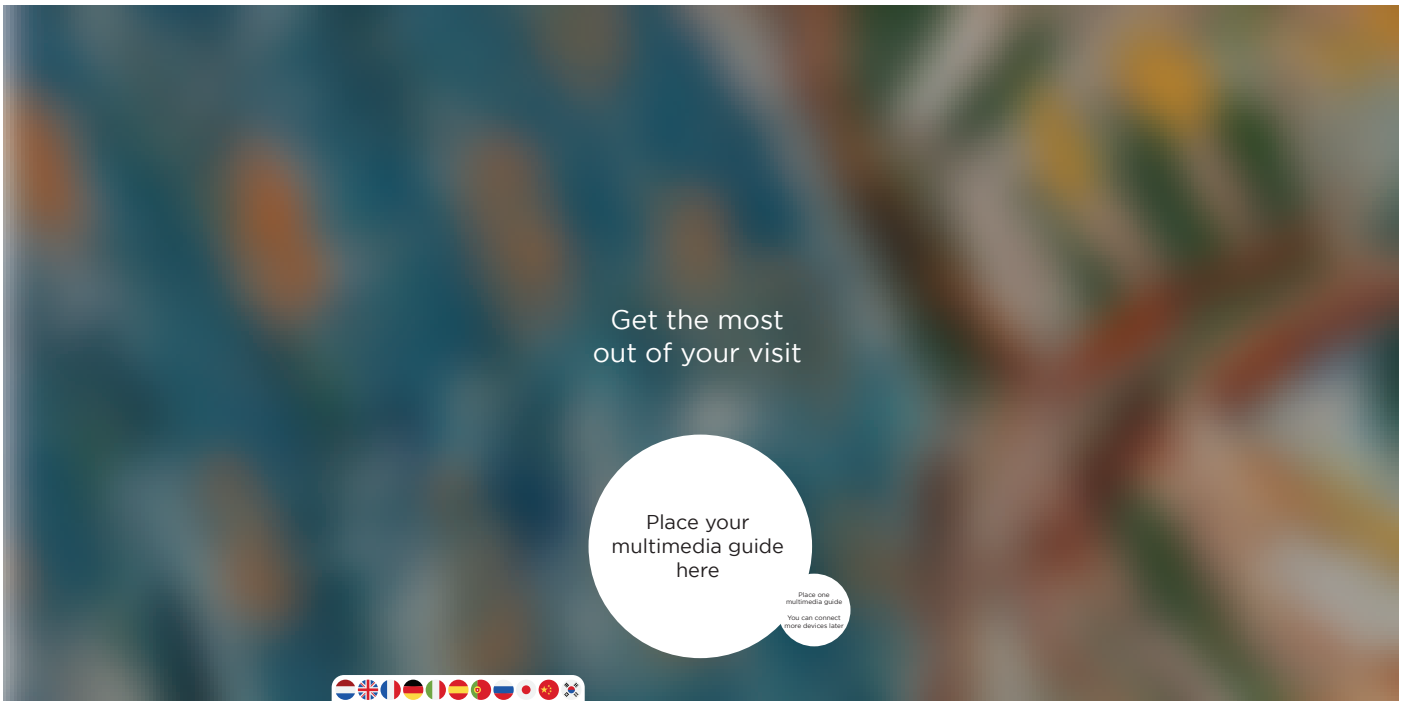
TU Delft. (n.d.). DINED reach envelopes. Retrieved February 27, 2018, from <https://dined.io.tudelft.nl/en/reach-envelopes/introduction>

Hall, E. T. (1966). The hidden dimension.

Appendix J. Iterations of the interface



Appendix K. Interface of the final design



Driven and goal-oriented

In contrast to Van Gogh's widespread image of an impulsive creator, he actually was a goal oriented man who always kept mind what he wanted to achieve.

10 minutes

Add

Estimated visit duration: 30 min

Themes available:

- Simplicity
- The modern portrait
- Family of Van Gogh
- Learning by doing
- Driven and goal oriented
- A different mind
- Work as a medicine
- Painter friends
- Legacy of Van Gogh
- The wealth of nature
- Japanese influences
- In search of perfect light
- Changing techniques
- Color effects
- Conserving Van Gogh

These themes are also interesting for you

Estimated visit duration: 40 min

Themes available:

- Simplicity
- The modern portrait
- Family of Van Gogh
- Learning by doing
- Driven and goal oriented
- A different mind
- Work as a medicine
- Painter friends
- Legacy of Van Gogh
- The wealth of nature
- Japanese influences
- In search of perfect light
- Changing techniques
- Color effects
- Conserving Van Gogh

Learning by doing

Van Gogh usually called his paintings 'studies': attempts to master a certain technical aspect or motive.

