



APPENDICES

TO THE REPORT OF:
DESIGNING FOR EXPERIENCE-DRIVEN SAFETY IN THE EFTELING

MASTER THESIS DESIGN FOR INTERACTION

BY LIAN DE JONG



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APPENDIX A – SETUP AND RESULTS OF SHADOWING AND IN-DEPTH INTERVIEWS

SEMI-STRUCTURED INTERVIEW QUESTIONS

- Wat vond je ervan?
- Waren er momenten dat je niet goed wist wat je moest doen/je niet begreep wat er gebeurde?

- Wat vond je van de garderobe? (film)
- Wat vond je van het moment van instappen? Liep je ergens tegenaan? (film)
- Indien gebruikt: Wat vond je van de carousel? (film)
- Als niet gebruikt: Waarom heb je geen gebruik gemaakt van de opslagplekken? Heb je het overwogen? Wanneer zou je het wel/niet gebruiken?

- Vertel over filmen in achtbaan. Zou je dit ooit doen/heb je dit wel eens gedaan?
- Wist je dat dit niet toegestaan is in deze achtbaan?
- Heb je enig idee hoe je achter de regels zou kunnen komen? (film)

- Waar had je je telefoon?
- Vertel over mogelijkheid vallen uit zakken. Ben je je ervan bewust dat dit wel eens gebeurt?
- Indien wel, waarom dan nog steeds in zak?
- Met deze informatie, hoe zou je het een volgende keer aanpakken als je erin gaat?

- Waarom heb je (geen) gebruik gemaakt van de lockers? (film)
- Heb je wel eens een foto gekocht? Waarom (niet), wanneer zou je dit wel doen?

- Mood laten zien, dmv filmpjes en PAM. Vragen om de mood op te schrijven per filmpje.

PIC-A-MOOD RESULTS

Moods chosen by the participants for each touchpoint.

Touchpoints

- | | |
|-------------------------------|--|
| 1. First view | 10. Inpriklokaal |
| 2. Finding entrance | 11. Kleedlokaal |
| 3. Entrance queue | 12. Loonlokaal |
| 4. Walking through queue | 13. Doors opening, first view platform |
| 5. Seeing the end of the line | 14. Carousel Storage |
| 6. Sign: Line choice | 15. Platform, getting seated |
| 7. Waiting in line | 16. Ride |
| 8. Receiving ticket | 17. Exit |
| 9. Baggage Depot | 18. Baggage Depot exit |

Chosen moods for participants A – H

	1	2	3	4	5	6	7	8	9
A	Tense	Calm	Neutral	Cheerful	Excited	Excited	Relaxed → Cheerful → Excited	Excited	Neutral and tense
B	Excited	Relaxed	Neutral	Calm	Bored	Neutral	Bored	Tense	Cheerful
C	Excited & Cheerful	Relaxed	Irritated & Excited	Bored & Neutral	Relaxed	Excited	Neutral	Excited	(Excited)
D	Tense	-	Calm	Neutral/ Calm/ Bored	Neutral	Excited	Bored	Neutral	Cheerful
E	Excited	Neutral	Neutral	Calm	Neutral	Excited	Bored	Neutral	Cheerful
F	Excited	Irritated	Tense	Relaxed	Sad	Cheerful	Relaxed	Excited	Cheerful & Relaxed
G	Tense	Irritated	Irritated & Tense	Irritated	Calm	Tense	Calm	Excited & Tense	Cheerful
H	Tense	Neutral	Neutral & Calm	Relaxed	Sad	Neutral	Calm	Cheerful	Cheerful & Relaxed

	10	11	12	13	14	15	16	17	18
A	Cheerful	Cheerful → Bored	Excited → Relaxed	Excited	-	Tense	Tense & excited	Cheerful	Tense
B	Excited & Tense	Cheerful	(Excited) & Tense	Less tense	-	Excited & Tense	Tense	Cheerful	Cheerful
C	Irritated & Tense	Cheerful	Excited & Tense	Excited	-	Tense	Tense & excited	Cheerful	Relaxed & Calm
D	Excited	Excited	Irritated	Excited	-	Excited & Tense	Excited	Relaxed	Cheerful
E	Neutral	?	Excited & Irritated	Excited	-	Excited	Excited	Cheerful	Neutral
F	Neutral/ Cheerful	Tense	Cheerful & Excited	Excited	-	Tense	Tense & excited	Excited & Tense	Relaxed
G	Excited	Excited	Irritated & Excited	Excited	-	Tense	Excited	Excited	Relaxed
H	Neutral/ Cheerful	Tense	Excited	Tense	-	-	-	-	-

RESULTS OF THE FIELD STUDY

Green = Design opportunity

Yellow = Insight in behaviour (behaviour caused by a physical problem marked grey)

Red = Physical problem

Observed actions	Touchpoint	Interpretation	Partic.
Trouble finding the entrance	Entrance of attraction	The routing isn't very clear, fencing seem to block the view and people come walking from different directions instead of a one-directional stream of people.	A, F, G, H
Didn't see lockers	Lockers	The lockers are not visible, participants didn't even look in that direction. It's out of the normal line of sight and not very well indicated.	A, D, E, F, G, H
Didn't look at the warning signs at the entrance	Entrance queue & Warning signs	Participants don't find it interesting to them or don't even notice the sign as they are engaged into another task (walking towards the end of the line)	A, B, D, E
Didn't look at first sign in queue about line choice.	Sign 1 Line choice	The sign is placed at a point where people are generally still walking and will not stop to observe it closely (especially when there are other people behind them)	A, B, C, D, E
Checks looseness of shoes when seeing that the cart is open and talk about a similar experience at Walibi.	Queue	This participant has had a negative (or at least impactful) experience before, so she seems to be more aware of checking herself.	A
Looks at the sign with text above the doors for a short while.	Loonlokaal	The sign has drawn their attention and keeps their attention for a short time.	A, B, C, E
Is frowning heavily while watching on as the employee at the baggage depot has trouble finding the bag of the guest before her.	Bagage Depot exit	She seems worried the employee won't be able to find her bag. A hiccup in this system can upset a guest quite easily.	A
Looks at the warning signs and seems to consciously be standing to the side of the queue to not block the way. However, doesn't take a long look because he quickly needs to follow his girlfriend who has walked onwards.	Entrance queue Warning signs	Even though he seemed to want to take his time for looking at the warning signs, it was more important for him to stay with his girlfriend who went on.	C (& B)
Chose the left lane (line 1) because he wanted to be in the front, while his girlfriend was still examining the sign, and dragged her with him.	Sign 2 Line choice	Again, staying together was more important than reading a sign.	B & C
Is checking out what the train of the rollercoaster looks like, how many people fit in.	Queue	Because the guests stand in between the tracks and the trains (and people) generally make a lot of noise, they have all the time and opportunity to check out the rollercoaster.	C

Tries to scare his girlfriend with tales of rollercoaster accidents.	Queue	Participants seem to get extra thrill out of scaring each other.	C
Quickly glances at Baggage Depot.	Entrance	He has taken a look at the BD (being a first time visitor) and therefore can know what is going to come.	D
Checks out the test seat for a few seconds.	Test seat	Is quite tall and possibly checks whether he might fit. Complained before he is too big for the Python.	D
Checks phone multiple times in the queue.	Queue	Is on his phone quite a lot, also seems to use it to check the time.	E
Puts glasses in bag after receiving the ticket and before reaching the Baggage Depot.	Baggage Depot	Is aware of the risk of his glasses falling and seems very adamant of putting them away safely, possibly combined with the look he got at the BD earlier (walking towards the entrance).	D
Tries to hand coat at Baggage Depot.	Baggage Depot	Wanted to leave his coat as he was carrying it all along.	E
Tugs on the wristband and mentions it is hard to loose.	Inpriklokaal	Seems to check the tightness of the band and whether he could lose it. Seems pleased with the result.	D
Walks straight past the employee instead of handing her his ticket.	Loonlokaal	Didn't know what he had to do with his ticket, was unaware of the girl being an employee and simply followed others.	D
Slow down and quickly check out the warning signs	Entrance queue Warning signs	Noticed the warning signs, but didn't spend too much time on it.	F, G, H
Slow down a bit to look at the sign	Sign 1 Line choice	Noticed the sign and took the time to quickly try to understand its message. Didn't spend much time.	F, G, H
Discuss the rollercoaster, screaming people, risks and thrill for a while .	Queue	Because the guests stand in between the tracks and the trains (and people) generally make a lot of noise, they have all the time and opportunity to check out the rollercoaster.	F, G, H

Quote	Touchpoint	Interpretation	Partic.
"I never look at the signs at the entrance."	Entrance queue & Warning signs	Doesn't bother looking at the sign, is busy with other things. Dismisses the concept of the warning sign a bit.	A
"Oh, your feet dangle."	Queue	Participants observe the rollercoaster while in the queue, as they are standing in the middle of it. They gain quite some information from this moment.	A
"When you have received your ticket, it still takes a while, but then I enjoy it because you are engaged in it, those 5 or 10 minutes extra don't matter then."	Process	Waiting time is less annoying when the guest is actively being entertained.	A
"I didn't really understand the line left/right, but I just went to the right because the sign said 15	Sign 2 Line choice	The waiting time that is being shown is more noticeable and/or more interesting to the participant than the image below of line	A

minutes." [...] "I did see line 1 and line 2&3, but I didn't know what that meant."		choice. They just want to have the shortest wait possible.	
"I hadn't checked out the ticket, so then I thought: Now what, where do I have to go?"	Inpriklokaa I	Doesn't understand Ploeg A and Ploeg B, because she hasn't looked at her ticket before entering the doors.	A
"On the one hand it's smart that they do this, on the other hand I would have rather kept it with me longer. [...] And now it's what, 15 or 10 minutes, that you don't see it at all. On the other hand I do think: It's a wardrobe, it's safe."	Baggage Depot	Doesn't completely trust leaving her bag out of her sight, even though she rationally knows it's safe. Also finds it a bit too long.	A
"But then I saw the person in front of me, that the lady couldn't find the bag, and I thought: Oh no, it will not be the same with my bag, right?"	Baggage Depot exit	When seeing a bit of a hiccup (bag was quickly found), immediately is in high alert and taken out of the fun experience.	A
[about the question if she knew where one could store items, was not necessary for her] "I haven't really looked at that at all, in that moment you only see your seat, because we were the last two to enter. Like, they sit down, so you sit down."	Platform (Carousel Storage)	When you are the last to enter it is harder to see beyond the train, and you usually follow the example of the people in front of you. Most of all, when you have nothing to store, there is no incentive to look around.	A
[After seeing a movie of the carousel storage] "Oh shit! I have seen those, but absolutely didn't realise that that's where you put your stuff."	Carousel Storage	Even though the shape and placement is in such a way that it is hard to miss, the function of the carousel storage is not always clear.	A
"I don't like being away from my stuff."	Carousel Storage	A big problem with carousel storage, participant didn't like being away from her belongings.	A
"The other trains don't share the same cabinet? Oh! Then I think I would just do it" [store sunglasses and phone hypothetically].	Carousel Storage	The turning of the carousel isn't clear while knowing this does provide a feeling of safety for the users.	A
[when asked if she knows where she can find out if it's allowed to film] "I have just seen... Uhm, no. Nothing about filming. [...] I just saw that it was not allowed to smoke a pipe, that one I thought was fantastic to see, I just found that funny. [...] But any other signs... No.	Warning signs filming	Saw the no smoking sign even though it was very much in theme, but it was interesting enough to catch her eye.	A
"I know it's there, but that's about it."	Warning sign At entrance queue	Has seen the warning signs but didn't take the time to see what it said.	A
"I have only read the first rule, then I thought: Okay, it's a	Warning sign	She thought she was already familiar with all the rules, so she didn't need to read and	A

rollercoaster, these are the usual things about keeping your hands inside or something like that. So then I thought: Okay, never mind."	filming at Loonlokaal	look further. Just started at the top and didn't scan the entire sign.	
"I only put it [phone] in my pocket when I have a coat with zippers. I don't put it in my trousers' pockets, in the front pocket it doesn't fit and in the back it's sticking out. And when I sit down, especially in such a seat, then it can flop out. [...] Even when I was already in the seat, I tried to check if my pocket was really closed and safe. So I always do a last check."	Sitting down Phone storage	She is very aware of the fact her phone can fall out of her pocket and knows where she can put it or not.	A
"I think I would really have to get used to it. On the one hand, it is more secure than just throwing it at the other side and another train can take it with them. So I think it is something, but I would rather have it more close by, to keep an eye on it for a bit longer."	Baggage Depot	Wasn't too excited about the baggage depot, because she wants to stay close to her belongings. Does realise that it should be safer, but not too convinced yet.	A
"Which lockers? [sees movie] You gotta be kidding me! No, I haven't seen that at all. Not even on the way back when you got out."	Lockers	Didn't see the lockers at all.	A
"It's a long queue, I do want to look at it every now and then. A half hour to an hour, it even was 40 minutes now, that's too long for me to be without my phone. I always have it with me."	Lockers	Wouldn't store her phone in the lockers, she always has it with her and wouldn't want to be without it for the duration of a long queue.	A
"I don't think it are the best pictures, and I wouldn't put them somewhere in my house. I don't think it's worth it, you would have to display it somewhere."	Picture Point	Wouldn't buy a picture, she doesn't think they are nice enough.	A
"Handing over my purse? I was somewhere between neutral and tense. Like, why do I have to give it now? [...] I did do it immediately, because I thought: Well, we're in the line, and I have to keep the flow going."	Baggage Depot	Might not have felt too comfortable about handing her bag, but felt the social pressure of keeping the line going a lot stronger to not hesitate.	A
"The last part I wasn't able to understand the story anymore, I couldn't hear it, so I stopped listening. I was a bit bored."	Kleedlokaal	The spoken pre-show is hard to understand. Therefore not a very effective method to communicate any (theoretical) messages.	A
"I couldn't actually really hear the story, and it didn't really interest me that much."	Kleedlokaal	The spoken pre-show is hard to understand. Therefore not a very effective method to communicate any (theoretical) messages.	C

"No, I think that's what makes the Efteling fun, that there is already a story in the queue. And I really like that at the Baron. It is part of it."	Kleedlokaal & process	The experience is important to this participant, including the background story.	B
"In other rollercoasters you have to get in first, then get out, and then get back in again."	Platform Entering train Other rollercoaster	He finds it a hassle to put away his belongings in other rollercoasters.	C
"I don't really like leaving my bag behind in such a bin."	Platform Entering train Other rollercoaster	She doesn't feel like she can leave her belongings safely at a platform.	B
"Yes, I like it. [...] And it's very quick, you don't really have to wait or anything."	Baggage depot	She likes the baggage depot, it feels more safe and it quick.	B
"If you hold it like that, you lose it immediately."	Phone use in rollercoaster	Is aware that filming is not a bright idea.	C
"I don't really see the added value, what would you do with it? I wouldn't get anything out of it by looking at that movie clip again."	Phone use in rollercoaster	Wouldn't film herself in a rollercoaster, doesn't see the value.	B
"Those signs always show things that make sense, don't smoke in the rollercoaster, don't be bigger than this height. It's not like I am looking at it specifically, because I assume that I don't do those kind of things, that are not allowed."	Warning signs At entrance	Believes she doesn't need to look at the rules because she doesn't do anything out of the ordinary.	B
"Ooh... No, I didn't see that, haha. I was really focussed on the text, but not at not being allowed to film."	Warning sign filming Loonlokaal	Even though it's on the same sign, she only saw the text because it interested her and completely missed the warning sign.	B
"They are quite deep [pockets], and I had thought that maybe something could fall out of it. [...] But then I thought: No, it will be okay."	Sitting down Phone storage	Even though he is aware that things could fall out of his pockets, he assessed the risk (deep pockets) and concluded it would be fine.	C
"Yes, I also always think about it, I wouldn't keep anything in the pockets of my coat."	Sitting down Phone storage	Is aware of the fact that things can fall out of her pockets and pays attention to it.	B
"Somebody can just take it and then it's gone."	Carousel storage (doesn't know yet it turns)	Wouldn't leave something in carousel, because it is easily stolen or swapped (doesn't know yet it turns).	C

