“Speaking of smartphones...”

Exploring and designing for parent-child dialogue about smartphones

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Author

Liza Oomens

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Faculty of Industrial Design Engineering

Delft University of Technology

Supervisory team

Chair	Dr. F. Del Caro Secomandi
Mentor	Ir. S.A.T. Dideriksen

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PREFACE

The context of this graduation project was a world both unfamiliar and very close to me. My smartphone is my near-constant companion, conveniencing my life in many ways. But I also often experience mixed feelings towards this device that sneakily removes me from my reality. I do not know what it is like to be a parent raising a child in a digitized era, but I am very grateful to have been allowed a glimpse into that world.

I'd like to thank the families for trusting me and welcoming me into their lives for a moment. I was inspired by the parents' intentionality and delighted by the children's enthusiasm and cleverness.

This project was also made possible by many other wonderful people. Thank you to my supervisors, Sofie and Fernando, for their encouraging and critical feedback. Thank you to the Soepmeisjes, my other friends at IDE, and the welcoming people at Studiolab for making the faculty feel familiar. Thank you to my parents for their unconditional support and pride. And to Gerben, for skipping through life alongside me.

This Thesis concludes my time at IDE which I have enjoyed immensely. I hope this project inspires you to seek out joy and curiosity in your daily life. It is supposed to be fun :)

Groetjes,

Liza

SUMMARY

Project context

This graduation project focuses on the **conversations about smartphones** that happen **between parents and children aged 8 to 12**. In this age range, children are finishing primary school, are becoming more independent, and often receive their first smartphone. At the same time, their ability to regulate their own behavior, and thus also their media use, is still developing.

Desk research showed that the negative effects of excessive smartphone use are not only addressed through rules and restrictions, but also by healthy media use strategies. Existing theories on media literacy and healthy media use show that communication and critical reflection are important aspects of this. However, sparking meaningful conversations between children and parents about smartphones can be difficult. Interventions that spark constructive conversation about smartphones

Key insights

Conversations with parents, a teacher and experts showed that conversations about smartphones rarely happen spontaneously. They are often started by parents and shaped by power imbalance between parent and child. As a result, these conversations can easily become negative, frustrating or corrective.

Generative sessions with children showed that children already know a lot about smartphone-related themes. When they were encouraged to create stories and ideas, they showed enjoyment and pride. The was the most interaction between children and parents when the children as well as the parents were involved in the creative activity.

Later concept testing sessions revealed that children and parents contribute differently in the conversations. Children easily add creativity and imagination, whereas parents can add depth and nuance to the conversation. A concept that rewards creativity, originality and imagination can be empowering for children.

Design outcome

The final concept is **FoonFabels**: a collaborative storytelling game for children and parents to explore bizarre stories related to smartphones. The game starts with a story featuring a bizarre situation. Players then imagine how the story continues by drawing, writing and presenting their ideas to each other. After this fun, creative activity, players discuss questions related to the story's themes. The questions are designed to encourage open, non-judgemental and constructive answers.

Conclusion

FoonFabels shows potential in helping parents and children talk about smartphones in a more open, equal and positive way. The final validation suggests that the game helps start relevant conversations through **fiction, humor and creativity**. It does not directly change behavior or create new phone rules, but that is not its main purpose. Its value lies in helping families explore smartphone topics together in a safe and accessible way. By valuing imagination, humor and unexpected ideas, FoonFabels gives children a more active and empowered role in the conversation. Overall, it can be seen as a preventive tool that supports shared understanding around smartphone use.

READING GUIDE

This is an introductory text at the start of a section. It explains what you can expect to find the coming text.

This a concluding text or image, showing the key insights of the previous text.

USE OF GENERATIVE AI

Throughout this project, generative AI has been primarily used as a sparring partner and to improve writing. All illustrations in this report come exclusively from my own hand.

CONTENT

Chapter 1. Introduction

Introduction to the project context, project overview, and methodology.

1. INTRODUCTION

1.1 Growing up in a digital era

Growing up today is quite different from growing up even 15 years ago, when I was in elementary school myself. That's when my parents gave me a red flip phone, and interactive whiteboards were a recent addition to the classroom. It is safe to say that much has changed since then.

Digital devices have become an inescapable part of our daily lives. Texting on our phones, working on our laptops, and watching movies and series on streaming platforms. But it's not just us; children today are also growing up surrounded by digital media. Colorful, engaging, and versatile, they are widely used in schools and by carers. At the same time, concerns about the impact of digital media on children's development and well-being are becoming increasingly prevalent. As awareness of the consequences of excessive screen time grows, governments and organizations are introducing guidelines, advice, and even restrictions on media use for minors. This is a complex situation in which children's use of digital media is seen both as an opportunity and a risk.

Within this context, this graduation project examines how growing up with a smartphone influences not only children themselves but also how it shapes their interactions with others, and more specifically, their parents. Focusing on children aged 8 to 12, the age at which many receive their first smartphone, I study how conversations happen between parents and children surrounding the smartphone.

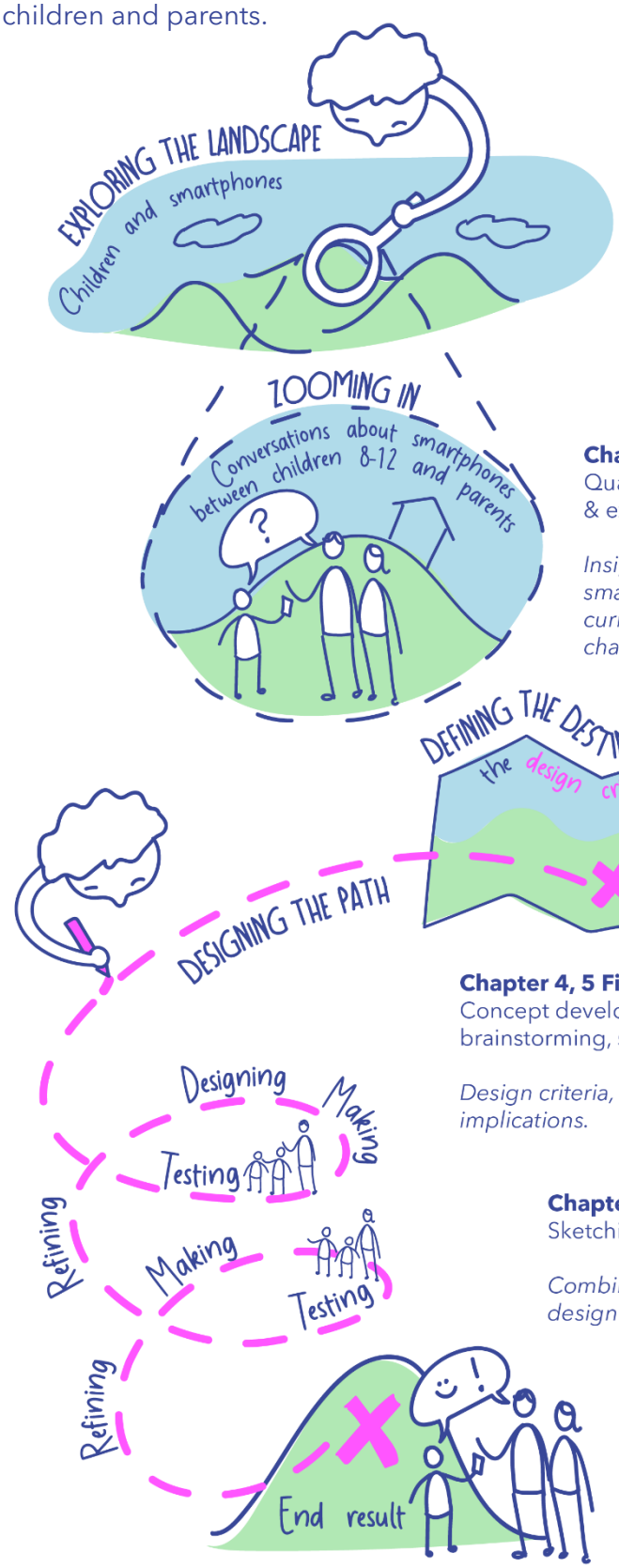
I explore ways to direct these interactions between parents and children to be more equal, constructive, and fun. Finally, the goal is to contribute to children's media literacy by introducing smartphone-related topics in a playful and imaginative way, and amplifying children's voices by stimulating equal and open conversations between parents and children about smartphones.

1.2 Project overview

The project begins with researching the broader context of children's media use, including how children use digital media, what benefits and challenges emerge from this use, and how society currently responds through theories around healthy media use, regulations, and interventions. Building on this understanding, I zoom in on the interaction level, examining how conversations about smartphone use between parents and children take place and where barriers to these conversations arise.

Insights from the research phase inform the formulation of the design assignment; *facilitating dialogue between parents and children in an equal, open, and engaging way*. Through an iterative process of designing, making, and testing with the target group, different ways of shaping these conversations are explored. Concepts are developed and evaluated in practice, allowing insights from user interactions to inform the next iterations of the concept.

The final outcome of the project is a game that children and parents play together. In this game, they collaboratively create bizarre and imaginative stories related to smartphone use. This playful format lowers the threshold for conversation, encourages reflection on relevant topics, and supports the development of shared understanding between children and parents.



Chapter 1, 2 Context research
Desk research; papers, reports, grey literature, comparative analysis.

A general understanding of smartphone use among children aged 8–12, including usage patterns, developmental aspects, and both positive and negative effects, as well as an overview of existing interventions.

Chapter 3 Interactions research
Qualitative research; interviews with parents & experts, statement card analysis.

Insights into how these conversations about smartphones between children and parents currently take place, including barriers and challenges of these conversations.

Chapter 4, 5 First iteration
Concept development; framing, co-evolution, brainstorming, sketching, prototyping, contextmapping.

Design criteria, three initial concepts, prototypes, design implications.

Chapter 6, 7 Second iteration
Sketching, developing, prototyping, testing.

Combined and iterated concept, prototypes, design refinements.

Chapter 8, 9, 10 Final design and validation
Prototyping, user evaluation.

Final concept, tangible version, discussion, recommendations, conclusion.

Figure 1 A visual representation of the project using the metaphor of exploring and navigating a landscape. For each phase the corresponding chapters, activities, and outcomes are listed.

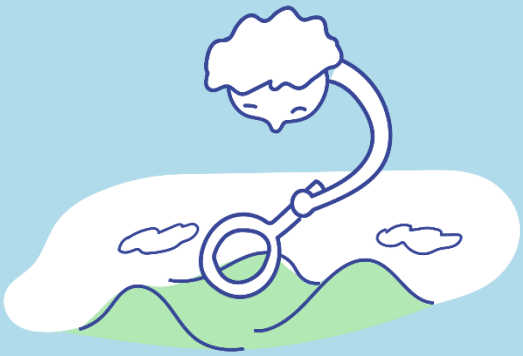
1.3 Methodology

This project follows an exploratory and iterative design methodology, which is visualized in Figure 1. This visual is structured as a metaphorical process of **exploration and navigation of a complex landscape**. Such process-oriented and non-linear representations of design are commonly used to describe human-centered and exploratory design approaches (Cross, 2006; Dorst, 2011). Different phases can be identified in the project's approach. First, an exploration of the landscape, next, defining a destination, and then making and testing possible paths towards this destination. The aim of this approach was to move from a broad understanding of children's smartphone use towards a relevant interactional focus, to finally come to a "tried and true" interaction design intervention. This approach aligns with iterative design practices as described in the Delft Design Guide (Boeijen et al., 2021; Schön, 1983).

The process began with a broad "**exploration of the landscape**". This initial research phase focused on building a general understanding of smartphone use among children aged 8–12, including usage patterns, developmental aspects, and both positive and negative effects. Such broad exploratory research is characteristic of early-stage design processes, where the problem space is still being defined (British Design Council, 2005; Dorst, 2011). Similar to the "Discover" phase in the Double Diamond model, where a broad understanding of the context is gained, narrowing the focus. The insights were gathered through desk research, including academic literature, reports on Dutch children's media use, and public discourse such as news articles (see Section 2.1) (Boeijen et al., 2021; Hanington & Martin, 2012).

From this broad perspective, the project "**zoomed in**" **on the interaction level**, to a more specific terrain within the landscape: the conversations between parents and children about smartphone use. Through semi-structured interviews with parents and children's development experts, insights were gathered into how these conversations currently take place, including barriers and challenges of these conversations. Semi-structured interviews are widely used in design research to gain in-depth qualitative insights while allowing flexibility (Hanington & Martin, 2012; Kvale, 2007). The setup and execution of these interviews are described in more detail in Section 3.1. Based on this understanding, a clear "**design destination**" was formulated in the form of the design assignment, consisting of design questions and design criteria (Boeijen et al., 2021; Roozenburg & Eekels, 1998).

The project then moved into the generative design phase, "**designing the path**". Ideas were developed through brainstorming techniques (Boeijen et al., 2021; Osborn, 1953) and combined into interaction concepts, which were materialized and tested with users, both to gain knowledge as well as inform design decisions (Sanders & Stappers, 2013; Stappers & Giaccardi, 2017). The process follows an iterative cycle of designing, testing, and refining, in which user feedback and observations inform the improvements. Through two design and test cycles (see Chapters 4 to 7), the concepts are iterated on to come to a final design (Chapter 8) that aligns with the refined criteria. A final round of validation (Chapter 9) informs the discussion, recommendations and conclusion(Chapter 10).



Chapter 2. Children's use of digital media

Desk research into the broader context of children's media use.

2. CHILDREN'S USE OF DIGITAL MEDIA

This chapter goes into the broader context of children's media use, including the current use of media by children in the Netherlands, what benefits and challenges emerge from this use, and how society currently responds through theories around healthy media use, public opinion, regulations, and design interventions. This broad overview allows for an informed decision on narrowing the scope for the subsequent qualitative research.

2.1 Desk research methodology

This initial research phase consisted of desk research, combining academic literature, reports, websites, and news articles, using keywords such as "media use children Netherlands" and "effects smartphone use children", focusing specifically on the Dutch context and the pre-adolescent age group.

A significant part of the research consisted of reports and grey literature from Dutch institutions such as Netwerk Mediawijsheid and the Nederlands Jeugdinstituut, complemented by academic literature retrieved through Google Scholar. These sources provided insights into children's media usage patterns, developmental aspects, and both the benefits and negative effects of (excessive) media use. Developmental characteristics of children aged 8–12 were further explored through literature and an expert interview with a specialist from the Nederlands Jeugdinstituut, which helped contextualize the findings.

To capture the broader societal context, public discourse and awareness were explored through online platforms such as the parent community *Smartphonevrij Opgroeien NL*, as well as news articles and Dutch government websites addressing school regulations on smartphone use. In addition, theoretical perspectives on healthy media use were derived from educational and governmental sources and supporting literature.

The collected information was processed by extracting and compiling relevant excerpts from the sources, which were then structured into an overview (Sections 2.2-2.9).

2.2 General insights on children's media use

How children in the Netherlands use digital media today

Screen use and smartphone ownership are already prevalent among young children. Screens are used by children aged 0 to 6 with an average of 1,5 hours a day, mainly for watching television (Netwerk Mediawijsheid, 2025). Most children are getting their own smartphone between the ages of 8 and 12 (KPN.nl, 2025), and at the age of 12, almost everyone (97%) has a smartphone, as opposed to 16% of 7-year-olds (Nederlands Jeugdinstituut, 2025a; Nikken, 2025).

Games and videos are most popular among pre-adolescent children, and social media are also already used. The *Monitor Mediagebruik 7-12 jaar* (Netwerk Mediawijsheid, 2021) shows that for children between the ages of 7 and 12 in the Netherlands, YouTube is the

most popular medium, followed by TikTok, games, and vlogs. Most time is spent on gaming and YouTube, and gaming and social media use increase strongly with age. Although most social media platforms legally require children to be at least 13 years old to have an account, a majority of parents in the oldest age group (11-12 years) indicate that their child already has knowledge and skills in this area.

Media use is not only initiated by children for amusement, but also by schools and parents. Learning at school happens more often on tablets and computers (Nederlands Jeugdinstituut, 2025b), and parents use media to keep their child occupied when they are bored, when parents do not have time or energy, or as a tool to explain something to the child (Netwerk Mediawijsheid, 2021).

The upsides of digital media use

Media use can offer many advantages for children. Aside from practical benefits of media use like being able to reach family and access information (Nikken, 2025; Gaztañaga et al., 2025), there are opportunities for learning and creativity (Cheriti, 2025; Neumann & Neumann, 2013; Doron, 2017). Socially, social media enable youth to experience social connection, maintain friendships, and receive emotional support (Koning et al., 2025; World Health Organization, 2024). Many parents see a positive effect on their child's English language skills, general language and math skills, creativity, and patience (Netwerk Mediawijsheid, 2021).

When can media use have negative consequences on children?

Undeniably, there are downsides to media use. Specifically, excessive media use has been linked to various negative effects: Physical problems include decreased physical activity, sleep disturbance, bad posture, and myopia (Presta et al., 2024; Ha et al., 2025; Cullen et al., 2024). Beyond these physical effects, a growing body of research points to impacts on children's mental and social well-being. Higher levels of smartphone use, particularly when it becomes excessive or problematic, are associated with increased risks of anxiety, depression, and loneliness, as well as lower overall quality of life (Poulain et al., 2025; Zhu et al., 2025). Moreover, smartphone use often replaces other developmentally important activities, such as peer play and sleep (Lo et al., 2025; Putnick et al., 2023). Taken together, these findings indicate that it is not merely the presence of digital media, but especially the time spent and the way media is handled that shape its impact on children's development.

2.3 Development of children aged 8 to 12

A lot happens in the lives of children between the ages of 8 and 12. From learning arithmetic, reading, writing, and playing soccer or hockey for the first time, to choosing which secondary school to attend, experiencing their first crush, or developing a typical preference for pop music, vloggers, or gamers on Twitch (Netwerk Mediawijsheid, 2021). There are also many developments on a cognitive level around the ages of 8 to 12. Content expert on the development of children and media use at the Nederlands

Jeugdinstituut Thibault Coenegracht mentions: 'They begin to understand reality better and are less interested in fantasy. They are already capable of more abstract thinking and reasoning. Socially, it is important to feel part of a group and to experiment with identity. Discovering and trying out identity feels safer online, where you are more anonymous and receive immediate feedback that you can use to adapt.'

Children are becoming increasingly independent, as evidenced by the media devices they use and own, and the applications, games, films, and programs they use. By the end of primary school, children are also using modern social media such as WhatsApp, TikTok, Instagram, and YouTube. (Netwerk Mediawijsheid, 2021)

At the same time, emotional self-regulation is only fully developed around the end phase of adolescence, and so the ability to self-regulate their media use is not fully developed in pre-adolescent children (Roozendaal, 2018).

To summarize, the age group of 8 to 12 comes with interesting challenges: on the one hand, they are gaining significant life experience and independence, but at the same time, they are still vulnerable, having not fully developed their emotional self-regulation.

2.4 Awareness and regulation in the Netherlands

Global conversation was sparked by the book The Anxious Generation by psychologist Jonathan Haidt, who connects the decreased well-being of youth to the mass adoption of smartphones, social media, and online gaming. He calls it 'The Great Rewiring of Childhood', arguing that childhood has become 'phone-based' instead of 'play-based' (McBain, 2024).

Parent communities around the world are popping up advocating for smartphone-free childhoods. Inspired by the British initiative, Dutch parents have founded *Smartphonevrij Opgroeien Nederland*, jointly delaying smartphones for children (KRO NCRV, 2024). The movement has gained significant traction and media attention, appearing on talk shows and in newspapers (Smartphonevrij Opgroeien NL, n.d.).

Governments around the world are addressing the negative effects through regulation. For example, France has banned the use of phones on school grounds by law (bbc.com, 2018), and social media for children under 16 years old is banned in Australia (Ritchie, 2024).

Regulations have also been set in motion in the Netherlands. At the start of this school year, the Dutch government banned the non-educational use of smartphones in class in primary and secondary school (Ministerie van Volksgezondheid, Welzijn en Sport, 2025). A guideline was issued that advises against social media below 15 years old. Additionally, a government campaign has started, *blijf in beeld*, which urges parents to keep a running conversation on media use, and to make arrangements with their children about their media use (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2025).

2.5 Theories on healthy media use

To minimize risks and reap the benefits of media use by children, awareness and regulation are important, but not sufficient on their own. Children also need to learn how to handle media in a healthy, conscious, and critical way. Looking at existing frameworks for healthy media use and media literacy offers inspiration for potential design directions.

The following three Dutch models were selected because they are relevant to the Dutch context of this project, academically grounded, and specifically connected to children's media literacy. Together, they provide insight into how healthy media use is currently understood, supported, and encouraged in education, policy, and behavioral theory. By analyzing these existing efforts, this project can position its own design solution within the broader landscape of media literacy initiatives and identify how it may contribute to children's healthy and conscious media use.

21st-century skills and the 9 core goals of the national curriculum

One of the 9 core goals in the Dutch national curriculum for primary education is digital literacy, showing the importance of the subject in education. SLO, the Dutch national knowledge center for education, in collaboration with Kennisnet, also defined a model for 21st-century skills: 11 important competencies that prepare students for a rapidly changing future driven by technology and digitization (Karels, 2020). Since all children in the Netherlands attend primary school, this framework is especially relevant for the project's context. It shows that digital literacy is seen as essential for children's development.

Within the 21st-century skills model, the competencies media literacy, critical thinking, and communication are particularly relevant. They offer useful starting points for design directions, as they connect directly to the aim of helping children reflect on their smartphone use and talk about it with others. The framework is useful because it is already embedded in the Dutch educational context and therefore provides a widely recognized foundation for thinking about children's media literacy.

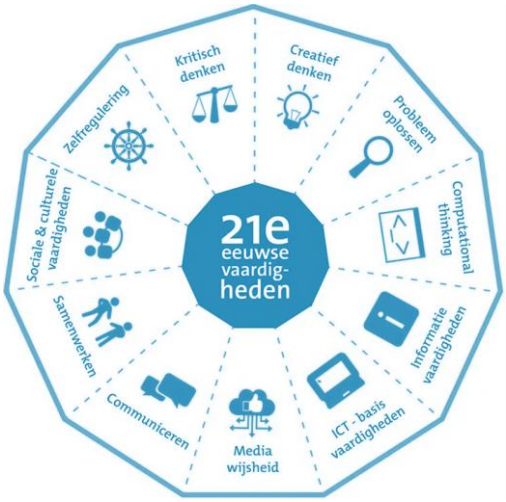


Figure 2 21st century skills by SLO and Kennisnet

Healthy screen use

The guidelines of the Dutch Ministry of Health, Well-being and Sports include a definition of healthy screen use, consisting of four aspects: *together, positive, in balance, and age-appropriate*. This framework was created for parents and other carers of children as a practical guide to be applied in everyday life. The model provides insight into how healthy screen use can be encouraged in practice, which is important because this graduation project also aims to design for real-life family situations. The aspect "positive" highlights an important point: conversations about media should not only focus on risks, limits, or problems, but should also be constructive and supportive.

At the same time, the framework mainly provides a general direction. It is a valuable first step towards bringing healthy media use into practice, but it offers limited concrete guidance for parents. More specific examples, tools, or action perspectives could help parents understand how they can stimulate healthy screen use in everyday conversations with their children. This gap is relevant for the positioning of this project, as the final design could contribute by making healthy screen use more concrete and easier to discuss within families.

Figure 3 Visual representation of Healthy screen use by the Dutch Ministry of Health, Well-being, and Sports

Media-empowerment

Media-empowerment (Roozendaal, 2018) is a method for helping children develop into autonomous, active, and conscious media consumers. It entails four qualities: knowledge, intuition, skill, and motivation. The framework argues that knowledge about media alone does not ensure that children engage with media actively and consciously. For this, children need to employ media-empowerment strategies, such as reflecting critically on media content, looking up or avoiding certain media, or reflecting on their own media behavior and screen time. This framework is relevant because it approaches healthy media use from a behavioral perspective. It gives insight into what behavior the child could employ in order to become more 'media-empowered'.

For this project, the emphasis on critical reflection is especially valuable. It confirms critical reflection as a key competency for healthy media behavior and supports the idea that

children should not only follow rules around smartphone use but also learn to understand and reflect on their own behavior. However, the framework focuses mainly on the child. It gives less insight into the broader social context, such as the role parents and schools can play in supporting children's media-empowerment. This is an important point for this project, since the design direction focuses specifically on improving interactions between children and parents, rather than only the behavior of the children themselves.

Figure 4 Media empowerment model, Roozendaal (2018).

Key insights

Together, these three frameworks show that healthy media use by children is approached from different angles: education, practical guidance, and behavioural development. The 21st-century skills model shows the societal and educational relevance of digital literacy. The healthy screen use framework translates healthy media use into practical values for everyday life. Media-empowerment adds a behavioural perspective by showing what children need in order to become more conscious and autonomous media users.

For this graduation project, these models mainly serve as **inspiration** and as a way to **position** the final design solution. They suggest that a relevant design direction should support media literacy, critical reflection, and communication, while also being practical for families. The final design could therefore contribute by helping children and parents have more constructive conversations about smartphone use, making abstract ideas about healthy media use more concrete in everyday family life.

2.6 Existing interventions for healthy media use

There are many developments in media literacy support for children. A range of existing interventions was analyzed on how they contribute to children's media literacy and whether they succeed in inciting conversations about media use, providing insights into working principles, and serving as inspiration for design criteria.

Comparative analysis methodology

In addition to literature and reports, a comparative analysis of existing interventions was conducted to examine current approaches to contribute to children's healthy media use (see Appendix A for full comparison). A total of 17 Dutch interventions were collected through online research, including platforms such as Netwerk Mediawijsheid, Bureau Jeugd en Media, public campaigns, and recommendations from practitioners. Dutch interventions were selected because this graduation project focuses on the Dutch context, and to keep the scope of the analysis manageable.

The complete map with descriptions of all the interventions and how they score on all the criteria can be found in Appendix A.

Intervention	Description	Informs children on media literacy	Incites reflection about media use with children	Gives children room to voice their opinions / experiences to others (not peers)	Empowers children to have agency over the media they use	Engaging and interactive for children	Incites conversation between child and parent	Incites conversation between peers
MediaMasters	Free serious game about the opportunities and dangers of media for groups 6/7/8 played during the week of media resilience.	✅ Engaging learning tool	✅	❌	❌	✅ Very engaging storytelling and serious game	❌ A game played at school with peers	✅ A game at school with peers
Mediamatties	An online application where a child and their (grand)parent take a quiz together where they guess each other's hobbies and media preferences	❌	✅ Asks questions about favorite apps and hobbies of yourself and your (grand)parent	? Allows for discussing answers but not sharing any deeper experiences	❌	? Not that engaging, but it is an online quiz	✅ Asks for what you think the other's favorite hobby and app are, so you can compare answers.	? Technically this could be played with a peer but it is meant for children and (grand)parents.
Digidoener DIY-opdrachten	Part of lesson plans by FutureNL, assignments where kids are asked to reflect on a few questions of a certain topic after having watched a video about it.	✅ Lessons that inform and reflect	✅ Lessons that inform and reflect	❌ Just reflection	❌	? It's an assignment so not especially engaging	❌	? Perhaps in class if peers do this assignment alongside each other
Privacyrede 2025	A talk/theater by high school students sharing what student surveillance systems (like Magister) does with them. Organised together with LAKS, student committee	❌	? The students preparing the talk themselves reflect on their experiences to convey them during the talk	✅ Gives the floor to students themselves to share how Magister impacts them and the interactions with their parents ✨	? It is part of a movement that is making the government discuss the topic.	✅ Talk/theater by students themselves.	? Perhaps indirectly through parents in the audience bringing up aspects of the topic with their children.	✅ Among the students collaborating on the project, and perhaps among children in the audience
MediaDiamant	Online tool informing parents on a few topic directions that are important regarding media use.	? Informs parents* about topics which they could then discuss with their children	❌	❌	❌	❌	? Offers topics but no clear 'how to' to have those conversations	❌
MediaGesprek	Website with information of MediaDiamant presented in a different form.	? Informs parents* about topics which they could then discuss with their children	❌	❌	❌	❌	? Offers topics but no clear 'how to' to have those conversations	❌
Afsprakenkaart 'Blijf in beeld' campaign	A template/agreements sheet for parents and children to fill in together to make agreements about media use.	❌	❌	❌	? Agreements are made but I suspect they come from the parent's side	❌ Children are engaged but I would not say it is truly engaging or interactive	✅ Conversation about limits between child and parent is held	❌
Internethelden conversation cards	Tool for professionals to familiarize themselves with relevant topics about media use, so they are well-equipped to advise parents	✅ Offers relevant topics to professionals* or parents*	? Simply informs about topics. Perhaps bringing up the topics might incite reflection.	❌	❌	❌	? Perhaps inspires parents to bring up a topic to their child.	❌
ChatLicense	App for children to engage them in important topics they need to navigate their first smartphone. 'Drivers licence' for first smartphone.	✅ Covers media topics	❌	❌	❌	? It is an app, but not very interactive.	❌	❌

Figure 5 Existing interventions comparison table. See Appendix A for the complete and legible version, including descriptions of all interventions.

The interventions were analyzed using a set of criteria focusing on their contribution to media literacy (criteria 1-4) and their social and experiential qualities (criteria 5-7).

1. informs children about media literacy.
2. incites reflection about children's own media use.
3. gives children room to voice their opinions to others (not peers).
4. empowers children to have agency over the media that they use.
5. were engaging and fun for children.
6. incited conversation between children and their peers.
7. incited conversation between children and their parents.

Criteria 1-4 were based on the theories discussed in Section 2.5. Informing children about media literacy and stimulating reflection relate to digital literacy in the national curriculum, while giving children more agency over their own media behavior connects to media-empowerment. Other criteria were based on the project context of conversations about smartphone use between children and parents. The analysis also looked at whether interventions give children room to voice their opinions and experiences, and whether they stimulate conversations with parents or peers. Finally, engagement and fun were included because interventions for children need to be attractive and enjoyable in order to be adopted.

The analysis was qualitative and interpretative. Each intervention was assessed with a checkmark, cross, or question mark for each criterion. Interventions that scored exceptionally on a specific criterion, or were especially inspiring for the design direction, were marked with a sparkle. These sparkle interventions were selected as the three inspiring interventions discussed in more detail below.

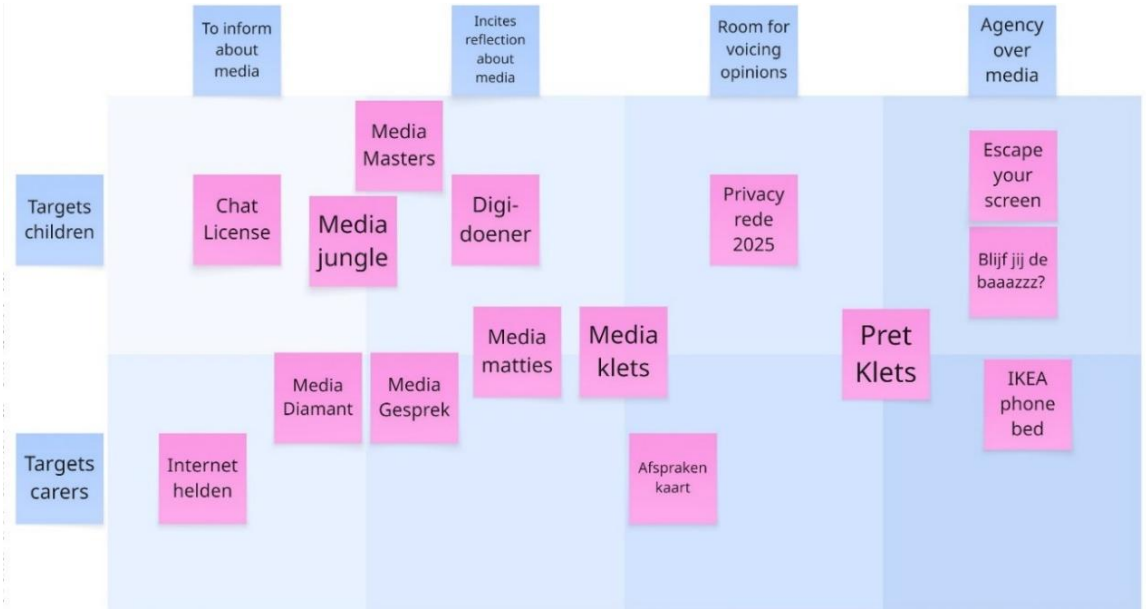


Figure 6 Existing interventions, mapped on target group and way of contribution to children's media literacy.

Main findings from the comparison

The comparison shows that many interventions contribute to awareness or knowledge about media use, but fewer provide concrete tools for children to actively work on their own media behavior. There also seem to be few interventions that explicitly give children room to share their own opinions and experiences, especially in relation to parents. Privacyrede 2025 (see description below) stands out in this category because it gives students a public platform to express how digital systems affect them.