5 minutes

Add

These themes are also interesting for you

Estimated visit duration: 40 min

Simplicity

The modern portrait

Family of Van Gogh

Legacy of Van Gogh

Driven and goal oriented

A different mind

Work as a medicine

Painter friends

The wealth of nature

In search of perfect light

Changing techniques

Color effects

Japanese influences

Composing Van Gogh

These themes are also interesting for you

Estimated visit duration: 45 min

Simplicity

The modern portrait

Family of Van Gogh

Legacy of Van Gogh

Driven and goal oriented

A different mind

Work as a medicine

Painter friends

The wealth of nature

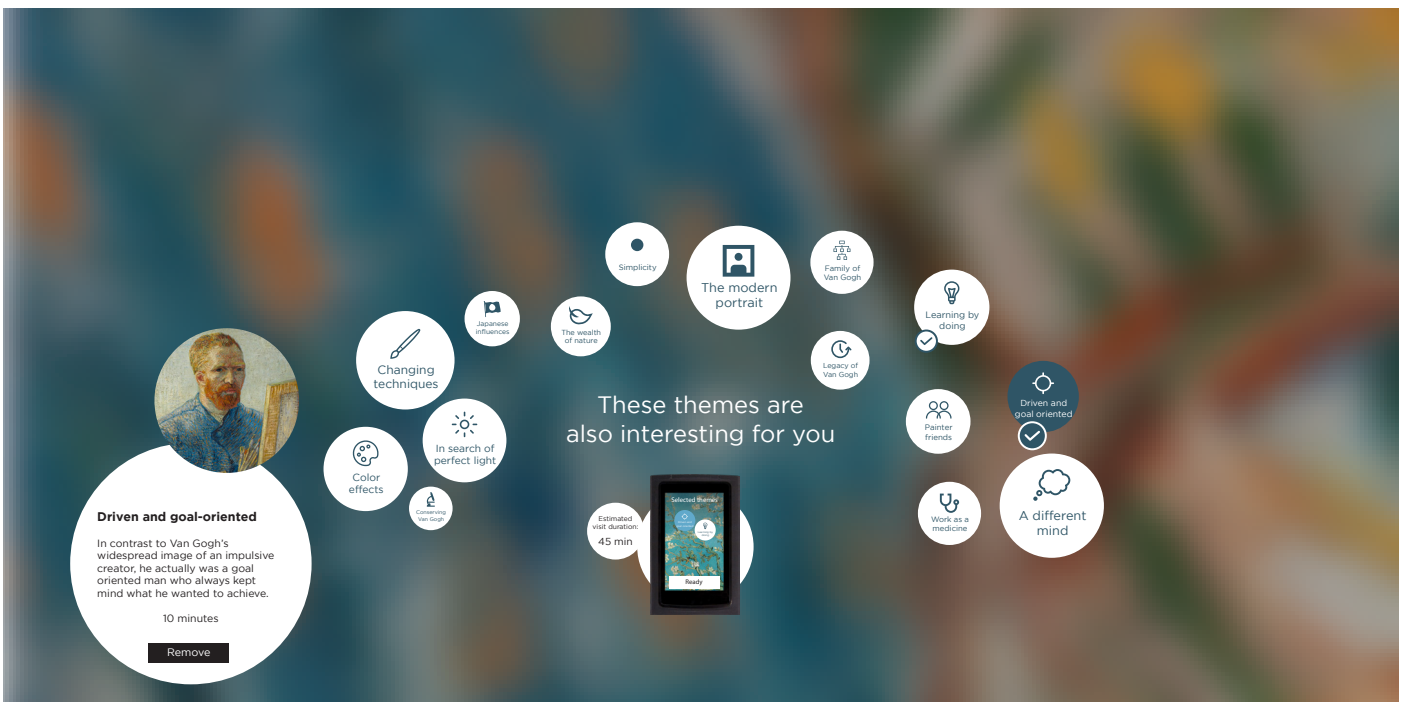
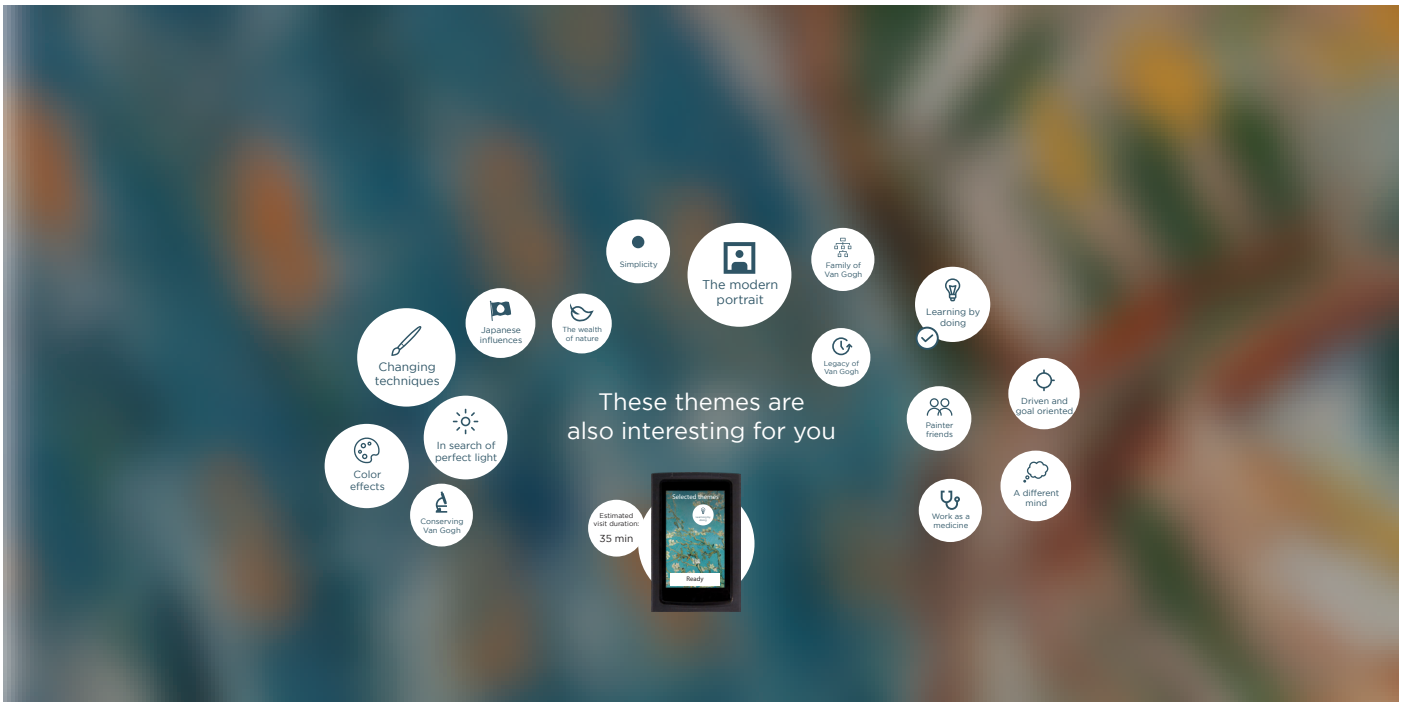
In search of perfect light

