



LISTAHÁSKÓLI ÍSLANDS
Iceland Academy of the Arts



Arite Fricke

A document submitted to:

The Department of Design and Architecture, Iceland Academy of the Arts, in partial fulfillment of
the requirements for the degree of Master of Design, 2015

Hugarflug

Playful Workshops

Arite Fricke

A Document Submitted to:

The Department of Design and Architecture, Iceland Academy of the Arts, in partial fulfillment of
the requirements for the degree of Master of Design, 2015

Mentor MA project: Thesis: Jan van Boeckel

Mentor MA project: Design: Lóa Auðunsdóttir

This thesis is 10 ECTS credit hours of a total of 30 credit hours final project towards the degree of Master of Design. The written content of this publication, as well as the images, are the responsibility of the author.

No part of this publication may be reproduced in any form or by any means without written permission from the publisher: Iceland Academy of the Arts, Þverholti 11, 105 Reykjavík, Iceland.

References to this publication should be as follows:

Fricke, Arite. *Hugarflug Playful Workshops*, Reykjavík: Iceland Academy of the Arts, 2015.

LIST OF FIGURES

Figure 01: Hugarflug concept	13
Figure 02: Steps of Design Thinking	16
Figure 03: Research process	17
Figure 04: Splitting bamboo spares	24
Figure 05: Template used for pre-cutting kite paper	24
Figure 06: Prototype of the kite shape named “Sled”	25
Figure 07: Toolbox	25
Figure 08: Parts of a kites bobbin	25
Figure 09: Basic elements of kite making	26
Figure 10: Korean military kite	28
Figure 11: “Sled” kite	28
Figure 12: Two children helping each other during kite making	30
Figure 13: Two children assisting each other during kite flying	30
Figure 14: Kites hanging from the sealing	34
Figure 15: Signs on the wall	35
Figure 16: Workshop atmosphere	35
Figure 17: Close-up workshop	36
Figure 18: Kites flying outside the building	36

Abstract

The purpose of this research is to answer the question of what elements a playful workshop in kite-making ideally should consist of if its aim is to not only improve the children's creative confidence but also their sense of social inclusion. This has been done through a combined process of writing and reading about the phenomenon of play and creative methods stemming from Design Thinking as developed by Charles Burnette as well as through facilitating a workshop in a public elementary school as part of the teaching schedule. Illustrated workbooks aimed to communicate the elements of the activity in a precise and aesthetic manner and as a medium to collect ideas and document the design process. The findings of the workshop showed that the activity of kite making fosters creative thinking and an improved social interaction. Further improvement can be achieved through framing the workshop clearly as group activity, a more flexible and extended timeframe and clearer division of the steps of the Design Thinking process. In providing more choices for materials and tools and through a change of location outside the classroom the playful atmosphere could be enhanced. Having an event such as a kite festival as a goal might additionally increase the children's motivation to participate, and hence their ability to see themselves as equal parts of a bigger whole.

Keywords: Design Thinking, children, play, social design

TABLE OF CONTENTS

1. Introduction	4
2. The three main pillars of Hugarflug.....	5
2.1. Pillar one: improving children's sense of social inclusion.....	5
2.2. Pillar two: increasing children's creative confidence	7
2.2.1. <i>The national curriculum</i>	7
2.2.2. <i>The aims of Design Thinking</i>	8
2.2.3. <i>The steps of Design Thinking</i>	8
2.3. Pillar three: the playful activity of making and flying kites.....	9
3. Literature review	11
3.1. Hugarflug and Design Thinking.....	11
3.2. Hugarflug and social design	12
3.3. Hugarflug and playfulness	13
4. Facilitating the first Hugarflug playful workshop	15
4.1. Design questions	15
4.2. Preparing and scheduling the workshop.....	15
4.2.1. <i>Considering previous experiences</i>	15
4.2.2. <i>Planning the workshops steps</i>	16
4.2.3. <i>Framing the task: deciding shape, tools and material</i>	17
4.2.3. <i>Designing the workbook</i>	19
5. Ethical aspects of the research	20
6. Findings – the workshop's logbook	20
6.1. Identify and empathize.....	20
6.2. Ideate: making drawings and small indoor kites	22
6.3. Testing.....	22
6.4. Implementing: building and flying the kites	22
6.5. Evaluation.....	24
7. Analysis of the findings.....	24
7.1. Overall impression of the workshop's progress.....	24
7.2. Impressions of improved creativity and sense of social inclusion	24
8. Conclusion and ideas for further steps.....	25
9. Epilogue.....	27

1. INTRODUCTION

Feeling socially isolated, being left outside the flow of finances, information and interaction, not belonging to the game is real to many. Families deprived from finances are likely to remain poor for generations because of a lacking confidence and motivation to act upon the situation and to claim the support they might be entitled to. Children of these families are not able to escape and to change the course of their lives without help. Some might say that finding a solution is the responsibility of governments and authorities. Some of us might financially support others to deal with the problem. But society is paying a much higher price in the end for this acceptance of poverty, because these children might have the yet undiscovered key competences to respond to the challenges that they and all of us will be faced with, now and in the future.

Hugarflug Playful Workshops aim to increase children's creative capabilities and sense of social inclusion in a small-scale. Being a parent and working and living as a foreigner in Iceland since 2003, I developed the project, building on my personal experiences and on my search for implementing more playfulness and creativity into my own professional and private life. Making and flying kites became my passion in the course of the process. Its 2,000 years old history and the way that subjects such as mathematics, physics, art, design and crafting are interwoven in it, but especially the joy, excitement and amusement connected to this versatile indoor and outdoor activity is still keeping me motivated to experiment and engage.

This thesis is the result of a yearlong design research study, where I combined the development of the structure for Hugarflug Playful Workshops and the design of teaching material with writing and reading about the phenomenon of play and creative methods stemming from Design Thinking. With the aim to address the social issue described above I searched for an answer to the question of what elements a playful workshop in kite-making ideally should consist of if its aim is to not only improve the children's creative confidence but also their sense of social inclusion.

My findings and analysis led me to the conclusion that, although the fieldwork described in this thesis did only show glimpses of an increased creativity and gave small hints of an improved interaction, Hugarflug has the potential to reach what they are aiming for. Suggestions for improvement pertain to the activity being organized for smaller groups making a kite together rather than having each participant working alone. All steps of the workshop should have an emphasis on the social aspects and should enable and inspire the participants in developing creative habits. The choice of tools and material as well as the design of the provided workbook should leave room for experimenting and engaging in an explorative and creative process. The location of the workshop should provide a playful and relaxed atmosphere, where children can satisfy their natural curiosity and their needs for education, experimenting, play and movement and for belonging to of a bigger whole.

2. THE THREE MAIN PILLARS OF HUGARFLUG

Hugarflug is the Icelandic expression for "brainstorm"; literally translated, it means "flight of the mind". I derived Hugarflug Playful Workshops as a name for this thesis and the design process behind it because it is associated with all of the three main pillars of my research.

The most important pillar, which is the main motivation for this project, derives from the fact that children who live with diverse forms of poverty are becoming socially isolated. These children have fewer possibilities for developing interests and talents, leading to a lack of skills and key competences such as creative confidence to take on challenges they will be faced with, now and in the future.

In order to tackle the issue, I facilitated my first kite-making workshop already in April 2014, during teaching time in grade 3 of a public elementary school, together with the students' teacher and a group of design students.¹ The playfulness involved in the activity became the second important pillar of my research, which is the phenomenon of play and its meaning for our evolution. My choice of applying creative methods stemming from Design Thinking as developed by Charles Burnette during further workshops is the third part. All the main topics are interwoven, more so since I applied Design Thinking during my own process of developing the workshops further and for the corresponding teaching material in collaboration with an elementary-school teacher. During the following sections, the main pillars create the background for the reviewed literature, the fieldwork, its analysis, conclusions and recommendations for further research.

2.1. PILLAR ONE: IMPROVING CHILDREN'S SENSE OF SOCIAL INCLUSION

In Iceland a total of 6,200 individuals – about 2% of the total population and 3% of all children – live in poverty.² This was confirmed by a recently published article published by Save the Children Iceland in reference to a report by the Icelandic Welfare Watch from January 2015. Margret Julia Rafnsdottir, project manager at Save the Children Iceland and member of Welfare Watch, explains in the article that more children than adults are deprived by poverty and experience social isolation. Children are unlikely to escape the vicious circle of poverty because they get fewer opportunities to discover interests and talents. Their families therefore are in danger of remaining poor for generations.^{3 4} Rafnsdottir demands changes in the system: she says that the financial allowances should be increased and services provided free of charge for children in poor families.

The problem however requires other solutions, as Bjarni Karlsson explains in an interview with me.⁵ Karlsson was a priest for about 30 years and is currently working on his doctoral dissertation about human relations in the light of poverty and prosperity. He held a seat in the Ministry of Welfare during the years 2010 – 2012 and witnessed what happened when the *leisure*

¹ "Breaking Mindframes," Cargocollective.com, (February 2015), http://cargocollective.com/together_lhi/Breaking-Mindframes-2014.