Another finding is that many interventions may struggle with the "fun-factor". For adults, usefulness can be enough reason to engage with an intervention, but for children, enjoyment is crucial for adoption. There seems to be a divide between interventions that are genuinely engaging for children, such as Escape your Screen and Mediajungle, and interventions that stimulate conversations between parents and children but are less clearly designed around children's enjoyment, such as conversation card sets or agreement sheets. This creates a **design opportunity**: an intervention **that stimulates parent-child conversations** while also being **engaging and attractive for children**.

Three inspiring interventions

The three interventions below were selected because they each scored exceptionally on a different criterion and offered inspiration for the project's design direction. Each shows a relevant working principle for this project: giving children a voice, involving the family, and creating an engaging experience.

Figure 7. Impressions of the Privacyrede 2025, obtained from community.SURF.nl (Helma de Boer)

The Privacyrede ('Privacy Speech') is an annual event organized by SETUP and SURF in collaboration with student committee LAKS, providing a platform for people who bring a fresh perspective to the societal impact of technology. The 2025 edition was a theater show called 'Never a break anymore', about student surveillance systems, such as Magister and SOMtoday, where parents can see their child's grades and absence. The students themselves take the stage to talk about their experience and let the audience experience how these systems impact them. This intervention scores well on "gives children room to voice their opinions to others"; students themselves let their voices be heard about their own experiences, not only to peers but also to parents and other adults.

Its strength lies in making children's experiences visible and giving them a serious platform. A possible limitation is that it is an event-based intervention, which may make it less accessible or repeatable in everyday family contexts. For this project, the intervention is inspiring because it shows the value of taking children's perspectives seriously and creating space for them to express how digital systems affect them.

Figure 8. Bijf jij de baaazz? package with Challenge cards by Design Collective Scrollscrollscroll (Marcel Schouwenaar and Puck Siemerink), obtained from scrollscrollscroll.nl

Blijf jij de Baaazz? is a package for students starting secondary school, including a game for the whole family with screen time challenges, and an analog alarm clock, developed by designer collective Scrollscrollscroll. What is particularly strong about this concept is that it includes the whole family in the challenges, which equalizes the dynamic between children and parents, and it offers a concrete strategy for managing smartphone habits.

This intervention is inspiring because it turns healthy media use into a shared family activity instead of a set of rules imposed by parents. It also offers a concrete tool to act on smartphone habits. A possible limitation is that it is designed for students starting secondary school, while this project focuses on children aged 8 to 12 and their parents. Still, the working principle of shared challenges and practical tools is highly relevant.

Figure 9. Mediajungle, a boardgame about media with online game elements, obtained from mediajungle.eu

Mediajungle is a boardgame with online game elements 'to learn from and with each other about (the influence of) media and its (responsible) use'. It is used in schools, in care settings and at home. This intervention scores high on "engaging and fun for children"; the metaphor of the jungle for the digital world speaks to the imagination, the visuals are sleek and colorful, and the game looks entertaining and engaging for children. For an intervention to be adopted by children, engagement and fun is essential.

The strength of Mediajungle is that learning about media use is embedded in a playful experience. Children may want to engage with it because it looks and feels like a game, not only because it is educational. A possible limitation is that, while it supports discussion and learning, it may not specifically focus on conversations between children and parents about their own smartphone use. For this project, Mediajungle is inspiring because it shows that media literacy interventions can be both meaningful and genuinely enjoyable for children.

Key insights

The analysis helps to position the design direction of this graduation project within the existing landscape of media literacy interventions. It shows that there is already a broad range of efforts to inform children, stimulate reflection, and support healthy media use.

However, there is still an opportunity for an intervention that combines several qualities: giving children room to express their own experiences, supporting concrete action around smartphone habits, stimulating parent-child conversations, and being engaging enough for children to want to use it.

2.7 Desk research conclusions and key design insights

Children in the Netherlands engage with digital media from an early age, with most of them acquiring a smartphone between the ages of 8 and 12. Media is used by both parents and schools for leisure and educational purposes, offering opportunities for learning, creativity, and social connection.

At the same time, risks are primarily linked to excessive or unbalanced use, which can negatively affect children's physical health, well-being, and development by displacing essential activities such as sleep and peer interaction. This is particularly relevant for pre-adolescents, who are gaining independence but have not yet fully developed self-regulation skills.

As a result, societal responses in the Netherlands increasingly focus on governmental and communal guidelines and regulations, highlighting the importance of promoting healthy media use. Theoretical frameworks around healthy media use emphasize communication and critical reflection.

The theories on healthy media use and the existing interventions served as inspiration for these key design insights:

- **Fostering a positive and constructive tone of conversation** is essential during parent-child dialogue about smartphone use.
- The framings on healthy media use inspire possible design directions: **contributing to media literacy, communication, and critical reflection**.
- Centering and **highlighting children's own lived experiences** is an interesting starting point for conversations about media use.
- The **dynamic between children and parents** could be **equalized** by encouraging them to engage with each other in equal roles, learning from each other, and seeing things from each other's perspectives.
- Using a **playful, colorful, and imaginative format** is engaging for children, and thus essential for the success of an intervention targeted at children.

Chapter 3. Parent-child dialogue about smartphones

Qualitative research into interactions between children 8-12 and their parents about smartphones.

3. PARENT-CHILD DIALOGUE ABOUT SMARTPHONES

With country-wide regulation in schools and budding parent communities seeking solidarity, many measures are being taken. We have zoomed in on the particularities of the age group and what sets the smartphone apart from other media. We took a broad look at awareness, regulations, and existing interventions. Now, the focus zooms in on the interaction level: life at home. How do smartphones influence daily interactions between parents and children? Are conversations about media and smartphone use initiated by children and parents, and what are the barriers to those conversations?

3.1 Interviews and analysis methodology

Semi-structured interviews were conducted with five parents with at least one child within the age range of 7 to 12. Two experts were also interviewed: an elementary school teacher and an advisor of the Dutch Youth Institute (NJi). Verbal assent was given for the audio recording of the interviews to be used for completing the interview notes. From the interview notes, quotes that were deemed relevant to the research purpose were reformulated and compiled for analysis. These perspectives were supplemented with perspectives from children and experts from media fragments, in part because, due to the ongoing ethics application, it was not yet possible to directly interview children.

To analyze these inputs, statement card analysis was used, a technique pulled from the contextmapping approach (Sleeswijk Visser et al., 2005). This method uses statement cards that each contain a quote and its interpretation, which are then clustered, from which themes are identified (Stappers, n.d.). See Appendix B for the clustered statement cards.

This analysis resulted in an overview of interactional insights between children and parents about media and smartphone use.

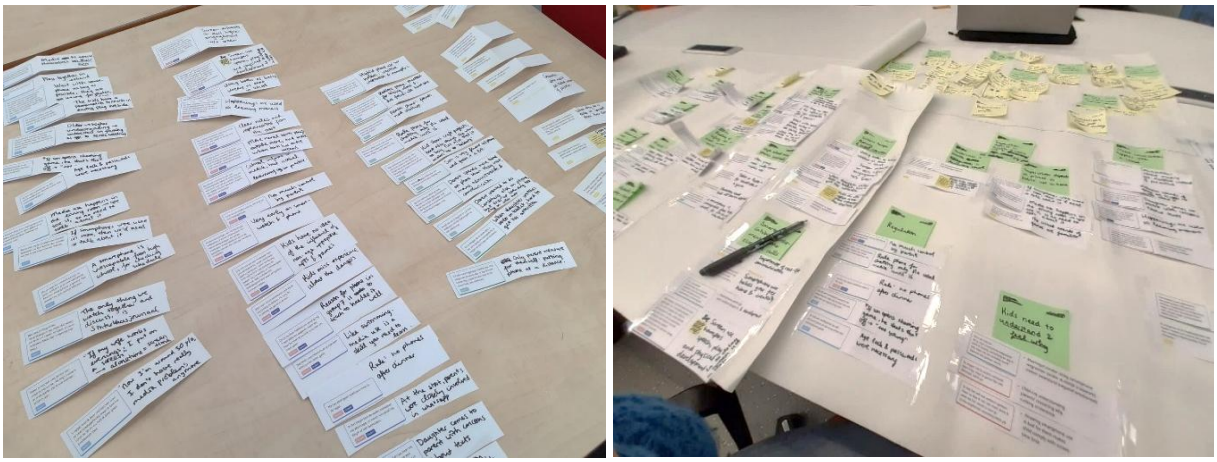


Figure 10 Photos of the statement cards laid out, before and during clustering.

3.2 Insights on interactions between children and parents about media and smartphone use

Parents report reachability, necessity for school, and peer pressure as the main reasons for their child getting a smartphone

In secondary school, a smartphone starts to feel like a necessity, for both practical and social reasons (as visualized in Figure 11). *Parent: 'When the kids go to secondary school, it is inevitable that they need a smartphone. Then they need to be able to check their schedule.'* Students need to be able to check their timetable changes on school apps like Magister or SOMtoday. Additionally, almost all their peers have a smartphone by that age, so they ask for one as well. Parents are afraid of disadvantaging their child and say that it is practical for their child to be reachable when they travel to school independently. *Parent: 'My daughter got a smartphone when she was 10 because other children from her class also got it at that age. It was also practical when she went biking alone.'*
Even before giving a smartphone, some parents give their child a smartwatch, sometimes as early as Group 3 (6 y/o). This allows parents to track their child's location and always reach them. *Parent: 'The kids do have a phone-watch, if they are playing outside, they can call us, and we can call them.'* Though mentioned as a practical reason, this could also be interpreted as a need for reassurance of their child's safety: as another parent mentioned many of these smartwatches have a GPS function, allowing parents to monitor their children when they are not safely at home. So the considerations for giving a child a smartphone are not only purely practical, although practical reasons for school seem to be the deciding factor. Parents' needs and peer influence also impact the decision.

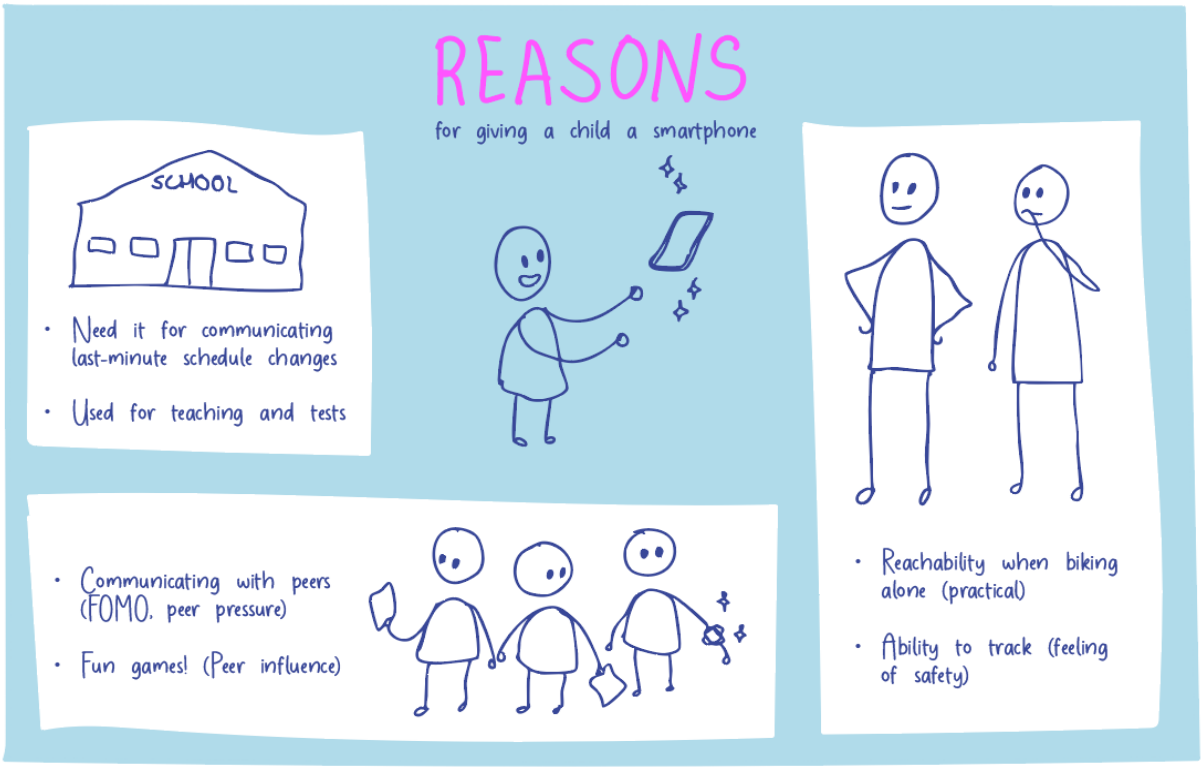


Figure 11 Considerations for getting a smartphone are influenced by peers, parents, and school.

Conversations about media use do not simply occur spontaneously

Conversations between children and parents about media use do not just happen spontaneously. Firstly, even though children most often use media alone, many parents say they have a good overview of their young children's media use. They mention that all media use happens within their view, often in the living room. That is why some of these parents do not deem it necessary to have conversations about it. *Parent: 'We do not need to talk about media use; everything they do happens in the living room, which we oversee. If they were using a smartphone in their room, then we would have to talk about it.'*
In addition, conversations about media do not take place spontaneously. When parents do discuss media with their child, it is in response to something that happened or something they watched together, for example, on the *Jeugdjournaal* (youth news program). *Parent: 'If I just start talking about something out of the blue, I won't get through to my children. It's better to hook on to it at the moment itself, when something happens.'*
So if we want media conversations between children and parents to happen, there needs to be something to incite that conversation naturally, making its relevance evident.

The smartphone is particularly hard to supervise

Netwerk Mediawijsheid also credits the difficulty of supervision to the type of device being used: *'When children watch media on the smaller screens of their smartphones in their rooms, or are gaming in their own little world with headphones on, it is difficult for parents to talk to them about it. Nowadays, primary school children's media use increasingly takes place out of sight of their parents.'* (Netwerk Mediawijsheid, 2021)
This sets the smartphone apart from more traditional media devices like the television. With smartphones, parents cannot watch along with them from a distance, and they can be taken anywhere. That also makes regulation difficult for schools, as Coenegracht brings up: *'The question of responsibility for when something unpleasant happens on the phone, such as cyberbullying, is difficult: if it happens outside school hours, it is not primarily the school's responsibility, but an issue may arise again during school breaks, for example.'*
So especially when a child gets a smartphone, it becomes harder for their parents to oversee their media use.

The child's development influences media use and transparency

For parents, being up to date on their child's media use becomes more difficult as their child gets older, goes to secondary school, and gets their first smartphone. Children play and use media more independently. *Parent: 'When they are very young, much still happens within your view. Then you actually see more of what is going on in their lives. However, at a certain age, more and more happens outside of your view.'*
In addition, children's cognitive and social-emotional development also plays a role. Younger children are more accepting of rules and allow their parents to monitor their activities more easily. *Coenegracht mentions: 'The extent to which a child can decide on their own media behavior depends on their age; 7 is very different from 12. At 7, a parent can still easily say, "This is what is good for you," and at 12, children already have a need to decide more for themselves.'* During puberty, children place greater value on autonomy and privacy, and therefore generally become less transparent with their parents. Another

barrier for transparency is fear of repercussions: *'Children sometimes no longer dare to be honest, for fear of punishment or restrictions*,' explains Justine Pardoen, expert on media education, in an email (October 28, 2025). So as children get older, their parents have a less complete overview of their child's world, and their child can become less transparent. It is then important to bridge the distance between the parent's and the child's worlds through conversations.

Parents are uncertain about what to discuss

Some parents experience barriers because they are unsure how to tackle the topic of media. Coenegracht elaborates: '*Because parents are sometimes not very familiar with technology themselves, they shy away from the subject. (...) Parents often feel incompetent when it comes to media, whereas they would engage with other topics. (T. Coenegracht, personal communication, October 27, 2025).*
Moreover, '*Parents find it difficult to talk about media and the internet because they don't really know what the purpose of such a conversation is. Rules? Which ones? Showing involvement? How, when you have no idea what they are experiencing?'* explains Pardoen (personal communication, October 28, 2025).
So parents feel unsure about talking about media because they feel like they lack expertise, and also don't know what the approach of the conversation should be.

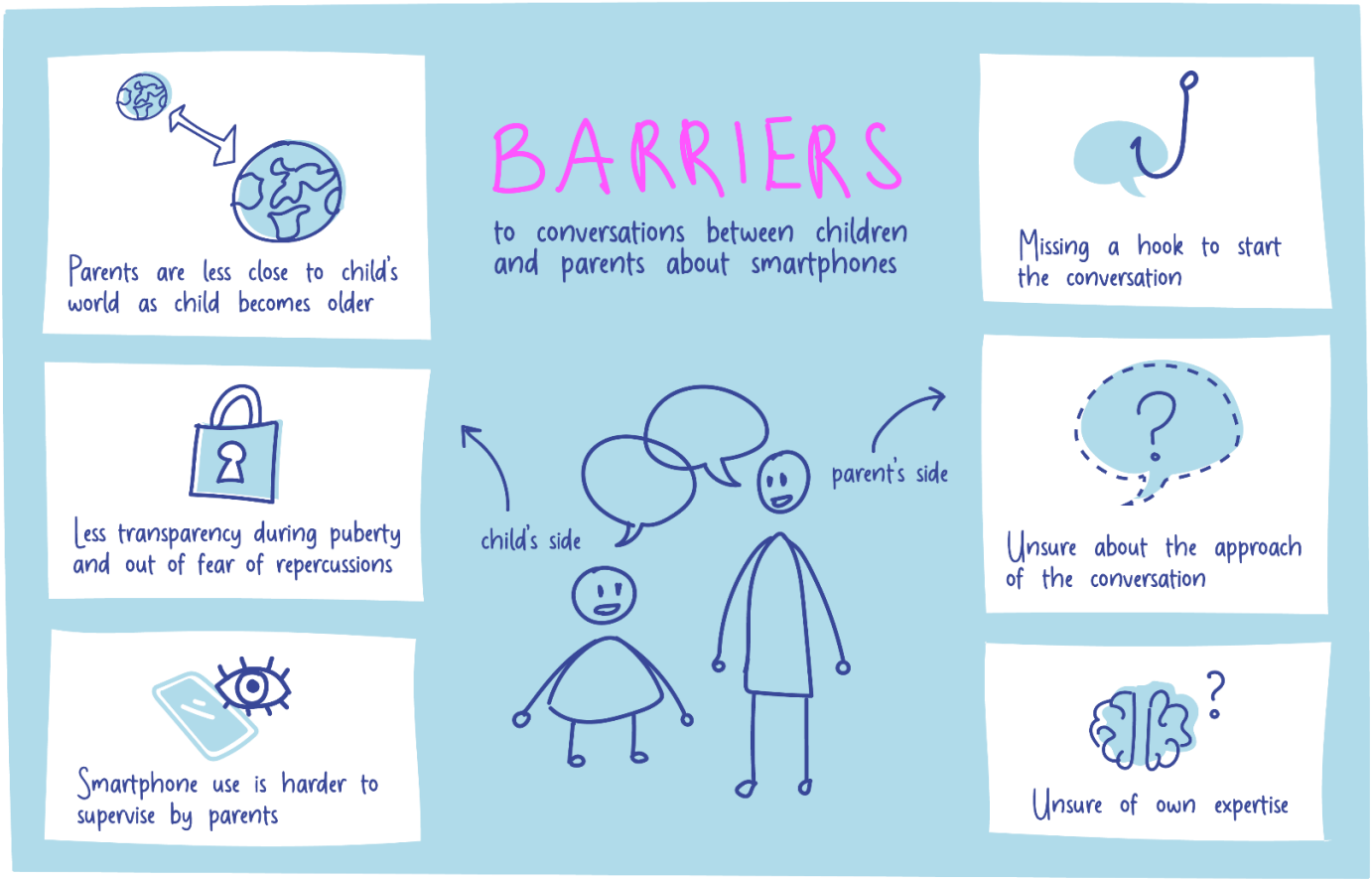


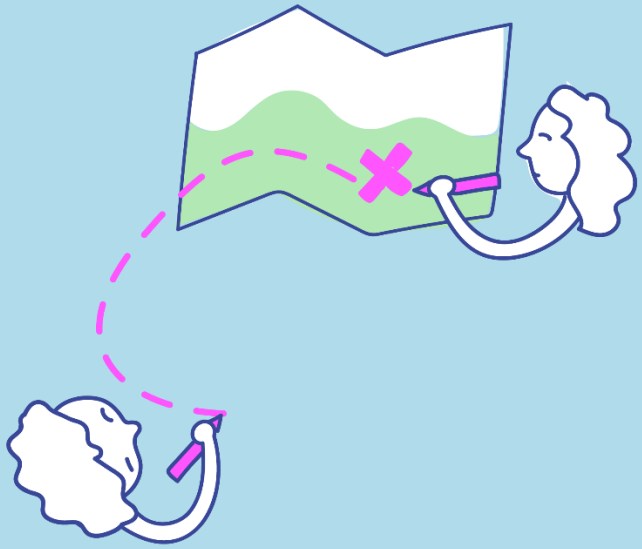
Figure 12 Barriers to child-parent dialogue about smartphones, from the child's side and parent's side

3.3 Key interactional insights

In summary, conversations about media and smartphone use between children and parents rarely occur spontaneously, despite their importance for media education. When children are young, and media use is supervised, parents feel less need to discuss it. However, as children grow older, gain independence, and start using personal devices like smartphones, more often out of sight, parental oversight decreases and media use becomes more private. At this stage, conversations become essential to bridge the growing gap between parent and child.

In practice, such conversations are typically triggered by specific moments rather than initiated proactively, leaving parents **without a clear hook** to a conversation. Many parents also feel **uncertain about how to approach** the topic, what role to take, and whether they have sufficient knowledge.

This reveals a clear **opportunity for design** to create natural triggers for conversation ('**hooks**'), and make both the purpose and relevance of these discussions evident to both children and parents.



Chapter 4. First concept iteration

The design criteria and the first cycle of concept ideation towards three interactional concepts.

4. FIRST CONCEPT ITERATION

Based on the desk research and qualitative research of the previous chapters, the formulation of the design criteria marks the start of the design phase of the project. Ideation eventually led to the development of three initial interactional concepts.

4.1 Synthesis of the design question and criteria

The design question and corresponding design criteria were formulated through the interpretation and translation of key insights derived from both desk research (Sections 2.5-2.7) and qualitative research (Sections 3.2-3.3). Rather than following a strictly defined analytical method, this process involved identifying meaningful patterns and opportunities across the insights, and reflecting on how these could inform design.

The desk research provided theoretical grounding and inspiration, particularly around healthy media use, communication, and reflection. These insights mainly informed criteria related to tone, engagement, and interaction, specifically criteria 5-7. The qualitative research contributed practical and contextual understanding of how parent-child conversations currently take place, highlighting barriers such as the lack of natural conversation triggers and parental uncertainty. These findings formed the basis for criteria 1-4, which focus on relevance, accessibility, and initiating conversation.

In parallel, the design question—*How might we facilitate child-parent dialogue about smartphones in an equal and open way?*—was formulated alongside the criteria. This process can be understood as a co-evolution of problem and solution (Dorst & Cross, 2001), in which different framings of the design challenge and corresponding directions were iteratively explored until a coherent fit was achieved. Through this iterative process, a set of design criteria was established that is both grounded in theory and responsive to the practical context.

The design question is formulated as follows:

> *How might we facilitate child-parent dialogue about smartphones in an equal and open way?*

On the following page is an overview of the formulated design criteria.

4.2 Design criteria

The design should:

1. offer a '**hook**' that incites conversation naturally.
2. offer an **approach** to the conversation that feels relevant, for example, connecting to concrete situations from daily life, or engaging fictional stories.
3. make the **value** of the activity clear to both child and parent.
4. use parent's **distance** from the child's world and lack of media expertise as a starting point to the conversation instead of a barrier.
5. engaging, colorful, and **fun**, fitting in the world of children.
6. **equalizing** the dynamic between children and parents, learning from each other
7. creating a **positive** and constructive atmosphere.
8. **inciting reflection** about the influence of smartphones on daily interactions and their own lived experiences.

4.3 Concept ideation

The ideation process started off with brainstorming individually (Osborn, 1953), see Figure 13. Based on the design assignment, eight "How Might We" (HMW) questions were formulated, each targeting specific subproblems within the interactional context. In total, more than 40 subsolutions were written down on post-it notes, which allowed for easy regrouping and clustering.

The subsolutions were clustered and combined into three complete interaction concepts (Figure 14), ensuring that all three initial concepts fulfilled the criteria of the design assignment in some way. These criteria were grouped into three categories, assessing whether the concepts: *offer a different approach to the topic of smartphones, equalize the dynamic between children and parents,* and *aim to be fun and engaging for children* (see the Table in section 5.5).

The concepts of combined subsolutions were eventually developed into three interactional, workshop-like activities.

Figure 13 Regrouped post-its, HMW's in blue, subsolutions in purple, and criteria categories in green.

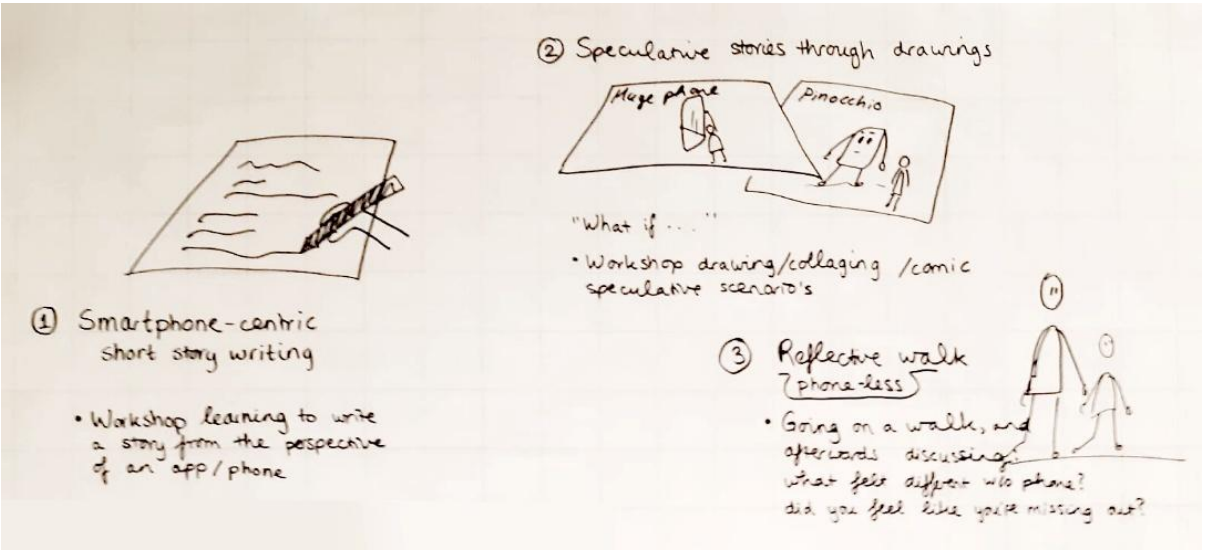


Figure 14 Initial combination of subsolutions into three concepts.

Concept 'What if...?' short story

During this activity, children and parents each write a short story and then share it with each other. They base their story on a 'What if…?' card of their choice that features a bizarre technology-centered situation, like 'What if the internet suddenly stopped working everywhere?' or 'What if all mobile phones were suddenly 1 meter large?' They draw and/or write on a template (see Figure 16) featuring questions to help structure and deepen their story, making them think about who is affected, what the consequences are, and possible solutions. The template is then used as a cheat sheet to refer to when sharing their stories.

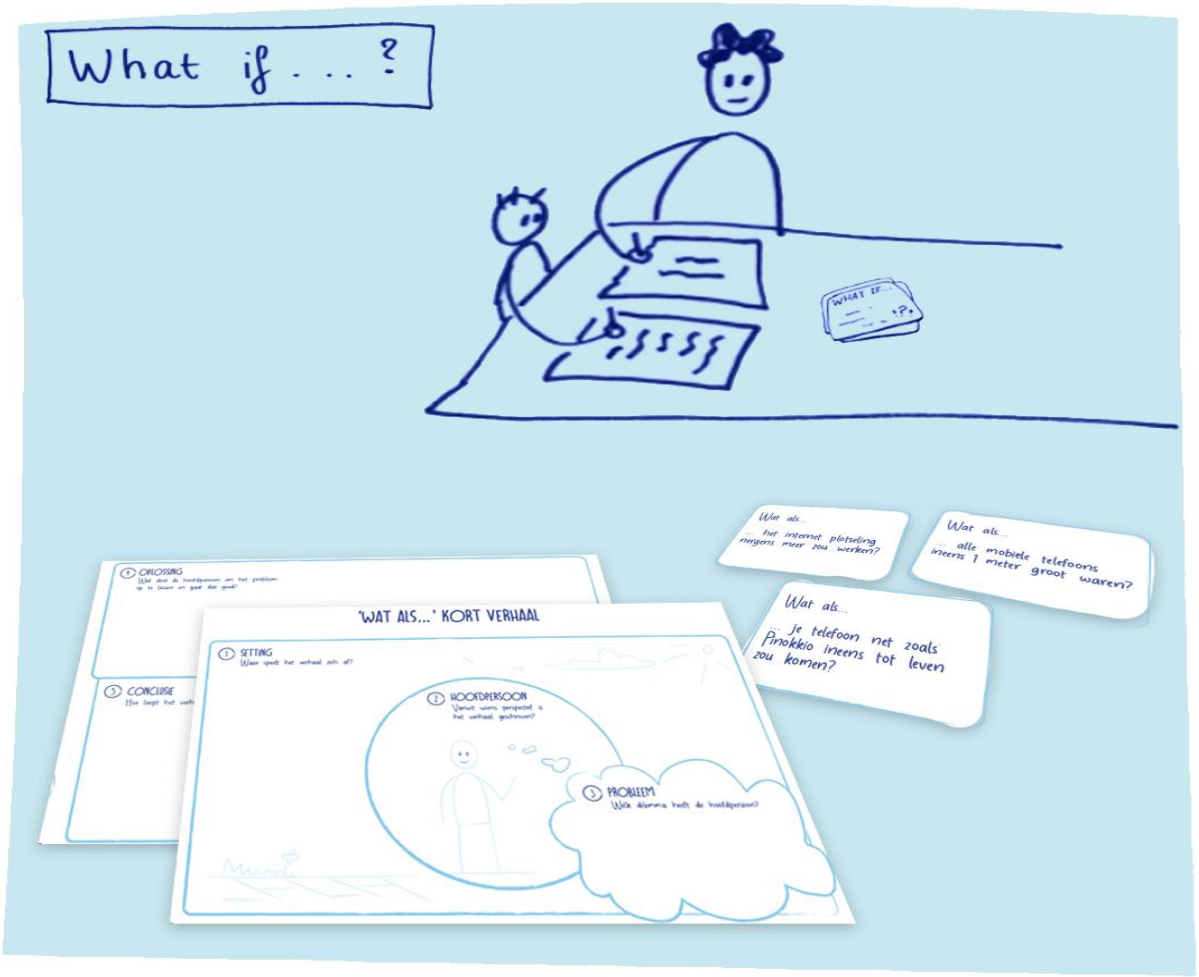


Figure 15 Concept 'What if...?' short story activity

Below are the 'What if…' cards with the bizarre phone-centered scenarios, and the template consisting of 2 A3 pages with structuring questions and room to draw.