"I don't trust this. [...] Especially because there are really only valuable things stored there."	Carousel storage <i>(doesn't know yet it turns)</i>	Wouldn't leave something in carousel, because it is easily stolen or swapped (doesn't know yet it turns).	B
"If I was really scared of losing something, then I would put it there. Because I thought they were just lying there out in the open, and what if someone from another cart takes the wrong phone..."	Carousel storage <i>(has just learned that it turns)</i>	Might put it there (when learning that it turns), when he would specifically worry about losing it.	C
"You already walk past the baggage depot and it's safe there. I couldn't remember whether you needed to pay for the lockers, or if you needed a euro or something."	Lockers (vs BD)	Finds the Baggage Depot more convenient than the lockers, so just uses that.	B
"Maybe when she is looking really bad in the picture, then I will think: Aah, hilarious. Or actually really fun, that you think: Nice."	Photo point	Would only buy a picture when it's really special. Especially when others are looking bad it's a good picture.	C
"We once had a really nice picture, and we were doubting, but then it was way too expensive. So it should be cheaper and be really special."	Photo point	Would only buy a picture when it's really special. And also be much cheaper.	B
"Well, the little paper ticket, when I got it I was thinking: What do I do with this? Is this for my bag? At first I thought the paper ticket was for depositing my bag in the rack."	Receiving ticket	Didn't look at the ticket and therefore didn't understand its function. Also seemed uninterested in it.	D
"Yeah, not 100% necessary cause you got the lady at the end anyways to just tell you where to go."	Receiving ticket	Doesn't see the value in the ticket. [however, when reminded, he knows it's for choosing the Ploeg]	E
"The fact that somebody's there is good. And it kinda makes it smooth. It's as you're coming in and as you're going out, you know."	Baggage Depot	He likes the baggage depot, thinks it is safe and seamless.	E
"For all of the other rides you have to get into the car, get out the other side where they have like these bins or something, or not even bins, you have to put it on the floor or whatever... And you don't, you don't have the feeling someone's watching your stuff."	Baggage Depot	He prefers the BD system, thinks it's less hassle and safer.	D
"If you did not want to keep your coat on in the ride you would still have to go through to the other end and leave your coat there. Yeah, so that's, that kind of defeats the purpose."	Platform Storage solutions	Doesn't like the fact that you cannot leave a coat in the BD.	D

"Cause I couldn't be bothered to, like, walk across with all the people in front of me, and then back again. [...] I didn't really bother looking to be honest. I was just kind of like, argh, I don't want to deal with this, I'll just put it on sort of thing. I don't know if they had any or not, I didn't see, I didn't notice. If there were, they weren't very clearly marked at least."	Platform Storage solutions	Put on his coat instead of going through the hassle of putting it away. Therefore didn't bother looking for the storage options and went for the quick and easy solution.	E
"I was too focussed on where am I sitting and haha, it's all new for me, so I was more focussed on the cart then on the other side."	Platform Storage solutions	His attention went to the task (sitting down) instead of his surroundings.	D
"It kind of like, it kind of fits in, I guess so well with the general, like whole theme they got going. It might not be very apparent that it's for that."	Platform Carousel	Didn't notice the carousels and thinks it's because they blend in a little too well.	E
"That was my issue, if we'd gone first then I would've walked and put my coat away but, haha, yeah I didn't feel like dealing with other people. [...] I don't want to climb across strangers."	Platform Carousel	The people entering the train first deterred him from wanting to find a place for his coat.	E
"You don't want to hold up the ride I guess."	Platform Carousels	Feels the need to hurry up while entering the train, (when asked about using the carousels).	D
"That sound like a great way to lose your phone or break your arm or something, or many other things."	Filming in rollercoaster	Wouldn't film in a rollercoaster with his phone.	E
"That's just dumb really."	Filming in rollercoaster	Wouldn't film in a rollercoaster with his phone.	D
"Well you see like the usual signs like, no food and drink, and no smoking and probably it's in there but I didn't notice anything specifically about no phones or something in the ride."	Warning signs	Didn't check out the rules, because he believed it to be mostly common rules and wouldn't be breaking them.	D
"I don't know, probably in the queue, when we already had the ticket, already dropped of my bag and then we had to go through one of the two doors. And there was like a no smoking sign and a couple of other things I think."	Inpriklokaa l Warning signs	Did notice the warning signs in the Inpriklokaal.	D
"D: I saw a sign with a context story like, grab the gold or something and then descend, something like that?"	Warning sign phone loonlokaal	Did see the sign with the text, but missed the warning sign about the phone because they were caught up in reading the text.	D & E

E: Yeah, I noticed that. <i>It's actually on that sign.</i> D: It is? Okay, haha. I was caught up reading the story, haha."			
"I usually double check for a rollercoaster, like is my phone deep in my pockets. Then it's fine, it's not going to fly out or anything."	Sitting down Phone storage	Is aware of phones falling out of pockets, makes sure it won't happen to him, by double checking his pockets.	E
"I've dropped my keys once. [...] They just fell out of my pocket. But then I was wearing different jeans obviously [...] and it just flopped out. [...] So ever since then I wear slightly smaller pockets, tighter pockets when I go to amusement parks."	Sitting down Phone storage	Had a bad experience once, so now is much more aware of items falling out and adjusts his clothing choices to it.	D
"Yeah, I'm not gonna put my wallet or my phone just loose into one of those bins. At least in a coat or in a bag or something."	Carousel storage	Would not put his valuables in the open, would feel more comfortable when it's hidden in a bag. <i>(not aware yet carousels turn)</i>	D
"Yeah, if it's like in a bag or something. I mean like, even a few people there would like just walk by and swipe my phone."	Carousel storage	Would also hide his valuables in a bag, is afraid people will steal it when it's out in the open. <i>(not yet aware carousels turn)</i>	E
"Even then, it's 18 people. You're getting out, you still have a rush from the ride, you're not really paying attention, it would still be possible to swipe a phone out of the train. But at least you're closer and you're paying attention to it. If I knew my phone was in there I would probably walk straight towards it and keep watch."	Carousel storage <i>(now aware it turns)</i>	Would perhaps use the carousels, but still not feel very comfortable. Not very convinced he would use it.	D
"If I know that it was closed the whole time, I would probably put it in there. But, uhm, I still wouldn't be like a 100 percent sure: My phone's fine. It would still be in the back of my mind like, alright let's double check."	Carousels <i>(aware they turn)</i>	Would probably use the carousels, but not feel very comfortable.	E
"It's in the shade, it's... no, that is a really bad spot for lockers."	Lockers	Didn't see the lockers, doesn't think they are very visible.	D
"Cause it's not even anywhere you go. If you're going to the ride, or you're just leaving the ride, it's not anywhere you walk. You have to walk out of your way to get there."	Lockers	Didn't see the lockers, doesn't think they are in a good position.	E
"A theme's great, but you gotta have some stuff that's... Cause this is dull brown for your lockers that doesn't stand out at all."	Lockers	Didn't see the lockers, thinks they don't stand out from their environment.	D

"I mean, then I wouldn't have to get a sweaty wrist band on that a hundred and fifty people already wore. So if they're big enough, and I get my money back after using them, then yeah, I'd stuff my bag and my stuff in there. "	Lockers	Would want to use the lockers next time, think they are convenient.	D
"It's nice to check it, but if you can't survive without your phone for 45 minutes, then yeah, it's kind of sad."	Phone use (In lockers)	Would store his phone somewhere safe, he wouldn't mind not having it during the queue.	E
"When it's not 10 euros for a photo, I think that's like a stupid amount of money for a photo."	Photo point	Thinks photos are too expensive for what you get.	E
"There's no picture saying confused, I mean, I was kind of looking for the entrance a bit."	Entrance	Couldn't really find the entrance.	D
"It gets you more engaged in the ride, because you're always thinking: How am I gonna do this ride, and now you got a choice."	Sign 2 Line choice	Likes the idea of being able to choose the line, feels more engaged.	D
"I had to search for the entrance a bit. It started with: Do we have to go left or right here? From the right you saw people leaving."	Entrance	Was confused by the stream of people who were exiting the ride, thought he had to go somewhere else for entrance.	H
"The sign A or B, I had missed that. I just saw an open door. [...] Apparently it turned out to be the right one, haha"	Inpriklokaa l	Didn't see there were two different entrances for two groups, but also didn't have it on his ticket. (Bovengrondse Kompel)	H
"I understood it. I saw two doors and they I thought: Huh? And then I saw the signs above it and then I thought: Oh hey, I have seen B. So we have to go to B."	Inpriklokaa l	Did understand the two entrances, checked her ticket before (didn't understand it immediately) but still recognised at the split. Also saw the signs above.	G
"I had a moment of doubt after I had dropped off my bag, I thought: Yeah, I still have too much stuff in my pockets. Because I always have my keys in my side pocket of my sweater."	Baggage Depot & Kleedlokaal	Gave away his bag but forgot to put everything in there.	F
"And when I was sitting in that thing I thought: Oh, my phone is a bit more loose in my pocket in this angle than I want to. So I was messing with it a bit: Is it going to come out? Alright, fuck it, I'm going to leave it."	Sitting down Phone locations	Noticed his phone sliding in the Lift and checked whether it would fall out. Decided it would be okay and take the risk.	F
"I thought it was very relaxed that we could hand in our bags so early on, because usually you are busy and then you have to quickly throw you bag out of the cart."	Baggage Depot	Liked the BD, and being rid of her bag.	G
"I have to say, I think this is well taken care of. Because if I	Baggage Depot vs	Likes the BD, doesn't really like the 'normal' messy system.	H

remember correctly, everyone usually dumps his stuff before going into those carts, just throw it on a heap."	other rollercoasters		
"And actually, the people that come out after you, they have all the time to mess with your bag, while you are still in that thing."	Platform other rollercoasters	Doesn't like leaving his bag on the platform, as people from other trains can get to it while he is in the ride.	F
"Yes, it's nice that it's a bit more manned, then you can trust is more."	Baggage Depot	Feels like she can more safely leave her bag at the BD then at a platform.	G
"The only place that I dare leaving it unmanned it literally next to the cart, because you have no other option. Then you just throw it there and think: Okay, we'll go for it."	Platform (other rollercoasters)	Leaves his bag unattended anyhow, when he has no other choice and kind of surrenders to the idea.	F
"When you are sitting with two people and the person next to you doesn't have a bag, then you have to go over the other person to throw your bag on the other side. Or you have to ask the other person."	Platform other rollercoasters	Doesn't like having to bother another person when she has to leave her bag somewhere.	G
"Most of the time in rollercoasters I already know: My strategy is, dump everything in bags, that you don't carry anything in pockets and then it's okay. And I heard there was a baggage depot, so I dumped everything in my bag and then I was ready."	Baggage Depot Loose items	Always strategically stores everything in her bag to have as little trouble as possible. Was well prepared now because she knew the BD was coming.	G
"There was a little cabinet on the other side. And then you could give it to those people and they put it in the cabinet for you, and then you can pick it up later."	Carousel storage	Noticed the carousel storage but believed the carousel storage was 'manned' as well, and you had to give your items to the employees. (Because she saw the employees that someone's hat for them)	G
"I didn't notice that at all."	Carousel storage	Didn't see the carousels.	F
"No, I didn't notice it as well. [...] But I was standing with my back to it. [...] Oh, I was watching it? Hahaha."	Carousel storage	Didn't see the carousels even though he was waiting on our train right next to them.	H
"I was quietly hoping: If I just sit down, these people are experienced with this. If I have something on my body that they think: 'That's going to fall', then they will tell: 'Hey, shouldn't you give those headphones to me?' And then I would say: 'Is that possible?' Then they will say: 'Yes, here.' So I thought, if they don't mention it, it will be okay."	Sitting down Storing items	Believed that if his items really were in danger of falling down, the employees would warn him and put away his stuff for him. (However, when something is too obvious, they often deem it to be common sense and the guest's own risk)	F

"I have the feeling that you cannot waste everyone's time by: 'Oh I still have to put away my keys and stuff. Sorry guys, wait for me a second!' Then it's just: No, you fucked up, it's too late. I am not going to slow everything down."	Platform Carousel storage	Feels the pressure of being quick and not slowing down the train, rather than spend time on storing his belongings.	F
"I know this feeling of urgency, you have to cooperate a bit there are many people waiting behind you."	Platform Carousel storage	Feels the pressure of being quick and not slowing down the train, rather than spend time on storing his belongings.	H
"I would help if I could literally see a time to launch thingy, okay if I want to look around before someone says: Now I am really going to close these things, hurry up. How much time do I have? [...] Like, can I still store my stuff?"	Platform Carousel storage	Wants to get insight in how much time he has to store his belongings, to feel less rushed.	F
"Well I wouldn't do it! Because people walk by, they can just take your phone."	Carousel storage <i>(not aware it turns)</i>	Wouldn't store valuable belongings in carousel. <i>(not aware it turns)</i>	G
"It would depend on what kind of items I need to put there. [...] I don't think I would just put anything in there."	Carousel storage <i>(not aware it turns)</i>	Wouldn't store valuable belongings in carousel. <i>(not aware it turns)</i>	H
"Okay, no I thought it was really special that they were round, but I didn't notice that they would turn."	Carousel storage	Didn't realise that they would turn, even though she noticed the odd shape.	G
"If you are sure that no one else can reach it, that you would only have to run after someone from your own cart when they decide to be cheeky, instead of someone from another cart."	Carousel storage <i>(aware it turns)</i>	Would use it more easily knowing that the carousel turns.	F
"What if they were common good, that you see them at every attraction, you know this system, then I think I would use it."	Carousel storage <i>(aware it turns)</i>	Would use the carousel when having seen it before. Placing it at all attractions would help him learn.	H
"Yeah, when I would already see it in the queue and see it turn 20 times, then I would trust it. Now you only see it when it's your turn, while at other attractions you see people going in and out."	Carousel storage <i>(aware it turns)</i>	Would use the carousel when having seen it before. Usually learns by looking at other people, isn't possible now.	G
"it's very bad timing to offer new information in the process, or to expect from me to be focussed on anything other than: Hmm, am I going to die or not?" [...] I was also busy messing with G, I am more committed to that than: Oh, might there be another way, and if it's there, can I trust it? How does	Carousel storage	Is more occupied with everything else, not with finding a possible storage space and figuring out whether it is safe.	F

it work? Is it per train? These are all cognitive things that I wouldn't have to want to consider in that moment."			
"If you just know that: 'On average two phones a day fall down, don't let yours be the next.' That might be, please take my phone, haha."	Phone storage	Thinks knowing this information [how many phones fall down] would have impact on him.	F
"... Just a head mount and that I look over and see you sitting there in terror, that would be fun."	Filming in rollercoaster	Would like filming, not to see herself but to see fear of others.	G
"Those pictures you get to see at the end, all these people that have the same stationary faces, that's pretty 1990. I just want live footage of the entire train, every monitor another person and then I want to see everyone 'Aaarggh!'. But I don't know if I would pay for it."	Being filmed in rollercoaster	Would like a film version of the current photo being taken to see other's fear.	F
"But it's also because the information on there is in most instances not relevant for us. You aren't here with children or anything that aren't tall enough. [...] And in this moment I think: I am not breaking any rules, so..."	Entrance queue Warning signs	Didn't read the warning signs, didn't find it interesting because he suspected he wasn't breaking any rules.	H
"I read the top two paragraphs, one about preparing, one about receiving money, that's all I read."	Warning sign filming Loonlokaal	Saw and read the sign, but didn't see the warning sign below of not being allowed to film.	F
"I assumed that it was a non-smoking sign. [...] Because this one, it's always a cigarette. And if there were three things next to each other, than I would think: Oh, there are multiple things I'm not allowed to do, let's check it out."	Warning sign filming Loonlokaal	Thought no filming sign was a non-smoking sign, as it is shown so often. When seeing multiple signs next to each other she would check it out.	G
"Again, I think I filter it out automatically because I assume, I am not breaking any rules. I don't smoke, I am not carrying a camera."	Warning sign filming Loonlokaal	Didn't look at the sign because he believed he wasn't breaking any rules.	H
"I did register something along the lines of: Hey, lockers. But it was so early on. [...] I want to have my snacks in the queue. I want a bottle of water, I want my snacks, mostly because I have to wait a long time."	Lockers	Did see the lockers, but didn't find them interesting yet. She wants to have her bag and snacks with her in the long queue.	G
"I miss the theme and the attraction itself actually. The only thing I get	Photo point	Wouldn't buy a picture because he misses context.	H

to see is myself screaming. It's not that memorable."			
"I would buy it, like: Haha, G looks ridiculous in this picture, let's buy it. [...] But it's officially too expensive to buy as a joke."	Photo point	Would like picture to mess with others, but still finds it too expensive.	F