² "Fátækt: Barnabætur Verði Auknar Og Lágmarksframfærsluviðmið Skilgreint," accessed February 14, 2015, <http://www.barnaheill.is/Frettir/Frett/fataektbarnabaeturverdiauknaroglagmarksframfaersluidmidskilgreint/>.

³ "Skýrsla Barnaheilla - Barnafátækt Er Brot Á Mannréttindum Barna," accessed December 2, 2014, <http://www.barnaheill.is/Frettir/Frett/barnafataekterbrotamannrettindumbarna/>.

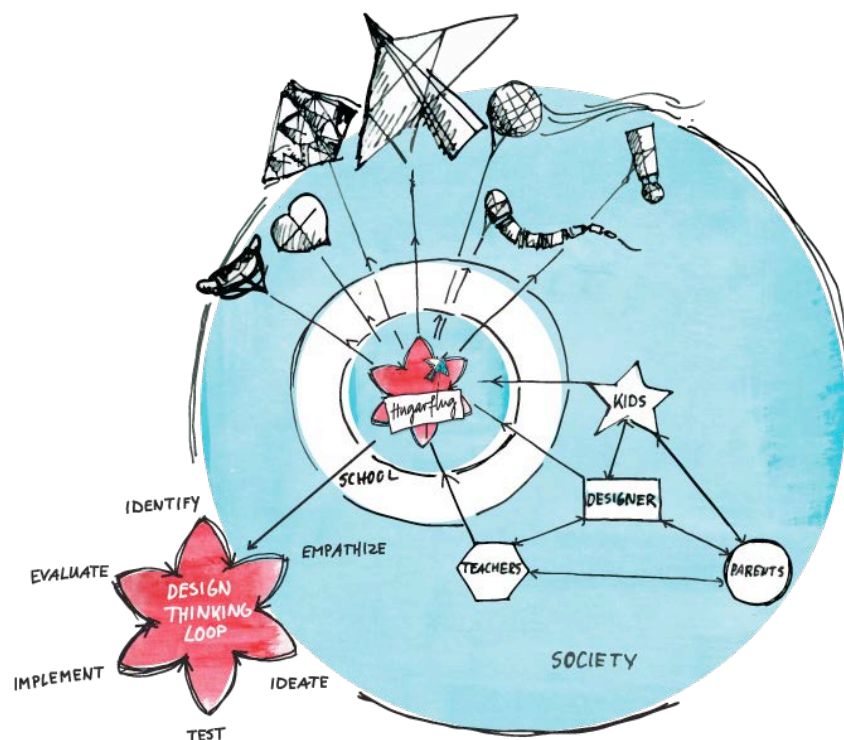
⁴ Ibid.

⁵ Bjarni Karlsson, Children living with relative poverty, audio recorded interview, February 5, 2015.

card was invented to allocate a certain amount of money per year to parents in Reykjavik so that their child could attend a fun leisure-time activity.⁶ What Karlsson surprisingly realized was that middle-class parents took advantage of the card. Those affected by poverty were too ashamed to even claim what they were entitled to. They were left outside the societal flow, not only the flow of finances but also the flow of information and interaction. One thing that Karlsson told me was very striking: “The child affected knows lots of tricks to hide his/her circumstances and learns to have no needs and no interests in anything; s/he chooses to be outside the flow as well.”⁷

After I had explained my ideas to him, we agreed on the fact that the free-of-charge public elementary schools, which every child from 5 years of age has the right to attend, could be the places where initiatives to tackle societal issues can have an actual impact. Karlsson believes the solutions center on us becoming agents of change through developing common grounds and spaces to engage, where we learn to develop empathy with each other, share ideas and interests, and grow as personalities. Karlsson and I agreed that the project Hugarflug could be such an initiative within the teaching schedules of public schools, since it aims to settle the tensions social inequality is creating. He concluded that there are no losers in this game, only winners. Figure 1 on the following page is showing an illustration I made of the position of Hugarflug within society and the feedback loops of the facilitating designer, the children, the parents and teachers in public elementary schools. The drawing furthers the Design Thinking loop, which is the method, applied during the workshops.

Figure 01:
Illustration of the “Hugarflug
Playful Workshops” and its
position within society.



⁶ “Fristundakortið Verður 35 Þúsund Krónur Á Barn Árið 2015,” *Reykjavíkurborg*, accessed February 14, 2015, <http://reykjavik.is/frettir/fristundakortid-verdur-35-thusund-kronur-barn-arid-2015>.

⁷ Karlsson, Children living with relative poverty.

Karlsson framed the Hugarflug philosophy, which clearly focuses on kite making as being a deeply social activity and is the reason why the emphasis of the project lies on group work:

*Kites are ideas, which can get wings. The sense of making a kite is to design, construct, and fly it together. The message on the kite says something about you and me sharing a passion. To have a kite means having a friend.*⁸

The interview was taken in the middle of my fieldwork and therefore had a significant impact on the further development of the workshop I was facilitating at the same time, in the beginning of February 2015. Although the children in my group had already started on the design of their kites, I decided to adjust the course of the workshop and to divide the class into pairs who would help each other during the construction and flying of the kites. This process, my observations and analysis are explained in the later sections.

2.2. PILLAR TWO: INCREASING CHILDREN'S CREATIVE CONFIDENCE

2.2.1. THE NATIONAL CURRICULUM

According to The Icelandic National Curriculum Guide for Compulsory Schools, after having attended grade 4 a pupil should be capable of completing a straightforward task from an idea to an object, apply skills that they have learned, work in a group, explain their work and show how it applies to the environment, discuss technology applied, explain cultural influences affecting their work, present and assess their work, and clean up.⁹ Emphasis is put on the development of their key competences, such as the ability to express and communicate; to think creatively and critically; to develop self-knowledge, independence and the ability to cooperate; to make use of media, and to develop feelings of responsibility for their studies.¹⁰ About teaching methods, the curriculum points out that assignments should be associated with normal life and the economy, which enhances the pupils' understanding of their environment. The school atmosphere, together with the teaching approaches, should aim for the prosperity and improvement of the pupils' key competences.¹¹ Hugarflug corresponds in many ways with the curriculum. However, it aims also to improve the creative confidence of students, which strengthens their self-esteem and makes them able to take on with various tasks during their lives.

⁸ Ibid.

⁹ "Aðalnámskrá Grunnskóla," *Mennta- Og Menningarmálaráðuneyti*, accessed January 23, 2015, <http://www.menntamalaraduneyti.is/utgefing-efni/namskrar/adalnamskra-grunnskola/>.

¹⁰ Ibid.

¹¹ Ibid.

2.2.2. THE AIMS OF DESIGN THINKING

Hugarflug Playful Workshops aim to model creative methods stemming from Design Thinking as developed by Charles Burnette in the field of education in 1989.¹² The method enables children to solve a given task in a creative way, because the teacher considers the children's specific wants and needs beforehand and is not defining the solution to the task. Through empathizing with the children's feelings and individual viewpoints, the teacher has the opportunity to improve the teaching and learning atmosphere through increasing trust and understanding.¹³ Also, according to Burnette, the task builds upon their previous experiences, which helps them when engaging with an unfamiliar topic.¹⁴ During Hugarflug workshops, the teacher starts to build on the prior experience most children have of flying a kite. During the initial meetings, s/he gains knowledge about these experiences from each participant. Since Design Thinking is an open-ended and hence creative approach, no pre-defined solution is at hand.¹⁵ In providing resources and space for playing with tools and material, along with hands-on experimenting, drawing and prototyping, handicraft skills of its participants are trained and improved. The victory and joy the participants of creative workshops are experiencing, for instance when designing a unique kite that actually flies, leads to increased creative confidence of being able to take on with various tasks.

2.2.3. THE STEPS OF DESIGN THINKING

As mentioned above, Design Thinking consists of various steps, always starting from a human need that requires a practical solution. This can for instance be the need of a teacher to teach a subject or to make or improve a schedule or setting. During the first steps called *identify*, all relevant information is collected through story telling, field trips and exploration of materials and existing models. This step aims to establish an emotional connection of the workshop participants to the task, leading to motivation for finding their own, individual solutions for needs that must be satisfied. The development of empathy is especially important when the task is concerned with people, but also when it comes to collaboration and teamwork.

Next, the step of *ideating* consists of drawing ideas, making mood boards and building prototypes with the material at hand in a short space of time. The prototypes are presented and tested so that mistakes are discovered at an early stage, which is an important part of the learning process. As an open-ended approach, there is always room for further adjustments because of feedback and opinions collected.¹⁶ Participants are thus gradually released from the fear of failing; also, they are not competing with each other but rather searching for better outcomes.

The fifth step is to produce and present the final outcomes. In the case of Hugarflug, this could for instance happen during a kite festival where the kites are presented to an audience.

¹² "IDESiGN. The Goals for Teaching Design Thinking," accessed January 8, 2015, <http://idesignthinking.com/01whyteach/01whyteach.html>.