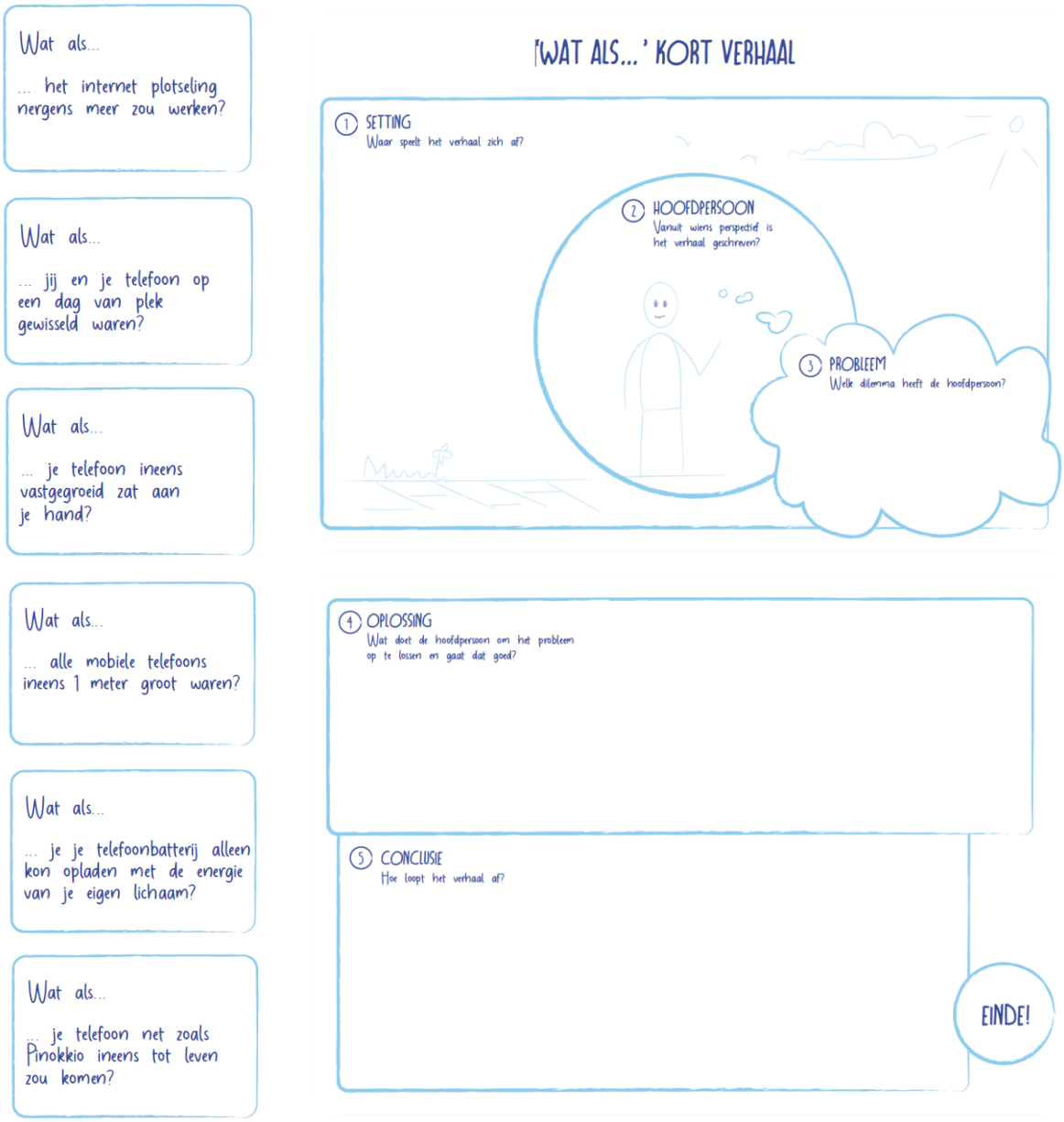


Figure 16 Left: 'What if…' cards with bizarre phone-related scenarios. Right: template to write and draw the story

Concept 'The other side of the screen' collage

During this activity, children make a collage based on the theme 'The other side of the screen' and then present it to their parents. After elaborating on what they think the theme means, the children are provided with a blank A3 paper and craft tools and materials to make the collage. Then they give their artwork a name and present it to their parents, explaining what the name means, how they interpreted the theme, and why they used certain elements in the collage.

Figure 17 Concept 'The other side of the screen' collage

Concept phone-free walk

During this activity, parents and children go on a 10-minute walk together, using a guiding booklet with exercises and questions to discuss. They both have to leave their phone at home on purpose. The exercises in the booklet draw from mindfulness practices like walking in silence and noting things they see, hear, and feel. The questions are aimed at making them more aware of how they feel and reflect on how the absence of the phone affects them.

Figure 18 Concept phone-free walk

4.4 Concepts and criteria categories table

Below is an overview of how the concepts aim to fulfill the design criteria categories. It also shows which criteria (Section 4.2) were combined into the categories.

Criteria category	**Story** 	**Collage** 	**Walk** 
Offering a hook and **approach** to the topic of smartphones, inciting reflection (Criteria 1, 2, & 8)	Bizarre technology-centered scenarios and the questions on the template prompt deeper thinking about the influence of technology and its consequences.	The theme 'the other side of the screen' prompts reflection on what this other side of the phone could look like or be about.	The experience of being phoneless and the explicit questions prompt reflection on the effect of the presence of a phone in a situation.
Equalizing the dynamic between child and parent (Criterion 6)	Both children and parents do the exercise, so they have the same role. Everyone gets to pick the scenario they want to work with.	The children are seen as the artists and the parents as the audience, creating a flipped hierarchy where the children lead the narrative. The children may interpret the theme in their own way.	Children and parents do the exercises together and are guided by the booklet, levelling the playing field.
Being **fun**, safe, and engaging for the children. (Criteria 5 & 7)	The bizarre scenarios are enjoyable to fantasize about. The stories are fictional so the children feel safe to share without repercussions.	Crafting collages is a creative and tactile activity. The theme is not about the children's own actions so that feels safe.	The walk combines active movement with conversation.

Table 1 Overview of design categories and concepts

Chapter 5. Generative test session

The set-up, analysis, and insights of a generative test session with children.

5. GENERATIVE TEST SESSION

The first interactional concepts are tested in a round of generative test sessions. This chapter describes the set-up of the sessions, including test procedure, materials, and ethics procedure. Then it goes into the analysis and insights drawn from the test sessions.

5.1 Set-up of the generative test session

The first iteration of concepts was tested during a round of test sessions (see Appendix F for the test plan). The aim of the sessions was, on the one hand, to evaluate to what extent the elements of the concepts succeeded in fulfilling the design criteria. On the other hand, as these sessions were the first moments of contact with children, they were also meant to confirm and elaborate on the findings of the desk research about the current state of parent-child conversations about smartphones. For this, a contextmapping approach (Sanders & Stappers, 2013; Sleeswijk Visser et al., 2005) was taken for the first part of the session, using a booklet to sensitize the children on the topic of phone use.

Sensitizing booklet

The children were provided with a sensitizing booklet (see Appendix C) that introduced them to the researcher and the topic of smartphones, making them think about the moments of the day when they use the phone, which apps they use most often, and which apps they think their parents understand well, a bit, and not at all. The booklet was designed to look colorful and not too neat, so the children are excited to fill it in and not too worried about drawing or writing pretty or neatly. Recognizable formats from worksheets in school, such as dotted lines for text and circling options, are used. The text features short sentences with easily understandable language and concrete questions that are not too abstract.

Figure 19 Sensitizing booklet, showing the pages 'my typical day' and 'my online world (and my parents)'

The sensitizing booklet is used as the starting point of the test session, going through their answers together. The pages about which apps they use and their parents are familiar with are used as a bridge to bring up the topic of talking with their parents about their phones, inquiring about the reasons that a conversation about phones comes up, and how often that happens.

Concept testing

The second part of the session consists of testing out two concepts. The test set-up includes the children, the parents, and me as a facilitator, all sitting around a table in the family's home. First, I explain shortly what the concepts entail, and the children get to choose which two of the three activities they want to try out.

For each activity, I give instructions at the start, and during the activity itself, I offer extra clarification and encouragement and take care of time management.

Score sheets

After trying out the activities, the participants are given score sheets on a clipboard (Figure 20) to write their feedback on. They are asked what their favorite activity was and why. The score sheets include a section to write down positives and negatives about the activity, three statements with a 4-point scale (*'fun to do'*, *'makes me think about phones in a different way'*, *'makes it easier to talk about my phone with my parent'*), and stars that can be colored in to represent a final score. The clipboard feels official, giving the children the rightful sense that their opinion is important.

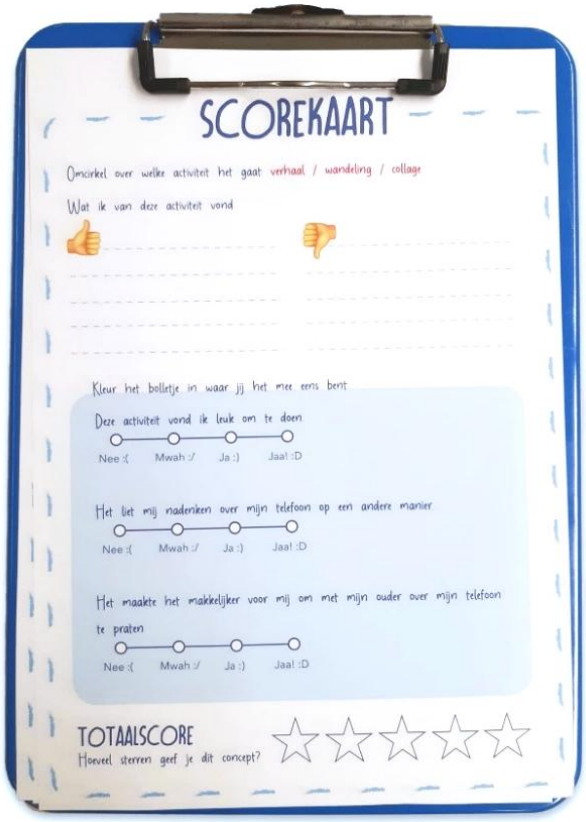


Figure 20 Scoresheet for giving feedback on the concepts

5.2 Ethical procedures and data collection

See Appendix G for the HREC approval letter and informed consent forms. Because the research involved children, additional care was taken to make participation safe, voluntary and understandable for both the parents and the children. This influenced recruitment, session setting, consent procedure, data collection and data storage. Participants were recruited through the researcher's personal network by approaching parents directly. Participation was voluntary.

The sessions took place at a table in the family's home. This familiar environment was chosen to help the children feel comfortable and safe while taking part in the research. A parent was present during the session and signed an informed consent form for both themselves and their child or children. The children were also informed in accessible language about the purpose of the research, what would happen during the session, what data would be collected, and how that data would be used. Based on this explanation, the children gave verbal assent.

The collected data consisted of notes, observations, audio recordings, photographs and the materials created by the children during the session. Audio recordings were only used to create transcripts. The materials and anonymized photographs were used to support the analysis and to illustrate findings where relevant.

Several measures were taken to protect the privacy of participants. Quotes used in the report or final presentation were pseudonymized and photos were edited by drawing over identifying details. All files were stored securely on TU Delft OneDrive, with access limited to the researcher and supervisors. After completion of the thesis, the collected data will be removed.

As described in the informed consent form, discussing smartphones could potentially lead participants to mention disturbing content they had encountered online. Although the research did not ask participants to share such experiences, it acknowledged that these topics might come up during the conversation. If this happened, the session could be stopped at any time, and parents were made aware of Dutch government-recommended support resources for children's online safety and wellbeing.

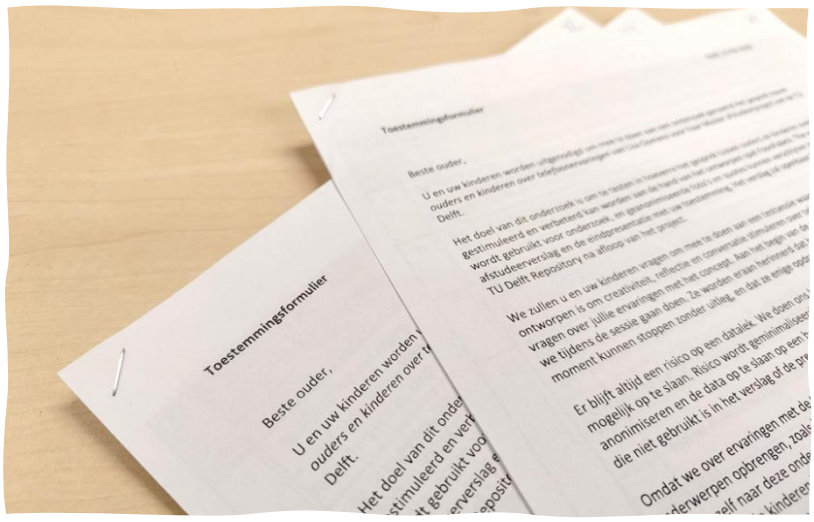


Figure 21 Informed consent forms, see Appendix G for a legible version.

5.3 Results and analysis of the generative test session

The test sessions were carried out with two families, with two and three children of 8-12 years respectively. The results of the test session contain various types of rich data, including notes, observations, transcripts of audio recordings, and the materials that the children filled in and created. Each part in this section starts with a research question, after which the conclusions, results, and interpretations are presented.

The children managed to complete the sensitizing booklets with their own drawings and writing, see Figure 22.

Figure 22 Selection of pages of the sensitizing booklet, filled in by the children.

According to children, how are conversations about phones between children and parents being held?

Based on the children's answers to the follow-up questions about the sensitizing booklets. For the children's quotes, see Figure 23.

Frequency and function of conversations
Conversations about phones between children and parents **don't happen frequently** and are currently mostly **functional**, like texting when they need to get picked up, arranging playdates, or asking for approval to download a certain app.

Tone of conversations
The conversations often have a **negative connotation**, like discussions about the amount of screentime (with the children having a feeling of unfairness, 'no one else has screentime, really'), or parents checking their children's phone (which the child experiences as a breach of privacy, *'my opinion is that it's private, but they don't agree'*).

Initiation of conversations by children and parents
Most conversations **start with control or conflict**. There is a difference in initiation from the children's and the parents' side. Children initiate conversations when they **need their parents' approval** for downloading a certain app or lengthening their screen time. Noticeably these are both situations in which parents have control over their children's technology.
Parents initiate conversations when they want to discuss their child's screentime or bring up something that they saw when they checked their child's phone. The role of parents in both these situations can be seen as **monitoring or controlling**.

Figure 23 Quotes from children, annotated with interpretations and conclusions.

How did the children experience the concepts?

Based on quotes from the children and observations during the sessions.

Feelings of pride and fun

Feelings of **pride** came up multiple times during the session, a participant stating about their story, *'I liked the idea I came up with'*, and one participant saying about their collage, *'this is really art (…) I am going to sell this for 110 euros'*.

Especially the children who were into crafting were having **fun** during the collage activity. At the start of the activity, a participant exclaimed: *'Oooh yes, this is what I've been waiting for!'* Two participants shared their delight about the collaging materials they could use, saying *'I like these stickers already'*, and *'I want to use this paper, I already know'*.

Child-initiated themes about phones
Both concepts show that the children themselves are able to come up with **relevant themes** that are related to phones. This is made evident during the collage concept. When asked what the theme 'The other side of the screen' might mean, the children initially name the physical elements of the phone. But the collages that the children made show more abstract themes as well. Further into this Section, we get into the themes identified by the children.

Laughter as an indicator of fun
Eruptions of **laughter** happened multiple times throughout the sessions, but especially during the story concept. The bizarre 'what if…' stories created a lighthearted ambiance, and participants came up with funny twists to their story (see Figure 9), such as a protagonist having to buy size 1000 pants for his 1 meter large phone, and the mayoress of the city having caused an internet outage herself because she wanted to read her book in peace.

Level of engagement and interaction between children and parents
The story concept was tested with parents who also made a story, and with parents who did not. There was a clear difference in involvement; the parents who also made a story were **more attentive** to their children's stories, and the children **engaged** with the parents' stories as well, commenting and giving them suggestions. Thus, for engagement and interaction between parents and children, it is important that children as well as parents are actively involved in the creative process.

Children's need for autonomy and originality
The children really liked getting to choose their **own stories and ideas**. As one parent gave their child a suggestion, the child replied, *'I like my own idea, and I'd like to keep it that way'*. Another participant said: *'I want my own idea, not together'*. This shows that the children found autonomy and originality important.

How do children interpret the theme 'the other side of the screen' in their collages?

Based on the collages the children made and quotes of the children (Figures 22-23).

Literal interpretations
The children initially connect the theme to **physical elements of the phone** and the internet, like the wires, the motherboard, and transmission towers. Some children also mention software and cookies.

Combining literal and representational images
In their collages, the children combine the physical elements with more representational imagery like eyes, a mouth, and text bubbles, which could be interpreted as themes of **communication** and **connection at a distance**. Some children use word stickers like 'magic' and 'hocus pocus', referring to technology as a type of **magic**.

More abstract themes

Some children touch on more abstract themes in their collages, like **surveillance** and the **phone's impact on having a fun life.**

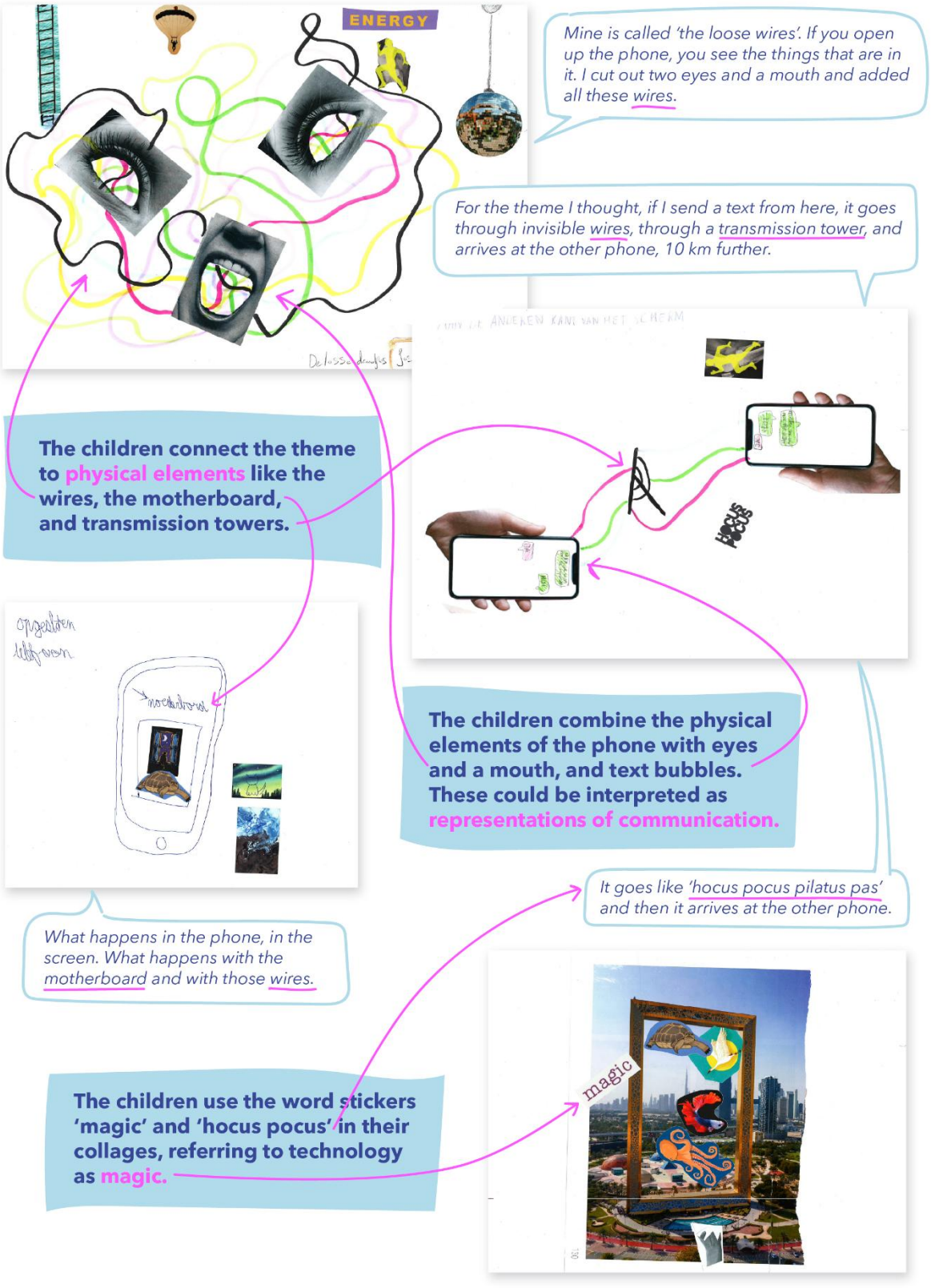


Figure 24 The children's collages and quotes, annotated with interpretations.

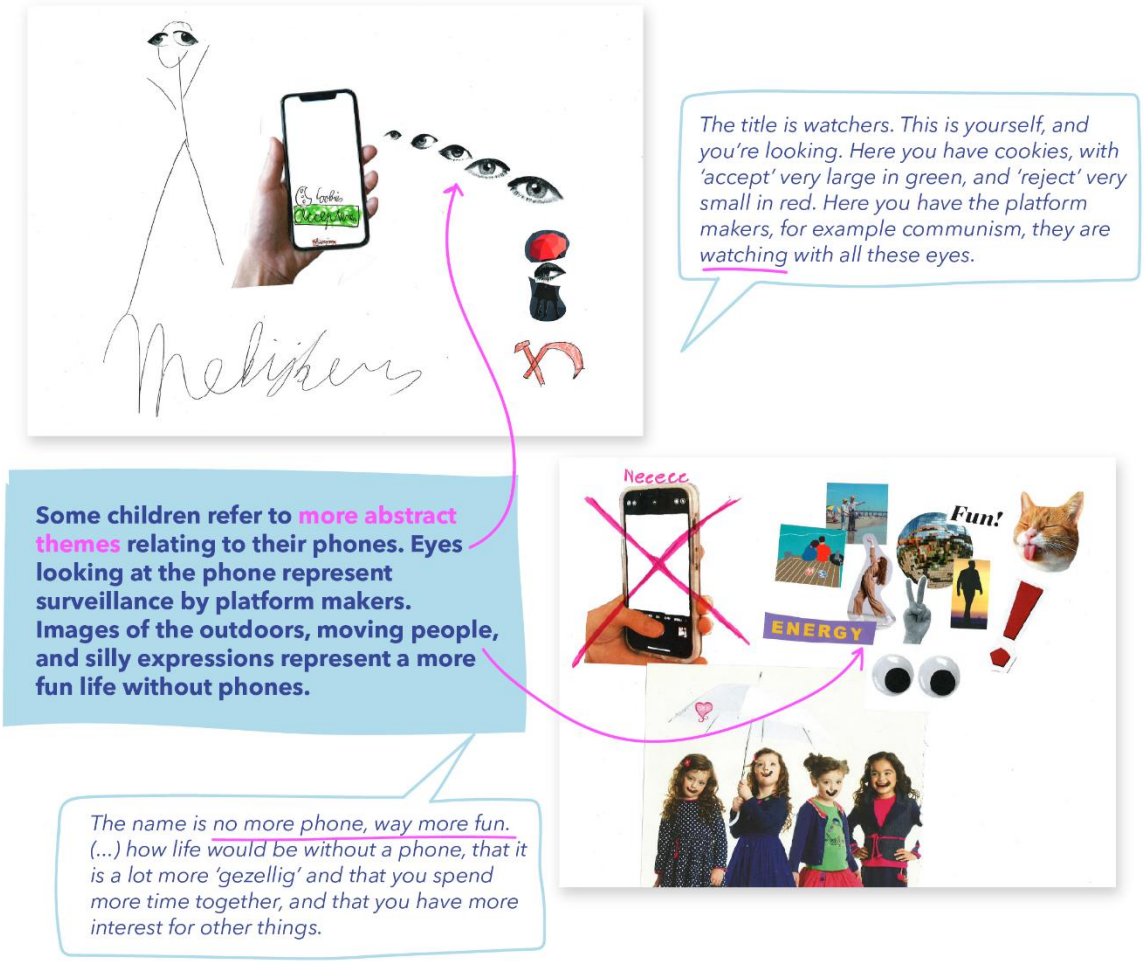


Figure 25 The children's collages and quotes, annotated with interpretations.

What stood out during the story concept?

Based on the stories the children and parents came up with, see Figures 24-25.

Stories close to home
Multiple children chose themselves as the protagonist and at home as the setting of the story. This could mean that it is quite hard to come up with a different character and location. It could also mean that children do not shy away from talking about themselves in a fictional phone-centered scenario.

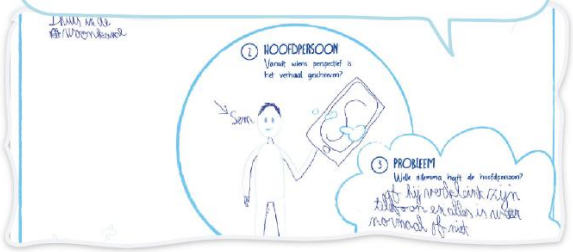
Funny twists and innovative solutions
The children's stories feature funny twists and innovative solutions: some children relied on the invention of new technology to solve their technology-caused problem, coming up with a 'decrease-inator' or consulting fictional inventor Willie Wortel.

Parents' stories and interruptions
The parents' stories are more elaborate, with more room for considerations and extensive consequences. When the parents presented their story, there was more interaction: the children interrupted, offering alternative solutions and remarks.

The children come up with new technology as a solution for their problem caused by technology.

I chose the problem that the phone suddenly becomes 1 meter. (...) Then it became so heavy he dropped it on the ground. He thought, 'oh no, I need pants size 1000 [laughter] and it's going to be too heavy. The solution is that he goes to the smartest inventor in the world, transporting himself to the Donald Duck [childrens comic paper] where Willie Wortel [the inventor] fixes the phone.

In the living room, Sem's phone fell into a well and became 1 meter big. His dilemma is if he decreases his phone and everything is back to normal, or he keeps it this way and he has a super big phone that he has even more fun with. The solution is that he invents the decrease-inator, he decreases his phone and everything is back to normal. The end!

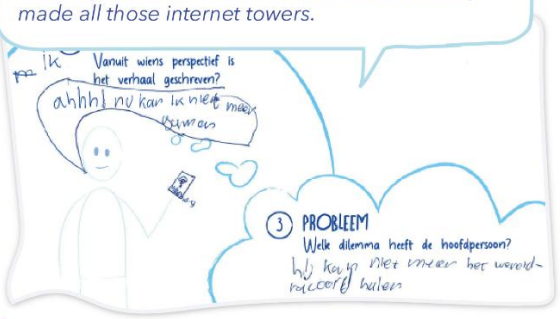


The children come up with funny twists in their story that make the others laugh.

My scenario is that the internet stops working everywhere, and it is set at the city hall. The protagonist is the mayoress, and the dilemma is that the administration is down and people cannot be helped, they can't reach other municipalities to know what the problem is. The solution is that the mayoress gives a speech to the civilians and they reach other municipalites via letters. They also look at the transmission towers but this does not go well because the electricians cannot be paid so they don't feel like looking at the problem. It ends with that there are protests and people are demanding compensation. Finally, it turns out that the mayoress did it herself because she wanted to read a book in peace. [laughter]

At home on the main floor, I am the protagonist. The phone comes alive and starts doing weird things. The solution, she breaks the phone and wants to buy a new one at the store, but she doesn't have enough money. So now she does not have a phone.

The protagonist is me, and there is no internet. The dilemma is that he cannot win the world record gaming. The solution is that he makes internet towers with a nerd [referring to other participant] so he can game again with the nerd. The conclusion is that they became multimillonaires because they made all those internet towers.



The children pick themselves as protagonist and at home as the setting. This implies the children feel safe to involve themselves in a fictional scenario.

It happens in my room, and I chose the dilemma that the phone becomes a real person. They become friends, she's called Zoë. Every time the girl wants to wear different clothing, she draws on the phone, and then 'whop!' she's wearing different clothes. They are having a lot of fun together. In the end, she disappears back into the phone and they stay friends on the phone.

Figure 26 The children's stories: quotes and drawings, annotated with interpretations.

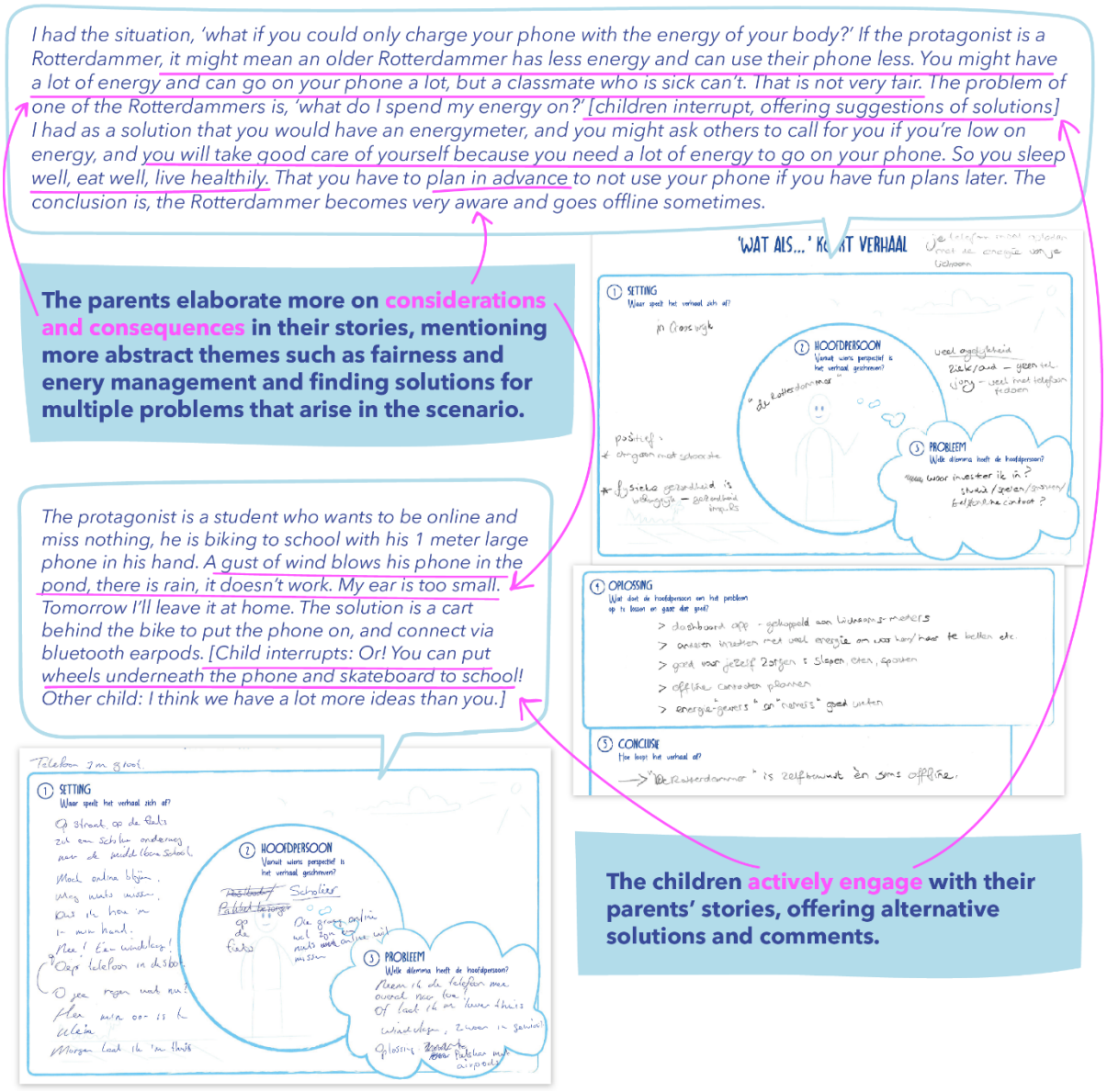


Figure 27 Parents' stories, annotated with interpretations.

Which concept do the participants prefer?

Based on observations, quotes, and the score sheets filled in by participants.

Rejection of the walk concept

Both families test the **story and collage concepts**, and not the walk. The walk does not receive enthusiasm from the children and is also not practical for the time of day, because it is already dark outside at the time of the session. Considering these factors, **the walk concept will not be developed further.**

Rating of concepts

Both concepts had quite high overall scores, but the **collage** concept was rated a bit **higher** (4,47/5 stars) than the story concept (4,08/5 stars). Personal preference about crafting impacted the participants' enthusiasm for the collage concept, with different participants saying they '*love*' and '*don't really like*' crafting. Participants mentioned **creative freedom** as a positive for both concepts, one noting that the story gave them

'room to play', and another that with the collage they could *'use their imagination'*. Some (younger) participants noted that they did find the story activity a bit difficult.

Criteria assessment
The concepts both scored well on statements 1 and 2, *fun to do* and *thinking about phones in a different way,* but scored lower on statement 3, *making it easier to talk about my phone with my parent.* The lower score could be attributed to the fact that the **connection to actual problems** and tensions in the children and parents' **daily lives** is still missing from the concepts. As a parent described: *'It is about the future/fiction, and less about now (and how you handle your phone today)'*.

5.4 Conclusions from the analysis

The test sessions showed that the story and collage concepts succeeded in **sparking a different conversation** about phones than usual. Where usual conversations are often functional, corrective, or conflict-driven, the tested concepts created **a positive, creative, and safe ambiance**. This is confirmed by the laughter, pride, and engagement observed during the session.

Several differences between the concepts could be identified. The collage activity **empowered children** by letting them choose their own interpretation of the theme and lead the narrative when presenting their collages. On the downside, the engagement and enjoyment of the activity were dependent on the children's affinity for crafting. The story concept created the **most active engagement** when both children and parents participated in writing, responding to each other's ideas, and giving suggestions. However, for some younger children, the story activity was more cognitively challenging.