Changing techniques

Color effects

Japanese influences

Composing Van Gogh



Color effects

Van Gogh was always busy with the effect of his use of color in his work.

5 minutes

Add

These themes are also interesting for you

Estimated visit duration: 35 min

Themes shown:

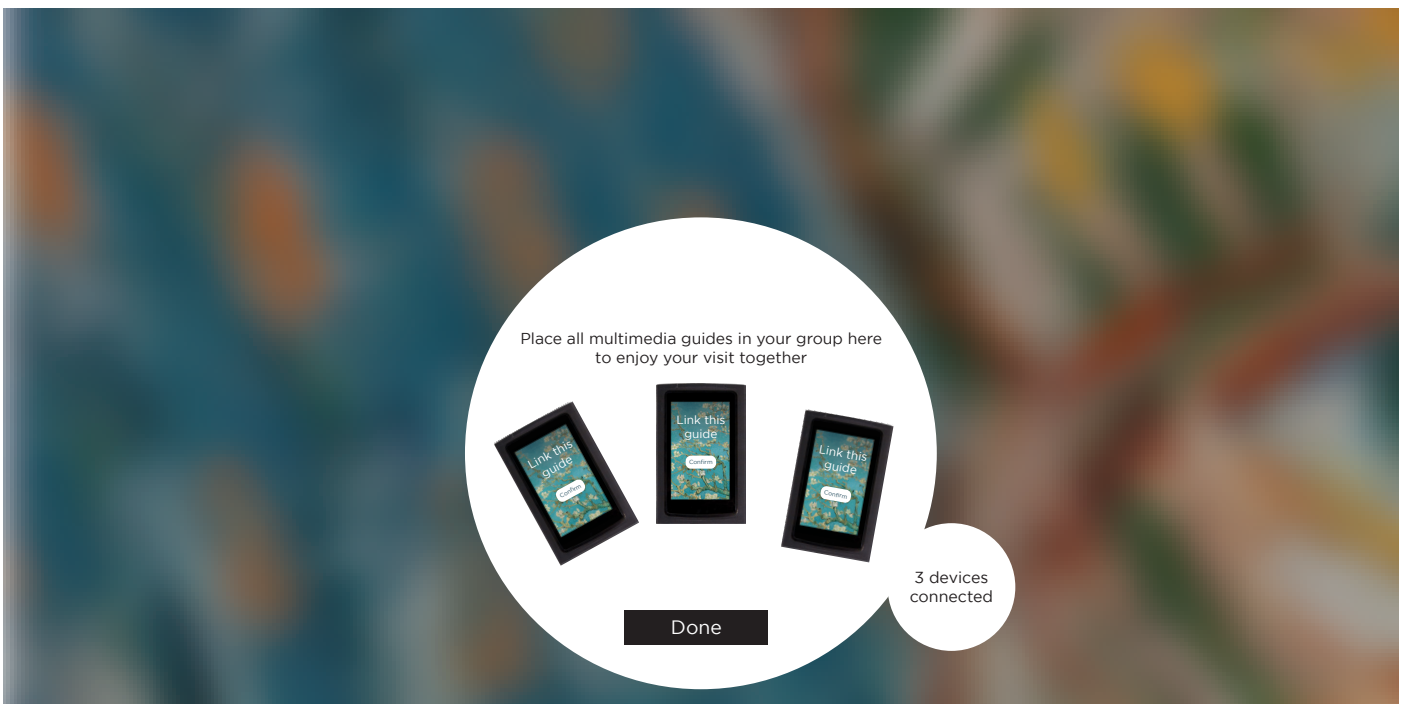
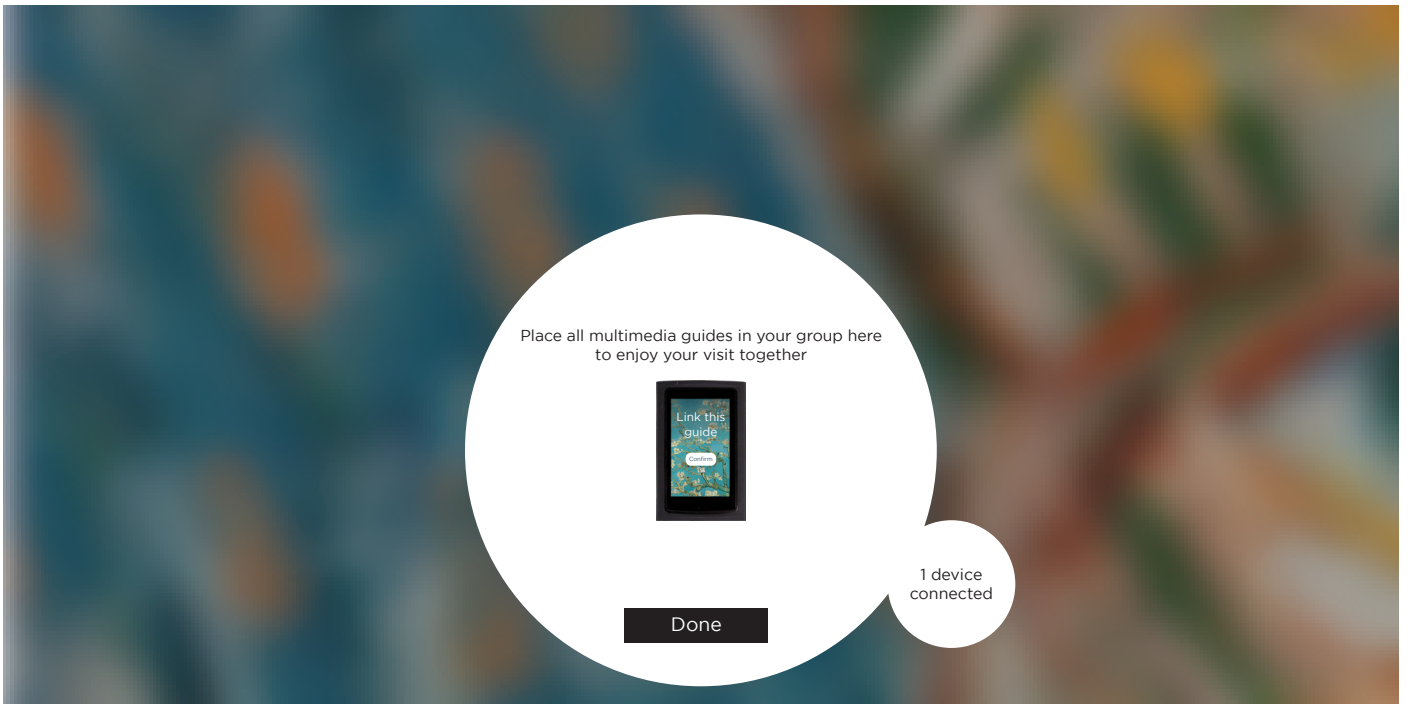
- Color effects
- Changing techniques
- In search of perfect light
- Conserving Van Gogh
- Japanese influences
- The wealth of nature
- Simplicity
- The modern portrait
- Family of Van Gogh
- Legacy of Van Gogh
- Learning by doing
- Painter friends
- Work as a medicine
- Driven and goal oriented
- A different mind