¹³ "Empathize," *The Free Dictionary*, n.d.

¹⁴ "IDESiGN. The Goals for Teaching Design Thinking," accessed January 8, 2015, <http://idesignthinking.com/01whyteach/01whyteach.html>.

¹⁵ "IDEO. A Design and Innovation Consulting Firm," accessed November 30, 2014, <http://www.ideo.com/about/>.

¹⁶ Ibid.

During an evaluation of the workshop, all participants reflect on the teamwork, how the task was approached, the role of the individuals and how they felt about it. This is how participants become conscious of their interests and capabilities, resulting in self-esteem and identity that turns them into active agents of their life – and hence our society likewise. Figure 2 is showing an illustration I made of the Design Thinking loop and its steps, which can be repeated in order to adapt a former solution to changing circumstances.

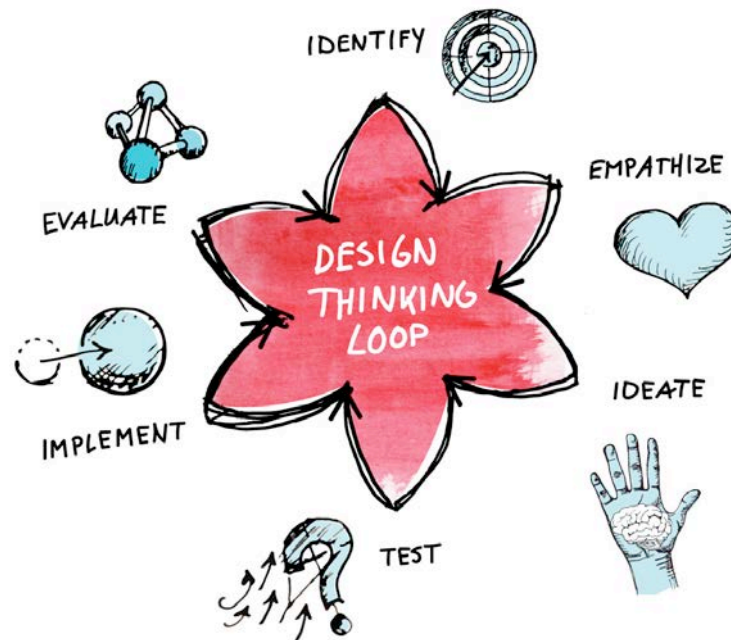


Figure 02: Illustration of the steps stemming from Design Thinking.

2.3. PILLAR THREE: THE PLAYFUL ACTIVITY OF MAKING AND FLYING KITES

Flying a kite is an activity many children are familiar with. According to my own observations and experiences I collected during workshops with children between 6 and 9 years of age, it is easy to engage them in the activity. They mostly want to skip the theoretical and exploratory part of the workshops and start to make the kite straight away because they are excited to see it fly. Adults I have been talking to remember it from their childhood as being a highly entertaining and fun thing to do. One of my peers describes that he had “an immediate feeling of joy” when watching me running around in our exhibition space with a small paper kite.

I became absorbed by the making and flying of kites after I facilitated my first collaborative workshop. Since April 2014, I have been engaged in countless kite-making attempts, combining and trying diverse recycled and newly bought materials. I developed a passion for this game: the play with different papers and plastic, bamboo, fiberglass or grill sticks, or with parts of plants found in Icelandic gardens. I documented these experiments on my website¹⁷ and in a movie.¹⁸ I

¹⁷ “Hugarflug Playful Kite-Making Workshops for Elementary Schools,” *Hugarflug Playful Kite-Making Workshops for Elementary Schools*, accessed April 19, 2015, <https://aritefricke.wordpress.com/>.

¹⁸ Fricke, Arite, “Arite-Fricke-MA2-2014-1, 2014”, *Vimeo* video, 2:36, September, 2014, <https://vimeo.com/105187179>.

learned splitting bamboo with different knives and tongs, which is why it is my favorite material for kite spars.¹⁹ I became absorbed in the activity, exploring the material and how it behaves during building and after exposing it to strong winds, and I felt joy and inner peace. My children and husband joined in the game, each contributing ideas and knowledge to the topic. Through this playful activity, I learned about an interest I did not know I had and that I could combine it with what I had previous learned.

The playfulness involved is why kite making and all the diverse aspects involved became the main concern of my research. In September 2014, I went to one of the biggest international kite festivals in Dieppe, France, where I talked to kite makers, artists and participants from countries where kite making is a dynamic part of the culture. I learned about the many possibilities that kite making offers when it comes to teaching children about history, culture, mathematics, art and crafts.²⁰ During the following months back in Iceland, I started reading about kite making, social design, design thinking and the phenomenon of play. I learned about the importance of play for the evolution and survival of humans and animals. Figure 3 on the next page is an illustration of my design process, starting in April 2014 and continuing studies at the academy in order to receive permission to teach in elementary schools in Iceland. During the following section, the literature reviewed is presented to the reader and connections made to the concept and philosophy behind Hugarflug.

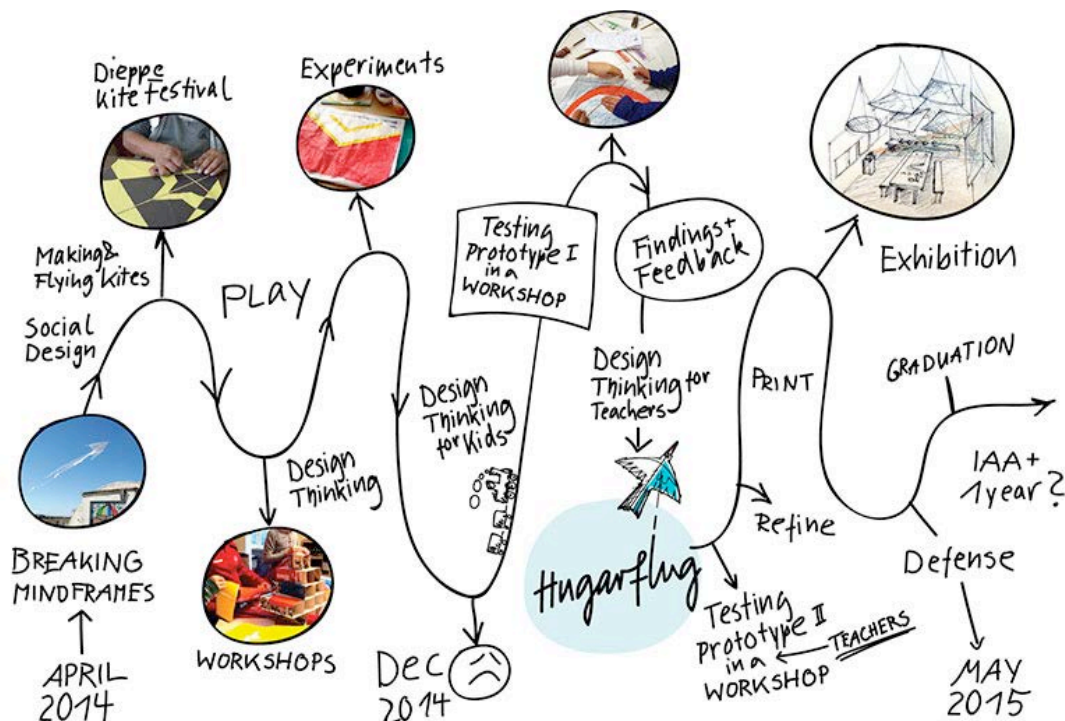


Figure 03: Illustration of the author's ongoing process of research and design, starting in April 2014.

¹⁹ Lambert, Bruce, "How to Split a Bamboo Pole," YouTube video, 9:31, August, 2008, https://www.youtube.com/watch?v=oXFy_OQRPzY&feature=youtu_gdata_player.

²⁰ Fricke, Arite, "Dieppe International Kite Festival 2014," Vimeo video, 5:49., April, 2014, <https://vimeo.com/125200040>.

3. LITERATURE REVIEW

3.1. HUGARFLUG AND DESIGN THINKING

Design Thinking is a creative problem-solving approach where purposeful thinking leads to satisfying a human need.²¹ According to Charles Burnett (1989) who developed a resource for teachers who want to adapt their methods to the needs of their students, it means that existing relevant information is recognized and defined, alternatives acknowledged, design plans created and executed, the outcome evaluated and the approach refined until successful.²² Burnette explains that during the process, participants learn to present and discuss their ideas with others, and to design, construct and test their work together. An important part of this process is to collect experiences, also through making mistakes.²³ This notion of “being okay with failing”²⁴ and of Design Thinking being “prototyping, testing and failing all the time, but failing quickly and cheaply”²⁵ became one of the key ideas behind Hugarflug. The workshops are supposed to be fun and exciting creative work in a group where nobody should be afraid of judgment.