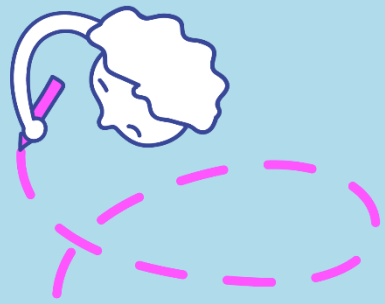
What is still missing from the concepts is the **connection to the real-life situations** and frustrations that parents would like to see improved. The relaxed atmosphere that is successfully created by the concepts can be an **opportunity** for directing the conversation towards tackling everyday frustrations and conflicts.

5.5 Design implications

The analysis yields the following design implications. The next iteration of the concept will incorporate the **creative and playful elements** of the tested concepts that successfully fostered positivity, safety, and creativity, namely the **bizarre phone-centered scenarios** and a format in which **both children and parents are actively involved** in the creative process.

Adjustments are needed in the new iteration to make the storymaking activity easier and **understandable for even the youngest children**. Furthermore, the format will be adapted to encourage even more interaction between children and parents, and to **not require a facilitator**.

What should be added to the concept is an activity that **bridges the gap to reality** and facilitates constructive discussions **about real, everyday frustrations**. The themes of this part should relate to the fictional scenarios to ensure a natural flow in the activities.



Chapter 6. Second concept iteration

The second design cycle, including the design of the game FoonFabels.

6. SECOND CONCEPT ITERATION

The design implications from the generative test sessions led to the refinement of the design criteria and the selection and development of the second concept iteration: FoonFabels ('Phone Fables'). It is a more game-like version of the 'What if…' short story concept, and functions without a facilitator. Instead of a facilitator, there is a guiding booklet that explains the game in simple language and images. Below is a description of the game materials, the themes, stories, and questions featured, and the gameplay.

6.1 Refined design criteria

The generative test session led to a refinement of the design criteria. It led to some additional new criteria, as well as the merging and scrapping of some old criteria.

From the old design criteria (Section 4.2), criteria 2 and 8 were merged. Criteria 3 and 4 are replaced by new criteria, since criterion 3 feels redundant, since it will be achieved when criterion 2 is achieved. Criterion 4 is an embedded solution and not actually a criterion.

The new criteria are as follows. The design should:

- (1) offer a '**hook**' that incites conversation naturally.
- (2) offer an **approach** to the conversation that incites reflection about the influence of smartphones on daily interactions and own lived experiences. *(merged 2 and 8)*
- (3) speak for itself, **not requiring a facilitator**. *(NEW)*
- (4**) bridge the gap** from fictional fantasizing to reflecting on reality. *(NEW)*
- (5) be engaging, colorful and **fun**, fitting in the world of children.
- (6) **equalize** the dynamic between children and parents, learning from each other.
- (7) create a positive and **constructive** atmosphere.

6.2 The game materials

The game consists of three decks of cards: the blue deck containing six story cards, the pink deck containing six question cards, and the light blue deck containing sixteen surprise element cards. Furthermore, there are four two-sided whiteboards, four whiteboard markers with an eraser, and a 5-minute hourglass. Not pictured in Figure 26 is the guiding booklet (see Appendix E) that contains the instructions to the game in simple language and with pictures. Figures 26 and 29-33 are taken from the guiding booklet.

Figure 28. The materials of the game. Not pictured: the guiding booklet.

6.3 Description of the gameplay

Below is the gameplay of FoonFabels, with images from the guiding booklet.

Step 1: Drawing a story card and a surprise element card.
The youngest player draws a blue story card, reads it aloud, and lays it open on the middle of the table. This card counts for all the players in the game. The story card contains the start of a story, including a protagonist, a setting, and a problem.

Each player draws their own surprise element card. The surprise element cards contain a physical object that must be included in their story, such as a book, a flashlight, or a paperclip.

Figure 29. Step 1, drawing a story card and surprise element card.

Step 2: Writing how the story continues.

Everyone gets a whiteboard with a template on it to draw and write what the protagonist does to solve the problem, and how that goes (on the left side of the whiteboard). For this, they have 5 minutes as indicated by an hourglass.

Figure 30. Step 2, writing how the story continues on the whiteboard.

Step 3: Finishing your neighbor's story and presenting.

After step 2, the players give their whiteboard to the person on their right. Everyone reads what the previous player wrote and writes a continuation and an end (on the right side of the whiteboard). After 5 minutes, everyone presents the story from beginning to end.

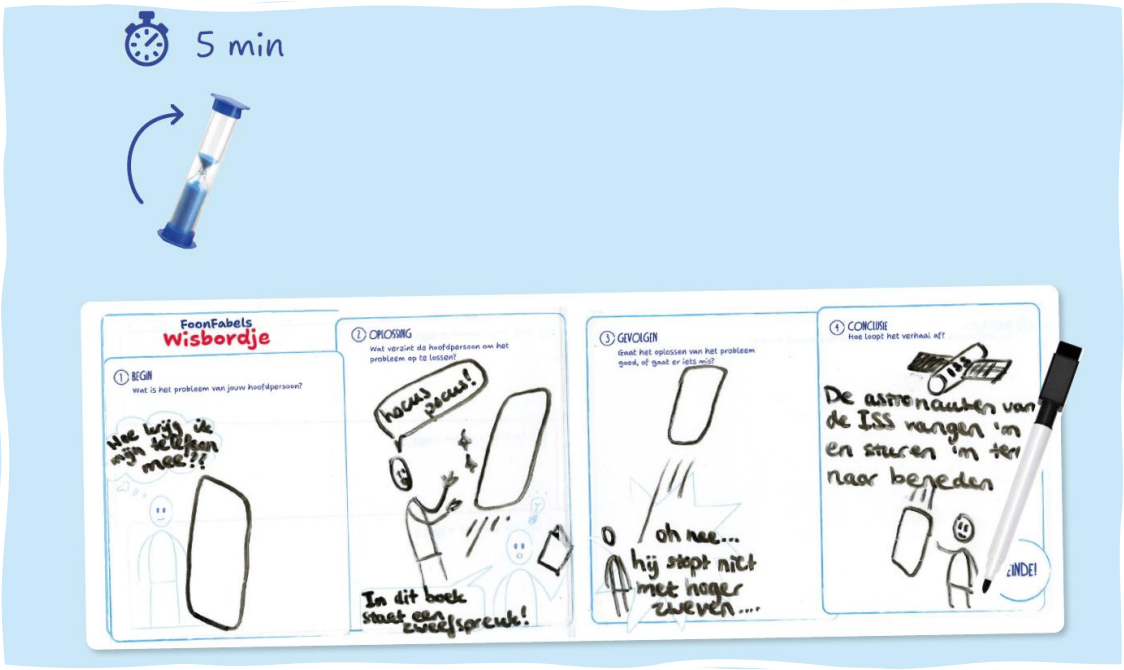


Figure 31. Step 3, finishing your neighbor's story.

Step 3: Back to reality.

Next, the whiteboards are flipped to the 'reality' side. Does something from the story also happen in real life? How would you solve that situation if it happened to you?

Figure 32. Applying the stories to reality on the backside of the whiteboard.

Step 4: Question cards.
Lastly, to every story card belongs a question card with three questions. These can be found by looking at the matching illustration on the back of the cards. One player reads aloud the first question on the card, and then the players take turns answering the question, from youngest to oldest player. This is repeated for the second and third questions.

Figure 33. Step 4, reading and discussing the questions on the question card corresponding to the story.

6.4 The themes, story cards, and question cards

Pulling from all the previous research (desk research, interviews, generative test sessions), relevant phone-related topics were identified and bundled into six themes. The themes are:

- Screentime, parents as role models
- Consent to checking phones by parents
- Phones distracting attention from real life and people
- Balancing time spent on apps
- A fun life without phones
- Unequal phone rules among peers

To each of these themes belongs a story and three questions (see Figures 32-33). The story introduces the topic in a fun and fictional way. The questions refer back to the story and prompt the players to reflect on the themes. The third question on every card is a future-forward question, aimed at prompting the players to consider future behavior and intentions.

Screentime, parents as role models

This theme is about children having phone rules such as a screentime limit, and how those rules often do not count for parents themselves.

Story

Amber has an app that limits her phone use to just one hour a day.

The app just got an update: now her parents are also limited to one hour of screen time! Her mom calls Amber to ask if she can have more screen time. Amber can use this to her advantage...

What does Amber's mom need to do to get more screen time?

Questions

Do you have any phone rules at home? If so, what are they?

Amber's parents suddenly have just as much screentime as she does. Should parents also have screen time? Why?

If you could change one thing about the phone rules, what would it be?

Consent to checking phones by parents

This theme is about privacy and about how some parents check their child's phone without their consent.

Story

Klaas's parents want to know what kind of messages he's received on his phone.

Once Klaas is already in bed, his father picks up his phone. But when he turns it on, it suddenly starts vibrating and beeping. The following message appears on the screen: "To unlock this phone, you must first complete a task..."

What task must Klaas's father complete in order to look at his phone?

Questions

What things on your phone would you rather keep to yourself, and what things are okay for others to see?

Klaas's dad wants to look at his phone. When is it okay for parents to look at their child's phone, and when isn't it?

What kind of rules would you like to have about looking at each other's phones?

Phones distracting attention from real life and people

This theme is about phones distracting attention from real life and people, and so also about feeling ignored by someone who is on their phone.

Story

Bibi has plans to meet her neighbor at his house this afternoon.

Just before they were about to meet, Bibi receives a strange message from him: "Help, I'm stuck in my game." When Bibi walks into her neighbor's room and says hi, he doesn't answer. He doesn't even seem to hear her.

What's going on? What will Bibi do?

Questions

Bibi's neighbor is so engrossed in his game that he doesn't hear Bibi. Have you ever had someone so absorbed in their phone that they didn't notice you?

Do you ever find yourself not hearing someone when you're on your phone?

What could you say to someone if you notice they're not paying attention to you because of their phone?

Figure 34 The first three themes in light blue with the subsequent blue story cards and pink question cards.

Balancing time spent on apps

This theme is about time management, about spending more time on apps than you initially planned.

Story

Milan wants to download a new video app, but first he has to ask his parents for permission. His mom takes his phone and says she wants to try out the app herself first.

An hour later, Milan still doesn't have his phone back; his mom has been scrolling through it for an hour...

How will Milan get his phone back?

Questions

Milan's mom can't stop scrolling through Milan's new app. Why do you think some apps are so addictive?

Do you sometimes spend more time on an app than you'd like to?

What could you do to strike a better balance between your online life and your "real" life?

A fun life without phones

This theme is about having fun without phones and how your phone influences your enjoyment of life.

Story

Robert and Isa had planned to get together on a rainy Sunday to play video games.

But when they're ready to start, the game console won't turn on. The tablet and their phones aren't working either. It turns out the mayor has declared a "digital-free Sunday" for the entire city!

What will Robert and Isa come up with to have a fun day anyway?

Questions

When was the last time you did something really fun and didn't miss your phone at all?

Are there situations where your phone takes away from your enjoyment?

What kinds of moments could you make phone-free?

Unequal phone rules among peers

This theme is about unequal phone rules at home compared to those of peers.

Story

Lola checks her phone during the lunch break.

Suddenly, she gets a notification from her screentime app: "Click here to get 1 hour of screentime from Bas." She clicks on it, and Bas gets a notification: "You now have 1 hour less screen time."

Apparently, she can steal her classmates' screentime! What will Lola do with this new feature?

Questions

Do your classmates have the same screentime limit as you do?

Why do you think other families have different phone rules?

What could we try to make the phone rules a better fit for our family?

Figure 35. The 4th, 5th and 6th themes in light blue with the subsequent blue story cards and pink question cards.

6.5 How does FoonFabels aim to fulfill the criteria?

The design of this new iteration was guided by the refined design criteria (see Section 7.1, page 44). Below is an overview of how the particular elements of the designed concept aim to fulfill those requirements.

Guiding booklet

Instead of a facilitator, a game manual called the guiding booklet takes the players through the game step by step in easily understandable language and images. Thus, a facilitator is not required (criterion 3).

Stories

The stories are about fictional, relatable characters that deal with real-life themes in a bizarre way. This combination allows for touching on realistic, everyday situations and frustrations that occur between children and parents (criterion 2, 'approach'), while keeping those themes at a safe distance from the children themselves by being fictional and bizarre. The bizarre aspect of the scenarios, as well as having to incorporate the random 'surprise element' object, leads to different unexpected solutions. This bizarreness and unexpectedness contribute to the enjoyment of the game (criterion 5, 'fun'). Furthermore, the stories try to subvert negative stereotypes by switching roles between parents and children (criterion 6, 'equalize'), for example, Milan's mom who cannot stop scrolling, and Lola who has power over her parents' screen time limit.

Whiteboard

The whiteboards' function is, aside from offering structure for further elaboration of the stories, to bridge the gap between fiction and reality (criterion 4). On the back of the whiteboard, the 'in reality' part is meant for the players to connect the fictional stories to whether these things could happen in real life. The 'questions' part is meant for players to write down the answers to the questions on the question card.

Questions

The questions on the question cards aim to bridge the gap between fiction and reality by referring to the topics that are touched on by the stories. The questions are targeted at relating the fictional stories or themes to the player's own lives. The formulation of the questions is applicable to both children and parents. Thus, the questions aim to fulfill criteria 1, 'hook', 2, 'approach', and 4, 'bridge the gap'.

The players are instructed to answer the questions one by one, from the youngest to the oldest player. This gives the children the room to voice their opinions without being confined by their parents' answers, contributing to criterion 6, 'equalize'.

The third question on each question card is future-forward: focused on what kind of action the players could take to have a more desirable situation in the future, fitting in with criterion 7, 'constructive'.

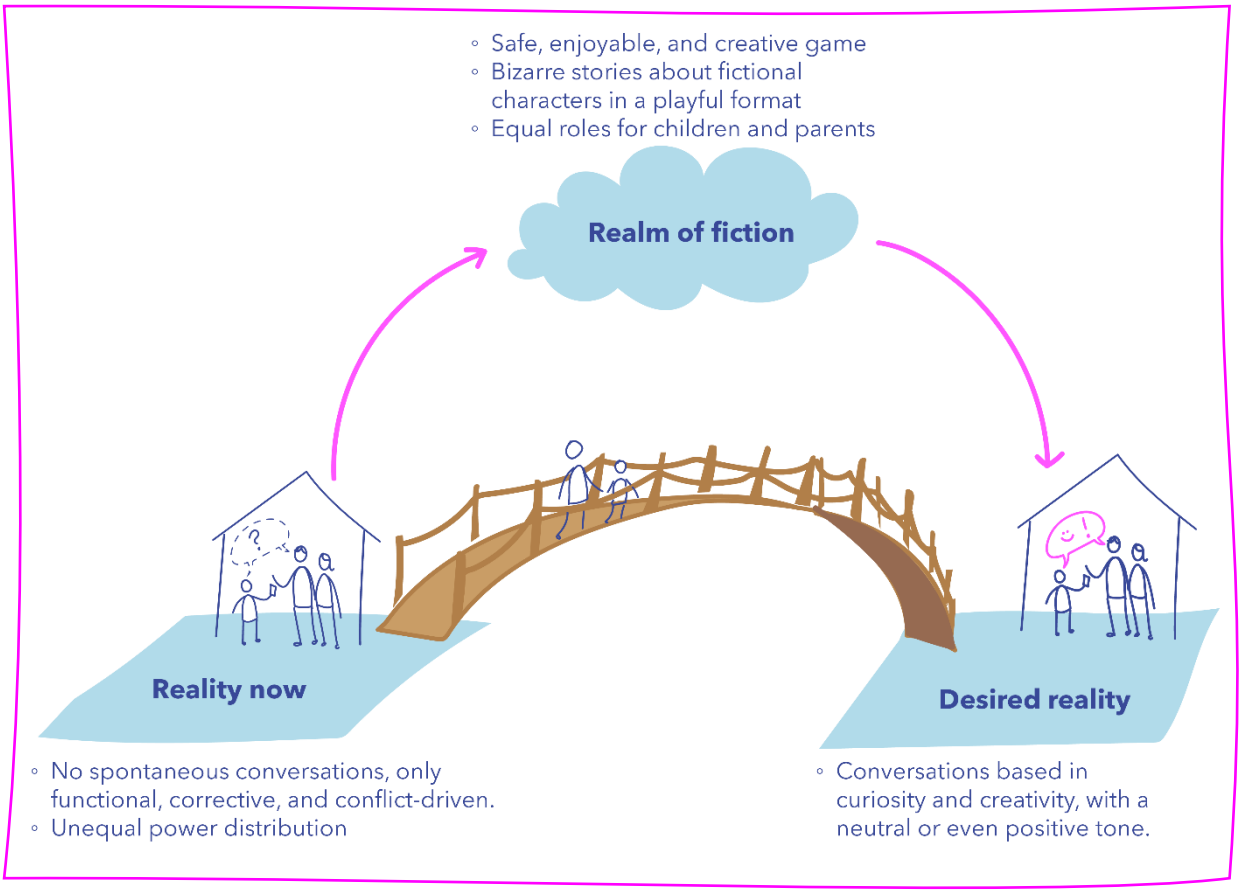
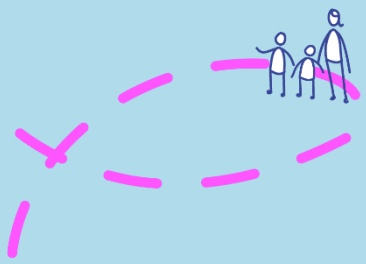


Figure 36. Visual showing the move from reality, to fiction, to desired reality.

Figure 34 shows the (intended) working principle that makes the conversations between children and parents about smartphones feel safer and more constructive. Because the game features fictional stories in a creative activity, the players are in a more open-minded mindset. After having established this safe, equal, and creative environment, the game touches on the themes in the stories, providing a safe bridge towards relevant topics in a constructive way.



Chapter 7. Second test round

The testing phase of the second design cycle.

7. SECOND TEST ROUND

7.1 Methodology test round second iteration

The test session of the second iteration was conducted to assess the game on intended interaction qualities, clarity, and ease of use of the game and manual. See Appendix H for the test plan and consent form. The session consisted of an evaluative user test and a brief interview afterwards. The findings were used to inform refinements towards the third and final iteration of the concept.

The test was conducted with a family of four: two parents and two children aged 9 and 12, of whom the youngest did not own a smartphone. It took place at the dining table in the family's home to ensure a natural and familiar environment. It was a semi-moderated session where the participants tried out the game and manual independently, with the researcher observing and only interfering during significant confusion or wrong steps. After the gameplay, a semi-structured interview was conducted with the participants.

Data was collected through an audio recording during the session, note-taking on an observation form, and photos of key moments. This data was collected to identify indicators of the intended interaction qualities of creative flow and enjoyment, and to capture the dynamic between participants. Moments of confusion or hesitation were also noted, relating to the clarity and understanding of the game's steps and materials. The interview served to confirm the participants' enjoyment and ease of understanding of the steps of the game and to inform them about their experience with the discussion segment of the game.

The data was analyzed by combining the observational notes with quotes from the transcribed audio recording and annotating photos, resulting in interpretations and conclusions on the enjoyment and understandability of the game, and the dynamic between the participants.

The steps of the game were broken down into tasks as follows. This structure was used for section 8.2, the observations and conclusions of the user test.

Start of the game
- Reading the guiding booklet
- Picking and reading a story card
- Drawing a surprise element card
- Handing out whiteboards and markers

Writing the stories
- Filling in the first part (consequences) on the whiteboard
- Transferring the stories and whiteboards
- Filling in the second part (ending) on the whiteboard
- Presenting the stories

Applying stories to reality
- Filling in the 'in reality' part of the whiteboard

Question card
- Picking the question card
- Discussing the questions

7.2 Observations during the test session

Anonymized photos, photos of the materials filled in by participants, and observation notes were combined and summarized below (see Appendix I for the complete filled-in observation form).

Start of the game

Participants read and understood the instructions in the guiding booklet quickly. The rules at the start of the booklet create a respectful but perhaps a bit too serious atmosphere, since the children were not behaving very outgoing and expressive during the game.

The youngest player reads the story card easily. The surprise element cards make the participants smile. The names of the cards all start with a V ('verhaal-, verrassingselement- & vragenkaartje'), which for a moment confused one participant. However, the cards were visually different enough from each other that this was not problematic for the gameplay.

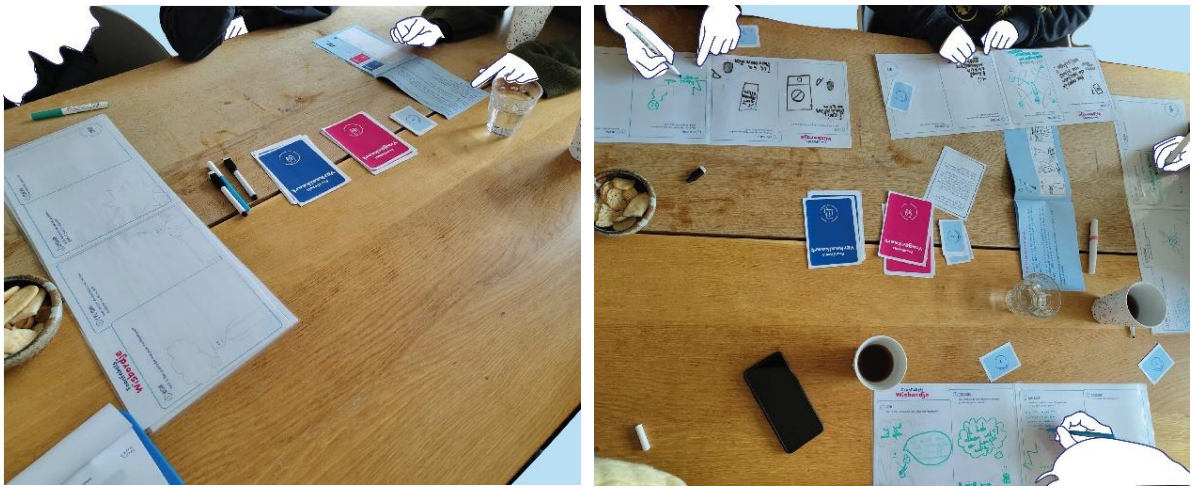


Figure 37. One of the parents reads out the instructions on the booklet. The participants immediately get to work drawing and writing.

Writing the stories

When it was time to write and draw on the whiteboards, the participants got started immediately, rushed by the time limit of five minutes. Confusion arose about which boxes on the template should be filled in, filling in only the first box instead of the first two boxes. One player noted some confusion about needing to fill in 'the problem' on the template because the problem was already in the story card.

Passing on the stories was chaotic: the participants were confused about which story they were supposed to tell their neighbor, and the participants were talking simultaneously. After an additional explanation on how to proceed by the researcher, the participants enjoyed finishing each other's stories and presenting, laughing at each other's drawings, and making remarks.

The surprise element cards added hilarity to the stories, see Figure 35: characters having to eat books while being allergic to them, having to balance an ice cream cone on their head while taking a selfie, and having to swing four hula hoops at the same time.

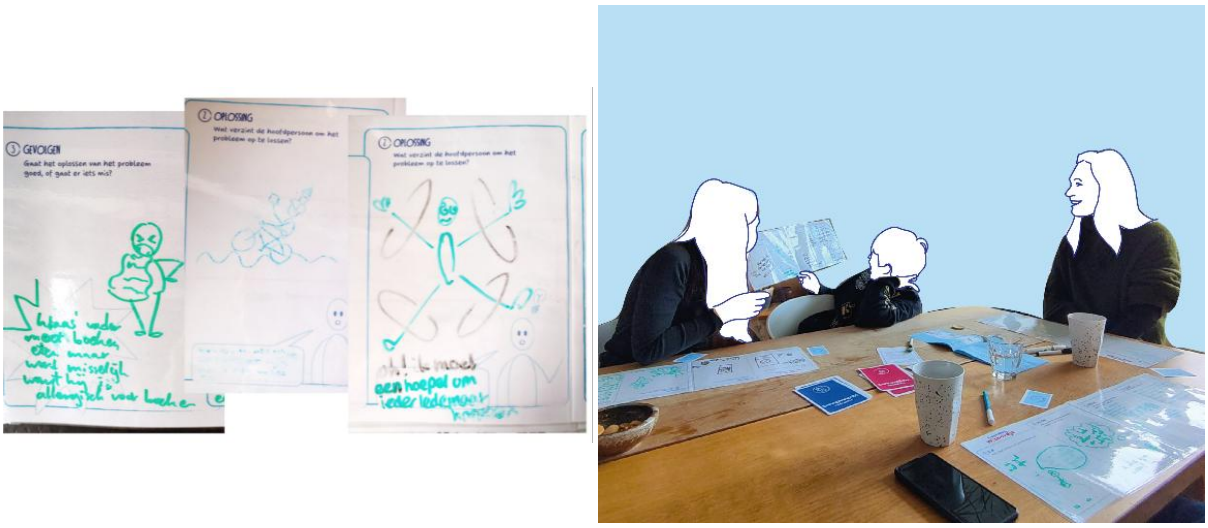


Figure 38. The participants' funny drawings and twists in the story. One of the parents smiling while their child presents their story, holding up the whiteboard.

Applying the stories to reality

The 'reality' step did not work well: the stories were too bizarre to be able to relate easily to real life, and this step might have required too much abstract thinking. Furthermore, this step was not discussed in the group, not contributing to the group's mutual understanding.

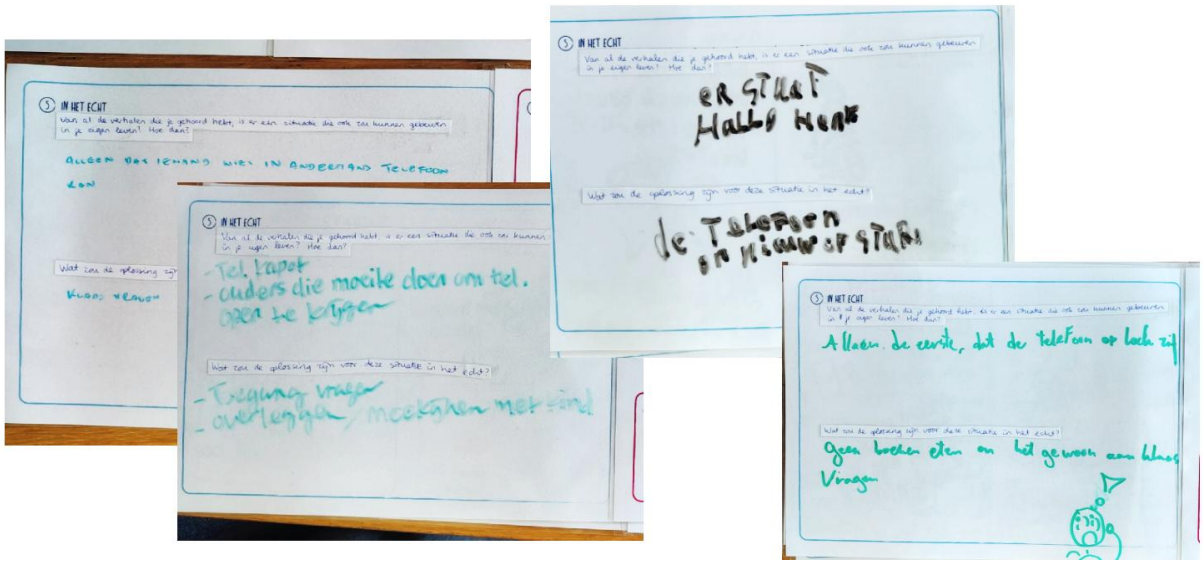


Figure 39. Sparsely filled in 'reality' boxes.

Question card

Even though the participants had not noticed the corresponding illustrations on the story cards and question cards before, the participants had no trouble finding the question card that corresponded to their story card. Everyone was able to speak during this round, and the rule of answering from youngest to eldest player worked well to ensure the parents' answers did not influence the children's answers. The youngest player struggled to answer some questions since he did not have a smartphone yet.

On the whiteboard, there was room to write down the answers to the questions in the pink boxes. The players were told they could choose whether they wanted to write down the answers or only discuss them verbally. The players did not write down the answers, confirming this part of the whiteboard as redundant.

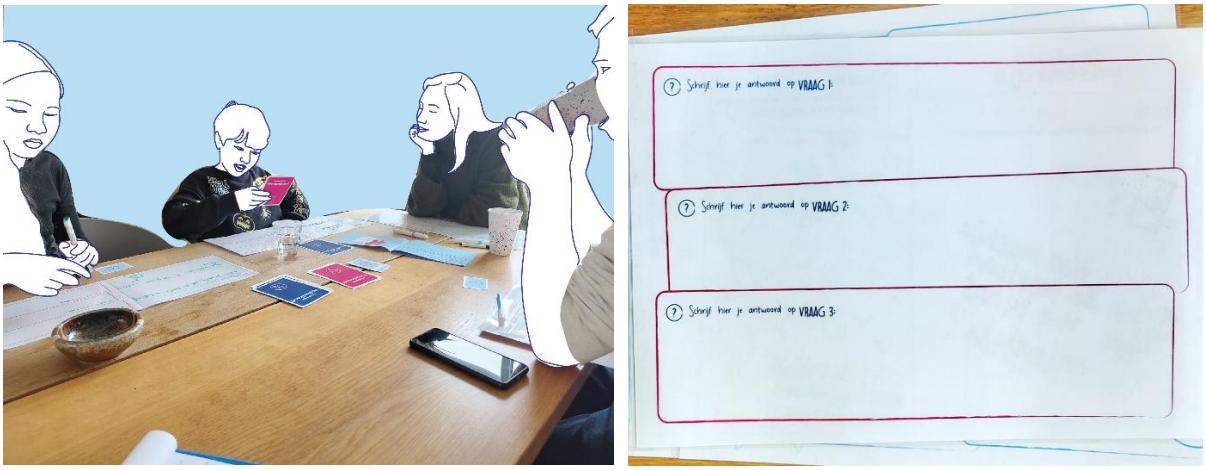


Figure 40. The youngest participant reading the questions out loud, the rest of the family listening. The pink question boxes remained unfilled.

7.3 Design implications for the third iteration

The test session shows that there is room for some changes in the third iteration of the concept:

- The formulation of the rules at the start of the guiding booklet will be changed to ensure that the ambiance during the game stays respectful without becoming too serious.
- The whiteboards will be adjusted to avoid any confusion about which boxes of the template to fill in during which step.
- The instructions in the booklet for passing on the whiteboards will be made clearer.
- The 'reality' part will be removed from the gameplay and the whiteboard, as well as the pink boxes to write down answers to the questions from the question card.

Chapter 8. Final design

The third and final iteration of FoonFabels.

8. FINAL DESIGN

8.1 Description of the final design

The final design is a refined version of the FoonFabels game. The story cards, question cards, and surprise element cards have remained unchanged, and the booklet has had some tweaks in the text because of the refined whiteboards. The whiteboards have a new and simplified look. The gameplay has been simplified, having removed the 'in reality' step and the option to write down the answers to the question cards.

8.2 Materials

The game materials include a guiding booklet, 3 stacks of cards, including 6 blue cards, 6 pink cards, and 16 small light blue cards, 6 whiteboards, 6 whiteboard markers in various colors, and a 5-minute hourglass. See Appendix J for all the cards, the complete guiding booklet, and the whiteboard design.

Figure 41 Game materials of the final design.

8.3 Gameplay storyboard

How the gameplay works is shown below, for each step showing the guiding booklet pages and the setup of the game on the table.

Setup of the game

The players read the guiding booklet and start the game.

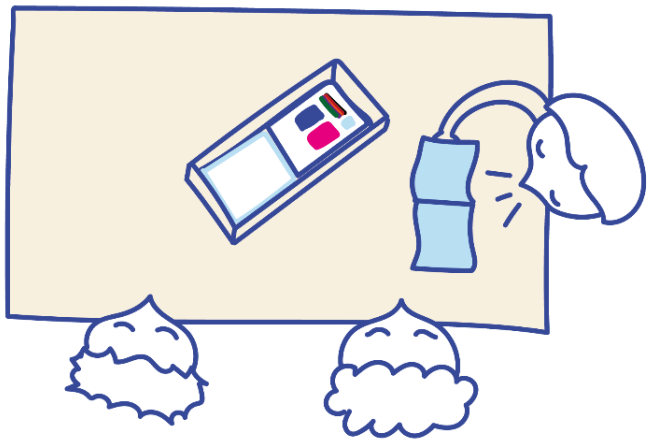


Figure 42. Storyboard visual and corresponding pages of the guiding booklet for the set-up of the game.

The story card and surprise element cards

The youngest player draws a story card and reads it aloud since this card counts for everyone. All players draw their own surprise element card.