SUMMARIZED FINDINGS PER PARTICIPANT

Participant A

- Was aware of loose items and stuffed them away in her pockets with zippers, she even checked whether her shoes were loose. She didn't feel very comfortable leaving her bag at the baggage Depot but did so anyhow.
- She was a bit annoyed that she couldn't follow the story.
- She was quite confused every now and then, finding the entrance, receiving a ticket, understanding the story.

Participant B & C

- C carried a bag which she happily left at the baggage depot. She was quite aware of her belongings, claimed to never leave anything in the pockets of her coat, and thought about using the lockers. However, didn't seem to feel comfortable leaving belongings at the platform, especially a phone.
- C liked the story and experience, wanted to follow the story and paid attention to it.
- C didn't spend time on reading signs and rules because she believed to behave accordingly anyhow (and did).
- B only carried items in his pockets, was quite aware of them and consciously checked whether his pockets were deep enough and nothing would fall out. Liked the Baggage Depot but had nothing to give. Wouldn't comfortably store anything in carousel, was a bit more reassured when heard that it turned, but would still rather keep things in his pockets.
- B couldn't understand the story and was therefore a bit less interested in it.
- B was really excited of being in the front line.
- Both B & C were pretty well aware of the process and understood where they had to be when (Ploegen, tickets, BD, entrance).

Participants D & E

- D carried a bag that he happily left at the baggage depot. He was very aware of his belongings and stored his glasses in his bag beforehand. He wore tighter pants to not lose anything, had lost keys before in a rollercoaster. Wouldn't feel very comfortable using the carousels and wouldn't want to keep up the line, but would use the locker a next time.
- D felt the shows were a bit too many, got a bit irritated at the last preshow, and found the paper tickets unnecessary.
- D didn't really bother checking signs because he knew the rules and believed he behaved accordingly (he did).
- E did not carry a bag, but did try to give off his coat which was not accepted. Couldn't be bothered to look for a solution so just put it on in the train. Didn't want to cross all other passengers. Would perhaps use the carousels, but not very comfortably. Would use the lockers.
- E thought the show was also a bit too long and got a bit irritated about it at the last preshow.

Participants F, G & H

- F carried a backpack, that he left at the baggage depot, to realise after that he had not put his loose items in there (headphones, keys and phone). Started to worry a bit about it during the preshows, did a quick check up and risk analysis, decided his headphones would stay on, and moved his items into his jeans pockets. Checked his phone in his pockets in the lift. Expected to hear from the staff if it would be a bad idea.
- F found it very important to not hold up the line.
- G noticed the carousel storage, only did not notice it turning, and had nothing she needed to put in. She carried a backpack that she happily left at the baggage depot. Even though she had nothing to drop, she did notice the carousel storage, but misinterpreted its use (thought employees brought your stuff there, didn't notice it would turn).
- G was very aware of her surroundings and was claimed to be very keen and detail oriented in everyday life.
- H was too scared to go in the rollercoaster, choose the Koppel Bovengronds (going through all the preshows, but not entering the train and stay at the platform) and was waiting for us at the platform. Even though he was standing next to the carousel storages, he didn't notice them.
- H wouldn't trust the carousel storage without having seen it before.
- H didn't really check out the rules because he believed he wouldn't be breaking any.

APPENDIX B – OBSERVATION RESULTS AT PLATFORM AND PHOTO POINT

RESEARCH QUESTION

Do people lose their phone because they hold them in their hands or because they lose them out of their pocket?

METHOD

1. Observation at merchandise point of picture being taken in the rollercoaster.

Does anyone hold their phone in their hand at the picture moment?

Assumption: People will film the entire ride, when people want to take selfies they at least have their phone ready in hand the entire ride, thus phone will be visible in picture.

2. Observation at platform when guests enter the train.

How many guests store their phone in the Carousel storages?

What other items do they store?

Do they need help from operational staff?

What state (mood) can be observed?

3. Short talks with operational staff about observed behaviour.

How does operational staff handle people who carry a phone on them?

RESULTS

1. 621 people seen in images.

None clearly have a phone in their hand (people typically hold their phone in a specific position for taking selfies). One boy didn't have his hand visible in the picture, and held his head in a peculiar angle which might indicate that he was filming/taking a selfie. However, his friend next to him wasn't looking at all, so the chance that he was holding a phone is rather low.

Other remarks:

One man was spotted holding his sunglasses in his hand.

Quite a lot of pictures are being sold in the shop. Probably a large source of income, might not be smart to give an alternative. Eg giving guests the opportunity to film themselves in the rollercoaster.

2. The most remarkable result from the observations of the carousel storage is the low amount of people using it.

45 trains passed (810 people) and only 20 people used the carousel storage. Some people went to the cabinet to put their bag as they had to take it with them. 6 people had to be corrected by staff, they were already seated and the staff brought their items to the carousel themselves. 3 people needed help, asked if it was the right place to put it, or asked where to put their belongings.

The people that used the carousel without asking for help generally seemed confident in their actions, they did not hesitate or look around.

Note: Two people left an umbrella but had no easy place for this.

11 people left valuable belongings (bags, phones, wallet, watches, not included: coats, scarfs, bottles and umbrellas)

4 people seemed tense, however it was not clear whether this was caused by leaving their belongings or by going into a rollercoaster. The guests that seemed tense were also confident in their actions, which leads to believe that they were not tense due to leaving their belongings.

3. Results from short talk with employees:

Employees mention that they hardly ever correct anyone when they have a phone in their pocket. First of all, it is allowed, and secondly, they already have a lot of things to do in a short amount of time. They need to check braces, shoes, bags, length of children and sometimes warn guests when they seem to have very loose sunglasses. They view it as the guest's own risk. Sometimes they warn when it is very clearly visible in very loose trousers, or when someone has their phone in their hand (they offer that it's also possible to put it in the carousel, especially with loose pants).

A lot more phones are being lost in summer, when pants are wider. About 1 in 4 people who come to say they have lost their phone is female. Others are male.

Operational staff believes that fallen phones have fallen out of pockets, and not because people are filming themselves. Usually they spot phones in hands very easily, and when the braces have closed, the brace makes it practically impossible to reach in the pocket. (confirming the observations at the photo booth).

APPENDIX C – INTERVIEWS WITH OPERATIONAL STAFF

INTERVIEWS

INTERVIEW GUIDELINES

1. Hoe lang en hoe vaak werk je al bij de Baron? Wat zijn je verschillende functies?
2. Hoeveel objecten denk je dat er op een dag naar beneden vallen? (gevonden voorwerpen vs mensen die zich komen melden)
3. Kan je een beeld schetsen van de personen die spullen hebben laten vallen? (leeftijd, m/v, eerste bezoek, etc?)
4. Hoe reageren gasten als ze iets zijn verloren? Geven ze personeel/de attractie/de Efteling ooit de schuld?
5. Waarom denk jij dat de oorzaak is dat mensen hun telefoon verliezen?
6. Weigeren gasten ooit om gebruik te maken van het Bagage Depot? Vindt er ooit discussie plaats?
7. Waarom wordt er niet altijd gebruik gemaakt van het Bagage Depot terwijl het wel druk is en er ook tassen in liggen?
8. Bij welke aantallen gooien jullie het BD dicht?
9. Hoe reageren gasten meestal op de carousel opslag?
10. Hoe en hoe vaak corrigeer je gasten op telefoons op het perron?
11. Hoe vaak worden er spullen gestolen/verwisseld in de opslagruimtes?
12. Er is veel timing nodig met de gasten door de preshows krijgen en treinen weg te sturen. Waar zou jij zeggen dat de probleemmomenten zitten? Waarom?

SUMMARISED ANSWERS FROM INTERVIEWS

A

2. Er vallen regelmatig dingen naar beneden, als er schoolreisjes zijn regelmatig geld (los in broekzakken). Zonnebrillen vallen vaak, blijven ook regelmatig wel gewoon goed zitten maar kunnen vallen als ze relatief los zitten. Telefoons vallen dagelijks meerdere keren in het hoogseizoen. Er vallen voornamelijk dingen onder de Zero G Roll en in de tunnel. In de winter vallen er wel minder items, maar dat is lastig vergelijken aangezien er ook minder bezoekers komen. Het zal ongeveer 50/50 zijn hoeveel mensen er terug komen om te vragen naar gevallen spullen, maar durft er niet echt iets over te zeggen (gaat in dit geval over alle spullen?). Mensen worden regelmatig gewaarschuwd van te voren, en voelen zich knap lullig als ze terug moeten komen om te vertellen dat hun telefoon is gevallen. Zullen ze dus niet zo heel vaak doen.
3. Van alles en nog wat, er valt geen specifiek type aan te plakken.
4. De mensen die wel terug komen om te vragen voor spullen. De meesten balen gewoon dat ze hun spullen kwijt zijn, 'de een die baalt echt als een stekker en wil dat we a la minute gaan zoeken want ja, stel je voor', de ander begrijpt goed dat ze de attractie niet voor zoiets stil kunnen gooien. De meesten begrijpen het wel. Nooit meegemaakt dat mensen personeel of de attractie de schuld geven.
5. Omdat mensen lomp zijn. Ze moeten gewoon zorgen dat spullen goed opgeborgen zijn. Natuurlijk moeten we proberen het te voorkomen, maar kan moeilijk over broekzakken vragen wat erin zit. Melden wel eens iets als er wat in het borstzakje zit (dan alsnog zeggen sommigen: o, komt wel goed).

Voorbeeld gevallen GoPro, er was een GoPro gevallen en gevonden, beeldmateriaal liet zien dat ze in de achtbaan aan het filmen waren. Personen kwamen melden dat ze een GoPro waren verloren, maar dat ze hem niet gebruikten op het moment dat ze hem verloren (mag niet volgens de regels). Mensen willen niet toegeven dat ze aan het filmen waren in de attractie omdat ze eigenlijk de regels wel weten.

Denk 9 van de 10 keer valt het uit de zakken. Als je het vast hebt, dan hou je het wel echt vast. In ieder geval nog nooit gezien dat iemand het uit de handen liet vallen.

6. Onder een bepaald aantal gasten (5.000 ?) gaat de garderobe niet open, als de bezetting minimaal 8 man is gaat het open. Mensen die hun tas niet achter willen laten, worden erop geattendeerd dat ze hem op het perron achter kunnen laten maar dat dat eigen risico is. Kast op het perron wordt niet in de gaten gehouden en niet alles past in de carousel.

B

2. Zo'n 2-4 gevallen telefoons per dag, in ieder geval in de zomer in het hoogseizoen. Dan dragen mensen korte broeken met wijde zakken. Soms vind je ook een telefoon zonder dat het gemeld is.

3. Het is heel verschillend. Het zijn niet vaak kinderen zijn (<12), jeugd af en toe, maar met name 18+. Gokt dat er 3 van de 4 mensen om de telefoon komt vragen.

4. Goed zichtbare telefoons willen ze nog wel eens pakken, maar als iemand niet weet waar het ligt gaan ze niet de achtbaan stilleggen. Mensen weten heel vaak niet waar ze hem hebben verloren en kunnen de baan ook niet goed genoeg om het te omschrijven. Als het op een punt ligt waar het nu nog niet beschadigd is, maar later op de dag misschien wel, of als het met een minuut te pakken is, dan wordt de attractie nog al eens stilgelegd. Maar in principe wordt er gevraagd aan het eind van de dag terug te komen.

2 weken terug was er een man zijn telefoon verloren en wilde per se dat ze de attractie stil zouden leggen. Procedure zoals hierboven aan gast uitgelegd, maar deze was het er niet mee eens.

App 'zoek mijn iphone' maar GPS is niet altijd nauwkeurig genoeg.

Zoeken wel op bepaalde punten, tunnel, net voor de lift, bij de drop, uit de tunnel komen heel soms, Zero G Roll, remsectie. Het is heel lastig zoeken, dan ga je al met meerdere mensen zoeken en op die plaatsen, maar dan moet je alsnog de gasten vaak teleurstellen. Hopen dat met de opstart het wel wordt gevonden.

7. Het is afhankelijk van de timing van de preshows als er mensen doorgestuurd worden langs de garderobe zonder tas af te geven.

9. Opslagbakken bij andere attracties die automatisch openen en sluiten zijn ideaal. Er is hier keuze gemaakt voor de open kast met de carousels. Mogelijkheden die ze aan de gasten bieden zijn optimaal, hoewel andere attractieparken beter zijn. Garderobe vindt hij persoonlijk goed, bewaakt. Meerdere opties om spullen op te bergen, dus goed. Met twee treinen is de achterkant van de carousel open. Je stopt aan de voorkant het voorwerp erin, en komt het er aan de zijkant uit. Eerder wel gedaan met om en om 1 of 2 keer doordraaien, maar dat was verwarrend. Nu ligt altijd de spullen van de trein die weg is in het gesloten gedeelte.

Hij vindt persoonlijk dat ze veel mogelijkheden bieden voor de gast om spullen op te bergen. Slippers en jassen etc vaak in de kast.

Mensen beseffen niet wat er kan gebeuren, weten niet dat alleen de telefoon kapot kan gaan, maar ook dat andere mensen erdoor gewond kunnen raken (zie jongetje Joris en de Draak). Mensen willen te graag alles vastleggen en op social media zetten.