According to Burnette, an individual gains creative ability through genetics, upbringing, experiences and education. Groups on the other hand can become creative when getting the chance to tackle an issue that is exciting, through being managed in a supporting, encouraging and well-organized way, through having choices of resources and technology, through being equals in a group, and through sharing experiences intensely and finding ways to mutually agree about solutions.²⁶ When describing the social dimensions of Design Thinking, Burnette furthermore claims that the elements of “... hope, resources, opportunity, expectations, training, rewards, and recognition” foster individual creativity. Knowledge about different modes of thought such as reflective or relational thought can improve Design Thinking even more:

*The purposeful activities of goal setting and seeking, gathering and orchestrating relevant information, synthesizing appropriate expressions, executing effective procedures, goal related evaluation, and the application of knowledge to improve a situation or satisfy an unfulfilled need or desire regarding it are also involved.*²⁷

The ideas of Burnette are reflected in the main pillars of Hugarflug, where the children's self-awareness and confidence of being part of a bigger movement, as well as individuals playing an equally important role within the group, are strengthened. My research simultaneously focuses on

²¹ “IDESiGN. The Goals for Teaching Design Thinking.”

²² Ibid.

²³ Ibid.

²⁴ “Five-Minute Film Festival: Design Thinking in Schools,” *Edutopia*, accessed February 16, 2015, <http://www.edutopia.org/blog/film-festival-design-thinking-in-schools>.

²⁵ Design & Thinking, “Design & Thinking Official Trailer,” *YouTube* video, 2:27, April 26, 2012, https://www.youtube.com/watch?v=uilcaXYnluU&feature=youtuube_gdata_player.

²⁶ “Creativity in Design Thinking,” accessed April 12, 2015, https://www.academia.edu/3737301/Creativity_in_Design_Thinking.

²⁷ Ibid.

my own role as designer in society and how Design Thinking could be a tool for myself as a professional. According to Rim Razzouk and Valerie Shute, the experienced design thinker is able to reflect on what has been created and how it fits to human needs, as well as its wider impact on the society and the environment.²⁸ A design thinker is moreover able to visualize issues, complex processes and ideas while considering different solutions that fit into the context. The issue is treated rather as an opportunity than a problem that is approached through diverse procedures. Razzouk and Shute explain that design thinkers should likewise have good social skills, meaning that they must be able to work with others, including across disciplines. This includes the ability to verbally express ideas simultaneously to the creative process and critically evaluate them in a group.

Razzouk and Shute summarize that teaching students to approach tasks like design thinkers improves their capabilities to cope with challenging and complex assignments during school time, employment and personal life. They claim that educational practices today tend to rely heavily on traditional pedagogical theories that aim to improve the student's abilities in math or reading, leaving much inactive and individual potential undiscovered. Razzouk and Shute therefore recommend enabling students to gain "new educational valuable skills (e.g., design thinking, multitasking, digital literacy) to value, assess, and support."²⁹ Hugarflug is an initiative that aims to improve a student's skills through implementing methods of Design Thinking into the teaching schedule.

3.2. HUGARFLUG AND SOCIAL DESIGN

Hugarflug is a social design project that applies Design Thinking as a method both to improve students' abilities and during collaboration. Socially responsive design (SRVD) refers to interventions and methods of designers who are driven and concerned by societal matters and who are aiming to initiate social change. Lorraine Gamman and Adam Thorpe initially formulated this in 2009.³⁰ For a designer to be socially responsive, it means in their view to empathize and collaborate with partners in coils of experiments, development and back-and-forth evaluation associated with social involvement. A socially responsive designer does not solely look at aesthetics, the commercial value and profitability of the objects and products created but also how it can be merged with social benefits.³¹

The social project Hugarflug started with Helga Sigurdardottir, the teacher of a grade 4 class in the public elementary school Austurbæjarskoli, who contacted me after she witnessed the first kite-making workshop I facilitated. She wanted collaboration with an artist or designer to jointly teach a subject and to enrich her teaching methods. "Kite making combines subjects such as history, mathematics, art, design and physics. It has a creative and practical part to it as well as an

²⁸ Rim Razzouk and Valerie Shute, "What Is Design Thinking and Why Is It Important?," *Review of Educational Research* 82, no. 3 (September 1, 2012): 330–48, doi:10.3102/0034654312457429.

²⁹ Ibid.

³⁰ "Socially Responsive Design," wordpress, *Oslo National Academy of the Arts*, (February 13, 2015), <http://www.socialdesignresponse.com/goal-mission/>.

³¹ Ibid.

outdoor activity where the kids can satisfy their need for movement.”³² Starting from these needs, I structured the workshop, bearing the methods of Design Thinking in mind. I tried several shapes, methods and materials for kite making according to the age of her students. Furthermore, I designed a workbook for the children containing illustrations and information about the history of kites, security, tools, materials and building instructions. It also had space for drawings (see appendix). In the section on findings, a detailed workshop description, analysis and recommendations can be found.

Emily Pilloton in her TED talk describes her visions of designers “reinventing and reeducating themselves” to be able to empathize with their environment. Designers should “jump out of their comfort zones and be better citizens in our own backyards”.³³ By that, she refers to her and her partner’s collaboration with a school director of her American home village Berti County, a village facing a declining economy, where educated people had moved away. The group managed to improve the public elementary school in a sustainable way meaning the children got better grades, became active and proud members of the village and had visions for their future again. This reflected on the overall wellbeing of the society. Pilloton’s approach matches however with Satu Miettinen’s definition on social design defined being a “professional practice that contributes to local economy or livelihoods”.³⁴

3.3. HUGARFLUG AND PLAYFULNESS

Hugarflug is a playful platform for teachers and students to engage together in an educating, entertaining and creative activity. The playful aspect is important to me, since the discussion about the phenomenon of play in diverse contexts such as that of history, science, art, design and education shows that being able to get absorbed in playful activities throughout all stages of life improves our social skills and our ability to adapt to the constantly changing environment.³⁵ However, according to Lauren Laverne our modern lifestyle is not very playful since many work long hours, which is regarded as a respectable way of life besides an income generator. Being busy and working hard is regarded more highly in our society than spending leisure time in playing.³⁶ Another author who emphasizes the importance of play is the Bulgarian entrepreneur Steve Keil. In his lectures he blames the ongoing recession of his home country on the absence of playfulness in its entire culture, from early childhood education to company culture and the political system, which do not leave room for individual free play and exploration. The opposite of play, in his opinion, is simply depression.³⁷

³² Helga Sigurdardottir, Collaborative workshop of an elementary school teacher and a master of design student, April 17, 2015.

³³ Pilloton, Emily, “Teaching Design for Change,” *TED* video, 16:43, July, 2010, https://www.ted.com/talks/emily_pilloton_teaching_design_for_change.

³⁴ Satu Miettinen, *Design Your Action: Social Design in Practise* (Helsinki: University of Art and Design, 2007).

³⁵ “Pattern of Play,” *National Institute for Play*, accessed November 30, 2014, <http://www.nifplay.org/science/pattern-play/>.

³⁶ Lauren Laverne, “Why Play Is Important to Us All,” *The Guardian*, October 5, 2014, sec. Life and style, <http://www.theguardian.com/lifeandstyle/2014/oct/05/why-play-is-important-to-us-all-lauren-laverne>.

³⁷ Keil, Steve, “A Manifesto for Play, for Bulgaria and beyond”, January, 2011, http://www.ted.com/talks/steve_keil_a_manifesto_for_play_for_bulgaria_and_beyond.

Both authors, Laverne and Keil, refer to the psychiatrist Stuart Brown who studied the natural process of play of animals and humans during the past 20 years. He also researched play in connection with the motivation of violence. For instance, he investigated the biographies of young male murderers from the 1980s onwards.³⁸ What he and his co-researchers found was that these murderers suffered from play deprivation. After researching the diverse playing habits of more than 6,000 individuals, he concluded that playing is as relevant for our lifestyle as eating healthy food and getting sufficient sleep. Brown furthermore describes different patterns of play such as attunement play, body play and movement, object play, social play, imaginative and pretend play, storytelling-narrative play and creative play, thus giving an idea of how play is interwoven in our daily lives.³⁹

A scholar who has researched the phenomenon of play rigorously is the Dutch cultural historian Johan Huizinga. He approached play as a cultural phenomenon in his classical book *Homo Ludens* from several angles. He defines it as being a fun activity without constraints, independent of normal life, which involves the participant entirely, and intensively. There are no monetary gains involved with it: the players mutually agree upon rules and restrictions of time and location.⁴⁰⁴¹ Peter Gray, in collaboration with the American National Institute for Play, concluded the “Five Most Agreed-Upon Characteristics of Human Play” as follows:

*Play is activity that is (1) self-chosen and self-directed; (2) intrinsically motivated; (3) guided by mental rules; (4) imaginative; and (5) conducted in an active, alert, but relatively non-stressed frame of mind.*⁴²

Regarding Hugarflug, the biggest challenge is to create and maintain this atmosphere of playfulness according to the definition above. One of my peers asked me once how I manage to engage the children in my group in a way that they are motivated to make a kite. I said that during the introduction I tell the children stories, for instance of ancient China and their kite-making tradition, and also show them kites from different countries and artists, which I have bought during my travels. Through inspiring them, I create an emotional connection, which motivates them to make their own kite. The challenge, however, remains how to keep this motivation alive. My experience as I describe it in the following sections has shown that smaller groups and a workshop location that allows free play with tools and materials, along with a time schedule that leaves room for purposeful thought, ideation and development of ideas, reduces the pressure of a tight teaching schedule in favor of a more playful atmosphere.