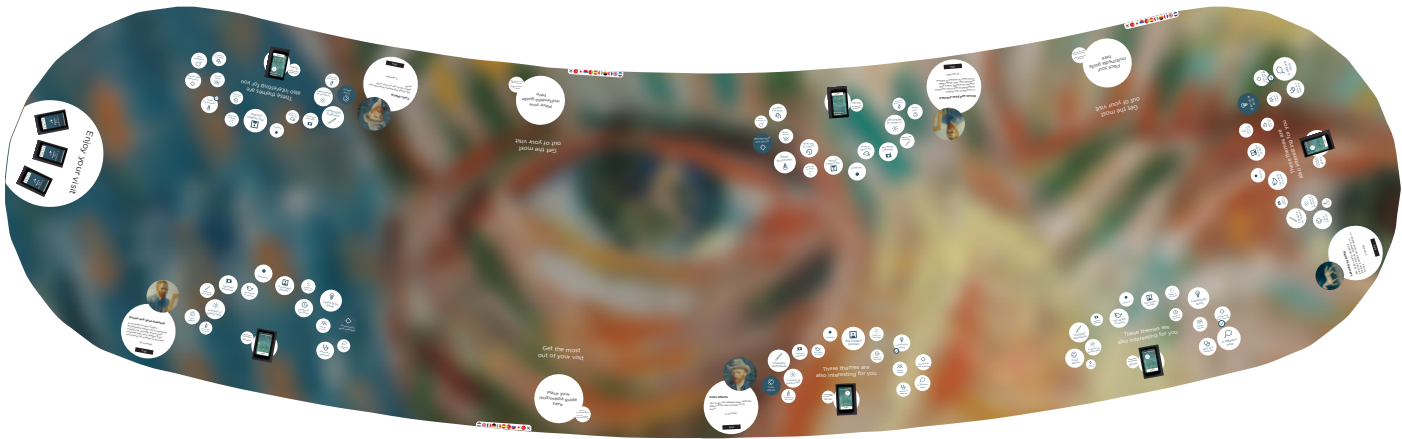
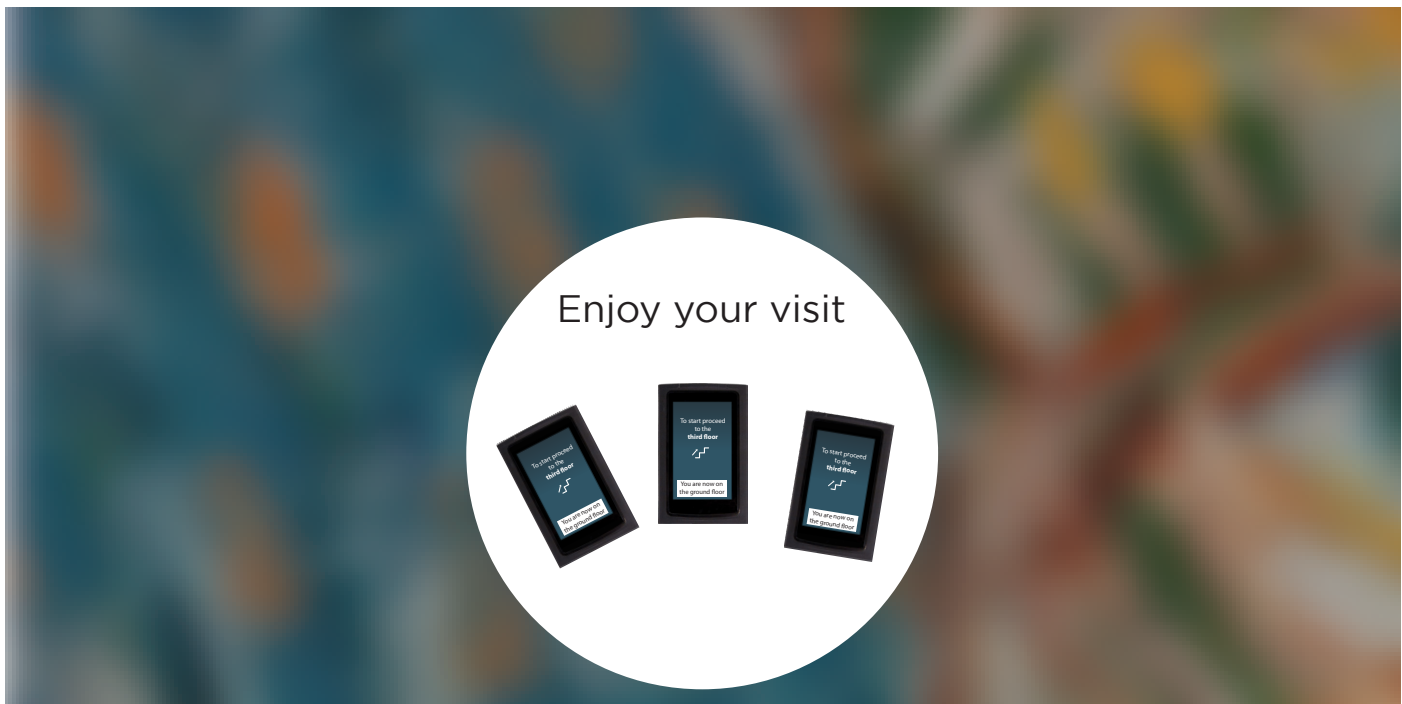
These themes are also interesting for you