Mensen die al gewaarschuwd worden als ze de telefoon in de hand hebben komen alsnog terug en verwachten dat er naar de mobiel gezocht wordt zodra ze hem verloren hebben.

10. Mensen zijn wel bewust van de regels, 'maar gebeurt toch niet bij mij'.

Toen GoPros etc verboden werden drie jaar geleden zag je wel een afname. Nu zijn harnassen weer toegestaan (dat is wel veilig genoeg) maar je geeft mensen wel weer het idee dat ze dan ook wel met telefoon kunnen filmen. De drempel is minder hoog om dat te doen.

GoPros op hoofden, pols en telefoons aan de hand vastgetaped zie je ook af en toe (mag in principe niet?)

"Als wij er wat van zeggen, dringt het niet door bij de gasten, dat is wel jammer."

Nu rijden ze met 2 treinen en hebben ze 23 of 24 treinen in een half uur, is rustig. Met drie treinen gaat het nog sneller. Streven naar 46 treinen per uur met drie treinen. Omdat het rustig is ga je ook rustiger aan werken.

C

Draaiër kan overal staan, specialist weet net wat meer. Specialist is vaak dagverantwoordelijke, en kan bijvoorbeeld GoPro's plaatsen als er een filmcrew komt.

Volledige bezetting is 16 man. 5 man perron; 4 pauze; 2 garderobe in; 1 garderobe uit; 1 besturing; 1 pre seaten; 1 loonlokaal; 1 pleindienst

2. Gokt dat er op drukke dagen zo'n 5 gasten langskomen omdat ze iets hebben laten vallen. Maar er zijn ook dagen dat er niemand komt, maar dat is eerder een uitzondering. Vandaag zijn er bijvoorbeeld al twee mensen langs gekomen (*zijn er later drie geworden*). Van iedereen die langskomt zal dat gemiddeld 3 keer per week zijn voor een telefoon, sleutels gebeurt wat minder vaak. Durft niet te zeggen of er telefoons vallen zonder dat de eigenaar zich meldt, aangezien je vaak telefoons niet diezelfde dag vindt. Als je dan later een of meerdere telefoons vindt, weet je niet of dat van een van de gasten is geweest die zich meldt, of door iemand is laten vallen die het niet door heeft gehad.

5. Ze denkt dat mensen de telefoon in de hand hebben en dan toch een schrikreactie hebben en hem laten vallen. Door heupbeugels is het haast niet mogelijk dat telefoons uit de broek vallen, en mensen zeggen ook af en toe dat ze de telefoon in de hand hadden. Verder ziet ze het wel eens op de cameras dat mensen aan het filmen zijn. Dan wordt de trein soms stilgezet en roepen ze het om. Broekzakken zijn naar haar idee niet diep genoeg om iets uit te laten vallen, het zal eerder uit een jaszak vallen.

11. Ziet vaker dat er spullen worden verwisseld dan gestolen. Als er verwisseld is, hebben mensen het vaak door, en is het al opgelost voordat de beveiliging er is. Maar alsnog heeft ze het maar 5 keer in 1 jaar meegemaakt. De ene keer is het een bril die meegenomen is, of een tas die precies hetzelfde eruit ziet.

Mensen lijken banger voor de garderobe dan voor de opslagruimte naast het perron. Mensen maken heel vaak stampij bij de garderobe dat ze het niet af willen geven, en diegenen vinden het dan wel oké om het naast het perron te leggen, terwijl er dan niemand zicht op houdt.

Mensen die moeilijk doen bij de garderobe mogen dan gewoon doorlopen en naast het perron leggen. Dan is het binnen gewoon op eigen risico.

12. Loonlokaal is lastig met timing, als mensen bij een verkeerde ploeg staan. Dan wordt 1 trein niet gevuld, en is de volgende te vol. Moet dan opgelost worden door bijvoorbeeld een trein extra te laten rijden

(mensen mogen tweede rondje maken). Vaak afhankelijk van de wachtrij hoe iets opgelost wordt. *Veel eigen invulling door personeel.*

Garderobe is een knelpunt, mensen stoppen nog voorwerpen in de tas etc. Er mogen geen losse voorwerpen in de garderobe, die moeten ze dan in de carousel leggen.

Lockers zouden ideaal zijn, maar worden niet gebruikt.

Niet echt mogelijk om het proces op het moment te versnellen (wbt bagage). Alleen op het moment dat de garderobe niet open is, zou het versneld kunnen worden door tassen aanpakken op perron door 1 extra personeel en in de kast leggen, maar is niet handig met verantwoordelijkheid. Als er iets valt, wiens schuld is het dan?

Het is soms ook sneller om losse voorwerpen van mensen aan te pakken, dan om ze het zelf weg te laten leggen in carousel. Maar aan de andere kant gaan mensen soms gewoon zitten en steken de voorwerpen uit met de verwachting dat het aangepakt wordt. Als mensen dat doen, gooit ze vaak wel de beugel open en laat ze de mensen het zelf weg leggen. Want als je daar aan begint, dan hou je dat in stand. Eigenlijk wil je dat mensen het zelf doen (wegleggen) want dat is het niet jouw verantwoordelijkheid. Aan de andere kant zorgt het wel voor vertraging.

Soms maken mensen misbruik van het verantwoordelijk stellen van Efteling. Voorbeeld: Jongetje dat zegt dat er een scheur in zijn telefoon is bijgekomen nadat hij het in zijn broekzak had laten zitten.

Ook wel eens gebeurd dat mensen terug komen rennen van het inpriklokaal om een los voorwerp in de tas erbij te stoppen, is ook wel eens iets bij mis gegaan.

Let op aansprakelijkheid!

Capaciteit is een heel belangrijkpunt bij de Baron.

Poortjes dicht binnen 38 seconden (dispatchtijd). Vanaf moment openen deuren.

16 man is volle bezetting.

D

2. In het hoogseizoen vallen zo'n 3-5 voorwerpen per dag, in het laagseizoen zo'n 1-2 per dag. Dan spullen die ze ook echt vinden. Van de ride through tot de remsectie. Heel vaak ook in de tunnel of het groengebied onder de baan. Schoenen, brillen, sleutels, petten, telefoons. Ongeveer de helft hiervan is telefoon. Het verschilt per dag een beetje wie van het personeel er staan, sommigen zijn wat strenger dan anderen (telefoon in zak stoppen of carousel leggen). Ook verschilt het heel erg per gast. Slippers zijn wel echt een dingetje, die houden de doorloop vaak ook tegen. Het moet wel allemaal doorlopen.

3. Op zijn meest wel eens 4 mensen per twee dagen gehad die zijn komen vragen. Portemonnee, telefoon, dure pet. Soms wel eens zoeken als het duidelijk is waar, of bijvoorbeeld schoen, sleutels. Meestal doorverwezen naar gastenservice, daar worden gevonden voorwerpen verzameld.

Verschilt heel erg wie er verliest, mooie verdeling man/vrouw.

4. Bob, man wilde zelf zoeken. Hele discussie, nare situatie.

5. Niet goed wegstoppen, open broekzak. Mensen luisteren gewoon niet, 'nee, komt wel goed'. Het verschilt wel echt heel veel. Kwestie van pech hebben en naïef zijn.

Heeft zelf ook een keer zijn sleutels verloren in een testronde aan het begin van de dag. Sindsdien let hij ook als gast bij andere parken, of als hij als gast de Efteling bezoekt, veel beter op zijn spullen.

Geloof dat het niet veel werk is om spullen weg te leggen, gewoon doorlopen, snel neerleggen en weer gaan zitten. "Het is allemaal niet zo moeilijk. Spullen mogen niet mee, losse voorwerpen mag niet. Oké het is een achtbaan die over de kop gaat, vrij open stoelen zijn het. Je kunt je spullen verliezen die in je zak zitten. Dus of van te voren stop je ze in je tas of je gooit ze in die draaicarousels. Makkelijker kan het niet zijn, volgens mij."

Het zou goed kunnen dat het ook aan selfies ligt. Soms leggen ze de trein stil om mensen telefoon in te laten leveren.

9. Mensen reageren soms heel panisch als je ze vraagt de telefoon af te geven. Heel veel mensen geven hem met liefde af, maar andere zijn zo panisch.

6. Sommige mensen proppen alles in de tassen, op het laatste moment en houden de rij op. Anderen halen juist de belangrijke dingen eruit. Dan moet je uitleggen dat het volledig bewaakt is en er niemand bij hun tas kan komen, mensen moeten echt hun bandje weer inleveren om de tas terug te krijgen.

Snappen mensen de opslag hier?

Garderobe: Mensen kunnen het al zien als ze op het plein lopen, dus zou het niet als een verrassing moeten komen. Misschien in de wachtrij al iets plaatsen, is *misschien* wel een optie?

Lockers: worden naar zijn mening niet genoeg gepromote.

Aan de ene kant zien mensen het wel, aan de andere kant niet. Mensen laten hun hersenen in de auto.

Heb je het idee dat mensen de carousels altijd doorhebben en zien?

Nee. Soms lopen mensen met kleine tasjes langs de carousels en negeren ze volledig, stoppen ze in de kast erachter. Zien de carousels dan blijkbaar niet, kijken er wel naar maar zien niets. En je hebt mensen, het tegenovergestelde, die hun grote tas in de carousel stoppen dat het eigenlijk net niet past.

Denk je dat mensen niet weten dat ze hun telefoon niet in de zak mogen houden?

Allebei, twee soorten gast. Mensen die overal schijt aan hebben en mensen die maar al te graag willen.

Ligt op dat moment toevallig een pakje sigaretten op de remsectie, is dus waarschijnlijk eruit gevallen bij een van de gasten.

12. Capaciteit van de garderobe is te laag, zeker met schoolreisjes en de zomeravonden.

Informatieverstrekking van de garderobe en lockers kan ook wel beter. Als mensen weten hoe en wat, dan kan dat probleem ook aangepakt worden. Slippers zijn echt een dingetje, kost veel tijd.

Losse voorwerpen regel. Zak met rits is geen los voorwerp, broek met zakken is dat een los voorwerp of niet?

Weet hij eigenlijk niet, is lastig.

APPENDIX D – COMMUNICATION WITH THREE OTHER EUROPEAN THEME PARKS

Blackpool Pleasure Beach

Hi Frank & Lian,

Please accept my apologies for my late reply - holidays and subsequent workload have got in the way!

I'll break your question down into its component parts and address them one by one:-

1. We have signs at each ride entrance and along the queue lines/platforms advising people that mobile phones are not permitted to be used on the ride, but we do not explicitly prohibit them from being on one's person (eg. in a pocket). We have always taken the view that people will want to secure their phones so they don't lose them. Storage in the ride stations is notoriously insecure, which doesn't help people to want to store their phones!!

2. We don't explicitly point out to guests the risk of a phone (or other object) falling from their person - again, we assumed the risk was self-evident. However, this might be something that we should point out to guests since, certainly in the UK, people don't seem to be as aware of obvious risks as we think they should be. Signs don't tend to be read and oral messages don't tend to be heard by excited people in a ride queue, so maybe Lian can study how best to get these points across to people? They really should know better, but evidence suggests they don't!

3. The only place we have explicitly installed protective measures to stop people below being struck is at the rear of our hotel where the staff tend to meet outside. We have had a number of things like coins and phones come off the Big One coaster at that point so we installed a fine net to protect the staff from being struck. Otherwise, due to the nature of our park, we don't have any other areas where this is the case.

4. Our staff have specific written instructions to follow in the event of property being lost on the ride, but this depends on a number of things, such as the importance of the item (eg. medication would be more important than a hat), how easy it is for someone to gain access to it (eg. if the member of the public could access their item if we refuse to retrieve it immediately, or whether it is a very secure area where they must wait for us to retrieve it) and so on. Of particular note is that the instructions require the ride to be isolated and locked out with a padlock before any member of staff goes to retrieve an item so they cannot be struck by a ride vehicle in motion.

One other thing that we also do is monitor passengers on rides (visually, including CCTV, as far as we reasonably can) for passengers getting their phones out to film their ride once they have left the station. If we see anyone doing this, we stop the ride and go and advise them of their error. Repeated misuse will result in removal from the park.

I hope that helps you a little, but please get back in touch if you need anything else from me.

A wider topic for debate is surely the general guest behaviour issues, the apparent mega-importance of guests' phones, and the overall Human Factors issues that we have just started to discuss at IAAPA? Lian could make a whole career out of things like that!

Cheers,

Alex.

Liseberg

Hi Frank,

Sorry for not replying earlier!

A brief explanation how we work regarding this issue with loose items:

-Safety information in front of all rides, text and pictograms. Also on major rides we have this safety information at several places along the queue, also video screens looping safety regulation, and here we explain very clear the risk involved with loose items, cell phones etc..

-Operators have clear instructions what is allowed and not allowed onboard a ride. We have also CCTV in the lift hills of all our coasters (The ones which have a lift hill :) Instructions are to look for guests that may have picked up for example theirs phone, if someone have we stop the lift and go up and take it from them.

-On each ride we try to have the best possible storages for loose items, so we can make the guest put phones, keyes etc in this storage during the ride.

-On some rides we have protective netting, this is a protection for people standing outside the rides.

-We do not retrieve loose items during operations. But! We have instructions that's if a guest says they have lost item they can see, we will actually close the ride and a deputy engineer will go and retrieve the object. This is because we don't want for example a phone or wallet to be seen in the ride area during operation, with the risk that someone will take the risk and climb in to get it.

Attached a sign from our new wave swinger.

Best Regards

Kenneth

Tivoli

Hi Frank and Lian

Lots of questions, some really difficult to answer, and might vary from ride to ride – but I will try

Do you have ways of making your guests aware of the dangers and risks in order to avoid the phones from falling or have you taken any precautions to avoid people who are standing below being hit?

Yes from all thrill rides we have signs that phones and loose effect not are allowed. Further are our staff trained in asking for this, and we have at most of our thrill rides a kind of locker system. Preventing that our guest bring such to the ride. Dose it help, yes no doubt – dose it prevent this to happen, no - I have to admit that we pretty often have situations where our guest brings their phones to the ride, and we do also have situations where our guest loose their phones during the ride. The problem is lot of pockets, lots of guest who simply 'love' their phones and simply won't leave them. However we don't have any problems with selfies equipment.

Also, what are your regulations regarding this problem, for example in how employees should deal with guests who come asking to retrieve their belongings underneath the track?

It differs a little – if it happens, and the operator can help the guest without danger, then they will help, but very often this is not possible, and then they will have to wait to get it back to next day. We have discussed if we should act different, but this is also difficult in regards to guest behaviour.