The experimental educator, industrial designer and innovator Bruno Munari has shown that implementing play during brainstorming and prototyping can lead to solutions that are unexpected,

³⁸ Brown, Stuart, “Play Is More than Just Fun”, accessed November 25, 2014, http://www.ted.com/talks/stuart_brown_says_play_is_more_than_fun_it_s_vital.

³⁹ “Pattern of Play.”

⁴⁰ Johan Huizinga, *Homo Ludens : A Study of the Play Element in Culture*, (London: Paladin, 1971).

⁴¹ Peter Gray, “Definitions of Play,” *Scholarpedia* 8, no. 7 (2013): 30578, doi:10.4249/scholarpedia.30578.

⁴² Ibid.

innovative and human orientated.⁴³ Munari was known for being able to empathize with the needs of children and he understood that their way of discovering the world was through playing with all senses. He therefore aimed at always keeping the element of play in his working process.⁴⁴ Munari managed to put himself into the shoes of the child: the way children play, observe, communicate and learn.⁴⁵ Hugarflug aims, with the structure of the workshops and the teaching material, to respond to both the needs of the collaborating teacher and those of the children involved, which is why each workshop will be tailored accordingly. During the following section, the workshop I facilitated in connection with this thesis is described and analyzed, and recommendations for further studies are derived.

4. FACILITATING THE FIRST HUGARFLUG PLAYFUL WORKSHOP

4.1. DESIGN QUESTIONS

During a test workshop, which I facilitated with Helga Sigurdardottir's grade 4 class of 20 9-year-old students, I made an attempt to implement the steps of Design Thinking as described above through the workshop's design and the design of an accompanying workbook for the children. This fieldwork, which was the result of foregoing research, aimed to answer the following questions:

What elements should a playful workshop in kite-making ideally consist of if its aim is to not only improve the children's creative confidence but also their sense of social inclusion?

My findings, analysis and recommendations for further development of the workshops and the teaching material follow during the next three sections.

4.2. PREPARING AND SCHEDULING THE WORKSHOP

4.2.1. CONSIDERING PREVIOUS EXPERIENCES

In preparation of the first workshop under the name of Hugarflug, I could build upon my experience from the workshop I facilitated with a group of six design students in April 2014. The project that time was called "Breaking Mindframes – Designers for the Rights of the Children".⁴⁶ During this first workshop we mainly focused on the activity of making and flying kites. We only had one day for it, but decided to make it inspiring, exciting and memorable. We decorated the room with a huge parachute in order to break up the daily routine of the children and developed a template for a kite shape, which the children could use for cutting the plastic foil. A prototype for this kite can be

⁴³ Ayşe E. Coşkun Orlandi, "Experimental Experience in Design Education as a Resource for Innovative Thinking: The Case of Bruno Munari," *Procedia-Social and Behavioral Sciences* 2, no. 2 (2010): 5039–44.

⁴⁴ Bruno Munari and Museum für Gestaltung Zürich, *Far Vedere L'aria = Making Air Visible: A Visual Reader on Bruno Munari* (Baden Baden: Lars Müller Publishers, 2000).

⁴⁵ Bruno Munari and Patrick Creagh, *Design as art* (London: Penguin, 2008).

⁴⁶ Arite Fricke et al., "Breaking Mindframes," Cargo collective, (February 2015), http://cargocollective.com/together_lhi/Breaking-Mindframes-2014.

seen on a video.⁴⁷ We chose to use recycled plastic foil, grill sticks, glue, sticky tape, stickers, ribbons and pens for decoration, as seen on another video.⁴⁸ Although we were six design students and the children's teacher, who assisted the children in cutting and attaching the grill sticks, it took a very long time for all of them to decorate their kites and go outside together. The flying characteristics of the kites were not as good as during the prototyping, which hence led to some children becoming disappointed. Overall, we received positive feedback from the children and teachers of the school. Our colleagues told us, days later, that children were seen playing with their kites in the city. When I look back, it was a great new experience for me as a graphic designer, and opened up to me a new perspective on my profession and what I was able to contribute with my skills. The group of designers also made a video documentation of the workshop.⁴⁹

4.2.2. PLANNING THE WORKSHOPS STEPS

According to the teacher's schedule, the workshop would take place over four days at the beginning of February 2015, and would occupy 2x 45 minutes each day. All of the 20 children, plus Helga and an assistant teacher to one of the children with special needs, would participate. I was hoping to split the group in two to be able to have more time per child, which was not possible. The workshop would start with a casual getting-to-know each other, also to find out what they know about kites and what they are most interested in. Next, I would show them the history of kite making through books, kites I own and stories telling. The ideation phase would start after the break with an introduction of the workbook so the kids could start drawing or making small prototypes during the remaining 45 minutes. This phase would last longer, since Helga suggested letting the children work on the drawings in between the workshops. Next, the children would present their drawings and prototypes and explain their choices.

Regarding the making of the kites, we decided that I would introduce a shape to them that is easy to build, offers many possibilities for decoration, and flies well since the group of 20 children was rather big for 2 teachers to assist. This is only half the approach of Design Thinking; however, I made this compromise for my first workshop due to time limitations. The third and fourth days would be reserved for the practical part, including flying the kites and a session of evaluation. Having the time schedule and sequences of the workshop in mind, I was able to decide on what to prepare for each step.

⁴⁷ Fricke, Arite, "Prototype Kite Flight – Sunday the 27th of April 2014," *Vimeo* video, 2:58. April, 2014, <https://vimeo.com/93142366>.

⁴⁸ Fricke, Arite, "Kite-Flight-27th of April 2014, 2014," *Vimeo* video, 0:30, April, 2014. <https://vimeo.com/93293406>.

⁴⁹ Augustsdottir, Asrun. *Kite Factory*. *Vimeo* video, 3:02. April, 2014. <https://vimeo.com/94641393>.

4.2.3. FRAMING THE TASK: DECIDING SHAPE, TOOLS AND MATERIAL

According to the decisions mentioned above, I decided to introduce an easy-to-make kite called Sled to the participants. A prototype, flying is shown in a video documentation.⁵⁰ I tested all the material that I wanted to use in the workshops in advance. Figures 4, 5, 6, 7 and 8 show me cutting bamboo for the workshop; pre-cutting the paper; the box with tools and kite lines; the prototype; and parts of a bobbin for up- and unrolling the kite line.



Figure 04: The author cutting bamboo spares.

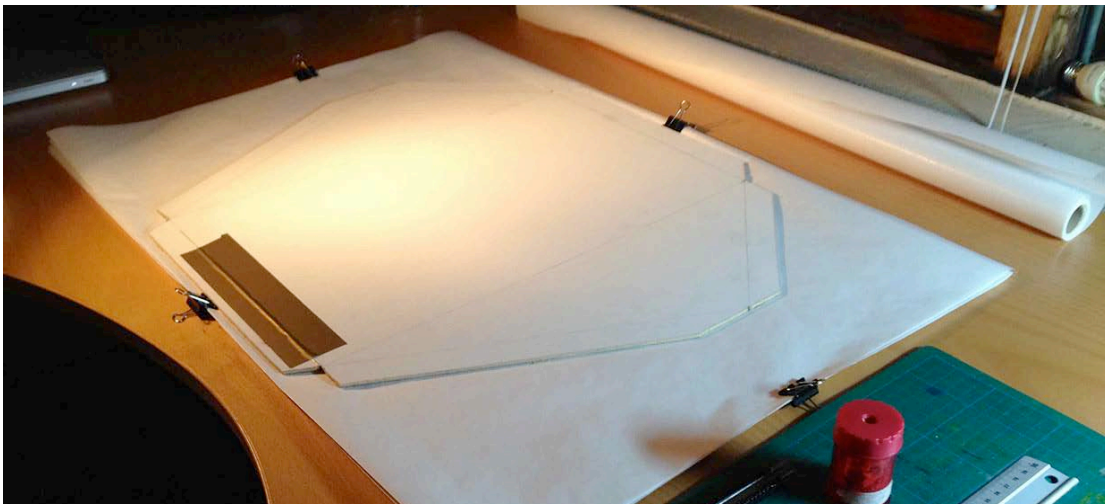


Figure 05: Pre-cutting kite paper in using a template.

⁵⁰ Fricke, Arite. "Arites Kite Sled." *Vimeo* video, 0:25. March, 2015. <https://vimeo.com/123367559>.



Figure 06: Prototype of the kite shape named "Sled".



Figure 07: Box with tools and the kite line.



Figure 08: Parts of a bobbin used to up- and unroll the kite line.