Estimated visit duration: 40 min

Themes shown:

- Color effects
- Changing techniques
- In search of perfect light
- Conserving Van Gogh
- Japanese influences
- The wealth of nature
- Simplicity
- The modern portrait
- Family of Van Gogh
- Legacy of Van Gogh
- Learning by doing
- Painter friends
- Work as a medicine
- Driven and goal oriented
- A different mind





Appendix L. User test script

Preparation for the test:

- Video ready
- Projector off
- Recording equipment ready

Recruiting visitors:

Requirements for participants:

- Group of 2 to 3 visitors
- Already in possession of a multimedia guide.

Ask visitors at the bottom of the escalators:

I'm working on a new museum experience for visitors and want to see if it works as intended. That's why I'm asking museum visitors to test the design for a few minutes and tell me what they think about it.

Would you like to do one of these tests? There's absolutely nothing you can do wrong and the test will only take 15 minutes.

Walking with participants from the entrance hall to the testing room. Questions to ask:

- Where are you from?
- How long are you visiting amsterdam?
- Why did you decide visit the museum?
- What else did you visit in Amsterdam?

Introduction to the test set-up:

We have three short test prepared that I will walk you through.

Important is that we are testing the design, not you. There is nothing you can do wrong, in fact I want you to point out OUR mistakes.

It would help greatly if you would think a loud. Just say what you're looking at, how it affects you, what you expect to happen after every interaction, what you're trying to accomplish, and so on.

And please don't worry about our feelings. We want to improve the site and need to hear your honest reactions.

We will be recording this test for research purposes. The recorded material will not be published in any way, it will only be used for gathering results.

Test 1: approach

I'm going to show you a video about two visitors entering the museum. After the video I'm going to ask you two questions.

Start video until approaching the design.

- Would you approach the object you saw during the end of the video? Why?
- What do you think it is? Why?
- What do you think it does? Why?

Test 2: Interactie

For testing purposes, we assume that you want to approach the object. I can tell you that it is a interactive table which you can use to personalize your multimedia guide.

I will now ask you to interact with this table. For that I need you to keep in mind the following scenario:

For this test I need you to act like you are a visitor that has come to the museum to get to know more about the personal life and development of Van Gogh. You are in Amsterdam for a weekend trip and want to visit a couple of other museums today.

Turn on projector

So now you have approached the object and you're standing in front of it.

Reflection

These are all qualities a design can have. Please score this design quickly. Don't think about the words too much but fill the form instinctively.

Let participants fill in the AttrakDiff.

I have four more of these ratings I want to discuss with you in more detail.

scoring on:

in control - out of control, why?

guiding - loose interaction, why?

professional - unprofessional, why?

clear interaction - unclear interaction, why?

- Do you think using this design will change your museum visit? How? What? Why?
- What would you do after using this service? Why?
- Would you follow the advice of the last screen? Why?
- What do you think the impact on such a service would be for a museum visit? Why?
- Would you want to use this service? Why?

AttrakDiff form

Technical	0	0	0	0	0	0	Human
Complicated	0	0	0	0	0	0	Simple
Impractical	0	0	0	0	0	0	Practical
Cumbersome	0	0	0	0	0	0	Straightforward
Unpredictable	0	0	0	0	0	0	Predictable
Confusing	0	0	0	0	0	0	Clearly structured
Unruly	0	0	0	0	0	0	Manageable
Isolating	0	0	0	0	0	0	Connective
Unprofessional	0	0	0	0	0	0	Professional
In control	0	0	0	0	0	0	Out of control
Tacky	0	0	0	0	0	0	Stylish
Cheap	0	0	0	0	0	0	Premium
Alienating	0	0	0	0	0	0	Integrating
Separates me	0	0	0	0	0	0	Brings me closer
Unpresentable	0	0	0	0	0	0	Presentable
Conventional	0	0	0	0	0	0	Inventive
Unimaginative	0	0	0	0	0	0	Creative
Cautious	0	0	0	0	0	0	Bold
Conservative	0	0	0	0	0	0	Innovative
Forced	0	0	0	0	0	0	Unforced
Dull	0	0	0	0	0	0	Captivating
Undemanding	0	0	0	0	0	0	Challenging
Ordinary	0	0	0	0	0	0	Novel
Unpleasant	0	0	0	0	0	0	Pleasant
Ugly	0	0	0	0	0	0	Attractive
Disagreeable	0	0	0	0	0	0	Likeable
Rejecting	0	0	0	0	0	0	Inviting
Bad	0	0	0	0	0	0	Good
Repelling	0	0	0	0	0	0	Appealing
Discouraging	0	0	0	0	0	0	Motivating