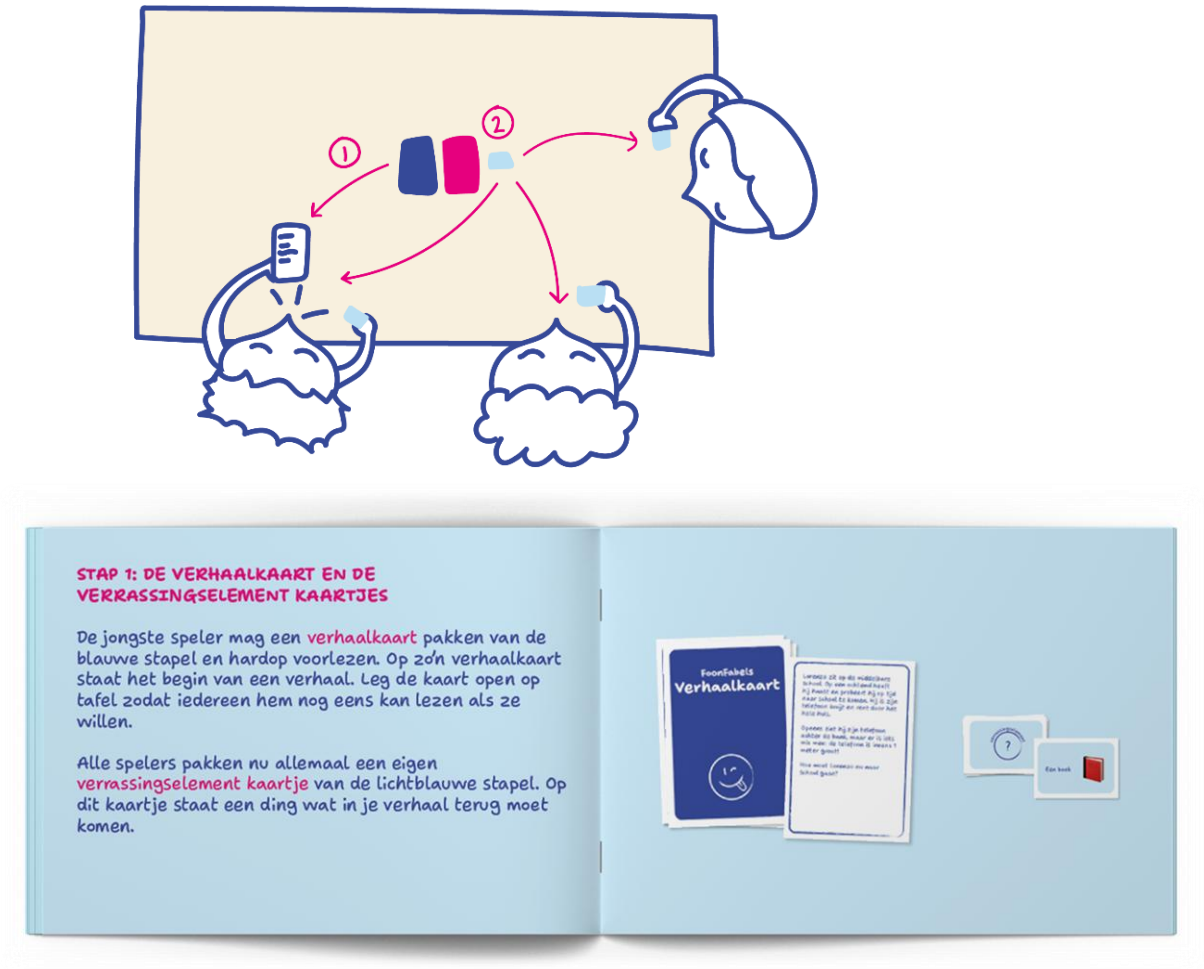


Figure 43. Storyboard visual and corresponding pages of the guiding booklet for step 1.

Continuing the story on the whiteboard

The players all get a whiteboard and a marker and get five minutes to draw and write how the story continues on the dark blue side of the whiteboard.

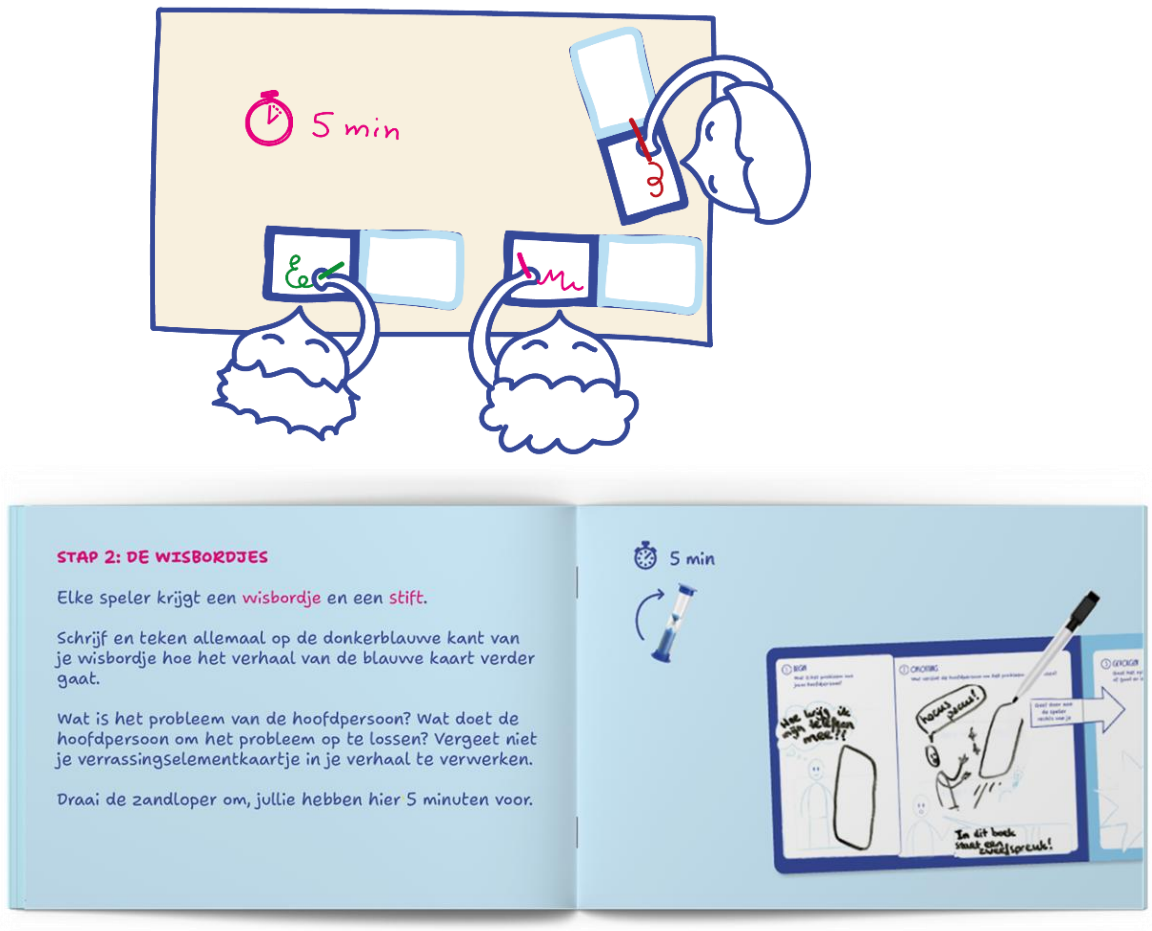


Figure 44. Storyboard visual and corresponding pages of the guiding booklet for step 2.

Presenting and passing on the whiteboards

The players each present how they continued the story on the dark blue part of the whiteboard. Then they pass on their whiteboard to the player on their right.

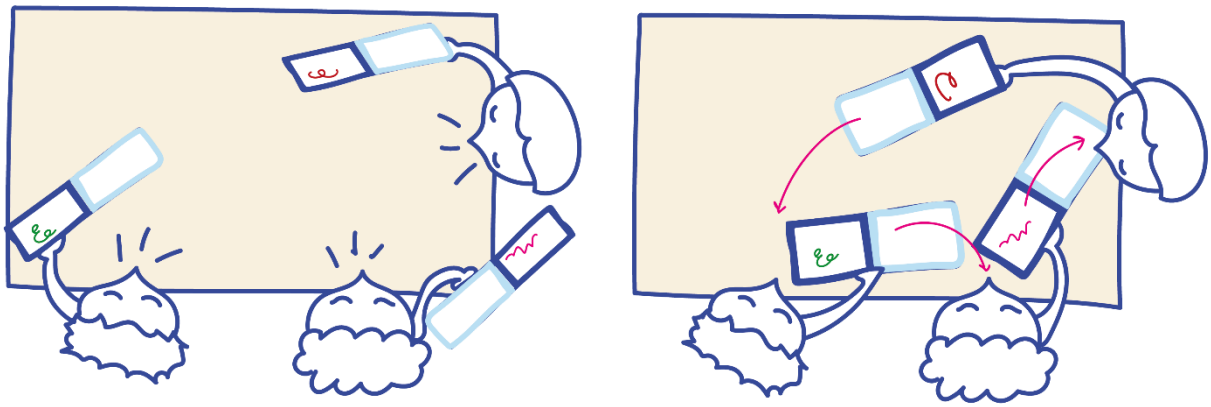


Figure 45. Storyboard visual for presenting the whiteboards and passing the whiteboards on.

Finishing your neighbor's story and presenting

The players get the whiteboard from the player on their left, and they draw and write an ending to that story in 5 minutes. Then, all players present their stories from beginning to end.

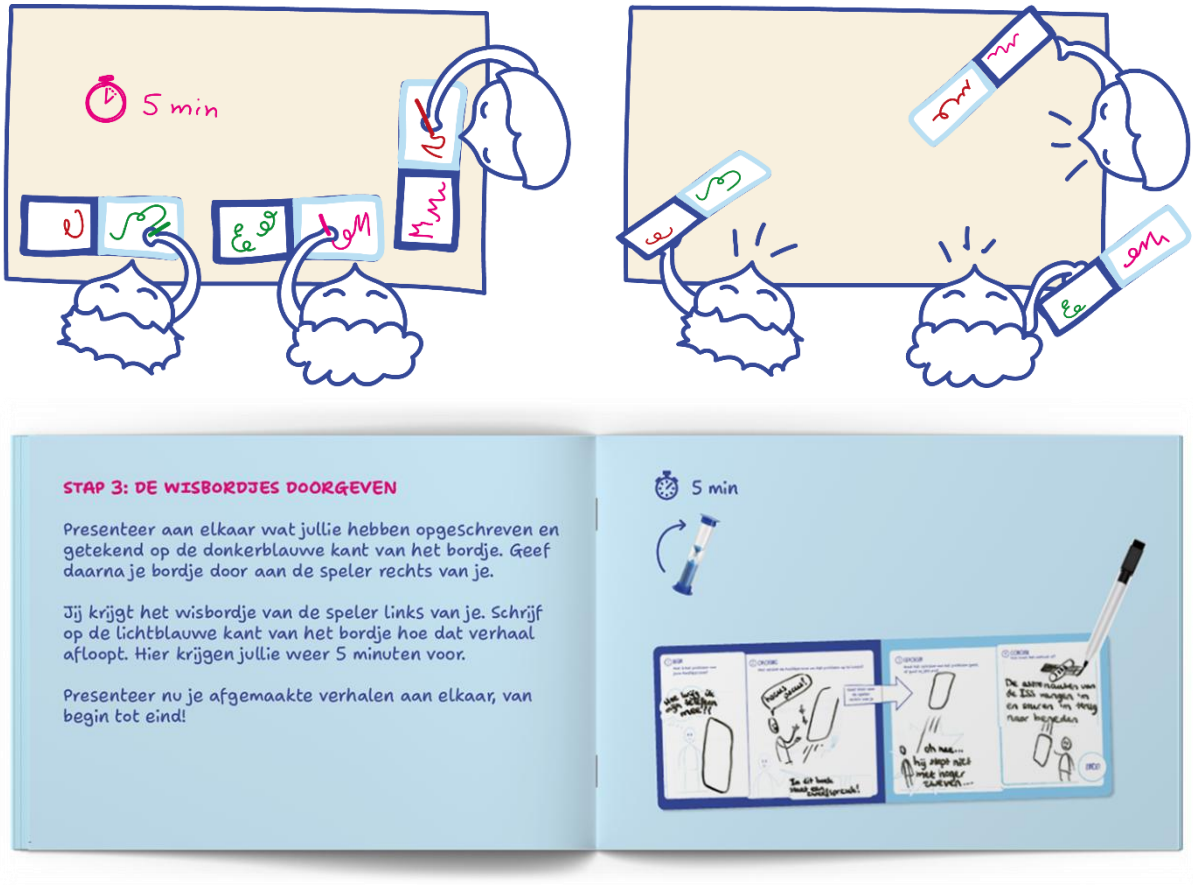


Figure 46. Storyboard visual and corresponding pages of the guiding booklet for step 3.

Discussing the questions on the question card.

The players find the question card that corresponds to their story card, which has the same illustration on the back of the card. Each question on the card first gets read aloud, and then the players answer the question from youngest to oldest player.

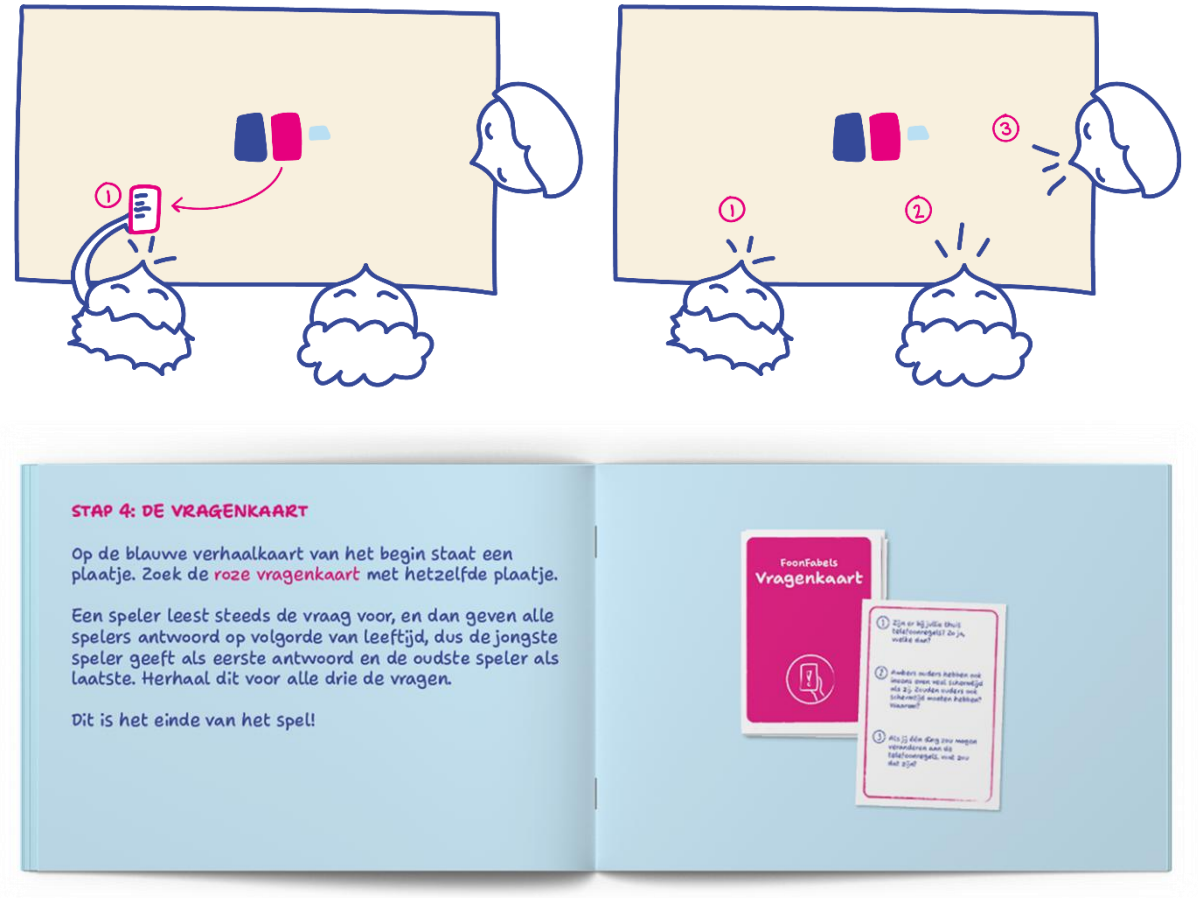


Figure 47. Storyboard visual and corresponding pages of the guiding booklet for step 4.

8.4 Additional adjustments: colorway and blank cards

A few minor adjustments were made to the game that were not counted as a new iteration because it did not impact the gameplay.

The **color scheme** has been adjusted to more harmonious colors, inspired by the illustration that was made to go on the first page of the guiding booklet and on the front of the box containing the game. Instead of a bright pink, the light and dark blue are combined with a more subdued orange.

The **illustration** features a parent and a child in a doorway, on the brink of exploring the world of smartphones. The door is a smartphone from which apps come flying out. The symbols of the apps refer to the stories in the game.

The guiding booklet includes an **additional spread** with instructions on how to use the extra **blank cards** that are provided in the game. With the blank cards, the players can add their own story cards, question cards, and surprise element cards.

Figure 48 Mock-ups of the front of the booklet and the spread about the blank cards.

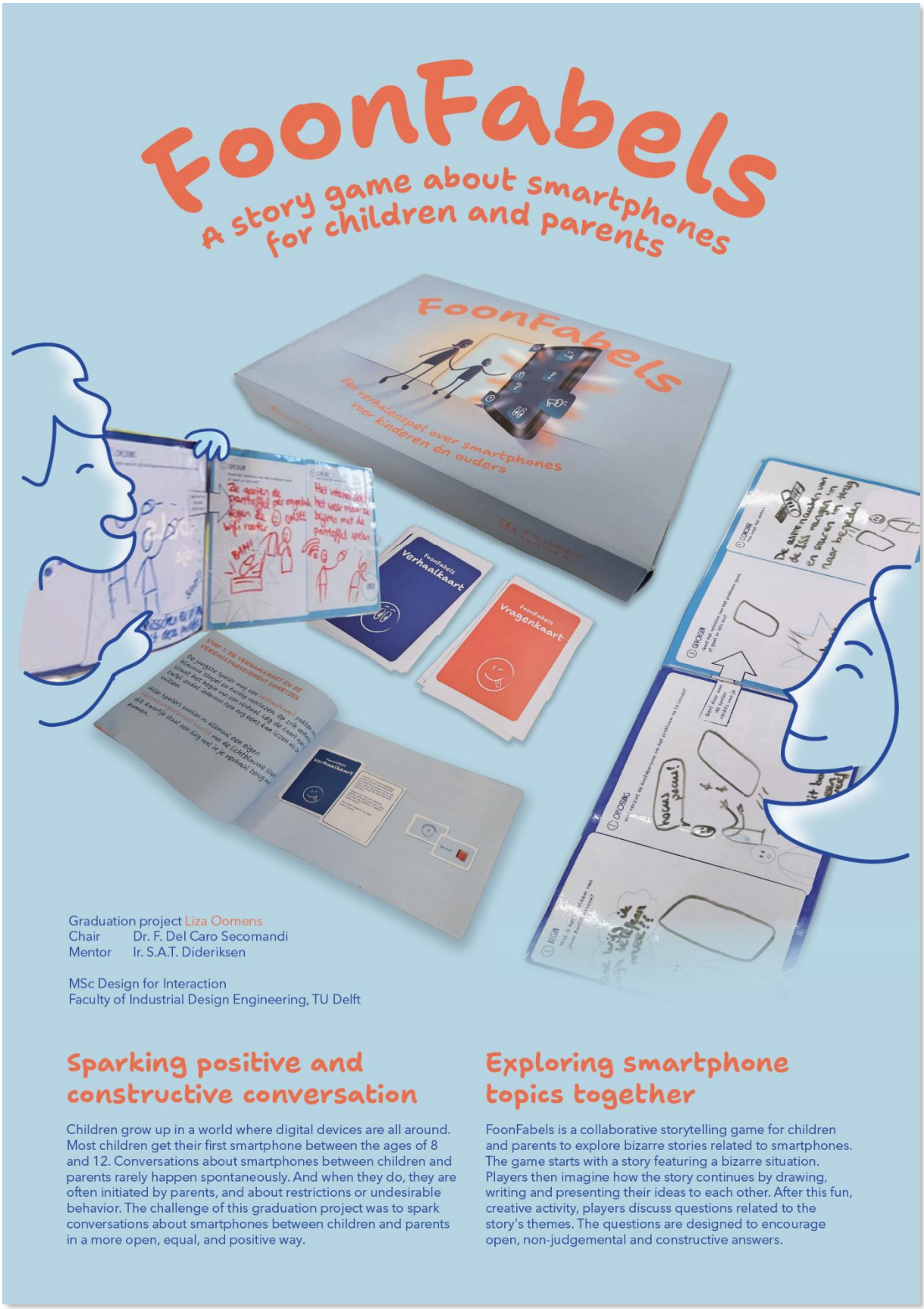


Figure 49 Showcase poster of this graduation project, featuring an illustration of the final design.

Chapter 9. Final validation

Testing the final version of FoonFabels and exploring implementation possibilities.

9. Final validation

9.1 Testing methodology

The final validation tests were conducted to evaluate the final version of FoonFabels. The aim of the tests was to evaluate the game's functioning when played independently by families, and whether the game evoked the intended interactions between players.

The intended interactions were defined as follows:

- Hook and approach: if participants talk and reflect about smartphone related topics differently than usual
- Fun and engaging: if the participants are having fun during the game (smiling, commenting) and getting into a creative flow (drawing and making stories with ease)
- Equal: if all the participants get equal room to speak their minds

Test sessions with three Dutch-speaking families took place. In total, 11 participants took part: two families consisted of two parents and two children, and one family consisted of one parent and two children. All participating children were between 8 and 12 years old, directly matching the intended target group. Recruitment went through personal network. Ethical procedures followed the approved HREC process described in Section 5.2.

The families were asked to test the final prototype of the complete game (see Figure 46): the game manual, story cards, surprise element cards, question cards, whiteboards, markers, and hourglass. The test did not evaluate how families would obtain or access the game (this is tested later on in Section 9.3) but focused on the experience of playing it once the materials were available. Each session took place in the family's own home, around a table, to create a natural setting that resembled the intended context of use.

During each session, the family was asked to try out the game independently, with the researcher observing and taking notes on paper. Intervention only happened when participants skipped a step or did not follow the game manual correctly. The order of play followed the instructions in the manual, testing out a randomly drawn story card and corresponding question card. Each session lasted approximately one hour: a short introduction of five minutes, 30 minutes of gameplay, and a 20-minute interview afterwards. The interview was semi-structured, and the questions were based on the intended interactions (see Appendix for observation forms and interview questions).

Data was collected through observation notes on an observation form, audio recordings, photographs, and a post-test interview. The observation notes were later combined with the interview transcripts and analyzed (Section 9.2).

Figure 50 Final prototype of FoonFabels. Upper: the box containing the game materials, lower: said materials.

9.2 Results and conclusions

The overall functioning of FoonFables

The **game mechanics and instructions** in the guiding booklet were generally **easily understood** by all three families. They were able to play the game, executing almost all the steps independently. Figure 47 shows how well the tasks of the game were performed by families V1, V2, and V3, based on observations. The game generally started up easily and directly, though with a bit of initial chaos. Typically, one player took the lead: the youngest child (V1), an assigned sibling (V3), or a parent (V2), reading the game manual out loud to the group. The rest of the players accepted this role, with one player asking at a certain point during the game, "So, game leader, who may start?" (V1). The whiteboards and markers were quickly distributed among the players, and the picking of the story card and surprise element cards went smoothly and without hesitation. Using the hourglass to time the drawing and writing phases worked well. It helped fast players be patient (V1, V3) and stopped players from overcomplicating their ideas (V2).

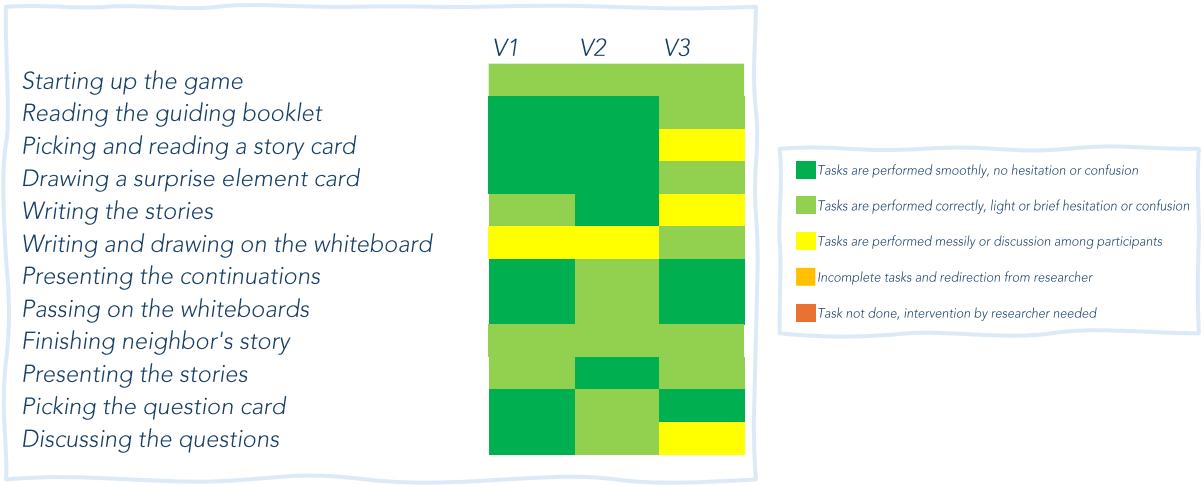


Figure 51 Heat map showing the observed functionality of the game per task in the game for test V1, V2, & V3.

During one session, the children **struggled to understand** the story card (the story about Lola stealing screentime) (V3). In some cases, the youngest child struggled with a question from the question card as well (V1, V2). But after some discussion and **help from parents**, they managed. The structure of answering the questions on the question card one by one from the **youngest player to the oldest** worked, making sure the children **gave their own answers** instead of agreeing with whatever their parents thought.

There were only a few moments when intervention was needed. The **whiteboard** was still the **main source of confusion**: the front and back of the whiteboard were both dark blue, which caused one family to mix them up initially (V1). Another family did not immediately realize that they had to fill in the entire dark blue side containing two boxes, and not just the first box (V2). One family also mentioned getting lost navigating the guiding booklet sometimes: "We were flipping through the booklet a bit" (V3). Some minor practical issues also arose with the whiteboard markers: the thickness made handwriting harder to read and the ink did not wipe off completely with the eraser cap, so the whiteboards were cleaned with a cleaning rag afterwards (V1, V2, V3).

Figure 52 Start-up of the game during test session V1, V2, and V3.

Figure 53 A participant reading the manual out loud (V3). A participant reading the story card out loud (V2).

Sparking conversations with a different approach and tone

Whether FoonFables sparked a **different conversation** about smartphones than usual **depended on participants' familiarity** with the talking about the topic. The participants that already talk about smartphones say they did not really have different conversations: "The same, because I already talk about it" (V2). However, the participants that normally do not talk about smartphones say they do: "Actually I've never had a conversation about it before … it's the first time that I've talked about it so extensively" (V1). The game did **bring up new information** in some cases: "I did hear some new things" (V1), a participant mentioned, and another participant said to their child, "I did not know yet that two-thirds of your class did not have screentime limits" (V3).

The participants also noted a difference in **tone** between their usual interactions and while playing the game, mentioning that the usual conversations about smartphones are "often in a bit of an arguing mode, but this was a bit **friendlier**" (V3). Instead of a confrontational atmosphere, conversations emerged in which they found themselves agreeing more often: "Oh yeah, I do that too" (V1). Another participant said, "It has something lighthearted, and something serious", and agreed that the game struck a nice balance (V2). Additionally, another participant appreciated not only the lighthearted atmosphere itself, but also its effect on making it easier to discuss serious topics: "It's a nice mix between making something funny out of it… and, in doing so, making a **serious topic easier to approach**" (V1).

One family compared FoonFabels to a set of conversation cards about social media that they had had (V1). The parent said to their child, "I have also once bought a game about social media. Those conversation cards, but you were not excited about it", to which the child responded, "This game is just more fun. I found that that other game had a very negative direction. Like for example, this game says, when did you use social media positively or negatively? And the other game says, when is the last time you got into trouble because of social media?", appreciating FoonFabels' more **neutral questions** on the question cards.

Fun and engaging

Several elements of the game contributed to participants' enjoyment during the gameplay. Participants liked being **surprised and challenged**. When asked about their favorite part of the game, one participant said, "drawing cards. I always really enjoy doing that. It makes me really curious" (V2). Another participant said, "I liked the surprise element cards best. It makes you think; what am I supposed to do with this now?" (V3).

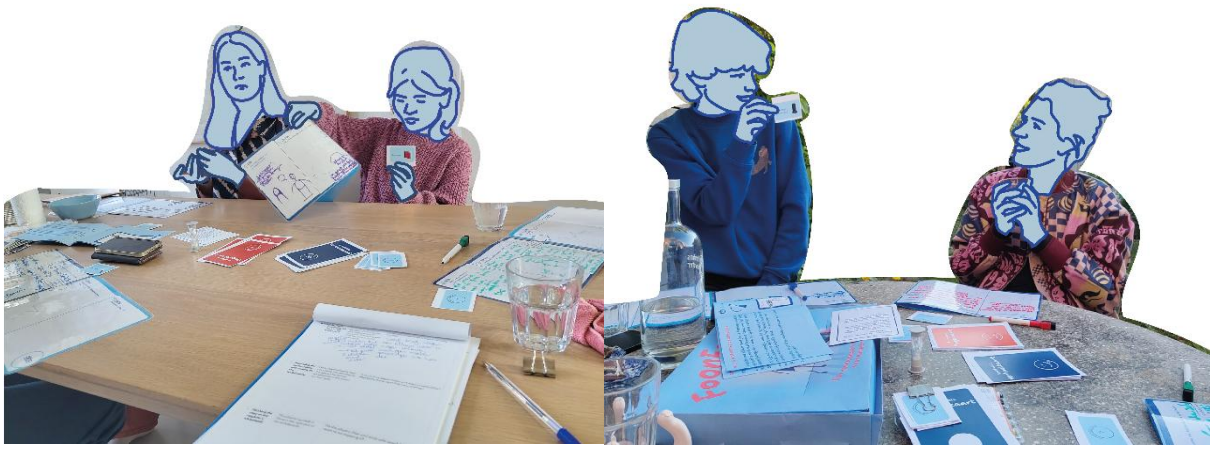


Figure 54 Left: A participant presenting their story and surprise element card (V2). Right: A participant showing their surprise element card, both participants in the image are smiling (V3).

Participants especially valued the **imaginative and open** nature of the game. They liked that it left room for their own input and allowed them to shape the story themselves. As one participant said, "I especially liked the first part. That you could come up with your own ending to the story" (V3). "It's just entertaining and funny... that you can create your own kind of comic strip".

Participants showed appreciation for the **collaborative aspect** and even mentioned **feeling connected**. "I liked this better than the first part … that you finish each other's stories" (V3), "What I like about this is that you take over from the other person. A kind of connecting element", "Yes, that you do it together, very interactive" (V2).

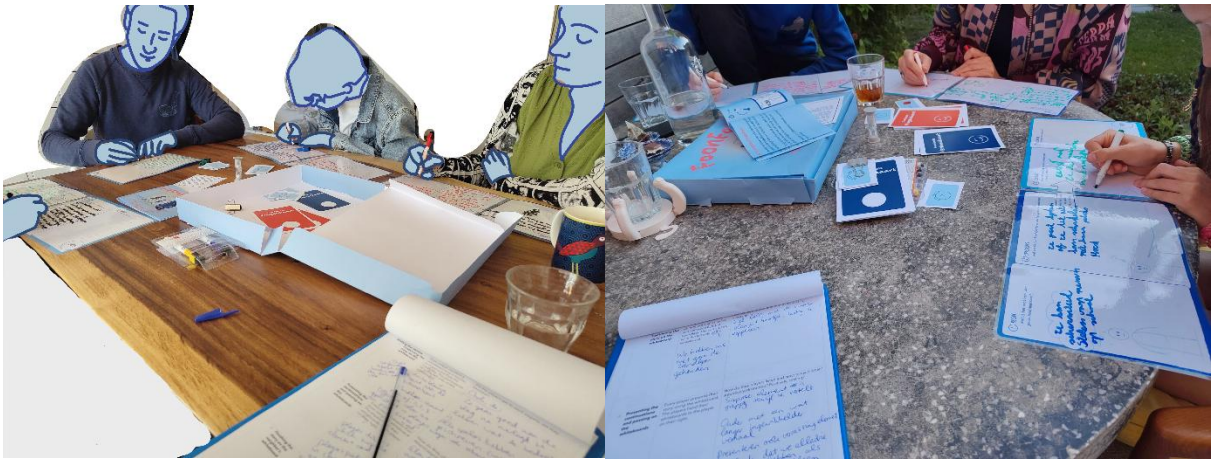


Figure 55 Participants finishing the stories by writing on the whiteboards (V1, V3).