4.2.3. DESIGNING THE WORKBOOK

I accomplished the first prototype by writing text in Icelandic, making the drawings and thinking about the logical sequence of the pages according to the workshop. It also aimed to communicate playfulness and to leave space for making notes, sketching and drawing. It also aimed to be simple and minimal in text and pictures, but still self-explanatory, since the workshops wants increase social interaction and creative experimenting. Figure 9 is showing an example of the illustrations I made for a guideline to build a kite, materials, tools and safety advices as applied in a folder in English language, prepared for my final degree show.

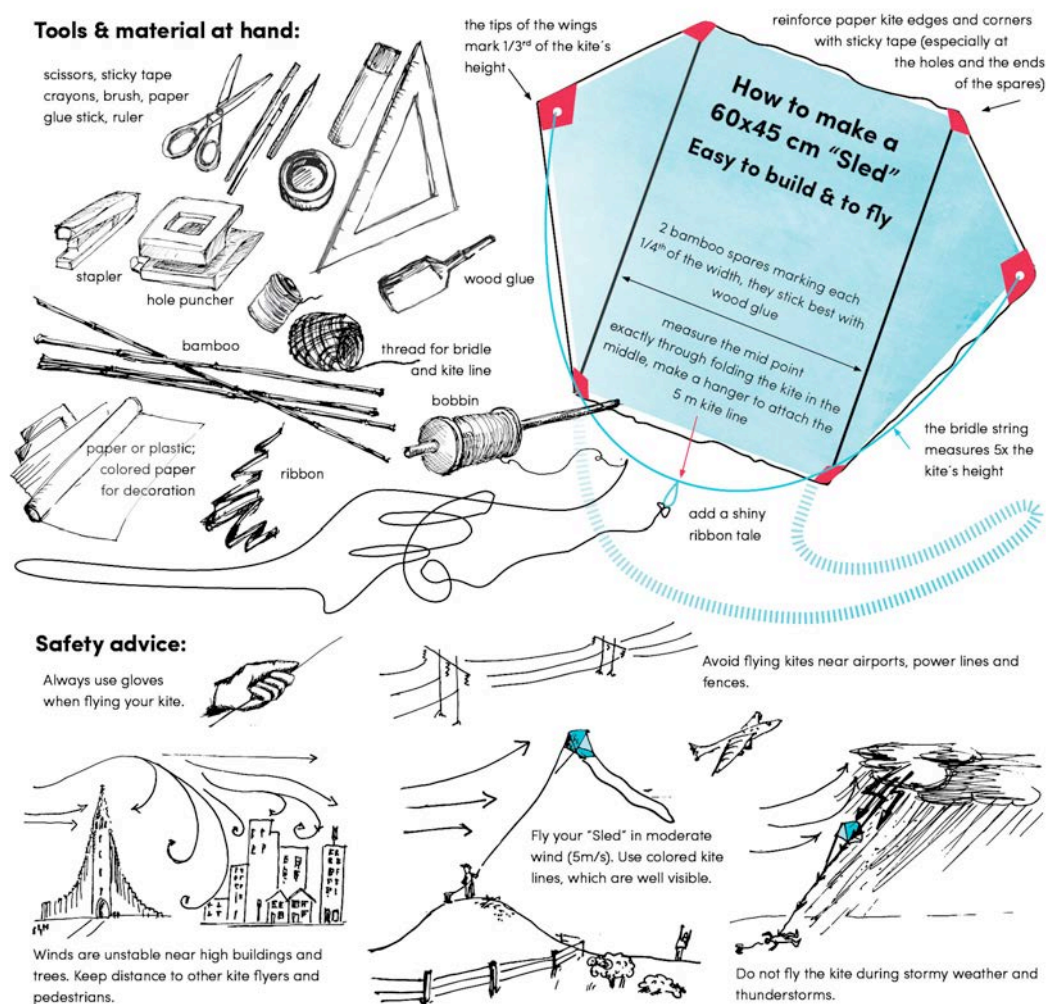


Figure 09: Illustrations of the basic elements concerning the making and flying of a kite.

5. ETHICAL ASPECTS OF THE RESEARCH

Since the workshops and the objects emerging out of it are part of my academic research, I planned on filming and photographing them as well as using the art works of the children to explain my process. I therefore designed a letter of consent in Icelandic and English, which was sent together with a personal email from me to the parents. The letter of consent can be found in the appendix.

6. FINDINGS – THE WORKSHOP’S LOGBOOK

6.1. IDENTIFY AND EMPATHIZE

In the beginning, we all gathered in a circle, since I wanted to create an atmosphere of discussion, dialog and exchange where everybody is in an equal position. We shared our experiences with making and flying kites. One student mentioned that kite making is an old handicraft. I told them that the first kite was made in China, probably 2,000 years ago, and showed them a map I had prepared. The teacher joined the discussion and spoke about silk, which had been invented much earlier in China, approximately 2,600 years ago, and was the first material used for making kites. I told the children two stories of two Chinese men who became inspired by sudden gusts of wind that blew their hats away. I decided to do that in order to help the children understand that these men were not trained designers. Both men needed to find solutions for a problem they had. One owned a boat that he wanted to make faster. After the incident with the hat, he designed a kite that worked like a sail and solved his problem. The other man was a military leader. He built kites, attached rattles and bells to them and let them fly over the enemy at night. The enemy troops were so frightened that they ran away. Another military leader used kites for measuring the distance between his troops and the town wall he wanted to take.⁵¹⁵²⁵³ One child had a story to tell about her father, who told her of a man on the Icelandic island of Hrísey. This man used kites for fishing. I was able to show a picture of fishing kite, as well as a Korean military kite, which was used for sending out messages. The children were very interested in the man who made the kite. We also talked about the material used. The kite went around the circle as shown on the photograph figure 10 on the next page; I felt that showing them actual objects really grasped their attention.

⁵¹ David Pelham, *DuMont's Bastelbuch der Drachen* (Köln: DuMont, 1977).

⁵² Clive Hart, *Kites, an Historical Survey*, Rev. and expanded 2nd ed (Mount Vernon, N.Y.: P.P. Appel, 1982).

⁵³ Goethe-Institut Osaka, *Pictures for the Sky: Art Kites*, ed. Paul Eubel (Osaka: Munich: New York, NY, USA: Goethe-Institut; Prestel; Distributed in the USA and Canada by te Neues Pub. Co, 1992).



Figure 10: Photograph of the group during identification with a Korean military kite.

I continued by explaining that kites fly in a great height, which is why simple forms in contrasting pure colors are used for designing and painting. Next, I showed them a sheet of handmade Lokta paper, made in Nepal.⁵⁴ We talked about bamboo at the example of an Indian fighter kite, which is very light and colorful, and let the children touch it together with spares of bamboo. We spoke about the lightness and the flexibility of bamboo, which is ideal for kite making, also when it has been dried. In contrast I showed them dried parts of the Icelandic plant called Silver Tassel, which used for making kites but with no great success since the dried stems are too fragile. However, materials for making kites can be found in every home, such as grill sticks and plastic bags. We also talked about thread suitable for kite making at the example of a kite from the Philippines. I used it as an example for gluing string under the folded edges to protect the edges and make the kite more stable. This first part of the workshop ended after 45 minutes.

After the break I showed them a very small indoor kite. Everybody tried to fly the kite – the children became very excited about it. Next, I introduced the prototype of the workbook to the group, as well as a specimen of the kite that I chose for them to make during this very first workshop, as showed in figure 11.

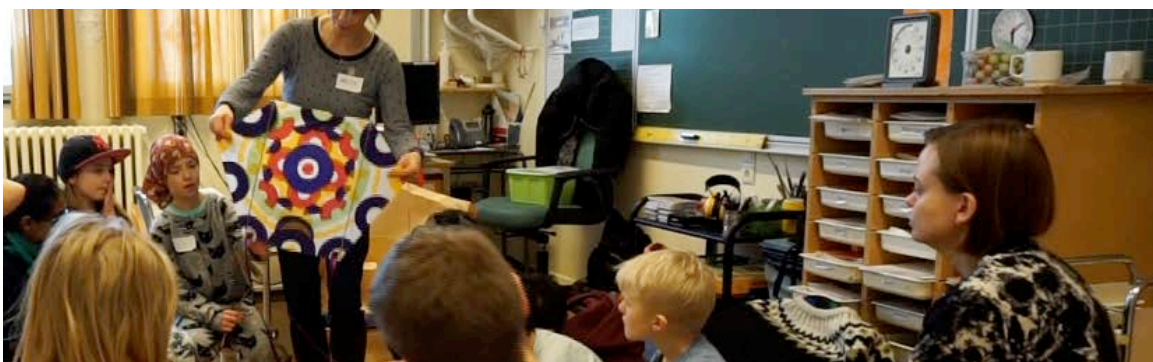


Figure 11: Photograph showing the author introducing a kite named "Sled".

⁵⁴ "Colour Lokta Papers," *Khadi Papers*, accessed February 11, 2015, <http://khadi.com/shop/category/colour-lokta-papers/>.