Additional word pairs

In control	0	0	0	0	0	0	Out of control
Forced	0	0	0	0	0	0	Unforced
Unprofessional	0	0	0	0	0	0	Professional
Confusing	0	0	0	0	0	0	Clearly structured

Appendix M. Results of the user tests

Test 1

Technical	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Human
Complicated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Simple
Impractical	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Practical
Cumbersome	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Straightforward
Unpredictable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Predictable
Confusing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Clearly structured
Unruly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Manageable
Isolating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Connective
Unprofessional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Professional
In control	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Out of control
Tacky	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Stylish
Cheap	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Premium
Alienating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Integrating
Separates me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Brings me closer
Unpresentable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Presentable
Conventional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Inventive
Unimaginative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Creative
Cautious	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Bold
Conservative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Innovative
Forced	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Unforced
Dull	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Captivating
Undemanding	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Challenging
Ordinary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Novel
Unpleasant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Pleasant
Ugly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Attractive
Disagreeable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Likeable
Rejecting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Inviting
Bad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Good
Repelling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Appealing
Discouraging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Motivating

In control	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Out of control
Forced	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Unforced
Unprofessional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Professional
Confusing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Clearly structured

Test 3

Technical	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Human
Complicated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Simple
Impractical	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Practical
Cumbersome	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Straightforward
Unpredictable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Predictable
Confusing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Clearly structured
Unruly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Manageable
Isolating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Connective
Unprofessional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Professional
In control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Out of control
Tacky	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stylish
Cheap	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Premium
Alienating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Integrating
Separates me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Brings me closer
Unrepresentable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Representable
Conventional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inventive
Unimaginative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Creative
Cautious	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Bold
Conservative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Innovative
Forced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unforced
Dull	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Captivating
Undemanding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Challenging
Ordinary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Novel
Unpleasant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pleasant
Ugly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Attractive
Disagreeable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Likeable
Rejecting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inviting
Bad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good
Repelling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appealing
Discouraging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Motivating

Technical	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Human
Complicated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Simple
Impractical	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Practical
Cumbersome	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Straightforward
Unpredictable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Predictable
Confusing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Clearly structured
Unruly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Manageable
Isolating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Connective
Unprofessional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Professional
In control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Out of control
Tacky	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stylish
Cheap	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Premium
Alienating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Integrating
Separates me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Brings me closer
Unrepresentable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Representable
Conventional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inventive
Unimaginative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Creative
Cautious	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Bold
Conservative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Innovative
Forced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unforced
Dull	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Captivating
Undemanding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Challenging
Ordinary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Novel
Unpleasant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pleasant
Ugly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Attractive
Disagreeable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Likeable
Rejecting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inviting
Bad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good
Repelling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appealing
Discouraging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Motivating

In control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Out of control
Forced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Unforced
Unprofessional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Professional
Confusing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Clearly structured

Test 5

Technical	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Human
Complicated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Simple
Impractical	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Practical
Cumbersome	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Straightforward
Unpredictable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Predictable
Confusing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Clearly structured
Unruly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Manageable
Isolating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Connective
Unprofessional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Professional
In control	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Out of control
Tacky	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Stylish
Cheap	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Premium
Alienating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Integrating
Separates me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Brings me closer
Unrepresentable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Representable
Conventional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Inventive
Unimaginative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Creative
Cautious	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Bold
Conservative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Innovative
Forced	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unforced
Dull	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Captivating
Undemanding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Challenging
Ordinary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Novel
Unpleasant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Pleasant
Ugly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Attractive
Disagreeable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Likeable
Rejecting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Inviting
Bad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Good
Repelling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Appealing
Discouraging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Motivating

In control	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Out of control
Forced	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unforced
Unprofessional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Professional
Confusing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Clearly structured