Best regards,

Mogens C. Ramsløv

246 MIN

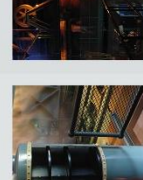
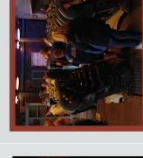
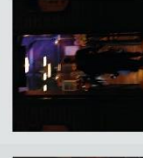
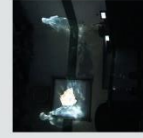
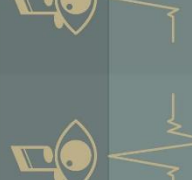
123 MIN

Pre-seats guests in 3 rows (18 guests)

Help previous group out, help new group in, check braces, check loose items, sometimes place items for guests in storage, and send off train safely

Returns bag

Sells pictures



14. KLEED-LOKAAL PRE-SHOW 1

15. LOON-LOKAAL PRE-SHOW 2

16. DOORS SUDDENLY OPEN

17. PLATFORM, ENTER TRAIN

18. USE CAROUSEL

19. CABINET FOR BAGS

20. SIT DOWN IN TRAIN

21. RIDE!

22. RETRIEVE ITEMS

23. EXIT PLATFORM

24. RETRIEVE BAG

25. SEARCH FOR PICTURE

Guests don't see no filming sign, distracted by text or don't look in that direction.

Disorienting, people haven't seen process before so there is no learning curve.

Social pressure to be quick. Storage solution isn't visible from train.

Functioning of the Carousel is unclear. Guests are not aware that pockets might not be a safe storage space.

When using two trains, belongings are hurried to the back (out of sight when exiting the train).

"I should leave my stuff somewhere."

"I don't know where and I just want to sit down quickly."

"I should leave my stuff somewhere else? It's fine in my pocket."

"I should put my stuff away."

"I don't want it to be gone when I get back."

X

X

X

!

X

!

X

X

X

X

V

Rational decision moments + accompanying visual cues:

	Decision	Visual cues
1	Store items in lockers.	Visual cues are not visible. Lockers are situated out of the line of sight, and the sign belonging to it as well. Furthermore, some participants that did see the lockers, did not recognise them as such, or did not link them to this specific attraction.
2	Try out test seat to see if it fits.	Test seat is situated in the line of sight and seems to draw attention by its appearance.
3	Read warning sign and check the rules (do I comply to these, do I need to alter something?)	Warning sign is in line of sight, visible as warning sign. Only issue could be that a lot of the rules are 'obvious rules', therefore there is no hierarchy in rules that should be read by everyone and just by the few. (eg no loose items for everyone, vs no people with heart issues for just a few)
4	Choose between family lane or single rider.	Labels are situated at approximately 3m high, out of line of sight. Sign on the right is high in information density, not clear in a glance, a lot of text. Fences do not show differentiation between the two lanes.
5	Make choice between going in front row, or row 2 and 3 in the train.	The choice is introduced earlier on in the queue, even though it's not clear in a glance and at a moment where guests are often still walking instead of waiting. The second sign is situated clearly in line of sight, even though a lot of participants didn't understand it immediately. The remaining waiting time was much more apparent than the line choice.
6	Look at ticket and choose the right Group.	The visual cue is handed before the BD, where a different rational decision moment is required, while the actual decision of the Group choice needs to be made when most participants didn't actively look at their ticket but simply held it in their hand. The visual clues were not linked to the right decision moment.
7	Hand in bag.	Clear visual cues, cabinet and employee standing in front of it and often a lot of people in front who are also handing in their bag.
8	Put all belongings into bag.	No visual cues on this decision moment, guests need to think about it themselves, but are only reminded upon seeing the BD, thereby slowing down the flow. Others simply do not think about it and are not reminded by visual cues that they should put everything away. BD comes as a surprise.
9	Put loose items away in Carousel storage (or cabinet).	Visual cues on this decision moment are not very clear (guests often don't realise the Carousel is a storage space) and are not

		visible when entering the train as the view is being blocked by others.
10	Decide that it is safe enough to store there.	Visual cues are hardly present that the Carousel turns away, therefore it is not clear that it is a safe storage solution which can only be used by one train. Turning the Carousels only happens when the train is exiting, so some guests never see it happening at all.
11	Retrieve items that were stored.	Carousel is clearly visible when being used before as storage solution.
12	Return bag	Baggage Depot is clearly visible when exiting.

APPENDIX F – HOW-TOS

Improve current design solutions:

- How to increase clarity on warning signs
- How to increase recognisability on Platform storages
- How to increase locker use
- How to convince guests to put everything in bag before BD.
- How to use existing touchpoints as 'hook' for phone storage?

Improve motivation:

- How to make guests aware of falling items.
 - o How to let guests interactively learn about the risks.
 - o How to make guests aware while staying in the mining theme?
- How to convince people to be separated from their phone.
 - o How to reward guests for putting their phone away.
 - o How to offer alternatives for phone functions.
- How to film during the ride.
- How to improve motivation through Pleasure/Pain.
- How to improve motivation through Hope/Fear.
- How to improve motivation through (social) Acceptance/Rejection.

Improve ability: *(time, money, physical effort, brain cycles, social deviance, non-routine)*

- How to provide additional safe storage.
 - o How to safely keep the phone on you during the ride.
 - o How to make the storage as easy as possible for the guests.
- How to create automatic storage on Platform.

Design style:

- How to fit into mining theme.

Improve system:

- How to save time for the operational staff.

APPENDIX G – VISION IN PRODUCT DESIGN PROCESS

Domain

Safe storage solutions (time frame: 2 years from now)

Context factors

Developments:

- Increasing number of guests in the Efteling, thus more focus on a higher capacity.
- Smartphones are being used in new design concepts in the Efteling.
- The Efteling aims to create more non-screen interactive concepts.
- Immersive technology
- Virtual reality/augmented reality/mixed reality
- Big Data, more personalised experiences
- Many apps cost a lot of battery, phones need to be recharged during the day.

Trends:

- Smartphones are increasingly implemented throughout everyday life.
- Slacks are in fashion
- Instagram and snapchat are used to show interesting happenings during the day.
- Women often carry a bag, men carry a lot in their pockets.

States:

- The Efteling creates a way to escape everyday life.
- People leave their brains at the entrance.
- Increasing environmental consciousness
- Some groups enjoy making fun of each other when being scared in a rollercoaster.
- The Efteling aims to enchant its users through storytelling and fairy tales.
- The Efteling aims at nostalgia.
- The Efteling spends budget more easily on experience driven concepts.

Principles:

- People want to be reassured that their belongings are safe.
- People don't want to lose their phone out of their sight.
- People like to be in control. (being able to choose)
- People tend to go for the easy solution.
- People tend to easier go for instant gratification instead of long term goals.
- People like being a part of the story instead of simply being an on watcher.
- People want to belong with a group.
- People enjoy getting an adrenaline rush.
- People are curious, enjoy discovering new things.
- Fatal accidents cannot be reversed.

Statement:

I want to create an 'Efteling product' that provides an effortless solution for putting away important personal belongings.

I want to create a product that motivates physical separation from important personal belongings, while allowing the guest to still use its functionalities.

Interaction

Current interaction:

- Careless
- Distracted
- Automatic pilot
- Unaware
- Confused
- Disoriented
- Rushed

New interaction:

- Curious learning
- Carefree
- Engaging
- Playfully responsible
- Routinely effortless
- Intuitive
- Calm
- Hidden Safety

Like a debit card serving as facilitator while your physical money is safely in a vault.
(Familiar, Trustworthy, Effortless, Accessible, Intuitive, Personal)

Like storing pictures in the Cloud
(Effortless, Accessible, Secure, Organised)

Like leaving a pet at a day care.
(Trustworthy, Reassuring, Happy and Social, Necessary)

Like leaving a bag in a locker at a festival
(Secure, In control, Unburdening)

Like giving of a shoe to receive headphones at a silent disco.
(Even trade, Togetherness, Freeing, Unfamiliar)

APPENDIX H – IDEA DIRECTIONS

MINER'S OUTFIT TO CARRY ITEMS



MUSEUM OF LOST OBJECTS



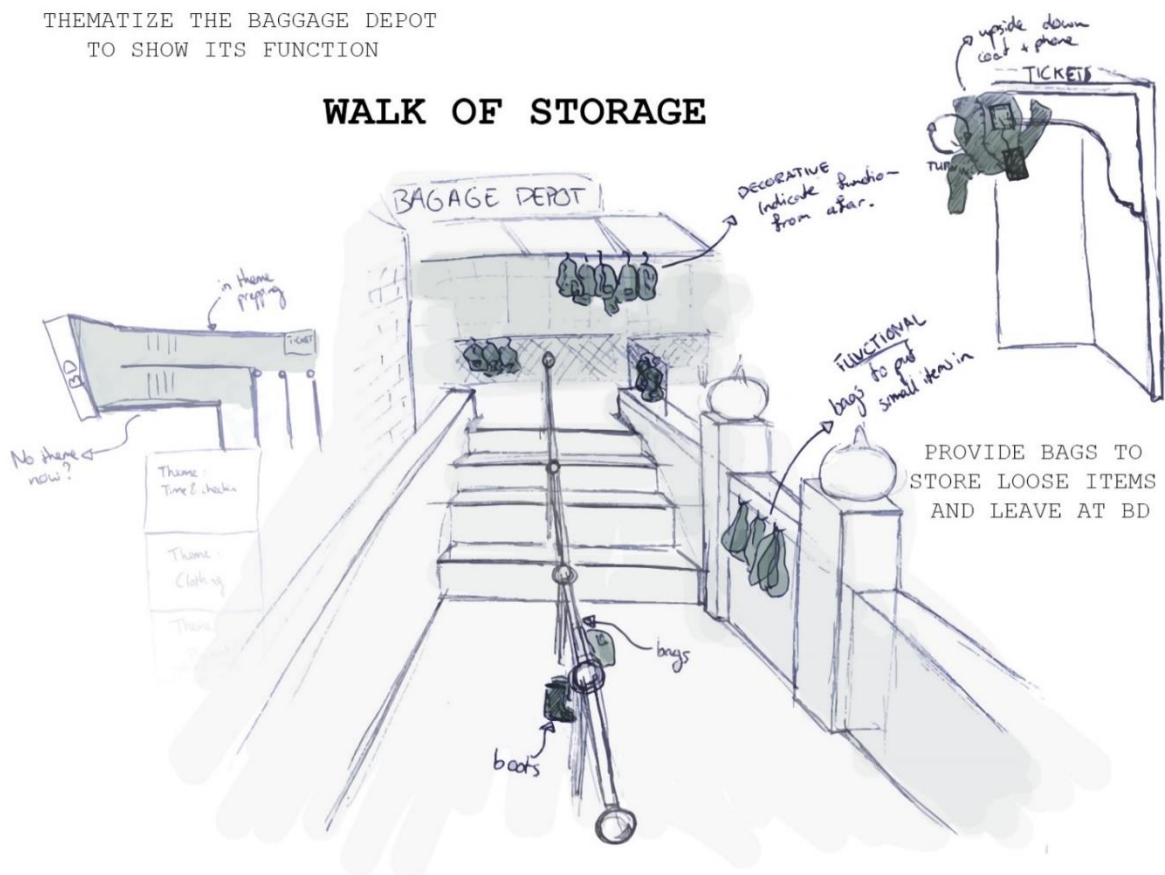
COLLECTION OF LOST OBJECTS:
REAL LOST OBJECTS SUCH AS PHONES AND HATS,
COMBINED WITH OLD MINE WORKERS TOOLS

TOWER OF THRASH AND GOLD

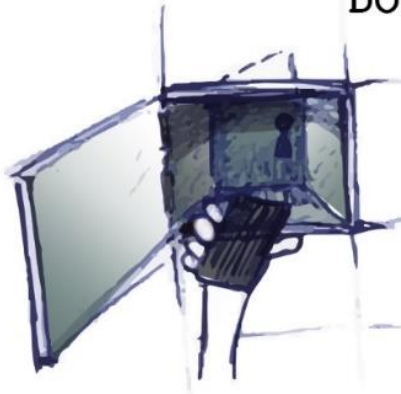


THEMATIZE THE BAGGAGE DEPOT
TO SHOW ITS FUNCTION

WALK OF STORAGE



DOUBLE SIDED LOCKERS @ BD



③

GUESTS PLACE AND TAKE
OUT ITEMS THEMSELVES

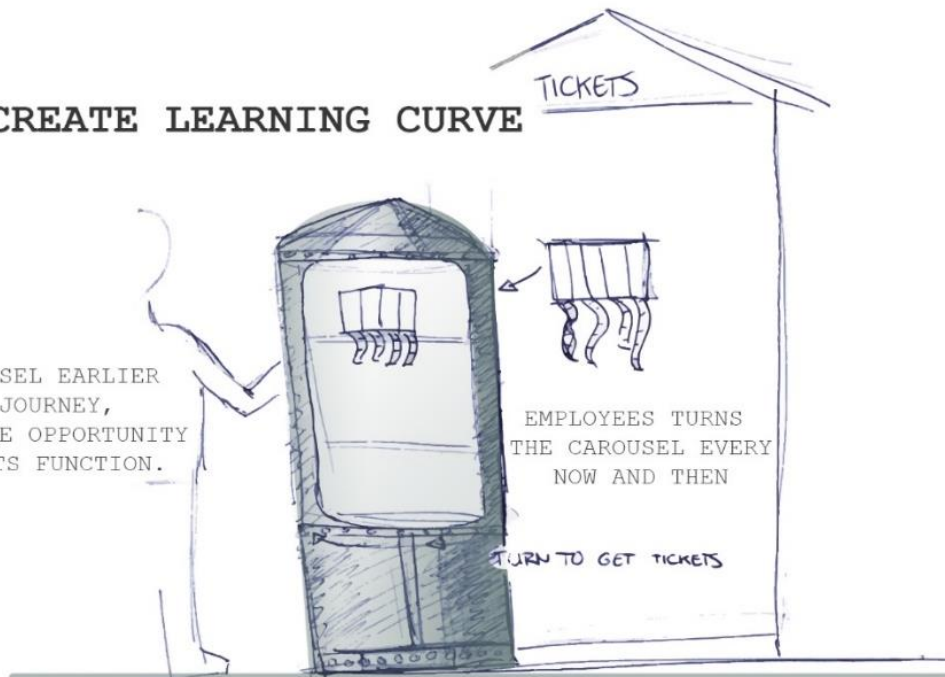


If you have any small items,
put them in the locker

KEY IS ATTACHED TO
CURRENT BRACELET,
EMPLOYEE AND BRACELET
TRIGGER LOCKER USE

CREATE LEARNING CURVE

IMPLEMENT CAROUSEL EARLIER
IN CUSTOMER JOURNEY,
TO GIVE GUESTS THE OPPORTUNITY
TO UNDERSTAND ITS FUNCTION.



TICKETS

EMPLOYEES TURNS
THE CAROUSEL EVERY
NOW AND THEN

TURN TO GET TICKETS

CHARGE PHONE DURING THE RIDE

RELOCATE ALL CHARGING STATIONS
FROM FOOD LOCATIONS TO ATTRACTIONS



MINI STORAGE TRAIN

VISIBLE AT ALL TIMES TO
GIVE A REASSURING FEELING





EMPLOYEES COLLECT ITEMS

EMPLOYEE COLLECTING ITEMS
ACTS AS A FACILITATING TRIGGER
WITH A SOCIAL PRESSURE

*Actors dressed as (creepy) miners
warning guests not to go into the mine.
When they cannot convince them, they
hand out a 'safe bag' to - at least - keep
their belongings safe from the depths.*



TEMPORARY EVENT TO
CREATE AWARENESS

PHYSICAL ENTRANCE TO INDICATE PASSAGE TO THE PAST
WHERE NO CURRENT DAY TECHNOLOGY CAN EXIST.