Equal room to speak

FoonFables did create more room to speak, though not simply by making children and parents talk the same amount. Participants noticed that the **conversational structure**, in which the questions are answered one by one from youngest to oldest player, gave everyone **a clearer turn**. One participant said: "I think there is a bit more room for everyone to say their own thing, because there is a structure" (V1). The rule that the youngest player answers first was also recognized as helpful, because it gave children space to **think and answer for themselves** before parents added their perspective.

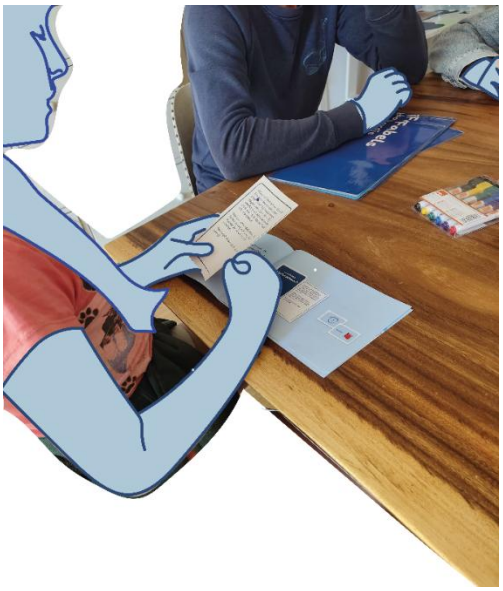


Figure 56 A participant reading the question card out loud (V1).

The game also created a more **calm and intentional moment to talk**. One child said: "We always have room to tell our stories. But mom doesn't when we are on our screens" (V3). A parent described how conversations often happen at inconvenient moments: "When you want to download an app while I'm working, I think: wait until another moment. Or I'm on a call, and then you sometimes have the tendency to push the phone in front of me and say: enter your code. Then I think: no, I first want to hear something else from you. That is not always a convenient moment" (V3). Instead, another participant noted that during the session, they had more room to speak "because we also have all the time" (V2).

The game also revealed a clear difference between children's and parents' contributions. Children more easily created bizarre and imaginative storylines, while parents tended to add realistic explanations, nuance or practical solutions. Because the game **values fantasy and out-of-the-box thinking**, children can contribute in a way that feels natural to them and is taken seriously within the interaction. In this sense, the game has an empowering effect on children. This might be a better way of determining a more equal dynamic between children and parents than having equal room to speak.

Figure 57 A parent showing their elaborate story (V2). A child reading their story out loud and smiling (V3).

9.3 Implementation

In this section, I highlight several implementation scenarios for FoonFabels as it has been developed up until now or with some alterations. Additionally, I researched potential customers' attitudes towards the game if it were a real product with a small survey.

Figure 58 Mock-up of lendable game version: a custom box containing the whiteboards, cards, guiding booklet, markers, and hourglass.

Implementation possibility 1: Physical, reusable, lendable version

The game could be made available for loan in libraries and schools. Figure 58 shows an estimate of the costs for the following scenario: the game is made available for loan in 10 schools or libraries. The material costs per game lie around 60 euros and will decrease with larger quantities.

Game material	Product	Supplier	Items per game	Price for 10 games excl. BTW
Guiding booklet	Brochure A5 landscape 90 g/m^3 silk	PrinterPro	1	€ 37,46
Story and question cards	Cards A6 double-sided	PrinterPro	12	€ 47,31
Surprise element cards	Business cards A7 double sided	PrinterPro	16	€ 25,24
	Shipping cost			€ 7,95
Marker pack	Nobo whiteboard markers 6 colors	bol.com	1	€ 41,10
Whiteboards	Forex 3 mm one-sided 60 x 21 cm rounded corners 1cm	Drukland	6	€ 250,42
Hourglass	Zandloper klein 5 minuten	Eelke Verschuur	1	€ 39,50
	Shipping cost			€ 6,45
Box	Custom printed cardboard box A4 size	Doosje op maat	1	€ 259,00
Total for 10 games				€ 629,66
Per game				**€ 62,97**

Figure 59. Cost estimation of the materials for 10 lendable games.

Possibility 2: Sold (or provided complementary) as a physical game

The game could be brought out as a real, physical game by a company who already offers engaging, playful educational games. For example, Mediajungle offers a boardgame, webapp, and conversation cards with plenty of smartphone topics. Adapted to the jungle theme, FoonFabels could perhaps be an addition to their catalogue. Mediajungle primarily focuses on selling to schools rather than directly to parents.

FoonFabels could also be sold in a conventional toy store. For example, Dutch market leader Intertoys offers a range of educational games so this could be a way to directly sell to parents.

Another option is as a complementary product offered alongside the purchase of a smartphone for children. Dutch telecompany KPN does something similar, offering a complementary membership for the educational app ChatLicense alongside a phone subscription for children.

Lastly, the physical product could also be provided by educational professionals or a speakers with an expertise on children's media education during a workshop or parent evening.

Possibility 3: Open source, free, downloadable, and printable version

Additionally, the game could be made available online, on an open-source basis. It could be spread informally among parents or offered by Dutch institutions providing guidance on raising children, like Netwerk Mediawijsheid or Nederlands Jeugdinstituut (NJi). Additionally, it could be part of a campaign launched by the Dutch government's Ministry of the Internal Affairs and Kingdom Relations: Blijf in Beeld (managed by Netwerk Mediawijsheid, website https://www.jouwkindonline.nl/over-de-campagne-blijf-in-beeld/), that already advocates for keeping an ongoing conversation between children and parents about smartphone use.

Figure 60. Possible institutions to work with.

Figure 61. Mock-up of a printable A4 version of the game.

Another opportunity for the blank cards provided in the game when sharing open-source is the option to share your own extension of stories, surprise objects, and questions with peers or online communities. An interactive PDF with fillable text boxes would be suitable for this.

Desirability research methodology

A short survey was conducted to explore parents' attitudes towards adopting FoonFabels as if it were a real product. The target group was parents of children aged 8 to 12, as they are the expected customers. The survey focused on whether parents would play the game, what value they expected it to have, when and why they would use it, how they would prefer to access it, and how much they would be willing to pay.

The survey was shared by email and WhatsApp with parents who had already been involved in the project. It started with an explanation and walkthrough of the game. Respondents were then asked whether they had children and their children's ages to confirm they were part of the intended target group. This was followed by closed questions, five-point scale questions and open questions. See Appendix L for a copy of the survey. The results were analyzed and summarized to provide some first insights into the aspects researched. Since the survey was answered by only 7 respondents (some of them already involved in the project), it is more of a general first impression than generalizable results.

Perceived value

Overall, parents saw the strongest value of FoonFabels in its ability to start conversations about smartphone use. Six out of seven respondents selected this as a possible value for their family. The same number also expected the game to help them learn more about

their child's perspective. This suggests that parents mainly understand FoonFabels as a conversation tool, rather than only as a game for entertainment.

The survey also suggests that parents positively view the game's potential as a conversation starter. Six out of seven respondents agreed or strongly agreed that the game could help start constructive conversations about smartphones. Most parents also expected that their child would enjoy the activity and that they themselves would enjoy playing it.

Willingness to play

The willingness to actually play the game was more mixed. Two parents said they would be very willing to play it, two were neutral, and three said they would play it "a little". This shows that parents see the value of the concept, but that this does not automatically mean they would frequently choose to play it at home.

The open answers show several reasons why parents would play the game. Some parents mentioned that they often enjoy playing games as a family. Others valued the playful and light way in which the game opens up a serious and current topic. One respondent wrote that the game increases awareness of the advantages and disadvantages of smartphone use. Another said it could lead to fun conversations.

The open answers also reveal some barriers. Some parents felt the topic was not yet relevant, doubted whether children would want to play a game about "bad phone behavior", or said they would not buy it because they expected to use it only a few times.

Best moment to play

The most natural moment to play FoonFabels appears to be during the weekend. Five out of seven respondents selected this option. Holidays were also mentioned often, by four respondents. This suggests that the game fits best into slower family moments, when there is more time and attention available. It may be less suitable for busy daily routines.

Preferred access

When asked about preferred access, receiving the game through school was the most popular option, selected by five out of seven respondents. Other relevant channels were workshops or events, physical stores, libraries, apps and print-at-home versions. This indicates that parents may see FoonFabels as something that fits well in an educational or guided context, rather than only as a commercial product bought independently by families.

Willingness to pay

Most respondents were willing to pay something, usually between €5 and €20, but no one selected more than €20. This indicates that the game should either remain affordable or be distributed through schools, libraries or organizations.

Chapter 10. Discussion and conclusion

Discussion and reflections on attainment of criteria, recommendations, and conclusion.

10. DISCUSSION AND CONCLUSION

10.1 Discussion and reflections on attainment of criteria

Key insights throughout the project

In order to properly reflect on the final concept's attainment of the design criteria, let us circle back to the key insights gained throughout the project. From the desk research, it could be concluded that the negative effects of excessive smartphone use on children were not only combatted through regulation, but also through healthy media use strategies, among which critical reflection and communication were important aspects. From interviews with parents, a teacher, and experts, and generative sessions with children, several interactional insights about conversations about smartphones between children 8-12 and parents were gained. Conversations rarely happen spontaneously and are usually initiated by parents and/or influenced by an unequal distribution of power. During the conversations, negative feelings such as frustration are not uncommon to arise.

These insights shaped the design assignment: **to facilitate parent-child dialogue about smartphones** by designing a concept that offers a **hook to incite conversation**, incites **critical reflection** about smartphones, is **engaging and fun** for children, and influences the dynamic of the conversation to be more **equal, positive, and constructive**.

The final concept '*FoonFabels*' was developed to achieve the design criteria: a game that children and their parents play together, where they read bizarre fictional scenarios touching on smartphone topics, that they collaboratively write different endings to, after which they discuss related questions, designed to prompt critical reflection and constructive conversation.

Creating a fun, engaging, and creative game for children

The test sessions largely confirm that FoonFabels is a fun and engaging game for children. The **bizarre and random** elements of the game resulted in smiles, and the drawings and stories they made incited laughter. They enjoyed being **surprised and challenged**. It also succeeded in stimulating the children's **creative** enthusiasm; of the four families I tested with during this project, in two families a child had asked their parents to do another creative activity after the session. One child asked to bring coloring pencils to the restaurant they would eat at after the session, and the other child proposed to make 'pass-on drawings' with their family later in the evening. Other aspects that contributed to their enjoyment of the game were that it engaged their **imagination** and allowed them to be creative, giving them the opportunity to contribute their own ideas.

However, compared to earlier iterations, the game does not offer players full creative freedom. The initial concepts, including the story templates and collages, required players to use far more of their own imagination. In the later iterations, this creative freedom was sacrificed to ensure players understood the game and to prevent them from feeling creatively blocked. I have attempted to strike a balance between creative liberty and game flow, but in the end, the success of this balance is influenced by individual preferences.

Equalizing the dynamic between children and parents

As for equalizing the dynamic between children and parents, I think I partly succeeded. During ideation, one of my subsolutions to this problem was to '**let the children choose what they talk about**'. I have collected the topics of the scenarios through what children told me, wrote about, and made collages about. In this way, at least indirectly, children did inform what the players talk about during the game. However, in the game itself, the story card is drawn at random by the youngest player. So, during the game, the children do not get to decide themselves what they talk about.

Another way I had identified how to equalize the dynamic is in **who initiates the conversation**. The game itself tells the players to discuss the questions on the question card, so in that way, it is not the parents initiating the conversation, but neither are the children. The rule that the questions should be answered **in order of youngest to oldest** player creates space for the children's answers, without being influenced by the answers of their parents. These elements contribute to a more equal distribution of the narrative, but I think it would have been interesting to see how it would work if the child were even more in charge of the conversation.

During the final validation I tested if all players had **equal room to speak** during the game as an indicator of equalizing the dynamic between parents and children. This was the case for most participants, also because of the **equal roles** for children and parents as players of the game. During the final tests I actually realized that equal room to speak was not quite an informative indicator for an equalized dynamic. However, I realized that FoonFabels succeeded in equalizing the dynamic in another way, namely, which qualities the game rewards. Because the challenge of the game is to create funny stories and original solutions, the game **values imaginative and out-of-the-box thinking**, which comes more natural to children, giving them 'the upper hand' compared to parents, who tend to think in more nuance and consequences. In this way, FoonFabels can be seen as empowering for children.

Offering a hook to conversation about smartphones

Rooting the scenarios on the question cards in topics and situations brought up by the children during my research makes for relevant scenarios that the players in the game can relate to. Combined with the questions on the question card that refer to the topics of the story, it offers a **relevant and reflective approach** to the conversation between the players of the game. Prompted by the questions, the participants spoke openly about their own experiences with smartphones, and there were also moments when they recognized each other's experiences.

As evidenced by the tests of the final validation, the **sharing of new information** and the discussion of possible new arrangements happened occasionally rather than consistently. Participants especially felt like they discussed something different than usual when they did not really discuss the topic of smartphones normally. Participants who were familiar with the topic did not report discussing something new.

In some instances, '*conversation*' was a big word for the discussion of the three questions among the players. As a parent mentioned after participating in the user test of FoonFabels, the conversation could easily fizzle out after answering the three questions.

It is then up to the players themselves (most likely the parents) to ask follow-up questions to explore the topic further.

The same counts for **reaching a consensus** or deciding on new phone rules. Although the third future-forward question tries to touch on future behavior or arrangements, the questions are still formulated openly, so reaching a consensus is not actively enforced. This could perhaps have been achieved by adding an 'arrangements-card', however, I feel like this would give the game too much of a preachy, top-down dynamic, something I explicitly wanted to avoid.

Concluding reflection

Perhaps the goal of FoonFabels should not be for players to explicitly decide on future behavior or arrange new phone rules. Instead, the game's strength may lie in its ability to break the established pattern of negative and controlling conversations about phones between parents and children, thereby defusing the tension. It could offer a positive, safe, and collaborative experience for children and parents.

The game does not replace current, reactive and rushed conversations about smartphones, but rather adds an intentional moment for spending time together as a family and discussing things in a more relaxed and curious way.

Perhaps the goal of FoonFabels should not be for players to explicitly decide on future behavior or arrange new phone rules. Instead, the game's strength may lie in its ability to break the established pattern of negative and controlling conversations about phones between parents and children, thereby defusing tension. It could offer a positive, safe, and collaborative experience for children and parents.

The game does not replace current, reactive and rushed conversations about smartphones. These conversations are likely to remain part of family life, especially when concerns or conflicts arise. Rather, FoonFabels can be used preventively: it creates an intentional moment for families to spend time together and discuss phone use in a more relaxed, curious and constructive way. In doing so, the game responds to a topic that is otherwise often approached through correction, control or conflict, and adds a positive shared experience in which parents and children can explore smartphone use together with more openness, curiosity and ease.

10.2 Recommendations

Further research and development

Although FoonFabels could technically be implemented as-is, more stories and question cards would raise the value and replayability of the game. Additional topics and themes that are relevant and relatable could be developed through more research with children or in collaboration with an experienced organization such as Netwerk Mediawijsheid or Nederlands Jeugdinstituut. This would also reinforce FoonFabels' credibility.

Further research could also be done into different use cases, for example, to include guidance for facilitators or educational professionals if the game would accompany a workshop or parents evening. Or an additional guide for parents to start conversations after having played FoonFabels.

For the addition of a more action-based step to the game, such as an agreements sheet, more research should be done on the right execution and desirability of such a step.

Further testing

It would be wise to test FoonFabels on a larger scale. This would evaluate the individual stories and question cards more thoroughly and could improve inclusivity, for example by testing with families with diverse reading abilities (such as a younger age, dyslexia, or a different first language).

As participants have only played the game once, it would also be informative to carry out a long-term study. This might give insights into long term effects of the game but also if the game is valuable for families when it is played multiple times.

Refinements to the prototype

Some practical elements of the game could be refined to ensure an even smoother game flow, such as refining the design of the whiteboards and selecting thinner markers with better erasable ink. The guiding booklet could also be easier to navigate, for example by adding clearer step numbers or visual cues.

10.3 Conclusion

The aim of this project was to design a concept to help parents and children aged 8 to 12 talk about smartphones in a more open, equal and positive way. The final concept, FoonFabels, shows real potential in achieving this.

The final validation suggests that FoonFabels works well in starting conversations, offering relevant and open questions. It does not necessarily lead to new phone rules or direct changes in behavior, and this may also not be its most important role. Its value lies in creating a shared moment in which parents and children can explore smartphone topics together. Making use of fiction, humor, and creativity, the game makes it easier to approach more serious themes.

FoonFabels also partly succeeds in shifting the dynamic between parents and children. The game creates equality by valuing imagination, humor and unexpected ideas, qualities that children often possess naturally, thereby empowering children.

If FoonFabels were to be developed into a real product, several steps would still be needed before it could be used more widely as detailed in the implementation section. Further research areas include long-term effects, expansion of topics, and distribution of the game.

Overall, FoonFabels does not replace the everyday conversations families already have about smartphones. Instead, it adds something that is often missing: a calm, playful and intentional moment. In that sense, the game can be seen as a preventive tool that helps families build shared understanding around smartphone use, one story at a time.

Fin.

Appendix

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CONTENT OF APPENDIX:

APPROVED PROJECT BRIEF

TU Delft

IDE Master Graduation Project

Project team, procedural checks and Personal Project Brief

In this document the agreements made between student and supervisory team about the student's IDE Master Graduation Project are set out. This document may also include involvement of an external client, however does not cover any legal matters student and client (might) agree upon. Next to that, this document facilitates the required procedural checks:

- Student defines the team, what the student is going to do/deliver and how that will come about
- Chair of the supervisory team signs, to formally approve the project's setup / Project brief
- SSC E&SA (Shared Service Centre, Education & Student Affairs) report on the student's registration and study progress
- IDE's Board of Examiners confirms the proposed supervisory team on their eligibility, and whether the student is allowed to start the Graduation Project

STUDENT DATA & MASTER PROGRAMME

Complete all fields and indicate which master(s) you are in

Family name	[redacted]
Initials	E.T.
Given name	[redacted]
Student number	5081173

IDE master(s)	IPD ☐ Dfl ✔ SPD ☐
2nd non-IDE master	
Individual programme *(date of approval)*	
Medisign	☐
HPM	☐

SUPERVISORY TEAM

Fill in he required information of supervisory team members. If applicable, company mentor is added as 2nd mentor

Chair	Fernando Del Caro Secomandi	dept./section	DOS / Creative Processes
mentor	Sofie Dideriksen	dept./section	HCD / Human Technology Relations
2nd mentor			
client:			
city:		country:	
optional comments			

! Ensure a heterogeneous team. In case you wish to include team members from the same section, explain why.

! Chair should request the IDE Board of Examiners for approval when a non-IDE mentor is proposed. Include CV and motivation letter.

! 2nd mentor only applies when a client is involved.

APPROVAL OF CHAIR on PROJECT PROPOSAL / PROJECT BRIEF -> to be filled in by the Chair of the supervisory team

Sign for approval (Chair)

Name F. Secomandi Date 30 Sep 2025 Signature [redacted]

CHECK ON STUDY PROGRESS

To be filled in **by SSC E&SA** (Shared Service Centre, Education & Student Affairs), after approval of the project brief by the chair. The study progress will be checked for a 2nd time just before the green light meeting.

Master electives no. of EC accumulated in total _____ EC

Of which, taking conditional requirements into account, can be part of the exam programme _____ EC

✓	**YES**	**all 1st year master courses passed**
	NO	**missing 1st year courses**

Comments:

Sign for approval (SSC E&SA)

Name [redacted] Date 07-10-2025 Signature

APPROVAL OF BOARD OF EXAMINERS IDE on SUPERVISORY TEAM -> to be checked and filled in by IDE's Board of Examiners

Does the composition of the Supervisory Team comply with regulations?

YES	●	**Supervisory Team approved**
NO		**Supervisory Team not approved**

Comments:

Based on study progress, students is ...

●	**ALLOWED to start the graduation project**
	NOT allowed to start the graduation project

Comments:

Sign for approval (BoEx)

Name [redacted] Date 09-10-2025 Signature

DESIGN FOR our future

TU Delft

Personal Project Brief – IDE Master Graduation Project

Name student Liza Oomens **Student number** [redacted]

PROJECT TITLE, INTRODUCTION, PROBLEM DEFINITION and ASSIGNMENT

Complete all fields, keep information clear, specific and concise

Project title *Exploring parent-child dialogue about children's digital experiences with their smartphone*

Please state the title of your graduation project (above). Keep the title compact and simple. Do not use abbreviations. The remainder of this document allows you to define and clarify your graduation project.

Introduction

Describe the context of your project here; What is the domain in which your project takes place? Who are the main stakeholders and what interests are at stake? Describe the opportunities (and limitations) in this domain to better serve the stakeholder interests. (max 250 words)

Children today are growing up surrounded by digital media. Research shows the extensive negative impact smartphone use can have on the development of children, from nearsightedness and sleep and concentration problems to mental health issues.(1) The question arises in which way the different stakeholders (children, carers, schools, policymakers, tech companies) impact children's digital experiences and where the responsibility for regulation lies.

Steps are being made: The Dutch government has recently come out with a guideline advising to start with smartphone use at the age of 15 years(2) and a campaign to encourage parents to make agreements with their children about smartphone use.(3) There is also a parent initiative, Smartphonevrij Nederland, that vouches for carers jointly delaying giving their children a smartphone, taking away peer pressure.(4)

Before we can take appropriate measures negating the negative effects of excessive or harmful smartphone use among children, we need to be aware of what actually is the experience of children in their digital worlds. However, a large part of carers themselves do not know what happens on their child's smartphone(3) and are unfamiliar with platforms used by children, such as Roblox and TikTok. This lack of knowledge on the part of carers and children's underdeveloped ability to express themselves hinders the sharing of experiences of smartphone use between child and carer. Moreover, children can also be hesitant to share their negative experience out of fear of losing access to their device.(5)

(Sources on next page)

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introduction (continued): space for images

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image / figure 1

image / figure 2

DESIGN FOR our future

TU Delft

Personal Project Brief – IDE Master Graduation Project

Problem Definition

What problem do you want to solve in the context described in the introduction, and within the available time frame of 100 working days? (= Master Graduation Project of 30 EC). What opportunities do you see to create added value for the described stakeholders? Substantiate your choice.
(max 200 words)

The lack of knowledge about children's digital experience on the part of carers, and children's underdeveloped ability to express themselves poses a problem: carers do not know what their child's experience with digital media is like, and the children are not able, or do not want, to share their digital experiences.

Co-creation for youth offers children an accessible and creative way to express themselves. Co-creation can not only be a democratic way of designing but also research through design, where the co-creation process itself informs us about the problems, needs, and wants of children regarding their smartphone use, as well as their parents.
The educational format of a mock trial is a dedicated space to safely and elaborately explore different sides of an argument, fostering respectful dialogue and mutual learning.

There is opportunity for added value in the combining of the mock trial format with participatory design. Co-creation sessions using the mock trial format, letting children (and perhaps their parents) collaboratively imagine and recreate digital experiences with (tangible) language and tools.

Assignment

This is the most important part of the project brief because it will give a clear direction of what you are heading for. Formulate an assignment to yourself regarding what you expect to deliver as result at the end of your project. (1 sentence) As you graduate as an industrial design engineer, your assignment will start with a verb (Design/Investigate/Validate/Create), and you may use the green text format:

Explore children's experience with smartphone use through co-creation to create a tool for facilitating an open dialogue about their experiences with smartphones between children and their carers.

Then explain your project approach to carrying out your graduation project and what research and design methods you plan to use to generate your design solution (max 150 words)

After desk researching the effects and interactions of smartphone use among children and the methods of contextmapping and co-creation with youth, my hands-on research will start with observation during a school visit and interviews with parents and teachers. Next is the ideation phase where I brainstorm ideas for what the "tool" could look like. My midterm will present my research results and concept ideas.
After the midterm, I will carry out co-creation sessions with children and parents to understand the changing dynamic between parents and children when a smartphone is introduced, and to test my concepts. The results of the sessions are analysed. In the conceptualization phase, a concept is selected to materialize fully and test with. This version will be evaluated with the target group from which recommendations are formulated.

Project planning and key moments

*To make visible how you plan to spend your time, you must make a planning for the full project. You are advised to use a Gantt chart format to show the different phases of your project, deliverables you have in mind, meetings and in-between deadlines. Keep in mind that all activities should fit within the given run time of 100 working days. Your planning should include a **kick-off meeting**, **mid-term evaluation meeting**, **green light meeting** and **graduation ceremony**. Please indicate periods of part-time activities and/or periods of not spending time on your graduation project, if any (for instance because of holidays or parallel course activities).*

Make sure to attach the full plan to this project brief.
The four key moment dates must be filled in below

Kick off meeting	29 sept 2025
Mid-term evaluation	9 dec 2025
Green light meeting	3 mrt 2026
Graduation ceremony	21 apr 2026

In exceptional cases (part of) the Graduation Project may need to be scheduled part-time. Indicate here if such applies to your project

Part of project scheduled part-time	✔
For how many project weeks	25
Number of project days per week	4,0

Comments:
Graduating is combined with a side job of max. 8 hrs per week.

Motivation and personal ambitions

Explain why you wish to start this project, what competencies you want to prove or develop (e.g. competencies acquired in your MSc programme, electives, extra-curricular activities or other).

Optionally, describe whether you have some personal learning ambitions which you explicitly want to address in this project, on top of the learning objectives of the Graduation Project itself. You might think of e.g. acquiring in depth knowledge on a specific subject, broadening your competencies or experimenting with a specific tool or methodology. Personal learning ambitions are limited to a maximum number of five.
(200 words max)

I wish to start this project because I am interested in the topic of fostering mutually learning dialogue and I find criticial thinking in regards to emerging technologies very important. I want to develop my skills in organising and carrying out a participatory approach, building on my existing knowledge of creative facilitation. I want to prove my skills in visualisation and material embodiment, and my human- and empathy centred approach.

Learning ambitions:

1. Gaining skills and experience in the participatory research and design approach
2. Learning about contextmapping and co-creation with youth
3. Developing my visualisation and materialisation skills towards tangible and polished results

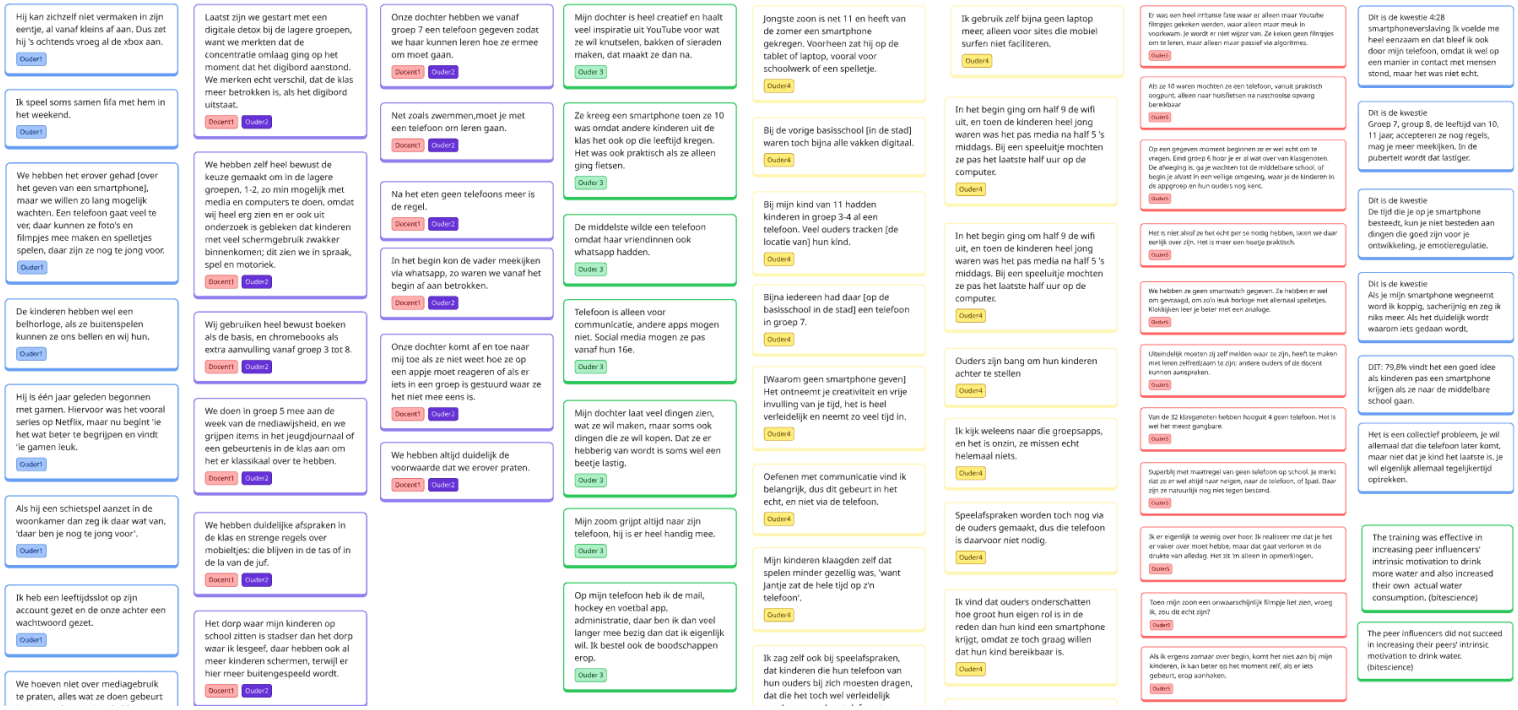
A. COMPARISON TABLE OF EXISTING INTERVENTIONS