6.2. IDEATE: MAKING DRAWINGS AND SMALL INDOOR KITES

The workbook leaves considerable space for developing one's own ideas for decoration. On the last double pages I provided different layouts for the children to choose from: outlines of the kites to draw ideas inside, and a grid of points that can be connected and hence used for creating shapes and patterns. I encouraged the children to use the time between our meetings to make drawings, which would then be presented in front of the group (see drawings in appendix). Some children however preferred to start building a kite after quick sketching. I had not planned this at this stage of the workshop, but presumed that this situation might occur. Helga and I therefore prepared a bigger table with tools and material where small in-house kites were made. This was very time-consuming, since preparing the bamboo and attaching string to the spares as well as to the tiny kites required very fine motor skills.

6.3. TESTING

Due to time restrictions, the steps of prototyping and testing them before building the real kite merged.

6.4. IMPLEMENTING: BUILDING AND FLYING THE KITES

The second day we gathered in a circle again to present the drawings made in the previous session (see workbook in appendix). The children looked forward making their kites, which is why we did not spend much time with presenting. One child did not want to make one, although s/he made beautiful drawings. Next, I gave safety instructions during the several stages of building and flying the kites (see workbook in appendix). I encouraged them to help each other during making and flying the kite. The children then got busy drawing, cutting and gluing the decorations on the kites. Helga and me assisted with gluing thread along the folding paths at the kite's edges, fixing and cutting the bamboo spares, adding the bridle line to the wings and the flying line. The children had several ribbons to choose from and could even bind tiny bells to the bridle string. The group however was not able to test the kites outside, which is why we decided to add half a day to the workshop as flying day.

During the week of the workshop I also met Bjarni Karlsson for the interview I described in Section 2.1. It touched me because of his description of how children living with poverty and other deprivations are choosing to deny their inner needs because they see no other way out. In doing so, they do not develop interests and talents that might enable them later on to escape their situation. After the interview I was much more conscious of how the elements of the workshop could impact the development of creative confidence and sense of social inclusion. I therefore tried a lot more to encourage the children to work together and help each other. One discussion I remember was between two boys assisting each other as shown in figure 12. I asked them whether they were used to working together, which is why they started talking about their relationship. It came out that the boys did not consider themselves as close friends; however, all of a sudden they found common interests such as certain music and playing football.



Figure 12: Photograph showing two children helping each other in attaching bamboo string with tape.

Later on, Helga and I had asked the group to form pairs who would go outside together to fly the first kites. The plan was to go inside again and get the other half of the kites afterwards. Some children were left alone, without a flying partner, so then I had to lead children together to perform the task. Nonetheless, the kids ran out and onto the school's sports ground, more or less uncoordinated. The sports ground is soft, so that both the kites and kids could play without getting hurt or destroyed. I observed that they did not take time to figure how the wind was blowing: they were just screaming, laughing and running around. I saw that the flying lines were too long for the small sports ground. One kite got snarled on a tree just behind the fence of the sports ground, but we managed to get it back in the end. I tried to show the children how to fly a kite, meaning how the person with the bobbin should stand and what the assistant had to do. Most of the kites did fly well, and Helga and I ran between the kids to assist them. Figure 13 is showing two girls flying a kite. One girl started crying because her tail tore off. I explained to her that this was the aim of testing them, so we could fix and make them even better, which made her stop eventually. The girl who did not want to make a kite assisted her friend in flying hers. She had a happy expression on her face and was very engaged in making the kite fly. After approximately 20 minutes we went in to get the other 10 kites.



Figure 13: Photograph showing two girls flying a kite together.

6.5. EVALUATION

Due to time limitations, the session where children, teacher and facilitator together could reflect and discuss the process and learning did not take place. I just talked to some of the children in the group, who were particularly excited about the outside activity.

7. ANALYSIS OF THE FINDINGS

7.1. OVERALL IMPRESSION OF THE WORKSHOP'S PROGRESS

My overall analysis is that I achieved the goals of the activity only to some extent, which was finding an answer to my research question on what elements a playful workshop in kite making should ideally consist of if its aim is to not only improve the children's creative confidence but also their sense of social inclusion.

First of all, the children in the group had different expectations, preferences and skills, which is why I had to make adjustments in the schedule. The time span therefore proved too short, since I was unable to go through all the steps thoroughly. The group was rather big as we were only two teachers, the more so since each child made a kite individually. Also, the structure and activities were too focused on the crafting of the kite rather than the process of purposeful thought, the development of unique ideas and the evaluation of what had happened and what could be learned from it. The location of the classroom I found rather limited, although we were able to arrange the tables differently. The outside area of the sports ground was a good place for flying kites because of the soft ground, although it was limiting in a way as there was a fence around it as well as trees.

The teacher, Helga, mentioned that she wanted to take more part in the development of the workshop. I agreed with that, since I had somehow also expected her to provide more guidance, for instance during ideation and decorating the kites. Also, instead of making small indoor kites, she would have rather stuck to the theoretical explanation of the functions of a kite, its physics and why a kite flies. The following paragraphs describe my observations of signs that indicate whether or not making and flying kites has an actual impact on creative confidence and sense of social inclusion of the participants.

7.2. IMPRESSIONS OF IMPROVED CREATIVITY AND SENSE OF SOCIAL INCLUSION

Regarding the goal of improving the creative confidence, I found that some children made beautiful drawings of their kite ideas in their workbooks (see appendix). Some children experimented with various kinds of paper used for decorating the kite, whereas others made drawings directly onto the paper. Some children experimented in attaching tails of different lengths and materials to their kites. Outside, they compared their flight behavior compared to the tails.

The social aspects of the activity remained in the background, although I encouraged the children to assist each other during building and decorating the kites. I saw that often the teachers would assist certain children, but not everyone. We teachers organized the activity of flying as pair activity. I had to intervene when forming the pairs since some children did not find a partner. The outside activity I found was rather free and unorganized, since the children had clearly been

longing for the moment to run outside with their kites. It was the most exciting time for the group, except one girl had to wait for somebody to assist her in repairing her kite. The child who had not made a kite assisted her friend during flying. I saw excitement and amusement in her face, giving me the feeling that, as a group activity, kite making has a positive impact on the interaction between the participants, which is a sign of an improved sense of social inclusion. Also, the child with attention deficit hyperactivity disorder (ADHD) had a group of children assisting him while he flew his kite, since it turned out that it had very good flying characteristics. Since a symptom of the child's disorder is a greater need for movement, he was running around with his kite all the time. The other children however made a game out of it in trying to catch its tail. Twice, kites got caught in a tree and snarled in a fence. Many children were ready to help during rescuing. All these small incidents gave me proof that the activity certainly has potential for increasing the sense of social inclusion of its participants. The playful character of the activity supports this fact, especially when it comes to the outside aspect of flying kites.

8. CONCLUSION AND IDEAS FOR FURTHER STEPS

My findings and my analysis of the observations I made during the sequences of the workshop and regarding the usage of the workbooks show that the activity has the potential of increasing the creative confidence and sense of social inclusion of the participating children. Although these signs of proof might only be glimpses, they are encouraging and inspiring enough to give rise to new ideas to improve the workshops.

Making the workshop into a group activity only, right from the start, could integrate also those children who are not as enthusiastic about the activity, for instance the child who did not want to make a kite. Also, those children in the group who needed more attention than others might gain from it because then they had to communicate and discuss ideas in their group. The group members also might be in the position to empathize with and take into account the characteristics of children who are otherwise somewhat left out.

During several steps of the workshop, the social potential of kite making might be highlighted, for instance by showing groups of designers and artists making kites together or kite festivals where kite makers develop performances together with dancers and musicians. Even the gathering of diverse countries during a peaceful event could communicate the social dimensions of the activity to the children. During ideation and testing, it might be beneficial for the groups to receive more intense assistance and moderation by the teachers. Good leadership skills can lead the children through a playful, creative and fun process towards a solution. During prototyping in particular, mistakes are discovered which can have a disappointing and negative impact on the participant's motivation. One of the key ideas behind Design Thinking is, however, to eliminate the fear of failing, the shame connected and often the decision to give up. Participants should receive the consciousness that the learning process of failing and making mistakes is positive and desirable since it provides room for improvement and hence an even better outcome. This leads eventually to the creative confidence that Hugarflug workshops aim to convey.

Furthermore, I suggest a change of location for the workshop, since that could be beneficial in order to reach all three goals of the workshop. Through stepping physically into another space that stimulates and tunes all the senses towards the activity, the children might mingle differently than they are used to. Also for me as facilitator, a changed location might enable me to display teaching tools and materials that support the steps and goals of the workshop.

Additionally, I suggest an extension of the time span, since we were not able to go through all the steps in order to achieve the goals of the activity. Regarding the workbook, I suggest keeping it very short and simple, since the workshop is more of a practical and lively collaboration. However, in displaying important information through illustrations, children might grasp them much better, especially those who suffer from dyslexia. Also, keeping a journal that children can make with drawings, or can glue in cutouts or pieces of paper, photographs, plastic or textiles in order to show and share ideas and document their process is an encouraging habit to foster. Keeping a journal furthermore might help to later reflect on the process, which is an important step towards the development of creative confidence.