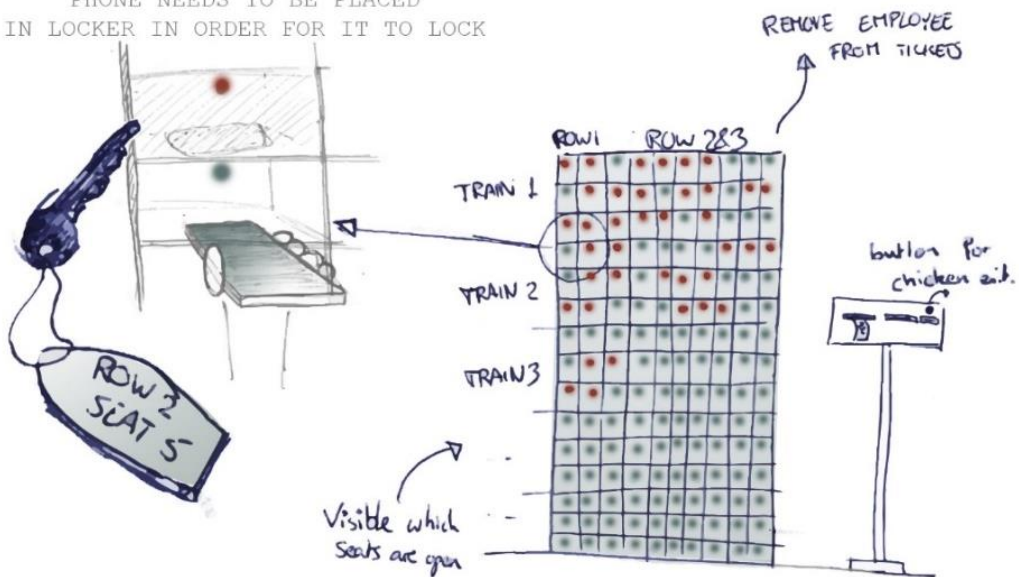
BACK TO THE PAST



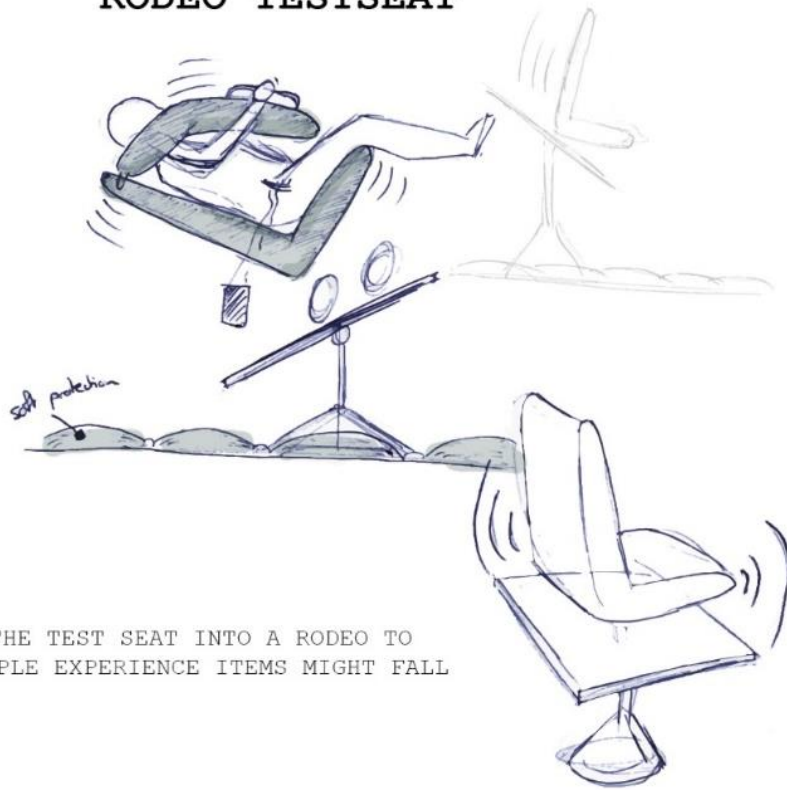
SMALL LOCKERS WHICH ACT AS CHECK-IN
FOR A SEAT (REPLACING THE CURRENT TICKET SYSTEM)

PHONE AS ENTRANCE FEE

PHONE NEEDS TO BE PLACED
IN LOCKER IN ORDER FOR IT TO LOCK



RODEO TESTSEAT



TURN THE TEST SEAT INTO A RODEO TO LET PEOPLE EXPERIENCE ITEMS MIGHT FALL

CHEAT PEDOMETER

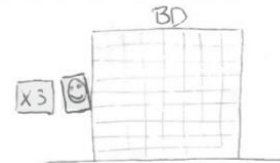
MOVEMENT BASED REWARD SYSTEM (GAMIFICATION)
LINKED TO AREAS IN THE PARK



visible reminders on ground that can be switched on & off

ADD AND MULTIPLY POINTS BY SHOWING DESIRED (NON)MOVEMENT LIKE PUTTING A PHONE IN A LOCKER OR WALKING THROUGH QUIET AREAS IN THE PARK

↑ EARN POINTS



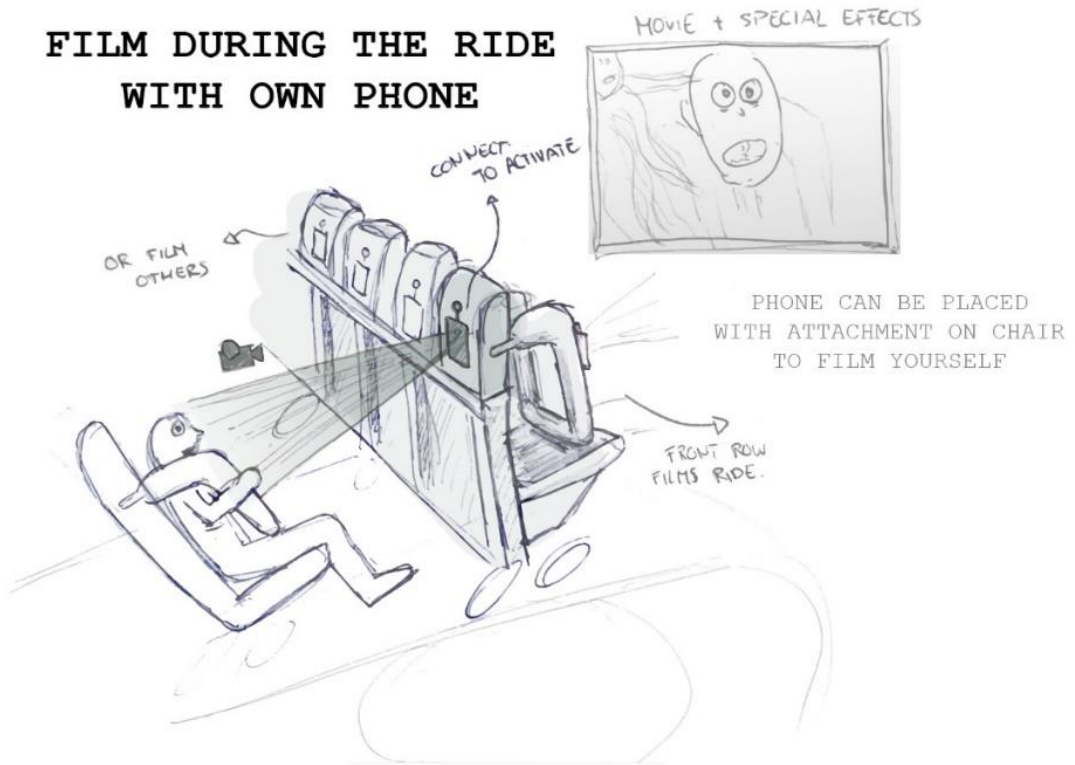
— & —



↓ LOSE POINTS

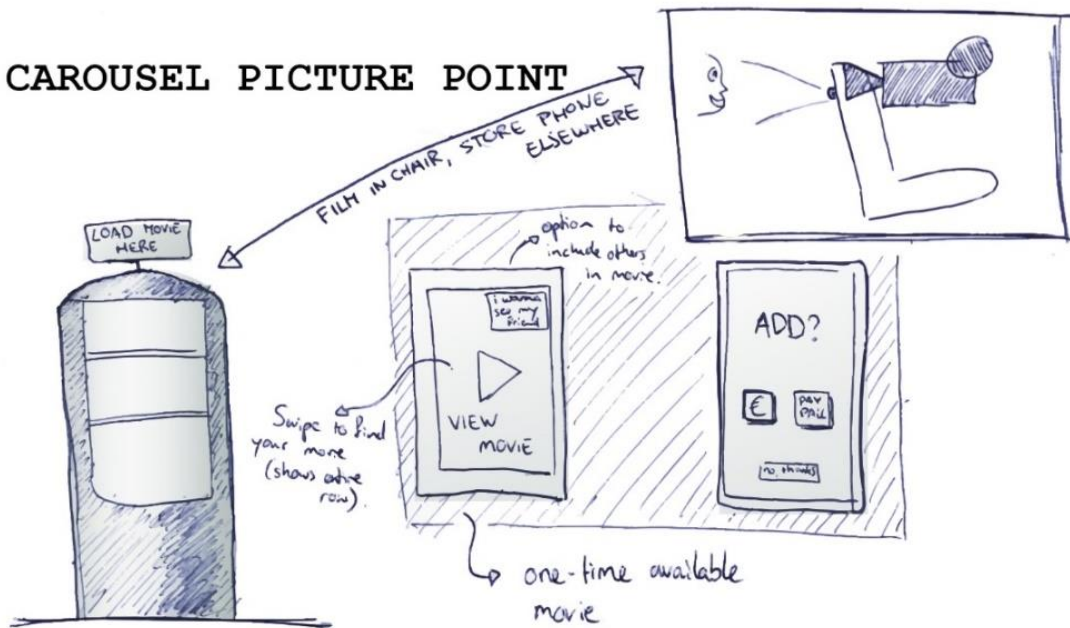
SUBTRACT POINTS WHEN REACHING HIGH VELOCITY DURING THE RIDE OR WALKING THROUGH THE PRESHOW WITH PHONE

FILM DURING THE RIDE WITH OWN PHONE



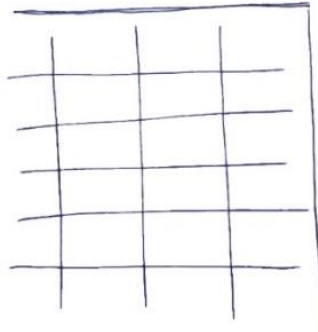
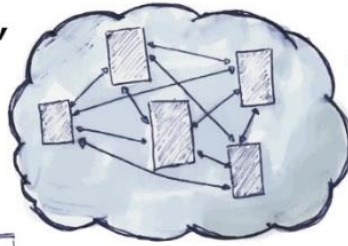
ON RIDE MOVIE IS LOADED ON
PHONE WHEN PLACED IN CAROUSEL.
CAN BE VIEWED ONCE, BUY TO DOWNLOAD

CAROUSEL PICTURE POINT



PHONE 'DAY CARE'

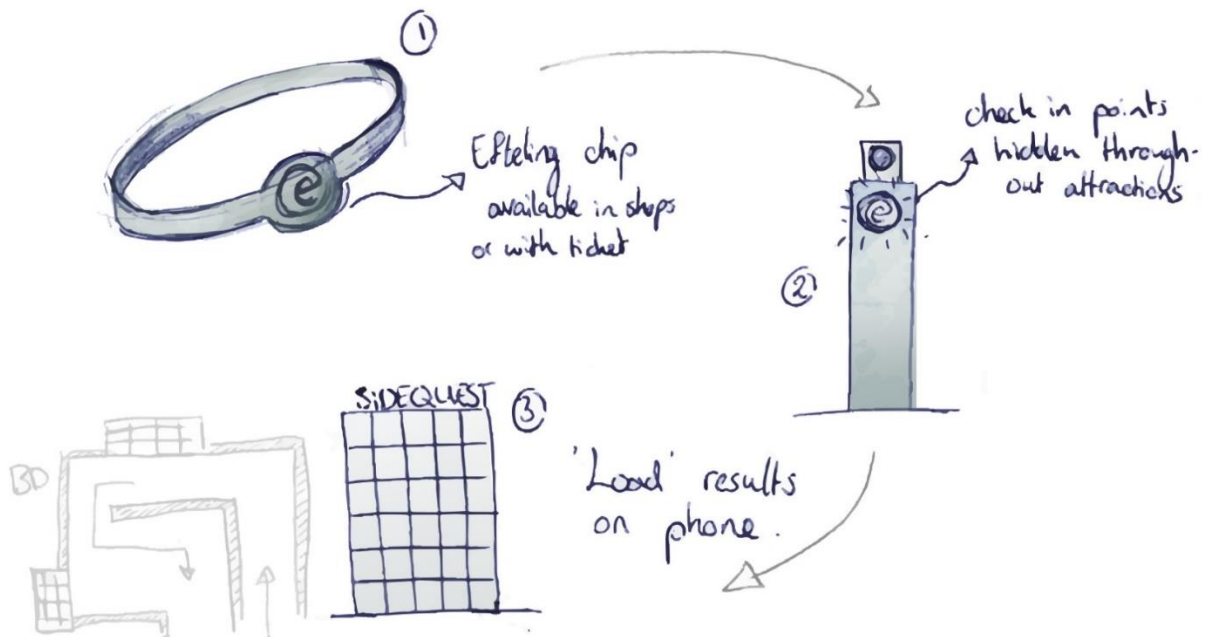
PHONES CONNECT WITH
EACH OTHER WHEN
STORED PROPERLY



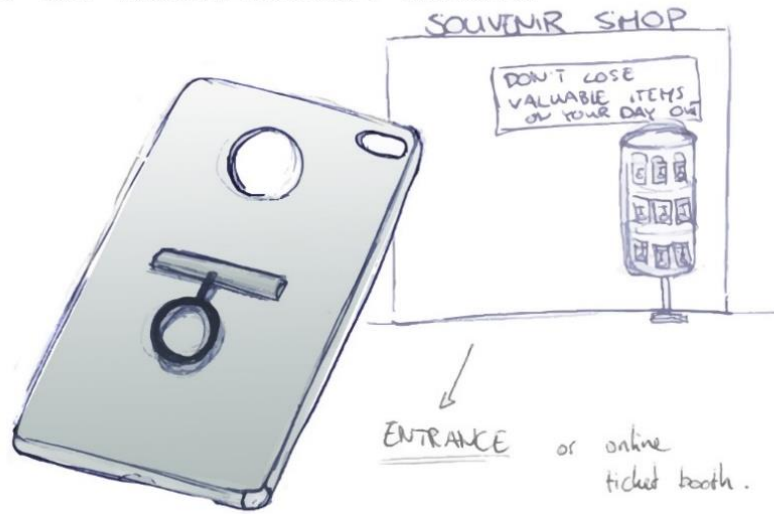
CREATE EFTELING GROUP COLLECTIVE
MORE FRIENDS = BETTER REWARDS

TREASURE HUNT WITH HIDDEN INTERACTION POINTS
TO COLLECT REWARDS THROUGHOUT ATTRACTIONS.
PHONE NEEDS TO BE PLACED ELSEWHERE TO LOAD
REWARDS, BRACELET IS CONNECTING TOOL.