Comparison table of existing interventions

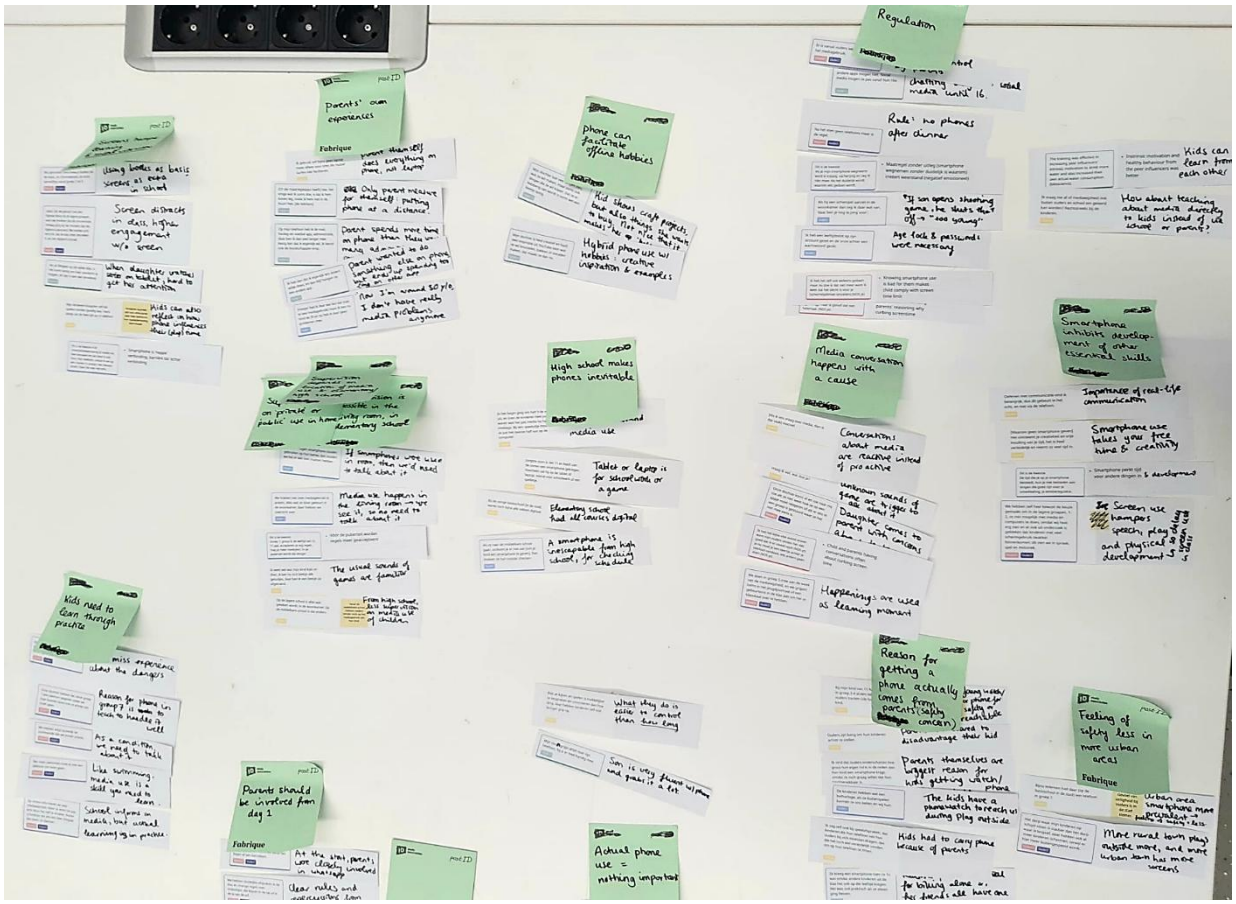
Intervention	Description	Informs children on media literacy	Incites reflection about media use with children	Gives children room to voice their opinions / experiences to others (not peers)	Empowers children to have agency over the media they use	Engaging and interactive for children	Incites conversation between child and parent	Incites conversation between peers
MediaMasters	Free serious game about the opportunities and dangers of media for groups 6/7/8 played during the week of media resilience.	✅ Engaging learning tool	✅	❌	❌	✅ Very engaging storytelling and serious game	❌ A game played at school with peers	✅ A game at school with peers
Mediamatties	An online application where a child and their (grand)parent take a quiz together where they guess each other's hobbies and media preferences	❌	✅ Asks questions about favorite apps and hobbies of yourself and your (grand)parent	❔ Allows for discussing answers but not sharing any deeper experiences	❌	❔ Not that engaging, but it is an online quiz	✅ Asks for what you think the other's favorite hobby and app are, so you can compere answers.	❔ Technically this could be played with a peer but it is meant for children and (grand)parents.
Digidoener DIY-opdrachten	Part of lesson plans by FutureNL, assignments where kids are asked to reflect on a few questions of a certain topic after having watched a video about it.	✅Lessons that inform and reflect	✅Lessons that inform and reflect	❌Just reflection	❌	❔ It's an assignment so not especially engaging	❌	❔ Perhaps in class if peers do this assignment alongside each other
Privacyrede 2025	A talk/theater by high school students sharing what student surveillance systems (like Magister) does with them. Organised together with LAKS, student committee	❌	❔ The students preparing the talk themselves reflect on their experiences to convey them during the talk	✅Gives the floor to students themselves to share how Magister impacts them and the interactions with their parents ✨	❔ It is part of a movement that is making the government discuss the topic.	✅ Talk/theater by students themselves.	❔ Perhaps indirectly through parents in the audience bringing up aspects of the topic with their children.	✅ Among the students collaborating on the project, and perhaps among children in the audience
MediaDiamant	Online tool informing parents on a few topic directions that are important regarding media use.	❔ Informs parents* about topics which they could then discuss with their children	❌	❌	❌	❌	❔ Offers topics but no clear 'how to' to have those conversations	❌
MediaGesprek	Website with information of MediaDiamant presented in a different form.	❔ Informs parents* about topics which they could then discuss with their children	❌	❌	❌	❌	❔ Offers topics but no clear 'how to' to have those conversations	❌
Afsprakenkaart 'Blijf in beeld' campaign	A template/agreements sheet for parents and children to fill in together to make agreements about media use.	❌	❌	❌	❔ Agreements are made but I suspect they come from the parent's side	❌Children are engaged but I would not say it is truly engaging or interactive	✅ Conversation about limits between child and parent is held	❌
Internethelden conversation cards	Tool for professionals to familiarize themselves with relevant topics about media use, so they are well-equipped to advise parents	✅ Offers relevant topics to professionals* or parents*	❔ Simply informs about topics. Perhaps bringing up the topics might incite reflection.	❌	❌	❌	❔ Perhaps inspires parents to bring up a topic to their child.	❌
ChatLicense	App for children to engage them in important topics they need to navigate their first smartphone. 'Drivers licence' for first smartphone.	✅ Covers media topics	❌	❌	❌	❔ It is an app, but not very interactive.	❌	❌
Mediaklets card game	Set of cards with knowledge cards and conversation cards around 10 media themes	✅ Contains knowledge cards	✅ Contains conversation cards	❔ Depends on the nature of the questions	❌	❔ It's a simple card game	✅ Can be played within a family	✅ Can be played within a group of peers
Mediaklets card game	Set of cards with knowledge cards and conversation cards around 10 media themes	✅ Contains knowledge cards	✅ Contains conversation cards	❔ Depends on the nature of the questions	❌	❔ It's a simple card game	✅ Can be played within a family	✅ Can be played within a group of peers
Media jungle board game	Physical board game with additional digital game with do, think and discuss exercises	✅ "Monkey Matanga' gives occasional tips and info in between exercises.	✅ There are think and discuss exercises	❔ When used at home, but not when used in class	❌ Educational tool	✅ Jungle concept is fun and the games are engaging ✨	❔ When used at home, but not when used in class	✅ There are discuss exercises
IKEA phone bed	A mini bed with an embedded NFC chip. If you consistently put your phone to bed, you'll receive an Ikea coupon. The mini bed comes free with a purchase of +200 euros at the Ikea in UEA.	❌	❌	❌	❔ Offers the advantage of a coupon if they complete the challenge	❔ An intervention with humour at least.	❔ Perhaps, it might be quite exciting/funny	❔ Perhaps, it might be quite exciting/funny
Check Out voluntary distraction free wifi zone	In the public library in Amsterdam, a pilot where you can voluntarily make use of free Wifi that blocks distracting social media apps.	❌	❌	❌	✅ Gives agency to choose to block these apps while studying in the library.	❌ One simple action	❌	❌
Blijf jij de baaazz?	Package for starting high school students including screen time challenges and an alarm clock, developed by scrollscrollscroll	❌	❔ The challenges might make you think about your own screen time	❌	✅ Actually gives them an alternative alarm clock to replace the smartphone on the nightstand ✨	✅ The children are challenged to actually try to change their behaviour with challenge cards and involvement of their family	✅ The game is for children and parents together	❌Within family
Escape your screen	Lesson and escape puzzles for class 6,7, 8. Comparing stats within the class, discussing 10 questions, making an escape plan and puzzles.	❔ Gives a few tips like changing your password but nothing extensive	✅Plenary poll is discussed, and 10 questions are discussed with a classmate	❌More meant for reflection and personal goal setting	✅Action plan helps them to tackle the challenge they chose	✅ Puzzle element with timer is exciting	❌At school	✅ The 10 questions are discussed with a peer
MediaMovez	Participatory program developed by Phd'er of Convergence/Erasmus, 6 sessions where children become co-researchers of their online world, making a personal plan to tackle their biggest challenge and thinking about which/whose help they need	❌ Builds on children's own experiences	✅Children are investigating their own online world, and reflect on their biggest challenge and whose help they might need.	❌More meant for reflection and personal goal setting	✅Action plan makes them think about concrete steps they can take to tackle their challenge	✅ Participatory aspect is engaging	❌At school	✅ Assignments are discussed with peers
PretKlets	Card game with truth or dare cards where you talk about media or try something out	❌ Builds on children's own experiences	✅ The truth questions are quite reflective	❔ Voice among peers or in a family.	❌	❔ It's a card game	✅ Can be played within a family	✅ Can be played within a group of peers

B. STATEMENT CARD ANALYSIS, IDENTIFIED THEMES

Quotes for statement cards, pulled from interview notes



Statement cards containing quotes and interpretations written next to it, clustered.



Overview of identified themes according to clustered statement cards

Statement card analysis: Identified themes with corresponding quotes

(Secondary) school can make getting a smartphone feel necessary	**Peers influence reasons for getting a smartphone**	**Parents' needs also play a role in getting their child a smartphone**
Parent: 'When the kids go to secondary school, it is inevitable that they need a smartphone. Then they need to be able to check their schedule.' *Parent: 'On my son's previous elementary school, almost all the courses were already digital.'* *Parent: 'At some point my son's class had to do a test on their phone. Because my son did not have a phone, they put him at the back of the class with his laptop so the other students could not see his answers.'*	*Parent: 'My daughter got a smartphone when she was 10 because other children from her class also got it at that age. It was also practical when she went biking alone.'* *Parent: 'My daughter wanted a smartphone because her friends all had WhatsApp.'* *Parent: 'I think parents are scared to disadvantage their child.'*	*Parent: 'The kids do have a phone-watch, if they are playing outside they can call us and we can call them.'* *Parent: 'In my child's class of group 3 or 4, [7 or 8 years old,] some children already had a phone. Many parents track their child with a smartwatch.'* *Parent: 'I think parents are scared to disadvantage their child.'* *Parent: 'I think parents underestimate how big their own role is in the reason their child gets a smartphone, because after all, they want their child to be reachable.'*
Age and level of development influence a child's media use	**Age and level of development influences child's private media use and transparency**	**Children need to understand and feel why regulation happens**
Parent: 'A year ago my kid started gaming, before this it was mostly watching series on Netflix, but now he's started to understand a little more and is interested in gaming.' *Teacher: 'Children really miss experience, they have no idea what effect non-age-appropriate games and apps can have on them.'* *Parent: 'We talked about it, but we want to wait as long as possible with giving our kid a smartphone. I think a phone goes way too far, they can make videos and photos with it, they are too young for that.'* *Parent: 'What they do is much easier to talk about and to control, than how long. Children themselves also do not have a grip yet on how much time they spend.'*	*Parent: 'In elementary school, all media is consumed in the living room. In secondary school, this is different.'* *Developmental psychologist (Documentary Dit is de kwestie, EO): In groups 7-8, ages 10-11, the still accept rules, they will allow supervision more. During adolescence, this becomes harder.'* *Parent: 'When they are very young, much still happens within your view. Then you actually see more of what is going on in their lives. However, at a certain age, more and more happens outside of your view.*	*Person previously addicted to their phone (Documentary Dit is de kwestie, EO): 'If you take my smartphone away I will turn stubborn, moody, and stop talking. It is different if it is clear why something is done.'* *Child (NOS Item on YouTube): 'My parents say I will get square eyes, but I don't really believe that.'* *Child (NOS Item on YouTube): 'I have dodged the screen time limits before, but now I don't do it anymore because I know it's bad for you.'*
Parents oversee young children's media use, lowering the need to talk about it	**Media talk needs to have a cause**	**Parents consider what the children do on the smartphone not essential**
Parent: 'I know what my child is watching and doing; I recognize almost all the sounds now, I've gotten trained on it.' *Parent: 'We do not need to talk about media use, everything they do happens in the living room, which we oversee. If they had their own smartphone and used it in their room, then we would have to talk about it.'*	*Parent: 'If I just start talking about something out of the blue, I won't get through to my children. It's better to hook on to it at the moment itself, when something happens.'* *Parent: 'We do not need to talk about media use, everything they do happens in the living room, which we oversee. If they had their own smartphone and used it in their room, then we would have to talk about it.'*	*Parent: 'I sometimes look at those group apps, and it's nonsense; they're not missing anything at all.'* *Parent: 'Play dates are still arranged through the parents, so there's no need for a phone for that.'* *Parent: 'I'm shocked by the number of messages sent in a day. It's nothing, really, in terms of content.'*
Media use most often happens alone, and sometimes together	**Screens hamper full engagement and social interactions**	**Smartphone use inhibits development of other essential skills**
Parent: 'My kid cannot entertain himself alone, he has had this since he was little. So early in the morning, he already switches on his Xbox.' *Parent: 'When my wife works evenings, I usually do tend to turn on a screen.'* *Parent: 'I do sometimes play Fifa with him on the weekend.'* *Parent: 'Soon the Sinterklaasjournaal [news report on Sinterklaas] will start again, we like talking about that. But that is actually the only thing.'*	*Teacher: 'We recently started with a digital detox for the lower groups, because we noticed that the concentration levels went down when the DigiBoard was on in the class. We really noticed a difference, the class was more engaged with the DigiBoard switched off.'* *Parent: 'My children complained themselves that playtime was less fun because their friend was on his phone the whole time.'* *Parent: 'When my daughter watches videos on her tablet, it is sometimes hard to get her attention, and that can then be frustrating.'*	*Parent: 'Practicing with communication is important to me, so this happens in real-life, and not via the phone.'* *Parent: 'It takes away your creativity and your freedom to use your time as you wish. It is very alluring and takes up a lot of your time. '* *Developmental psychologist (Documentary Dit is de kwestie, EO): 'The time you spend on your smartphone, cannot be spent on activities that benefit your development, like your emotional regulation.'* *Teacher: 'What we really see, and what research has also shown, is that children who spent a lot of time in front of screens arrive at school much weaker in terms of speech, play, and motor skills.'*

C. SENSITIZING BOOKLET

Sensitizing booklet used for the generative test session to be filled in beforehand.

Naam: _____

Hoi!!

Ik ben Liza, ik ben 24 jaar oud, en ik ben bezig met mijn studie. Voor mijn studie moet ik een onderzoek doen, en daarvoor heb ik jou nodig!

Mijn onderzoek gaat namelijk over kinderen in de bovenbouw van de basisschool die een telefoon hebben. Help je mee?

Stap 1 is het invullen van dit boekje. Dat mag je helemaal zelf doen, maar je kan natuurlijk hulp vragen aan je broer of zus, of aan je ouders.

Stap 2 is het leukst, want dan gaan we testen! Samen met je ouders probeer je een aantal leuke activiteiten uit, en mag jij zeggen wat je van ze vond.

Dankjewel voor het meedoen!
Groetjes,
Liza

WIE BEN JIJ?

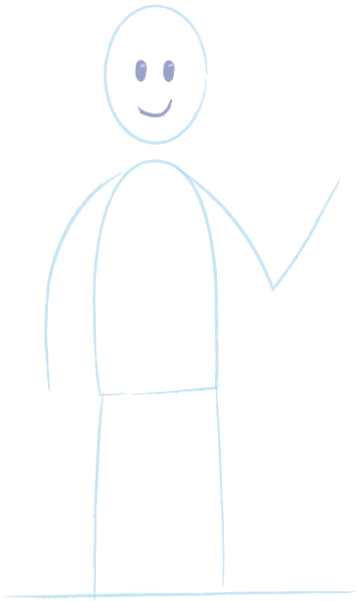
1 Vul in en versier je poppetje.

Mijn naam is:

Ik ben _____ jaar oud.

In mijn vrije tijd doe ik het liefst:

Mijn favoriete schoolvak is:



MIJN TYPISCHE DAG

2 Schrijf en teken op de tijdlijn:
Wat doe jij op een typische dag?

Wakker worden

Ochtend

Middag

Naar school

Naar bed

Avond

3 Teken en schrijf op de tijdlijn met een ander kleurtje: Wanneer gebruik je jouw telefoon? En wat doe je er dan mee? Appen, bellen, iets opzoeken, social media...

MIJN ONLINE WERELD

4 Vul in en teken:
Deze apps gebruik ik het meest:

Deze app gebruik ik altijd / vaak / soms, en dan doe ik:

Dit vind ik leuk / fijn /..... omdat:

Deze app gebruik ik altijd / vaak / soms, en dan doe ik:

Dit vind ik leuk / fijn /..... omdat:

Deze app gebruik ik altijd / vaak / soms, en dan doe ik:

Dit vind ik leuk / fijn /..... omdat:

Deze app gebruik ik altijd / vaak / soms, en dan doe ik:

Dit vind ik leuk / fijn /..... omdat:

MIJN OUDERS EN MIJN ONLINE WERELD

5 Vul in en teken.

Mijn ouders snappen niks van deze apps:

Mijn ouders snappen deze apps een beetje:

Mijn ouders snappen deze apps heel goed:

Bedankt voor het invullen!
Bewaar dit boekje voor wanneer we gaan testen.

D. DOCUMENTATION GENERATIVE TEST SESSION, SCORE CARDS

Overview of how participants of the generative session filled in the scorecards (Dutch)

Stelling 1: Deze activiteit vond ik leuk om te doen (stelling, schaal van 4)

Stelling 2: Het liet mij nadenken over mijn telefoon op een andere manier (stelling, schaal van 4)

Stelling 3: Het maakte het makkelijker voor mij om met mijn ouder over mijn telefoon te praten (stelling, schaal van 4)

Story concept:

Deelnemer	Wat ik van deze activiteit vond (positief)	Wat ik van deze activiteit vond (negatief)	Stelling 1 (score van de 4)	Stelling 2 (score van de 4)	Stelling 3 (score van de 4)	Totaal-score sterren (van de 5)
Kind 1a	Ja ik vond het wel leuk maar het was wel moeilijk en ik vond die andere leuker omdat je dan kon knutselen	N/A	2	3	2	3
Kind 1b	Ik vond het leuk om te doen	N/A	3	3	2	4
Ouder 1a	Heel leuk! De stellingen waren erg grappig en laat je op een andere manier naar telefoon kijken	N/A	4	4	3	
Ouder 2b	Stimuleert creativiteit, leverde gesprek.discussie op. Kreeg er energie van. Leuk om over na te denken.	Gaat over toekomst/fictie en minder over nu (en hoe je vandaag met je telefoon omgaat)	4	4	2	N/A
Kind 2a	Ik vond het wel leuk om er ook over te praten, want je word geïnteresseerd	N/A	3	3	2	4
Kind 2b	Leuk want je kon erg creatief zijn	Er zat wel wat onnodig werk in wat eigenlijk niks toevoegt bijvoorbeeld de collage kan wat simpeler dus vooral de kern	3	1	3	4,5
Kind 2c	Ik kon mijn fantasie gebruiken	N/A	2,5	1	2	5
Kind 2*	Creatief en weg van een telefoon	Iets breder uitleggen	3	2	1	4
Totaal			3,0625	2,625	2,125	4,08333

Collage concept:

Deelnemer	Wat ik van deze activiteit vond (positief)	Wat ik van deze activiteit vond (negatief)	Stelling 1 (score van de 4)	Stelling 2 (score van de 4)	Stelling 3 (score van de 4)	Totaal-score sterren (van de 5)
Kind 1a	Ik vond het heel leuk om zelf wat te knutselen en dat we een thema kregen	N/A	4	3	2	4,3
Kind 1b	omdat je veel ideeën kan uitbeelden	N/A	4	3	3	4,5
Ouder 1a	Heel leuk! Vooral het interactieve met presentaties is top.	N/A	4	4	3	5
Ouder 2b	Leuk om te zien wat de kinderen kiezen, geeft inzicht in hun denkproces	Werkt minder goed voor minder creatieve kinderen, er kwam minder discussie los	N/A	3	3	N/A
Kind 2a	Ik vond het wel leuk om er ook over te praten, want je word geïnteresseerd	N/A	3	3	2	4
Kind 2b	Leuk want je kon erg creatief zijn	Er zat wel wat onnodig werk in wat eigenlijk niks toevoegt bijvoorbeeld de collage kan wat simpeler dus vooral de kern	3	1	3	4,5
Kind 2c	Ik kon mijn fantasie gebruiken	N/A	2,5	1	2	5
Kind 2*	Creatief en weg van een telefoon	Iets breder uitleggen	3	2	1	4
Totaal			3,357143	2,5	2,375	4,471429

E. GUIDING BOOKLET, CARDS, WHITEBOARD

Guiding booklet

Ben je er klaar voor om gekke, grappige verhalen te bedenken?

FoonFabels is een fantaseerspel met allerlei bizarre verhalen over telefoons en het internet! Kinderen én ouders ontdekken zo samen de wereld van telefoons.

Het spel duurt een half uur tot een uur en kan gespeeld worden met 2 tot 6 spelers. De minimale leeftijd voor het spel is 8 jaar.

STAP 0. VOORBEREIDING

Verzamel alle materialen:

- De 'wat als...' kaartjes
- De wisbordjes en stiften
- De zandloper
- De 'even denken...' kaartjes

Elke speler krijgt een wisbordje en een stift, en in het midden van de tafel staan de drie themastapels (met elk 3 blauwe verhaalkaarten en 1 roze vragenkaart) en de zandloper.

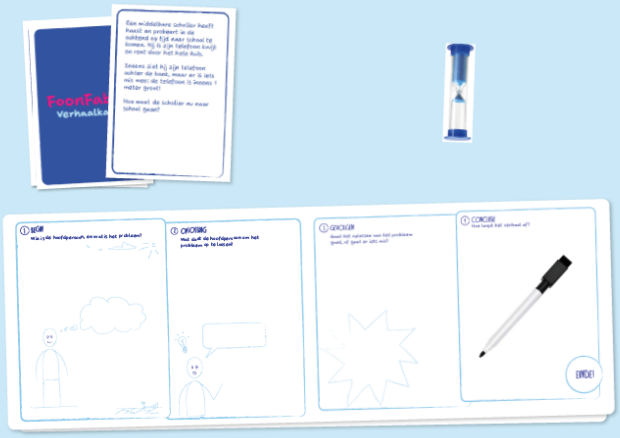
STAP 1. 'WAT ALS...' VERHALEN

De jongste speler mag één van de drie themastapels kiezen. Dit is de stapel die jullie vandaag in het spel gaan gebruiken.

De jongste speler mag ook meteen het eerste verhaalkaartje voorlezen. Op zo'n verhaalkaartje staat het begin van een verhaal.

Schrijf en teken allemaal op jullie wisbordje hoe het verhaal verder gaat. Wat doet de hoofdpersoon om het probleem op te lossen? Gaat dat goed? En hoe eindigt het verhaal? Draai de zandloper om, jullie hebben hier 5 minuten voor.

Als jullie klaar zijn met schrijven en tekenen, vertellen jullie de verhalen aan elkaar.



STAP 2. GELEERDE LESSEN

Aan de andere kant van jullie wisbordje staat de vraag: 'Wat heeft de hoofdpersoon geleerd van dit avontuur?' Schrijf allemaal een antwoord voor jullie verhaal op.

Bespreek samen jullie antwoorden. Zijn jullie het eens met wat iedereen heeft geschreven? Of denk jij dat de hoofdpersonen iets anders hebben geleerd?

Herhaal stap 1 en 2 voor de andere verhaalkaartjes van de themastapel.

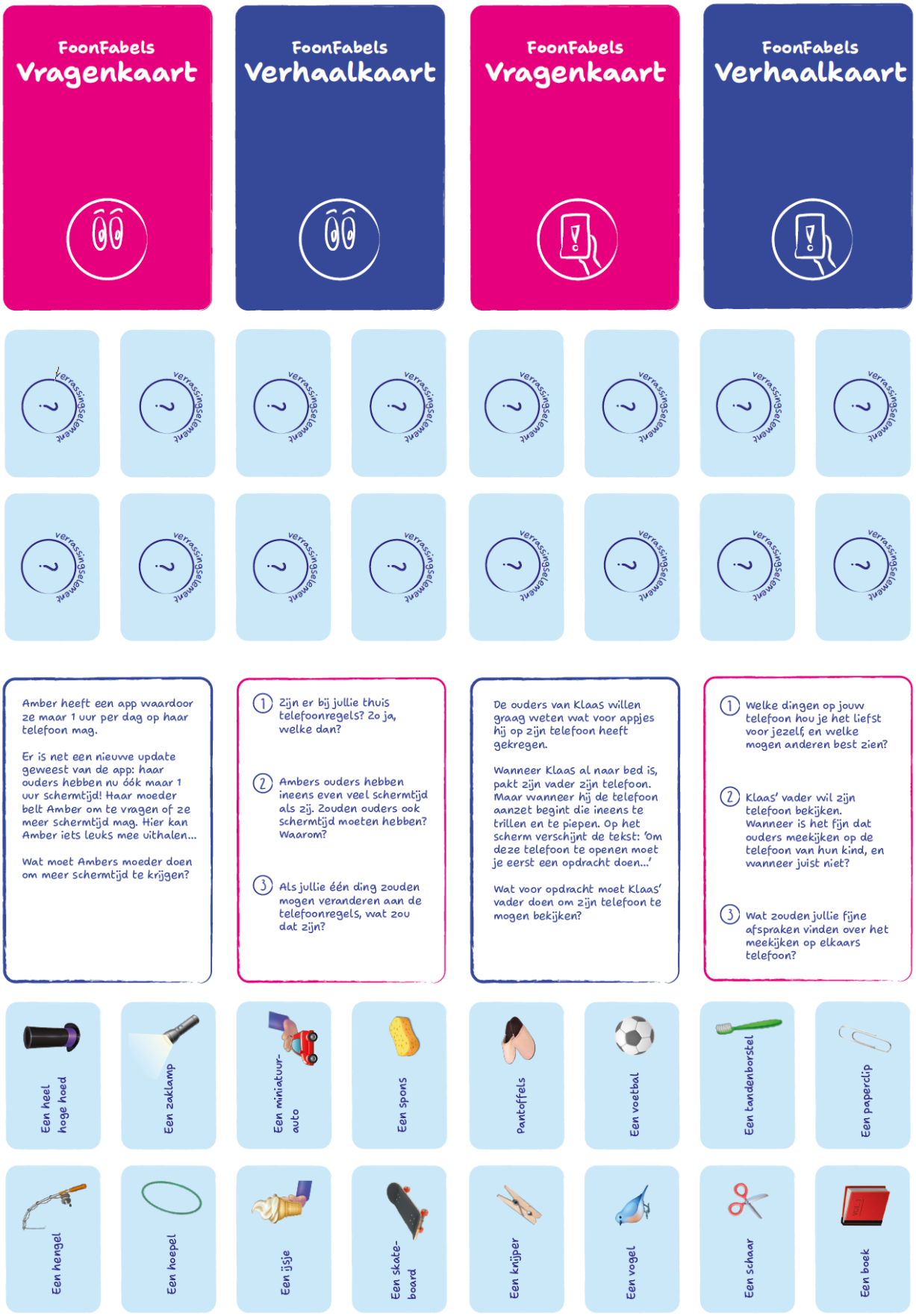
STAP 3. EVEN NADENKEN...

De verhalen gingen over dingen die misschien wel herkennen. Op de themakaart staan een aantal vragen om samen te bespreken.

Een speler leest de eerste vraag voor en dan beantwoorden alle spelers de vraag. Dit doen jullie voor alle vragen.

Dit was het einde van het spel!

Story cards, question cards, surprise element cards (size: 2 double-sided A3s)



FoonFabels
Verhaalkaart

FoonFabels
Verhaalkaart

FoonFabels
Verhaalkaart

FoonFabels
Verhaalkaart

FoonFabels
Vragenkaart

FoonFabels
Vragenkaart

FoonFabels
Vragenkaart

FoonFabels
Vragenkaart

Bibi heeft vanmiddag met haar buurjongen afgesproken bij hem thuis.

Vlak voordat ze elkaar zouden ontmoeten, krijgt Bibi een vreemd bericht van hem: 'Help, ik zit vast in mijn game!' Wanneer Bibi de kamer van haar buurjongen inloopt en hoi zegt geeft haar buurjongen geen antwoord. Hij lijkt haar niet eens te horen.

Wat is er aan de hand? Wat gaat Bibi doen?

Milan wil een nieuwe app met filmpjes downloaden, maar eerst moet hij toestemming vragen aan zijn ouders. Zijn moeder pakt zijn telefoon en zegt dat ze de app eerst zelf wil uitproberen.

Een uur laten heeft Milan zijn telefoon nog niet terug, zijn moeder zit al een uur te scrollen...

Hoe krijgt Milan zijn telefoon terug?

Robert en Isa hebben op een regenachtige zondag met elkaar afgesproken om samen te gamen.

Maar wanneer ze willen beginnen, doet de spelcomputer het niet. Ook de tablet en hun eigen telefoons werken niet meer. Wat blijkt, de burgemeester heeft een digitaal-vrije zondag ingesteld in de hele stad!

Wat verzinnen Robert en Isa om toch een leuke dag te hebben?

Lola kijkt in de schoolpauze op haar telefoon.

Ineens krijgt ze een melding van haar schermtijdapp: 'Klik hier om 1 uur schermtijd te krijgen van Bas'. Ze klikt erop en Bas krijgt een melding: 'Je hebt nu 1 uur minder schermtijd'.

Blijkbaar kan zij de schermtijd van haar klasgenootjes stelen! Wat gaat Lola doen met deze nieuwe functie?

1. Bibi's buurjongen zit zo in zijn game dat hij Bibi niet hoort. Heb jij ook weleens gehad dat iemand zo met zijn telefoon bezig was dat ze jou niet opmerkten?
2. Heb jij zelf weleens dat je iemand niet hoort wanneer je op je telefoon zit?
3. Wat zou je kunnen zeggen tegen iemand als je merkt dat ze geen aandacht voor jou hebben door hun telefoon?

1. Milans moeder kan niet stoppen met scrollen op Milans nieuwe app. Hoe komt het dat sommige apps zo verslavend zijn, denk je?
2. Besteed jij zelf ook soms meer tijd op een app dan je zou willen?
3. Wat zou jij kunnen doen om een betere balans te hebben tussen online en je 'echte' leven?

1. Wanneer hebben jullie voor het laatst iets super leuks gedaan waarbij je je telefoon totaal niet gemist hebt?
2. Zijn er situaties waar je telefoon ervoor zorgt dat je minder plezier hebt?
3. Wat voor momenten zouden jullie telefoonvrij kunnen maken?

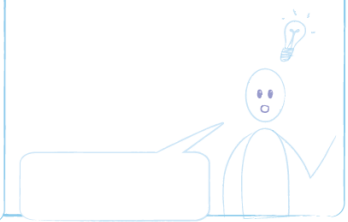
1. Hebben jullie klasgenoten even veel schermtijd als jullie?
2. Waarom denken jullie dat andere gezinnen andere telefoonregels hebben?
3. Wat zouden we kunnen proberen om de telefoonregels beter bij ons gezin te laten passen?

Whiteboard, front and back (size: 2 double-sided landscape A4)

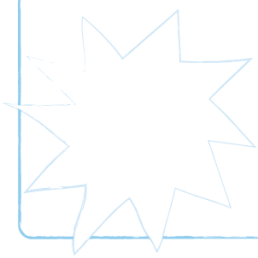
FoonFabels
Wisbordje

1 BEGIN
Wat is het probleem van jouw hoofdpersoon?

2 OPLOSSING
Wat verzint de hoofdpersoon om het probleem op te lossen?



3 GEVOLGEN
Gaat het oplossen van het probleem goed, of gaat er iets mis?



4 CONCLUSIE
Hoe loopt het verhaal af?

EINDE!

5 IN HET ECHT
Zou deze situatie ook in jouw eigen leven kunnen gebeuren? Hoe dan?

? Schrijf hier je antwoord op VRAAG 1:

? Schrijf hier je antwoord op VRAAG 2:

? Schrijf hier je antwoord op VRAAG 3:

F. TEST PLAN GENERATIVE TEST SESSION

Activity	Time	Description	Materials
Introduction	8 min --:00	• Informal introduction • Explain the project and the purpose of the session • Planning the session, which activities • You are welcome to be critical, it will only help me. • Data collection: notes, audio recording, photos without heads	Session script with room for notes, filled in IC forms

Booklet discussion	10 min
	
	--:08
		• I'll turn on the audio recording now, okay?
		• Let's look at the booklet.
		  ◦ **How did you like filling it out?**
		• Let's go to the page about the apps.
		  ◦ **What did you write down?**
		  ◦ **Do you ever explain anything about those apps to them?**
		• I'd like to know a little more about that.
		  ◦ **Do you ever talk about it with your parents? Why/why not?**
		  ◦ **What makes it easy/difficult to talk about?**
			Sensitizing booklet extra copy, phone for audio and photos

Introduction concepts	5 min --:18	• Introduction and explanation of 3 concepts • making up a story (everyone) • making a collage or going for a walk (choose one)	
Short story writing	10 min --:23	• Write a story assignment for everyone, including parents. Make up a short story and tell it to each other. Based on the bizarre situation on the 'What if...' cards. *read cards aloud* • Choose a 'What if...' card. • Think about the story using the worksheet: *Where? Who? Dilemma? Resolution.* 5 minutes time. • Read stories aloud.	What if... cards, Short story templates
Walk & collages	15 min --:33	• Let them choose: Walk with mama/papa and booklet, or making a collage art piece to present to mama/papa afterwards. • Send off the walkers. • Collage activity explanation: theme *'the other side of the screen'*. *What do you think the theme means?* • Crafting the collage: 5-10 min. • Thinking of a name and preparing presenting to parent. • Present to parent when returned from the walk.	Walk booklet, example collage, collagematerial (A3 paper, cutouts, scissors, gluestick)
Judging concepts	10 min --:48	• Discuss together which concept everyone prefers and why. • **What concept do you prefer? Why?** • **Which of the criteria do you find most important?** • Filling in clipboards with pros, cons, and the 3 criteria.	Scorekaarten, clipboards
End	2 min --:58	• Bedanken voor meedoen • Vertellen wat er met hun input gebeurt • Uitzetten audio-opname	

G. LETTER OF ETHICS APPROVAL AND IC FORMS INFO

Date 08-Jan-2026
Correspondence hrec@tudelft.nl

Human Research Ethics
Committee TU Delft
(http://hrec.tudelft.nl)

Visiting address
Jaffalaan 5 (building 31)
2628 BX Delft

Postal address
P.O. Box 5015 2600 GA Delft
The Netherlands

Ethics Approval Application: Exploring parent-child dialogue about children's digital experiences with their smartphone
Applicant: Oomens, Liza

Dear Liza Oomens,

It is a pleasure to inform you that your application mentioned above has been approved.