Appendix N. Results of the AttrakDiff survey

Description of word - pairs

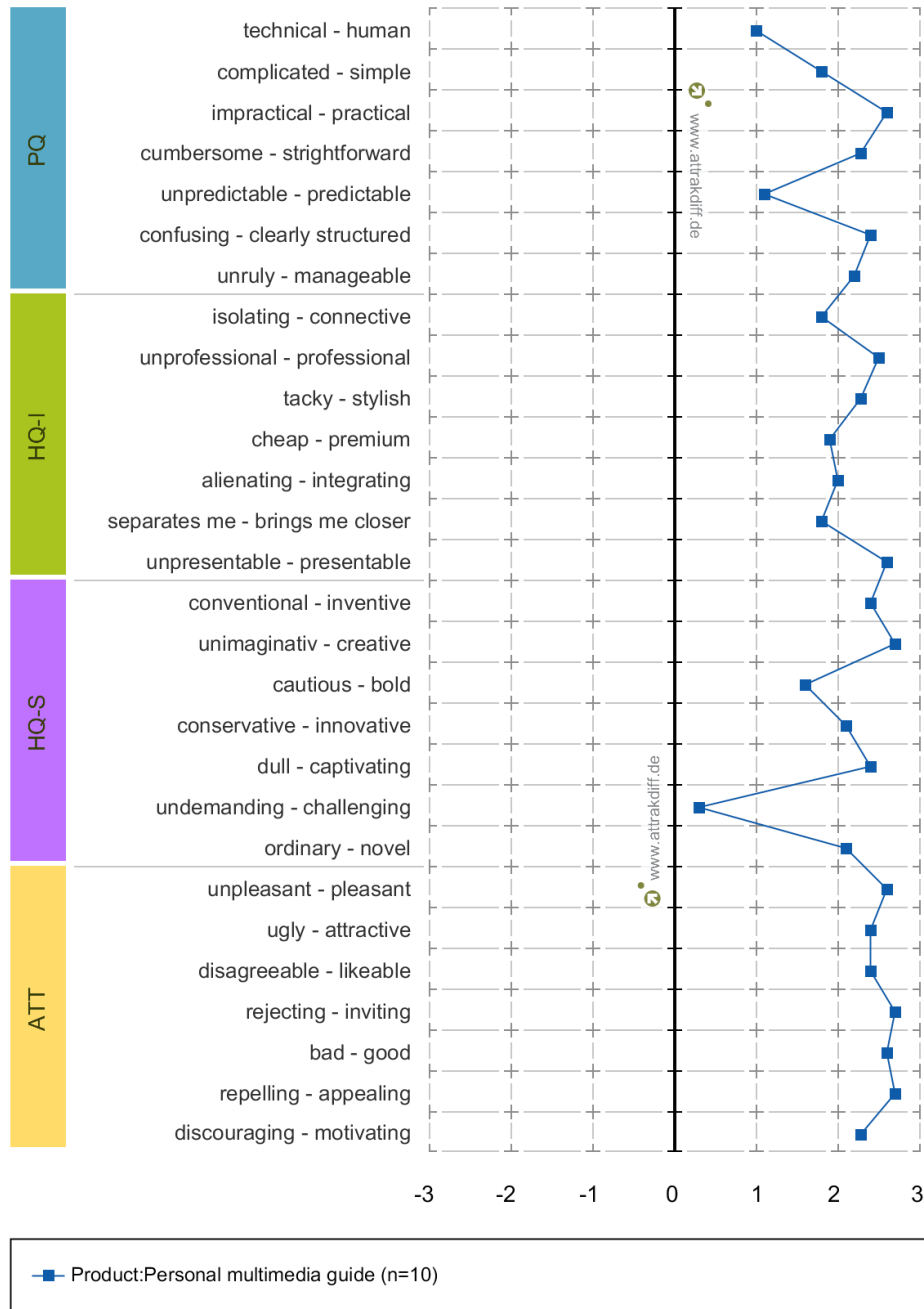
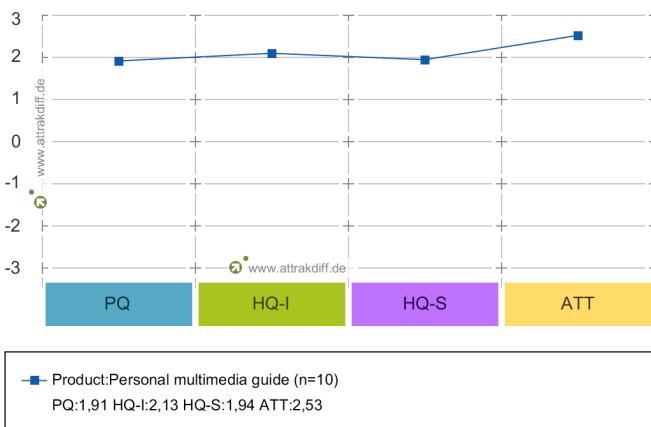


Diagram of average values



Portfolio-presentation