SIDE QUESTS

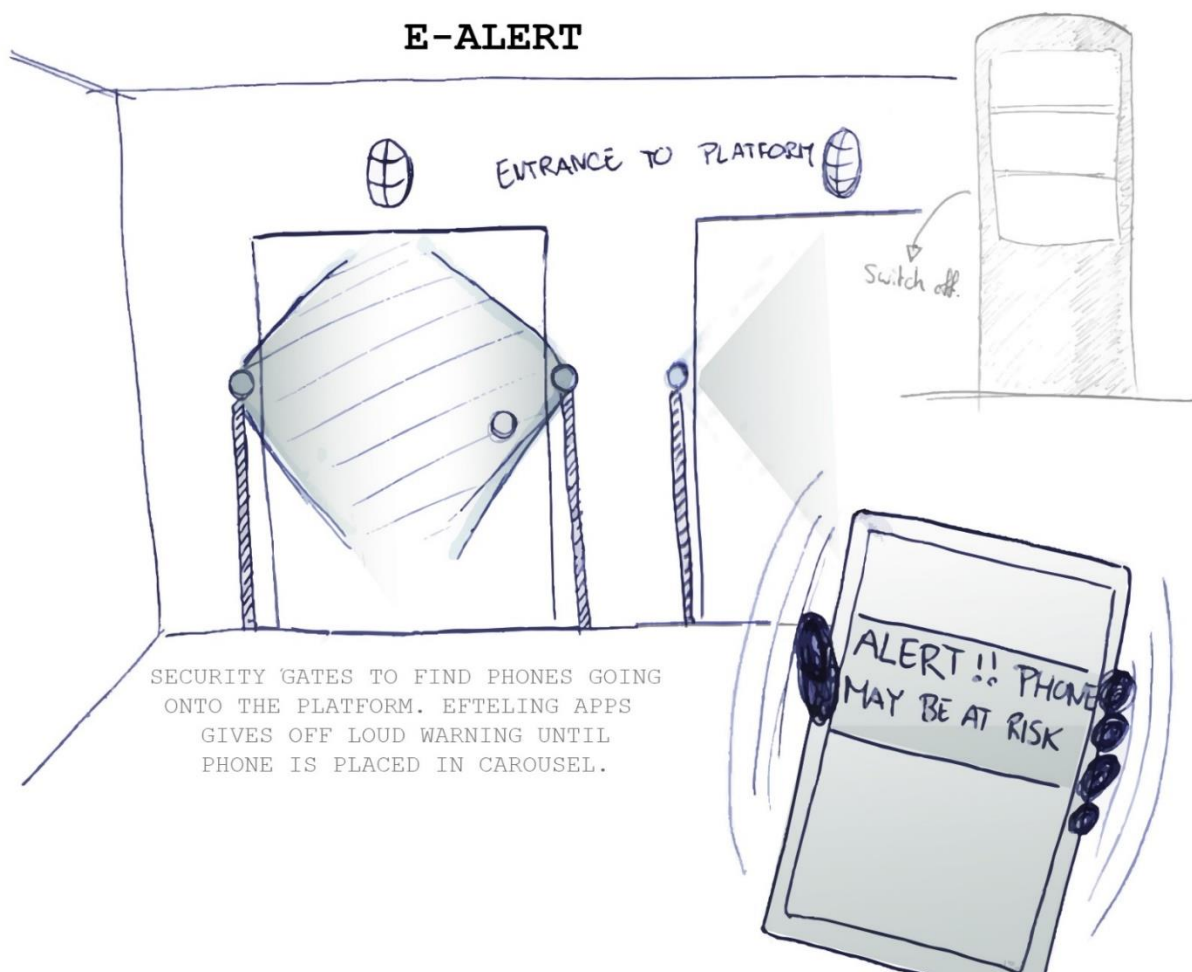


CLIP-ON PROTECTIVE COVER



PROTECTIVE COVER WHICH CAN BE ATTACHED ONTO BELT LOOPS

E-ALERT



SECURITY GATES TO FIND PHONES GOING ONTO THE PLATFORM. ETELING APPS GIVES OFF LOUD WARNING UNTIL PHONE IS PLACED IN CAROUSEL.

APPENDIX I – LIST OF REQUIREMENTS OF MINERWORKER'S OUTFIT

Function of the wearable

1. Safely put away loose items (phone, keys, some cards/money, (sunglasses & slippers) in a storage solution that is being worn on the body in the Baron.
2. Create a 'transformation' of being a normal guest to becoming a 19th century Efteling Koppel.

Requirements

1. Safely put away loose items

- a. Can be worn on the body without the items getting stuck underneath the braces.
 - i. Storage capacity should have a maximum width of 20 cm in the centre of the body.
 - ii. Storage capacity should be high up on the body or adjustable to body height. Approximately 20-30 cm.

mean and sd	single measure			set p
populations	Dutch children 9, female	Dutch adults 20–30, male	Dutch adults 20–30, female	
switch axis				
measures	P 50	P 95	P 50	
Elbow height, sitting (mm)	184	308	251	
Shoulder height, sitting (mm)	453	680	582	
Stature (mm)	1392	1980	1687	

- b. Should stay put throughout the entire ride.
 - i. Stuck to the body either through form or by being pressed down with the braces.
 - c. Should provide storage space to most common loose items:
 - i. At least phone and keys, some credit cards and loose money
 - ii. Preferably also sunglasses & hats
 - iii. If possible also flip flops
 - d. Should be fitting for all guests
 - i. Make a one-size fits all.
 - ii. Or make it adjustable.
 - iii. Create different sizes.
- ### 2. Create a 19th century Efteling Koppel.
- a. Suitable/believable shape of bag/jacket for mining theme
 - b. Thin materials to give off a breathable feeling in warm mines./Thick materials to show durability of fabric.
 - c. Efteling personalisation.
 - d. Hangable on a coat rack to show function.
 - e. Not a problem when it's oversized (for children especially) as it was often like that in the mining era.
- ### 3. Desirability of use
- a. Understandable
 - i. Clear to be a storage solution.
 - ii. Clear how to be put on.

- iii. Clear type of 'lock'.
 - iv. 'Feedback' to which items should be stored.
 - v. Understandable to be adjusted (when necessary) to not get stuck underneath braces.
 - vi. Preferably easy to spot for employees when items are safe
 - b. As hygienic as possible
 - i. Not worn in 'dirty' personal areas (armpits, crotch, feet, hands, face)
 - ii. Washable
 - c. Easy to put on
 - i. Maximum of two quick movements
 - ii. Put it on autonomously
 - iii. Maximum of 5 seconds to put on, if necessary another 10 to adjust
 - iv. Possible to put on over large clothing (also in winter)
 - d. Easy to take off
 - i. One or two quick actions
 - ii. Low possibility of messing it up for the next guest (eg getting stuff tangled, or being very small)
 - e. Fitting to all seasons
 - i. Not too bulky and warm (for during summer)
 - ii. Mostly suitable for summer weather, winter is a secondary option.
- 4. **Operational use**
 - a. Should be possible to transfer a batch by one employee.
 - i. As lightweight as possible
 - ii. Easily untangled
 - iii. Placed into a 'waszak' in the style that can be found in the Kleedlokaal
 - b. Should not slow down the process
 - i. Guests can take one themselves
 - ii. Guests can put it on themselves
 - iii. Guests can put them away themselves
 - iv. Guests are being offered one without slowing down the line
 - 1. Hand out before ticket
 - 2. Hand out just after BD/inpriklokaal
 - v. Does not require extra check-up on the Platform
 - c. Should keep the responsibility over belongings with the guest instead of the employee/Efteling.
 - i. Make it possible for guests to acquire and handle the wearable completely autonomously.
 - 1. Put on autonomously
 - 2. Close all storage places autonomously & make it clear it should be closed.
 - 3. All closures for storages places should be durable (eg loose buttons easily break)
- 5. **Costs**
 - a. As low as possible XD
 - i. Different scenarios: What are the costs when making it durable, or making it a giveaway?
 - ii. What is the division between costs of material/production?
 - b. Perhaps a temporary action to gain some traction (educate guests) on safely putting away loose items.
- 6. **End of life**
 - a. Sustainable material (waste material?)
 - b. Perhaps stolen by guests, make it special and something to remember the Efteling by

APPENDIX J – QUICK MODELS TO DETERMINE SHAPE OF JACKET AND PLACEMENT & SIZE OF POCKETS



Initial models to quickly find size and placement of pockets. A simple oversized jacket is being used.



Exploring the possibility of hanging keys on the jacket with a hook.

This jacket was taken to Baron 1898 and worn in the seat, to determine the placement of pockets.



Exploring an asymmetrical closing jacket for more storage space. Conclusion: Inconvenient placement of pocket when the jacket is worn open. Also very prone to sagging.



Exploring different sizes of the pockets, again tested in the seat of Baron 1898. These pockets were too large for both the seat, and to easily reach in. Smaller pockets are preferable.



Two easily movable pockets to determine whether the pocket was easy to reach into. Hooks were added, but later removed, as items hung from this might hit the person in the face.

APPENDIX K – USER TESTS: SET-UP AND RESULTS

GOAL

1. Find out whether the design concept clearly communicates its function of being a storage space (ability).
2. Find out whether people feel they are encouraged/advised to store their belongings (motivation).
3. Find out whether people find the design concept desirable in use (experience)

INTERVIEW GUIDELINES

If you saw this at the Baron 1898, why would you think this was there?

How would you envision this being used in the Baron 1898 by guests?

(Possible follow-up for questions above): Can you explain why you think this? Which part of this design made you understand that it is being used for (insert answer given above)?

What would you do when you were given this jacket?

Do you think this is fitting to the experience of the Baron 1898? Why/Why not?

What do you think about the illustrations on the jacket? Can you tell me what they mean/why they are there?

Can you explain the specific meaning of the advertisement?

Can you explain the specific meaning of the posters?

Explain the real purpose of the design concept. Show an image of the four different jackets.

Which of these would have your preference? Why? (Also possible to prefer a mix of the different elements).

QUESTIONNAIRE

	Not at all 1.	2.	3.	Neutral 4.	5.	6	Very much 7.
<i>I think the overall concept is clear.</i>							
<i>I think the posters are clear.</i>							
<i>I think the posters are fitting to the experience of the Baron.</i>							
<i>I think the jacket is clear.</i>							
<i>I think the jacket is fitting to the experience of the Baron.</i>							
<i>I would take this jacket when I saw it hanging in the waiting line.</i>							
<i>I would wear this jacket when it was handed to me in the waiting line.</i>							
<i>I would feel comfortable wearing this jacket.</i>							
<i>I think this jacket is useful.</i>							

RESULTS

Concept 1

	Participant 2	Participant 3	Participant 4	Participant 5
Familiar with falling items?	A bit, seen the Walibi tower.	Yes	No	No
Perceived message	Items can fall down, so should be stored in the jacket. Jacket should be hung somewhere during the ride, like a coat rack. Half	Collecting items in the waiting line, not sure about the function of the jacket. False	To store items so they don't fall down. Correct	Jacket is for personal belongings, posters represent a scavenger hunt. Half
Lost posters	Posters were clear, attracted the most attention.	Believed them to be part of a scavenger hunt, due to the reward element. Thought they were funny and thought to understand them quickly.	Not very clear. Liked the 'stolen by Wailing Women'	Thought the posters represented a scavenger hunt.
Advertisement	Didn't notice the advertisement at all at first.	Didn't really look at it, felt it took too long to understand.	-	Thought the advertisement was clear, the items shown were helpful. Detail: Shovel and lamp should be switched.
Jacket	Not very clear, though did see that it showed a phone and keys and was meant to store items.	Didn't understand it, looked like an evacuation jacket.	-	Understood the jacket was meant for personal belongings.
Pockets	-	-	-	Felt the pockets of the jacket wouldn't be safe.
Pocket icons	Not very clear	Didn't notice, when looking closely at it thought it was for collected items.	Didn't notice.	Didn't see them at first, thought they were washed out spots.
Desirability	Would only wear when all others did as well.	Wouldn't feel comfortable wearing it.	Wouldn't feel comfortable wearing it, better when lots of other guests wear it.	Would only wear it when it was his own choice to take one, not when handed to him.

Preferred concept	Either 1 or 4, others are weird in-between.	Concept 3, also clear for younger generations.	Concept 3 or 4, didn't understand concept 2 (icons) and didn't really notice icons on 1.	Colours of concept 4, style of concept 2.
Preferred elements/ pay attention to elements	<p>Checklist (2): "I'm not allowed to bring dirt?"</p> <p>Checklist (3): Unclear why keys and phone weren't checked.</p> <p>Leave in jacket and leave it somewhere?</p> <p>Lock-icons not clear, looked like a box.</p> <p>Liked warning symbol.</p>	<p>Checklists: Looked like you need to tick off elements.</p> <p>Lock icon: Not recognised as lock, a bit better with red locks for colour contrast.</p> <p>Didn't understand the word Kompel.</p>	<p>Liked the warning sign.</p> <p>Liked the shovel and axe.</p> <p>Red icons were clear due to their colour.</p> <p>Checklists 3 and 4: Not clear, why are phones and keys not checked off? Didn't understand what to do with it.</p> <p>Checklist 2: Clear, you have everything, now go get the gold/stones/whatever.</p>	<p>Checklist (2): Stones were confusing, but without the stones it was his preferred choice for the back. Would like the warning sign on it as well.</p>
Additional suggestions			Both NL and ENG?	
Adaptations	<ul style="list-style-type: none"> - Draw more visual attention to the poster. Let one element stand out. - Adapt lock-icons when using those. - Leave out stones from checklist - Find a better way to communicate checklist. - How to communicate it should be worn during the ride? 	<ul style="list-style-type: none"> - Remove 'Reward' - Increase readability (and hierarchy) in advertisement. - Adapt lock icon through colour contrast or shape. 	<ul style="list-style-type: none"> - Find a better way to communicate checklist. - Include Dutch. - Clarify posters/advertisement. 	<ul style="list-style-type: none"> - Switch axe and lamp on advertisement. - Remove 'Reward' - Adapt checklist. - Add warning sign?

Concept 2

	Participant 1	Participant 6	Participant 7	Participant 8
Familiar with falling items?	Yes, specifically heard about Baron.	No	No	Yes.
Perceived message	You should store phone and keys etc in the pockets of the jacket because items fall down. Combination of all three elements add up to it. Correct	Entertainment in the waiting line, search for lost items and store them in the pockets. False	Create an experience and dress up the waiting line. The jacket is for storing personal belongings. Half?	The concept is meant as a way to store your phone and warn people about it. Correct
Lost posters	Not clear on itself, but clear as a whole. Broken phone poster attracts attention, modern keys as well. Others perceived as decoration.	Thought they were meant to entertain people , showing items that they could search.	Just for decoration? Mentions the modern phone: Yeah, that didn't exist back then. (didn't make the link?)	Look nice and are fitting to the Baron.
Advertisement	Misses a call to action.	-	Advertisement itself wasn't very clear, the written message on it was, but didn't stand out.	Clear and looks good.
Jacket	Jacket is the final 'push' to realise where he should store his items. However, wouldn't necessarily use it as he has pockets with zippers.	Thought the jacket was used to store items that guests had found.	Recognised that guests could put their phone and keys there, but felt people would forget to put stuff in and take it out.	Clear and increases atmosphere.
Pockets	Fake vs real pockets led him to believe something was going on.	-	Thought it was weird that the pockets were so high up.	Wouldn't mind having two pockets the same size, for very large keyrings.
Pocket icons	Clear for him, probably unrecognisable for children	Thought the icons represented the items you could find.	Recognised them, knew it was meant to put items in.	Make sense.
Checklist	Recognises checklist, to make you wonder whether you have everything on you. Icons too far from reality.	-	Understood the message, see if you've got everything with you.	Clear.