Thanks very much for your submission to the HREC which has been approved.

In addition to any specific conditions or notes, the HREC provides the following standard advice to all applicants:
• In light of recent tax changes, we advise that you confirm any proposed remuneration of research subjects with your faculty contract manager before going ahead.
• Please make sure when you carry out your research that you confirm contemporary covid protocols with your faculty HSE advisor, and that ongoing covid risks and precautions are flagged in the informed consent - with particular attention to this where there are physically vulnerable (eg: elderly or with underlying conditions) participants involved.
• Our default advice is not to publish transcripts or transcript summaries, but to retain these privately for specific purposes/checking; and if they are to be made public then only if fully anonymised and the transcript/summary itself approved by participants for specific purpose.
• Where there are collaborating (including funding) partners, appropriate formal agreements including clarity on responsibilities, including data ownership, responsibilities and access, should be in place and that relevant aspects of such agreements (such as access to raw or other data) are clear in the Informed Consent.

Good luck with your research!

Sincerely,

Dr. C. Shelley-Egan
Chair HREC
Faculty of Technology, Policy and Management

Toestemmingsformulier Delft, 25-03-2026

Beste ouder,

U en uw kinderen worden uitgenodigd om mee te doen aan een onderzoek genaamd *Het gesprek tussen ouders en kinderen over telefoonervaringen* van Liza Oomens voor haar Master afstudeerproject aan de TU Delft.

Het doel van dit onderzoek is om te testen in hoeverre het gesprek tussen ouders en kinderen over telefoons gestimuleerd en verbeterd kan worden aan de hand van het ontworpen spel *FoonFabels*. The verzamelde data wordt gebruikt voor onderzoek, en geanonimiseerde foto's en quotes kunnen verschijnen in het afstudeerverslag en de eindpresentatie met uw toestemming. Het verslag zal openbaar beschikbaar zijn in het TU Delft Repository na afloop van het project.

We zullen u en uw kinderen vragen om mee te doen aan een testsessie waar jullie *FoonFabels* testen, dat ontworpen is om creativiteit, reflectie en conversatie stimuleren over telefoons. Daarna stellen we jullie enkele vragen over jullie ervaringen met het concept. Aan het begin van de sessie leggen we aan uw kinderen uit wat we tijdens de sessie gaan doen. Ze worden eraan herinnerd dat hun deelname vrijwillig is, dat ze op elk moment kunnen stoppen zonder uitleg, en dat ze enige opdracht of vraag mogen overslaan.

Er blijft altijd een risico op een datalek. We doen ons best om de verzamelde data van deze sessie zo veilig mogelijk op te slaan. Risico wordt geminimaliseerd door alle persoonlijk identificeerbare informatie te anonimiseren en de data op te slaan op een beveiligde locatie, alleen toegankelijk voor de onderzoekers. Data die niet gebruikt is in het verslag of de presentatie wordt na afloop van het project verwijderd.

Omdat we over ervaringen met de telefoon gaan praten, is er een klein risico dat de kinderen gevoelige onderwerpen opbrengen, zoals het zien van aanstootgevende beelden of cyberpesten. We benadrukken dat we niet zelf naar deze onderwerpen vragen, maar dat het zou kunnen dat ze opkomen. Als dit gebeurt, is het welzijn van de kinderen het belangrijkst en wordt het onderzoek gestopt als dat nodig is. Als uw kinderen bij u komen met online problemen, weet dat dan er organisaties zijn die hierbij kunnen helpen, aangeraden door de overheid[1]: meldknop.nl en kindertelefoon.nl.

Vul alstublieft onderstaand formulier in met specifieke toestemmingspunten. Als u vragen of klachten heeft kunt u contact opnemen met Liza Oomens.

Corresponding researcher:
Liza Oomens, e.t.oomens@student.tudelft.nl

Responsible researcher:
Fernando Secomandi, f.secomandi@tudelft.nl

[1] Bron: Ministerie van Algemene Zaken. (2025, 8 mei). *Waar kan ik of mijn kind terecht bij problemen online, zoals cyberpesten?* Rijksoverheid.nl. https://www.rijksoverheid.nl/onderwerpen/veilige-online-leefomgeving/vraag-en-antwoord/waar-kan-ik-of-mijn-kind-terecht-bij-problemen-online

H. TEST PLAN USER TESTING

Test session plan

- Duration: 45 min – 1 hour
- Participants: a family with 2 children, and 1 or 2 parents participating.
- Setting: at the family's home, at the kitchen table
- Test set-up: researcher and family are at the table. Family test out the prototype with as little interference as possible from the researcher. The researcher is taking notes on an observation form on a clipboard. (Sit somewhere where the kids don't see you as much, on the side)

Session script

Introduction (8 min)

- Informal introduction
- Explain the project and the purpose of the session
- You are welcome to be critical, it will only help me.
- Data collection: notes, audio recording, photos without heads
- Check IC forms
- Start audio recording

Introduction of FoonFabels (3 min)

- Introduce FoonFabels, what it is and the purpose of it.
- Explain roles: researcher is observer, family are testers.
- Emphasize thinking out loud
- Let them start

Testing FoonFabels (20 min)

- At least 2 rounds

Interview afterwards (20 min)

- See notetaking form. Asking about fun, easy/hard, experience talking with parents, different conversations than usual? About the question cards, good questions? Improvements on questions? New insights or agreements? Play again? Changes to the game?

Closing (5 min)

- Thanking for time and effort

- Wat vond je het leukste moment? (verhalen grappig?)

- Wat vond je het minst leuk of lastig? (begrijpen en verzinnen makkelijk?)

- Hoe vond je het om met je ouder(s) hierover te praten?

- Had je het gevoel dat je andere gesprekken had dan normaal? (iets nieuws gehoord?)

- Wat vonden jullie van de vragenkaartjes?

- Werkten de vragen goed, voor een goed gesprek?

- Waren er vragen die beter anders geformuleerd kunnen worden?

- Zijn jullie tot nieuwe inzichten of afspraken gekomen?

- Zou je dit nog een keer willen spelen?

- Wat zouden jullie veranderen aan het spel?

I. OBSERVATION FORM USER TEST FILLED IN

Filled in observation form (English, summarized) - task and criterion

Task	Clarity and ease of use	Enjoyment	Dynamic of participants
Start of the game • Reading guiding booklet	☑Short discussion on who will read from the booklet. Participants go through booklet quickly.	~ The rule of 'listening to each other and letting each other finish' might have stifled liveliness. The rule of 'every idea is welcome, the crazier the better' seems to have worked.	☑Parent reads instructions aloud, facilitating, not dominating.
• Picking and reading story card	☑Youngest player quickly grabs story card and reads aloud.	N/A	N/A
• Picking surprise element card	☑All players quickly grab and read their surprise element card.	☑Participants silently smile while reading surprise element card.	N/A
• Handing out whiteboards and markers	☑Whiteboards and markers are distributed without problems.	N/A	N/A
Writing the stories • Filling in the first part (consequences) on the whiteboard	✗Confusion about which parts of the whiteboard to fill in.	N/A	N/A
• Transferring the stories and whiteboards	✗Chaotic, unclear order of transferring and sharing stories. Participants talk simultaneously during sharing of stories.	☑Sharing of bizarre stories incites baffled looks and smiles.	N/A
• Filling in the second part (ending) on the whiteboard	☑Goes well after researcher interference on last step.	N/A	N/A
• Presenting the stories	☑Participants hold up the whiteboards and point during stories as intended.	☑Participants seem to enjoy the stories, giving remarks.	N/A
Applying stories to reality • Filling in 'in reality' part of the whiteboard	✗Participants hesitate to fill this in. The booklet does not include instructions to discuss afterwards so it feels rushed and inconsequential.	✗Participants struggle to come up with what to fill in	N/A
Question card • Picking the question card	☑Participants quite quickly find the right question card.	N/A	N/A
• Discussing the questions	☑Participants answer all of the questions.	~ Youngest child struggles with answering questions because of not having a smartphone.	☑Children were able to answer without being influenced by their parents' answer because of the order of answering from youngest to eldest.

Filled in observation form, extensive & in Dutch

Fase / actie	Indicator	Score (✓ / ~ / X)	Observaties (kort, concreet)
Start spel – lezen handleiding ***Begrijpelijkheid***	Spel start zonder hulp	☐	Onduidelijk: "wie leest voor??" Een ouder leest het boekje voor, gaat er snel doorheen en de aanwijzingen worden goed begrepen.
	Spelregels worden correct begrepen	☐	De regels vooraf worden begrepen maar bereiken misschien niet helemaal het gewenste effect. De regel 'laat elkaar uitpraten' zorgde misschien voor een wat stillere sfeer. Misschien meer nadruk leggen op 'ieder idee is goed, hoe gekker hoe beter!' en eentje met 'kinderen in de leiding'
	Er ontstaat geen discussie over regels	☐	Nee, geen discussie.
Eerste verhaalkaart + verrassingselement ***Aantrekkelijkheid & begrip***	Spelers reageren enthousiast op verhaal	☐	Alle kaartjesnamen beginnen met een v, is een beetje verwarrend misschien. Hoewel de kleuren en verschillende groottes het erg duidelijk maken.
	Opdracht wordt direct begrepen	☐	Jongste speler pakt meteen het kaartje en leest voor. Iedereen pakt ook meteen een verrassingselement kaartje en ze glimlachen om het kaartje dat ze hebben gekregen.
	Verhaal zet aan tot fantasie	☐	De verrassingselement kaarten zorgen voor gekke situaties in de verhalen en helpen goed met het verhaal verder verzinnen.
Whiteboard – vervolg schrijven (zelfde start) ***Creativiteit & plezier***	Iedereen schrijft/tekent actief mee	☐	Iemand roept "wacht!" voordat de timer aangezet wordt. Iedereen gaat stil aan de slag. Verwarring over welke gedeelten van het whiteboard ze moeten invullen, veel doen alleen het meest linkervak en iemand wil al alle vakken gaan doen. Ook is er enige verwarring over het eerste blokje – het probleem staat toch al op het verhaalkaartje? Voelt dubbelop.
	Er is zichtbaar plezier (lachen, energie)	☐	Iemand die op iemands anders bordje de tekeningen bekijkt moet lachen. Het is wel een beetje stil.
	Spelers komen makkelijk op ideeën	☐	Ja, iedereen gaat goed aan de slag.
Whiteboards doorgeven – afloop schrijven	Spelers bouwen logisch voort op verhaal	☐	Iedereen gaat moeiteloos voortborduren op elkaars verhaal omdat ze begrepen hebben van hun voorganger waar het over ging. Het verbaal delen van het verhaal aan je buur heeft meerwaarde want één speler noemt "Dat had ik alleen niet opgeschreven maar …." En voegt dus nog een essentieel deel van het verhaal toe. En het begrijpen wat iemand heeft getekend en opgeschreven is lastig zonder context.
Samenwerking & spelverloop	Overgang (doorgeven) verloopt soepel	☐	Hier is choas, ze geven eerst de whiteboards door en moeten daarna nog aan elkaar vertellen waar hun verhaal over ging – dit zorgt voor verwarring, gaat het over je eigen bordje of je nieuwe bordje? Ook

			gaat dit door elkaar omdat niet iedereen tegelijk aan elkaar kan vertellen wat er in het verhaal gebeurt. Misschien beter om de verhaaltjes gezamenlijk aan elkaar te presenteren en daarna de bordjes door te geven.
	Geen speler neemt het proces over	☐	Dit gaat prima, doordat de spelhandleiding steeds worden voorgelezen weten de kinderen de spelaanwijzingen ook. Regelmatig zegt een kind "papa, nu moet jij" "ohja"
Delen van verhalen	Iedereen krijgt ruimte om te delen	☐	Dit gaat goed, iedereen presenteert hun verhaal.
Betrokkenheid & gelijkwaardigheid	Er wordt geluisterd zonder onderbreken	☐	Dit gaat ook goed.
	Reacties zijn positief / nieuwsgierig	☐	Op zich wel, maar ze zijn niet heel expressief.
Whiteboards omdraaien – naar realiteit	Spelers begrijpen deze stap	☐	Omdraaien gaat goed. De stap begrijpen naar realiteit niet echt
Brug fantasie → realiteit	Overgang voelt logisch en natuurlijk	☐	De vragen voor "in real life" zijn lastig te koppelen aan de verhalen die zo bizar zijn. Dit onderdeel levert niets op en wordt ook verder niet besproken.
	Spelers maken link naar eigen leven	☐	Dit gebeurt niet, de vragen zijn daarvoor te abstract. Niemand kan daar echt wat mee.
Vragenkaart – vraag 1 (jong → oud)	Antwoorden zijn meer dan ja/nee	☐	Dat gaat op zich goed, de jongste speler heeft niet altijd een antwoord. De jongste speler heeft geen telefoon dus heeft soms moeite met vragen beantwoorden omdat ze dan hypothetisch zijn.
Gesprekskwaliteit	Kind durft vrij te spreken	☐	De antwoorden voelden een beetje verlegen en ze hebben niet heel veel uitgeweid.
	Ouders luisteren zonder direct te corrigeren	☐	De ouders luisteren, maar een ouder neemt het op een gegeven moment een beetje over. Probeert ietsje meer door te vragen maar er komt niet heel veel meer uit bij de kinderen.
Vragenkaart – vraag 2	Reacties bouwen op elkaar voort	☐	De kinderen kunnen op elkaar voortbouwen, wel lastig voor het jongste kind dat die als eerste moet.
Verdieping gesprek	Gesprek blijft open en niet-oordelend	☐	Dit gaat best goed, moet er wel op letten dat de vragen een beetje hypothetisch/niet specifiek gesteld worden, zodat de spelers zelf voorbeelden kunnen aanhalen als ze zich comfortabel voelen.
	Er ontstaat wederzijds begrip	☐	De verschillende antwoorden helpen om het onderwerp samen beter te begrijpen. Één vraag was vanuit de kinderen geformuleerd dus klopte niet voor de ouders.
Vragenkaart – vraag 3	Gesprek wordt concreter (inzichten/voornemens)	☐	Vooral de ouders waarderen de derde futureforward vraag
Impact & richting	Er ontstaan ideeën of afspraken	☐	Er ontstaan niet per sé nieuwe afspraken, het is meer "food for thought" "kunnen we later op terugkomen". Of er nieuwe dingen zijn besproken, anders dan normaal: de

			kinderen hebben “helemaal niet” het idee dat ze iets nieuws hebben besproken. De ouders daarintegen wel, die vinden het toch wel een ander perspectief.
	Sfeer blijft veilig en ontspannen	☐	De kinderen geven niet mega uitgebreid antwoord.
Algemeen (over hele spel)	Plezier is gedurende spel aanwezig	☐	Op zich wel, maar ze zijn niet heel expressief.
Ervaring & impact	Kind voelt zich gehoord (inschatting)	☐	De ouders luisterden wel echt actief naar de kinderen en vroegen door.
	Ouder-kind interactie is relatief gelijkwaardig	☐	Kinderen hebben wel minder te zeggen dan ouders, maar het helpt wel dat de kinderen eerst moeten antwoorden op de vragen.
	Spel oogt visueel aantrekkelijk	☐	Weet ik niet, niet naar gevraagd.

J. FINAL DESIGN BOOKLET, CARDS, WHITEBOARD

Final design booklet (size: A5 landscape)

STAP 2: DE WISBORDJES

Elke speler krijgt een wisbordje en een stift.

Schrijf en teken allemaal op de lichtblauwe kant van je wisbordje hoe het verhaal van de blauwe kaart verder gaat.

Wat is het probleem van de hoofdpersoon? Wat doet de hoofdpersoon om het probleem op te lossen? Vergeet niet je verrassingselementkaartje in je verhaal te verwerken.

Draai de zandloper om, jullie hebben hier 5 minuten voor.

5 min

STAP 3: DE WISBORDJES DOORGEVEN

Presenteer aan elkaar wat jullie hebben opgeschreven en getekend op de lichtblauwe kant van het bordje. Geef daarna je bordje door aan de speler rechts van je.

Jij krijgt het wisbordje van de speler links van je. Schrijf op de donkerblauwe kant van het bordje hoe dat verhaal afloopt. Hier krijgen jullie weer 5 minuten voor.

Presenteer nu je afgemaakte verhalen aan elkaar, van begin tot eind!

5 min

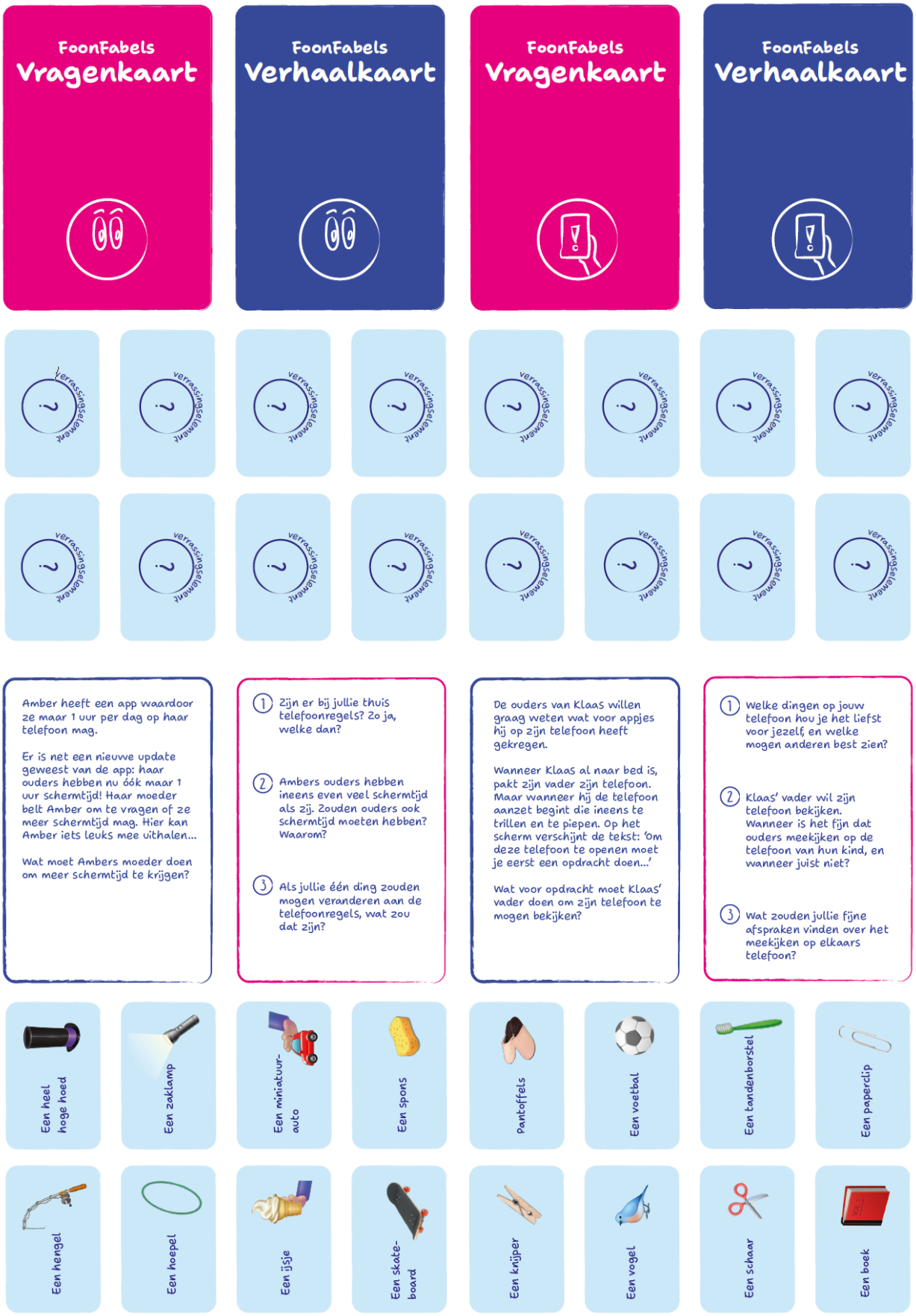
STAP 4: DE VRAGENKAART

Op de blauwe verhaalkaart van het begin staat een plaatje. Zoek de roze vragenkaart met hetzelfde plaatje.

Een speler leest steeds de vraag voor, en dan geven alle spelers antwoord op volgorde van leeftijd, dus de jongste speler geeft als eerste antwoord en de oudste speler als laatste. Herhaal dit voor alle drie de vragen.

Dit is het einde van het spel!

Story cards, question cards, surprise element cards (size: 2 double-sided A3s)



FoonFabels
Verhaalkaart

FoonFabels
Verhaalkaart

FoonFabels
Verhaalkaart

FoonFabels
Verhaalkaart

FoonFabels
Vragenkaart

FoonFabels
Vragenkaart

FoonFabels
Vragenkaart

FoonFabels
Vragenkaart

Bibi heeft vanmiddag met haar buurjongen afgesproken bij hem thuis.

Vlak voordat ze elkaar zouden ontmoeten, krijgt Bibi een vreemd bericht van hem: 'Help, ik zit vast in mijn game!' Wanneer Bibi de kamer van haar buurjongen inloopt en hoi zegt geeft haar buurjongen geen antwoord. Hij lijkt haar niet eens te horen.

Wat is er aan de hand? Wat gaat Bibi doen?

1. Bibi's buurjongen zit zo in zijn game dat hij Bibi niet hoort. Heb jij ook weleens gehad dat iemand zo met zijn telefoon bezig was dat ze jou niet opmerkten?
2. Heb jij zelf weleens dat je iemand niet hoort wanneer je op je telefoon zit?
3. Wat zou je kunnen zeggen tegen iemand als je merkt dat ze geen aandacht voor jou hebben door hun telefoon?

Milan wil een nieuwe app met filmpjes downloaden, maar eerst moet hij toestemming vragen aan zijn ouders. Zijn moeder pakt zijn telefoon en zegt dat ze de app eerst zelf wil uitproberen.

Een uur laten heeft Milan zijn telefoon nog niet terug, zijn moeder zit al een uur te scrollen...

Hoe krijgt Milan zijn telefoon terug?

1. Milans moeder kan niet stoppen met scrollen op Milans nieuwe app. Hoe komt het dat sommige apps zo verslavend zijn, denk je?
2. Besteed jij zelf ook soms meer tijd op een app dan je zou willen?
3. Wat zou jij kunnen doen om een betere balans te hebben tussen online en je 'echte' leven?

Robert en Isa hebben op een regenachtige zondag met elkaar afgesproken om samen te gamen.

Maar wanneer ze willen beginnen, doet de spelcomputer het niet. Ook de tablet en hun eigen telefoons werken niet meer. Wat blijkt, de burgemeester heeft een digitaal-vrije zondag ingesteld in de hele stad!

Wat verzinnen Robert en Isa om toch een leuke dag te hebben?

1. Wanneer hebben jullie voor het laatst iets super leuks gedaan waarbij je je telefoon totaal niet gemist hebt?
2. Zijn er situaties waar je telefoon ervoor zorgt dat je minder plezier hebt?
3. Wat voor momenten zouden jullie telefoonvrij kunnen maken?

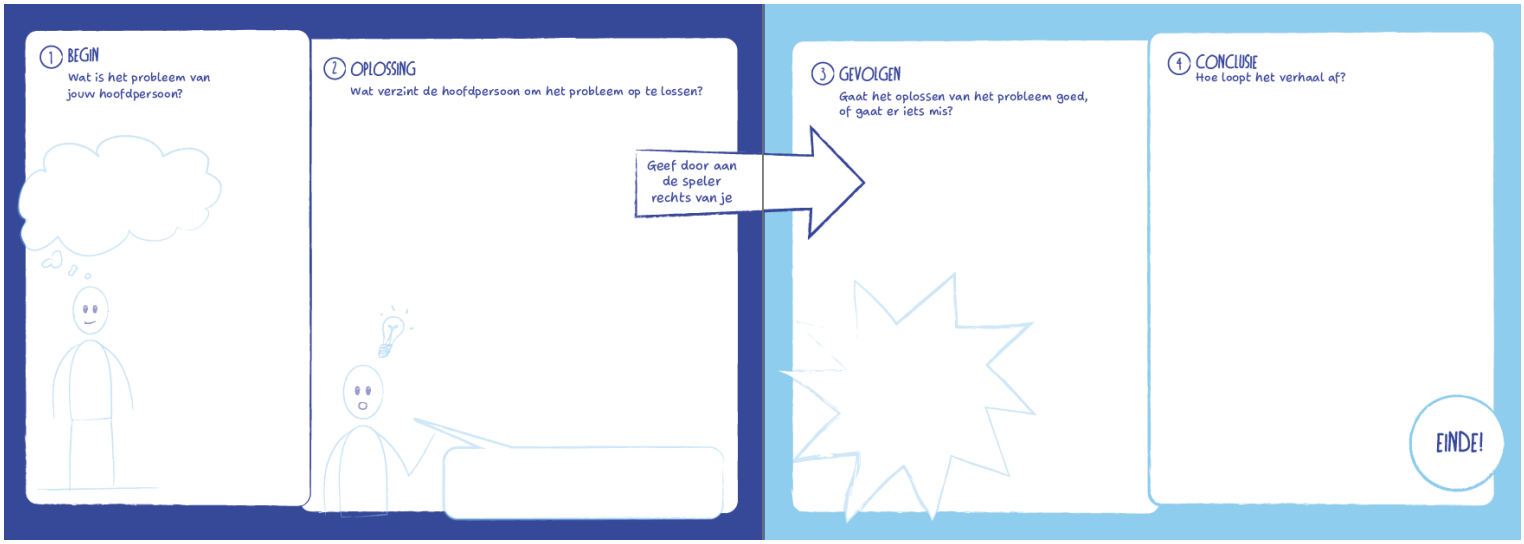
Lola kijkt in de schoolpauze op haar telefoon.

Ineens krijgt ze een melding van haar schermtijdapp: 'Klik hier om 1 uur schermtijd te krijgen van Bas'. Ze klikt erop en Bas krijgt een melding: 'Je hebt nu 1 uur minder schermtijd'.

Blijkbaar kan zij de schermtijd van haar klasgenootjes stelen! Wat gaat Lola doen met deze nieuwe functie?

1. Hebben jullie klasgenoten even veel schermtijd als jullie?
2. Waarom denken jullie dat andere gezinnen andere telefoonregels hebben?
3. Wat zouden we kunnen proberen om de telefoonregels beter bij ons gezin te laten passen?

Whiteboard (size: 2 double-sided landscape A4s)



K. IMPLEMENTATION MATERIAL COSTS SOURCES

For an order of 60 units (i.e., 10 sets), the total price for the printed whiteboards is €250.42 (via the website https://www.drukland.nl/ProductController/calc/whiteboard?product_id=944451&qty=60&width=60&height=21&speed=normal#productview)

10 setjes stiften kosten in totaal € 41,10 (via the website https://www.bol.com/nl/nl/p/nobo-geurarme-mini-whiteboard-markers-met-wisser-fijne-punt-van-2-millimeter-6-stuks-assorti/9200000085092069/?cid=1775049617932-2593472217414)

Guiding booklets 10 stuks A5 liggend € 37,46 excl. BTW. (via website https://www.printerpro.nl/producten/brochures-magazines-geniet/)

Zandlopers 5 minuten, 10 stuks €39,50 incl. BTW (via website https://eelkeverschuur.nl/shop/zandloper-klein-5-min/)

Still needs a box, perhaps: (no price on website). https://doosjeopmaat.nl/doosje/doosje-met-vaste-klep-binnenmaat-216-x-131-x-40-mm/

L. DESIRABILITY RESEARCH SURVEY

Enquête FoonFabels - Afstudeerproject Liza Oomens, TU Delft

Beste ouder,

Voor mijn afstudeerproject aan de TU Delft heb ik een spel ontwikkeld genaamd FoonFabels. Ik zou graag willen weten wat ouders van het spel vinden.

In deze enquête van **ongeveer 5 minuten** krijgt u eerst een uitleg over het spel. Daarna worden u **10 vragen** gesteld, o.a. over uw eerste indruk, hoe het spel in uw dagelijkse gezinsleven zou kunnen passen en hoe u het liefst toegang zou krijgen tot zo'n spel. *Als u het spel al kent omdat u het hebt getest, mag u uw antwoorden ook baseren op uw ervaringen tijdens het testen.*

Uw antwoorden worden anoniem verwerkt en alleen gebruikt voor dit project. Alvast erg bedankt voor uw hulp!

Groetjes,
Liza

Wanneer u dit formulier indient, worden uw gegevens, zoals naam en e-mailadres, niet automatisch verzameld, tenzij u het zelf opgeeft.

Introductie

FoonFabels is een spel voor kinderen van 8 tot 12 jaar en hun ouders, waarmee ze op een creatieve en fantasierijke manier in aanraking komen met onderwerpen rondom smartphones. Het doel hierbij is om positieve, relevante en constructieve gesprekken te hebben over smartphones. Het spel duurt ongeveer 20 tot 30 minuten.

Tijdens het spel lezen de spelers een verhaal met een bizarre wending, en bedenken ze hoe het verhaal verdergaat door te schrijven, te tekenen en aan elkaar te presenteren. Vervolgens bespreken de spelers onderling drie vragen die te maken hebben met een onderwerp dat in het verhaal aan bod kwam.
Het spel bevat 6 verhaalkaarten, dus het kan in totaal 6 keer gespeeld worden. De onderwerpen zijn: plezier hebben zonder telefoons, verslavende apps, schermtijd en andere telefoonregels, privacy en meekijkende ouders.

Volgende

Spelbeschrijving

Het spel gaat als volgt:
1. De jongste speler pakt een blauw verhaalkaartje en leest het voor. Dit kaartje geldt voor iedereen. Iedere speler pakt een eigen lichtblauw verrassingselementkaartje.

2. Elke speler krijgt een whiteboard en een stift. Op de linkerkant van het whiteboard verzint iedere speler hoe het verhaal verdergaat en verwerkt hun verrassingselement in hun verhaal. Iedereen presenteert wat ze hebben geschreven en getekend op hun whiteboard.

3. De spelers geven hun whiteboard door aan de persoon rechts van hun. Iedereen maakt het verhaal van hun buurman af. Iedereen presenteert hun verhalen aan elkaar.

4. Nu pakken de spelers het oranje vragenkaartje dat bij het verhaalkaartje hoort. Hierop staan 3 vragen. Deze vragen bespreken de spelers één voor één, op volgorde van leeftijd. Dus de jongste persoon geeft steeds als eerste antwoord. Hierna is het spel klaar.

Terug Volgende

* Vereist

Vragen

1

Heeft u kinderen? *

- ◯ Ja, 1 kind
- ◯ Ja, 2 kinderen
- ◯ Ja, 3 kinderen
- ◯ Ja, 4 of meer kinderen
- ◯ Nee

2

Hoe oud is uw kind / zijn uw kinderen?

Voer uw antwoord in

3

Zou u dit spel graag met uw familie willen spelen? *

	Helemaal niet	Niet echt	Neutraal	Een beetje	Erg graag
	◯	◯	◯	◯	◯

4

Waarom zou u het spel (niet) met uw familie spelen? *

Voer uw antwoord in

5

Op wat voor moment zou u dit spel spelen? *

- ☐ Op weekdagen na school
- ☐ In het weekend
- ☐ Tijdens de vakantie
- ☐ Ik zie geen natuurlijk moment voor het spel
- ☐ Andere

6

Welke toegevoegde waarde zou dit spel voor uw familie hebben? *

- [ ] Een fijn moment met elkaar doorbrengen ('quality time')
- [ ] Gesprekken over telefoongebruik starten
- [ ] Meer over het perspectief van mijn kind(eren) horen
- [ ] De creativiteit van mijn kind(eren) stimuleren
- [ ] Samen plezier hebben
- [ ] Ik zie geen duidelijke toegevoegde waarde
- [ ] Andere

7

In hoeverre bent u het eens met de volgende stellingen? *

	Sterk oneens	Oneens	Neutraal	Eens	Sterk eens
Dit spel zou kunnen helpen om constructieve gesprekken over telefoons te starten	○	○	○	○	○
Mijn kind zou zich vermaken met dit spel	○	○	○	○	○
Ik zou me vermaken met dit spel	○	○	○	○	○

8

Hoe zou u het liefst aan een spel zoals FoonFabels komen? *

- [ ] Als een fysiek spel kopen in een (speelgoed)winkel
- [ ] Online downloaden en zelf uitprinten
- [ ] Als een fysiek spel lenen bij de bibliotheek
- [ ] In de vorm van een app
- [ ] Via de school van mijn kind(eren) krijgen
- [ ] Andere

9

Hoeveel zou u bereid zijn te betalen voor dit spel? *

- ○ 0-5 euro
- ○ 5-10 euro
- ○ 10-15 euro
- ○ 15-20 euro
- ○ Meer dan 20 euro
- ○ Ik ben niet bereid hiervoor te betalen

10

Heeft u nog suggesties om dit spel te verbeteren? Of iets anders dat u nog kwijt wilt?

Voer uw antwoord in