Desirability	When being handed one by an employee. Otherwise kids for fun. Believes people have their own jacket or bag.	Would wear when handed to her, not when taking it herself.	Thinks people only wear it when all others do as well.	Guests would only wear it when others do as well, not when they're the only one. Believes it would increase the atmosphere when everyone does it.
Preferred concept	Concept 3 1 & 2 not clear, 4 too harsh.	Concept 4	Concept 4, the colours show the message the best.	Concept 2, old-fashioned and fitting to the surroundings. Concept 4 would be too modern.
Preferred elements/ pay attention to elements	Liked warning sign (4) Checklist of concept 3, clear that there is something going on with phone and keys.	Specifically liked the warning sign, to help her understand the message better.		Likes the warning sign of concept 4. Thinks it should be added to the back of the jacket and to the posters.
Additional suggestions			Believed the employees should help getting the message across, encouraging guests and checking whether guest had done it.	Believes the jacket should be obligatory, everyone dresses up in the Kleedlokaal with a short instruction, transforming into miners as a group. When leaving, jackets can be returned through a dropslide from the exit (above the Platform) to the Kleedlokaal.
Adaptations	<ul style="list-style-type: none"> - Adapt advertisement to address guest directly (call to action). - Definitely go through with repeating advertisement on hand-out point. 	<ul style="list-style-type: none"> - Remove 'Reward'. - Add warning sign somewhere in the concept. 	<ul style="list-style-type: none"> - Create hierarchy in the advertisement, focus on the message (colour difference?). - Make message of posters clearer? 	<ul style="list-style-type: none"> - Do the pockets need to be different in size? - Add warning sign.

Concept 3

	Participant 9	Participant 10	Participant 11	Participant 12
Familiar with falling items?	No, also not with the Baron and its experience.	Yes, once saw it happen.	Yes, heard colleague talk about it.	Yes.
Perceived message	Has to do something with what workers used to wear. False	The concept is meant to prevent falling items. Correct	Make people aware they shouldn't leave loose items in their pockets and instead put it away safely. Half	Prevent falling phones through making people aware before reaching the Baggage Depot. Half
Lost posters	Didn't know the word Reward and didn't understand the posters. After being told the meaning of Reward, thought it were items guests had to search.	Wonders whether you receive a reward when you find an item. (knows it's about real items, not a scavenger hunt)	One poster on its own isn't clear, but all together a bit clearer.	Conveyed clearly that items can be lost.
Advertisement	Believed it shows what the old workers used to wear.	Thinks the message isn't really conveyed here, not clear that you can actually take a jacket.	Is clear, and needed to understand other posters. Should have the right mineworker jacket on it.	Needed to stand closely to it to understand , therefore other posters drew more attentions. Advertisement disappeared because of this, while the message was clear.
Jacket	Believed it was something workers used to wear.	Jacket communicated clearly in his opinion. Even though people might not wear it, it still at least warns them about the situation.	Recognises the jacket is meant to put items in and the become a mineworker. Thinks you need to hand in the jacket before entering the ride. Wouldn't know she was allowed to take one, would think it was decoration.	Thinks the jackets are easily missed lying in a box. Wonders whether you also have to wear it in the ride, wouldn't assume this.
Pockets	-	Worries that the Velcro on the pockets wouldn't hold during the ride.	-	-

Pocket icons	Thought the icons represented the equipment the workers used to carry.	Correct meaning.	Doesn't think the lock-icon is very clear, didn't see it at first glance.	Didn't see them at first, only looked at the back. After seeing it, realised you probably have to leave them there.
Checklist	Ticked off items were items workers used to carry, and non-ticked off items were not carried by workers.	Correct meaning, but sounds a bit hesitant. [Not very clear]	Feels the checklist is contrasting to the front, the checklist shows that phone and keys are missing, yet the front shows these two items.	Thought you needed to leave your phone and keys elsewhere, as they are not checked off. Only after purposefully looking at the front, did she notice the icons.
Desirability	Wouldn't really wear it, only jokingly with friends.	Wonders whether people would actually wear it.	Would take one when everyone does too.	Wouldn't wear one herself.
Preferred concept	Concept 4, the warning sign clearly showed that items could fall out, combined with the pocket of Concept 3.	Concept 2, old-fashioned icons fit better and people can make the link themselves. Concept 1 is unclear, look like washed out spots. Concept 3: the modern part isn't necessary. Concept 4: Safety focus is unnecessary, people are already aware of the danger once they put it on.	Concept 4 would be clearest and best understood. Concept 1 would be most fitting, but not clear. The icons of concept 2 aren't clear.	Concept 4 would be most effective, especially due to the warning sign. Thinks Concept 2 is cool, but knows from working in the park that guests will easily miss the meaning.
Preferred elements/ pay attention to elements	Red lock icons would warn him that his items weren't safe in the pockets.	Use the style of Checklist 3 and 4, with icons of 2. Wonders whether kids will check off boxes themselves?	-	-
Additional suggestions		He thinks there shouldn't be too much focus on your phone during the attraction. Would like to see other languages as well.	-	She thinks this is more interesting than a warning sign and might draw attention because of that, yet make sure to let it stand out and not embed it into the storytelling too much.

Adaptations	<ul style="list-style-type: none"> - Make Dutch version of the posters. - Draw more attention to the advertisement, and the action that is expected of the guest. - Use another colour than red?? 	<ul style="list-style-type: none"> - Remove Reward, people might actually actively start searching for real items, resulting in unwanted situations. - Adapt advertisement to make the action clear (take one and store items) - Find a better solution than Velcro - Add Dutch - Don't tick off all items in the checklist, find a better way to communicate it? 	<ul style="list-style-type: none"> - Convey that the jacket should be worn during the ride. - Adapt checklist. - Adapt lock-icon. 	<ul style="list-style-type: none"> - Make the advertisement stand out more than the posters? - Communicate that the jacket is meant for wearing during the ride.
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Concept 4

	Participant 13	Participant 14	Participant 15	Participant 16
Familiar with falling items?	A bit.	No.	No.	Yes.
Perceived message	<p>The concept is about losing items and preventing it.</p> <p>Correct</p>	<p>Concept is for decoration, for the guests to look at something in the waiting line.</p> <p>False</p>	<p>The concept is meant to be some sort of scavenger hunt, you come across these items in the waiting line and collect them in the jacket and receive a reward.</p> <p>False</p>	<p>A warning that items can fall down, and guests should put away their belongings safely in their pockets.</p> <p>Half</p>
Lost posters	Recognised the message through the posters.	Meant for decoration.	Because of the 'Reward' she felt it would be about collecting items.	Thought the lost posters were nice decoration, but didn't stand out as functional immediately.

Advertisement	Clear and shows a clear link to the jacket. Also, it already explained the function of the jacket.	Meant for decoration.	Did take a look at it, but didn't make the connection to the jacket . She read 'A mineworker must...' and wondered what a mineworker must do (missed the apostrophe). Didn't feel the message was conveyed that it was for your own personal belongings, thought it was meant for a fictional character.	Because of the advertisement, he felt the message became clear. Especially the text block helped him understand the message.
Jacket	Didn't really look at it at first, recognised the message through the posters.	Would be weird to wear one and a step too far, feel dirty. Didn't recognise its function , thought it was only for decoration/dress up.	Use it to store the items you find in the waiting line.	Doesn't understand how the jacket connects to it all, thinks it is just for fun.
Pockets	-	Didn't see them at all at first.	-	Wonders whether his phone and keys might fall out of the pockets.
Pocket icons	Clear	Didn't look at it at first. When their existence was pointed out, she figured out that the pockets were meant to put your keys and phone in.	Thought that was where you could store the items you found.	Recognises that the icons represent that you should put your items there, but doesn't understand how that would work. After seeing this, he doesn't realise that you have to wear the jacket during the ride.
Checklist	Clear	Thought it meant you aren't allowed to bring your phone and keys on the ride.	Didn't get the message.	
Warning sign		Thought it meant you have to be careful that you don't go upside down.	-	Recognises that the sign warns guests that items could fall out.
Desirability	Needs a first push to become successful. She would only wear it when others did.	Wouldn't wear one, would feel dirty.	Wouldn't take the jacket.	Wouldn't wear the jacket when he came across it himself. Thinks it will be dirty.

Preferred concept	Concept 3 or 4. On paper, 4 seems too much ('schreeuwerig') but the model was much more toned down and better fitting. Concept 1 she felt was unclear.	-	Concept 4 would be most clear, but Concept 3 would be most fitting. Concept 1 and 2 would be unclear. 2 would be hard for younger kids and teenagers.	Concept 4.
Preferred elements/ pay attention to elements	-	-	-	
Additional suggestions	-	To increase the clarity, literally mention what can happen in the writing style of the Baron. Let the employees play an active role.	She feels she should be addressed directly in the advertisement. "Hey, did you think about this?"	Would like to see Dutch as well. Wonders whether everyone would get this message and would add a short disclaimer or explanation somewhere.
Adaptations	<ul style="list-style-type: none"> - Concept 4 would need to be a bit toned down in looks, not as harsh as in the images, but more like the model. 	<ul style="list-style-type: none"> - Create clearer message in posters. Especially a call to action, perhaps add warning sign. - Add a written sign? - Do something about the checklist, show that keys and phone aren't safe yet. 	<ul style="list-style-type: none"> - Remove 'Reward' - Let the advertisement clearly connect to the guest in person, make it clearer what is supposed to happen. - Mind the clarity of the apostrophe? 	<ul style="list-style-type: none"> - Convey the message that you need to wear it during the ride? - Increase the communication that you are supposed to store your items in the jacket. - Add emphasis to the text block. - Add Dutch - Make pockets look safer.

Concept 4 (without posters)

	Participant 17	Participant 18	Participant 19
Familiar with falling items?	No.	Had heard about it.	No.
Perceived message	The jacket is meant to dress up as a miner and can also be used to put your items in. Correct	The jacket is meant to safely put away your phone and keys Correct	Recognised that it was a warning to safely put away your phone and keys but believed the operational staff would wear it. Didn't take a look at the front of the jacket. Half
Jacket	First reaction was that it was to dress guests up as mineworkers in the ride.	Thinks this jacket would remind him to check his belongings to see if they were still safe.	Thinks the jacket is a warning to not take your personal belongings with you in the rollercoaster. Was mostly looking at the back of the jacket.
Pockets	Felt his phone would be unsafe with the Velcro on the pockets.	Wondered whether the Velcro would be strong enough.	Didn't notice the front of the jacket at first, didn't see the pockets. Once she saw the pockets, she immediately realised that it was meant to store phone and keys safely.
Pocket icons	Clear	Clear, expect for the lock-icon.	Clear, once she saw them.
Checklist	Clear	Clear	Clear.
Warning sign	Does the Baron go upside down then? Thought it was weird there were no people in the cart on the warning sign.	Clear	Clear
Desirability	Wouldn't really wear it, but does think children would wear and like it. Didn't really understand why you needed this jacket, as there were lockers at the Baron.	Questions whether many people would wear it, but thinks it's an effective reminder that guests would at least check whether their items were safe.	Thinks it is very fitting to the attraction and likes the fact that each worker has his own number.
Preferred concept	Concept 4, the clearest, others he might not understand, and he felt Concept 4 was 'fancy'.	Preferred Concept 4, as it conveyed the goal of storing items.	Preferred Concept 4, the clearest.
Adaptations	- Reinforce the look of Velcro pockets.	-	-

APPENDIX L – PROTOTYPING THE FINAL KOMPEL JACKET

The following pages describe the process of making the prototype of the Kompel jacket. Steps 2,4, 5 and 7 will be replaced in the actual production by printing all illustrations and decorative elements directly onto the fabric.



Step 1. The parts of the jacket are cut from the fabric. These patterns are stored in the Costume Atelier for further reference.



Step 2. The illustrations are printed on the fabric by transfer paper.



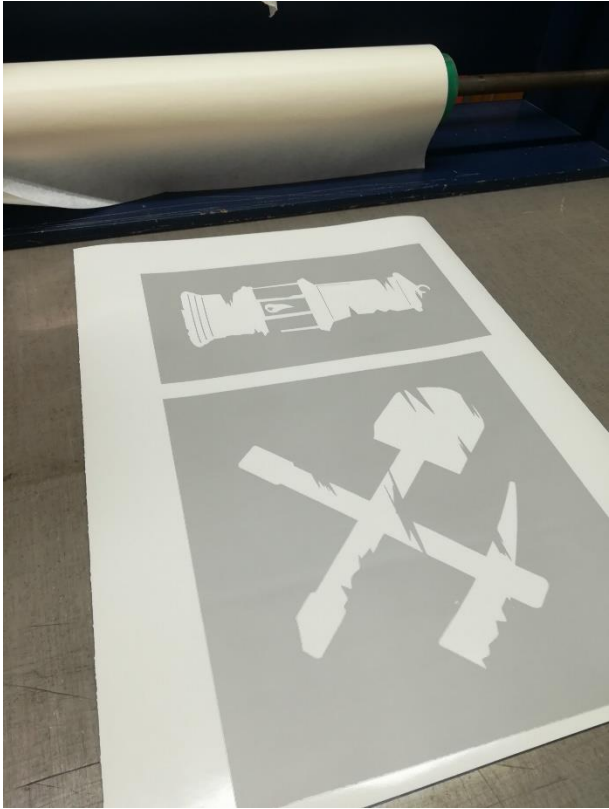
Step 3. All parts are sown together.



Intermediate result: A bare jacket with only two pockets.



Intermediate result of the back of the jacket.



Step 4. The faded markings are made on the jacket. First of all, a sticker template is made.



Step 5. The template is attached to the fabric. The imprint is made by a very thin layer of acrylic paint applied with a dry brush.



Intermediate result: Faded imprint of the shovel and pickaxe.

Step 6. A fake pocket is added.



Step 7. Giving the fabric a worn-out look. A steel brush is used to slightly damage the fabric.



Result: A worn-out looking jacket. Only step left, is dragging it on some dirty workbenches (for example in the welding areas).

APPENDIX M – COST ESTIMATION

Written communication on cost estimation

A rough costs estimation by the TeamLead of the Costume Atelier. It is based on 50 Koppel Jackets, made in-house in the Efteling. Illustrations and worn-out looks are printed on the fabric by an outside source. This printed material saves in production time, which is the biggest influence on the price of the jacket.

Hoi Lian,

Een grove inschatting:

Printen bamboestof: 45€ per meter (incl. proefdruk)

2 stuks naast elkaar/0.70cm nodig= schatting 20 meter

inclusief garen en klitteband.

900,-€ materiaal

(100,- € toevoegen voor extra kleur voering)

Knippen en maken jasjes

112 uur x 35,-€

3.920,-€ uurloon

Totaal 4.820,-€

Per stuk jasje 96,40

Minder dan 50 stuks produceren maakt qua prijs niets uit.

Het wordt interessanter als we er 100 willen.

Ik hoop dat je zo voldoende weet.

Groetjes,

Carla.

Team Lead Kostuumatelier

Concept en Design