To sum up, through clearer framing of the workshop as a group activity, together with precise division and design of all Design Thinking steps according to its aims, more generous time planning and selection of a special location, kite-making workshops can develop their potential to playfully increase the creative confidence and sense of social inclusion of the participants. Having an event such as a kite festival as a goal might additionally increase the children's motivation to participate, and hence their ability to see themselves as equal parts of a bigger whole.

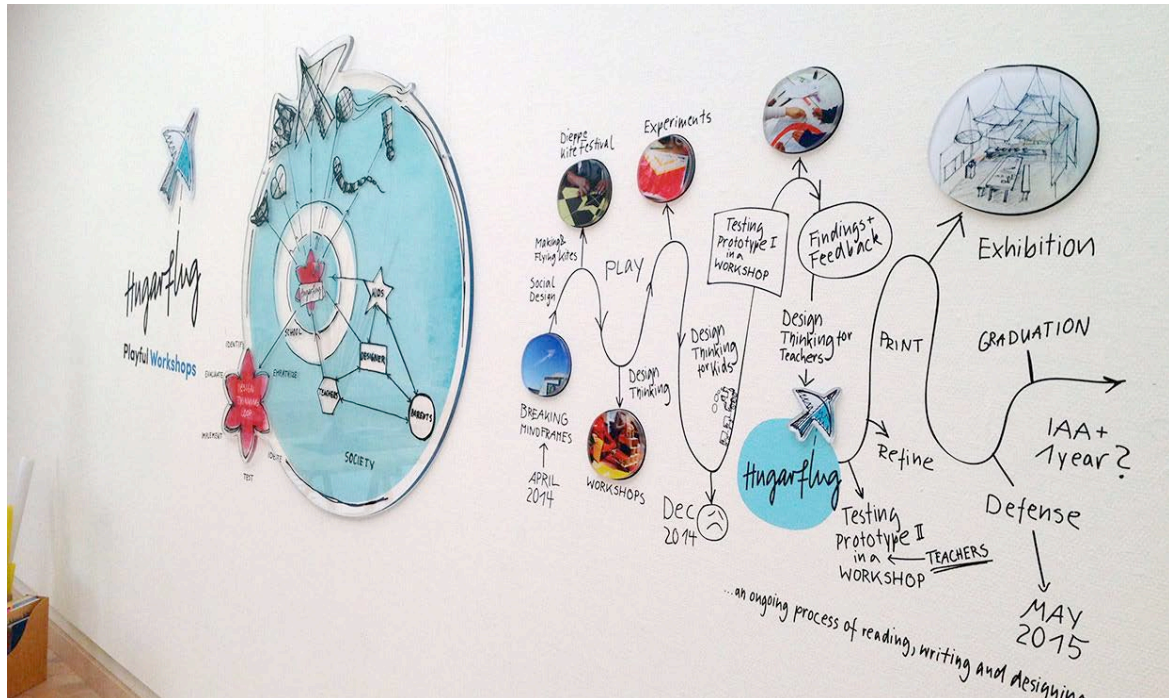
9. EPILOGUE

In part fulfillment of the requirements towards earning a Master of Design degree, I displayed the process of my research and connected design work during an exhibition. Figures 14, 15 and 16 on the following pages show my space. I was aiming to create a playful, workshop-like atmosphere inside and outside the exhibition space that also communicated the aims of the project: the playful activity of making and flying kites with a potential to increase the creative confidence and sense of social inclusion of the participants. I also prepared a website before the opening.⁵⁵



Figures 14: Photograph showing kites I made, which are hanging from the ceiling above the participative workshop.

⁵⁵ Fricke, Arite, "Want to Build a Kite?," *Hugarflug Playful Workshops*, accessed April 25, 2015, <https://aritefricke.wordpress.com/want-to-build-a-kite/>.



Figures 15: Photograph showing the logo (adhesive foil and Plexiglas), the Plexiglas sign of the Hugarflug concept and the application of the design process (Plexiglas and adhesive foil).



Figure 16: Photograph showing signs on the wall made from Plexiglas and adhesive foil, a screen with a slideshow showing pictures of the Hugarflug workshop and myself assisting visitors during kite-making.



Figure 17: Photograph showing me with visitors making small kites from paper and bamboo.



Figure 18: Photograph showing outside area with kites that I bought abroad flying up in the air.

BIBLIOGRAPHY

- "Aðalnámskrá Grunnskóla." *Mennta- Og Menningarmálaráðuneyti*. Accessed January 23, 2015. <http://www.menntamalaraduneyti.is/utgefid-efni/namskrar/adalnamskra-grunnskola/>.
- Augustsdóttir, Asrun. *Kite Factory*. Vimeo video, 3:02. April, 2014. <https://vimeo.com/94641393>.
- "Breaking Mindframes." *Cargocollective.com*, February 2015. http://cargocollective.com/together_lhi/Breaking-Mindframes-2014.
- Brown, Stuart. "Play Is More than Just Fun." TED video, 26:42. May, 2008. http://www.ted.com/talks/stuart_brown_says_play_is_more_than_fun_it_s_vital.
- "Colour Lokta Papers." *Khadi Papers*. Accessed February 11, 2015. <http://khadi.com/shop/category/colour-lokta-papers/>.
- "Creativity in Design Thinking." Accessed April 12, 2015. https://www.academia.edu/3737301/Creativity_in_Design_Thinking.
- Design & Thinking. "Design & Thinking Official Trailer". YouTube video, 2:27. April 26, 2012. https://www.youtube.com/watch?v=uilcaXYnluU&feature=youtube_gdata_player.
- "Fátækt: Barnabætur Verði Auknar Og Lágmarksframfærsluviðmið Skilgreint." Accessed February 14, 2015. <http://www.barnaheill.is/Frettir/Frett/fataektbarnabaeturverdiauknaroglagmarksframfaersluvidmidskilgreint/>.
- "Five-Minute Film Festival: Design Thinking in Schools." *Edutopia*. Accessed February 16, 2015. <http://www.edutopia.org/blog/film-festival-design-thinking-in-schools>.
- Fricke, Arite. "Arite-Fricke-MA2-2014-1, 2014." Vimeo video, 2:36. September, 2014. <https://vimeo.com/105187179>.
- Fricke, Arite. "Arites Kite Sled." Vimeo video, 0:25. March, 2015. <https://vimeo.com/123367559>.
- Fricke, Arite. "Dieppe International Kite Festival 2014." Vimeo video, 5:49. April, 2014. <https://vimeo.com/125200040>.
- Fricke, Arite. "Kite-Flight-27th of April 2014, 2014." Vimeo video, 0:30. April, 2014. <https://vimeo.com/93293406>.
- Fricke, Arite. "Prototype Kite Flight – Sunday the 27th of April 2014." Vimeo video, 2:58. April, 2014. <https://vimeo.com/93142366>.
- Fricke, Arite. "Want to Build a Kite?" *Hugarflug Playful Workshops*. Accessed April 25, 2015. <https://aritefricke.wordpress.com/want-to-build-a-kite/>.
- "Frístundakortið Verður 35 Þúsund Krónur Á Barn Árið 2015." *Reykjavíkurborg*. Accessed February 14, 2015. <http://reykjavik.is/frettir/fristundakortid-verdur-35-thusund-kronur-barn-arid-2015>.
- Goethe-Institut Osaka. *Pictures for the Sky: Art Kites = [Sora Mau Kaiga: Geijutsu-Dako]*. Edited by Paul Eubel. Osaka : Munich : New York, NY, USA: Goethe-Institut ; Prestel ; Distributed in the USA and Canada by te Neues Pub. Co, 1992.
- Gray, Peter. "Definitions of Play." *Scholarpedia* 8, no. 7 (2013): 30578. doi:10.4249/scholarpedia.30578.
- Hart, Clive. *Kites, an Historical Survey*. Rev. and expanded 2nd ed. Mount Vernon, N.Y: P.P. Appel, 1982.
- "How to Make Kites with Kids." *The Big Lunchers*. Accessed April 19, 2015. <http://www.thebiglunchers.com/index.php/2013/08/how-to-make-kites-with-kids/>.
- "Hugarflug Playful Kite-Making Workshops for Elementary Schools." *Hugarflug Playful Kite-Making Workshops for Elementary Schools*. Accessed April 19, 2015. <https://aritefricke.wordpress.com/>.
- Huizinga, Johan. *Homo Ludens: A Study of the Play Element in Culture*. London: Paladin, 1971.

- Keil, Steve. "A Manifesto for Play, for Bulgaria and beyond." *TED* video, 17:56. January, 2011.
http://www.ted.com/talks/steve_keil_a_manifesto_for_play_for_bulgaria_and_beyond.
- "IDEO. A Design and Innovation Consulting Firm." Accessed November 30, 2014.
<http://www.ideo.com/about/>.
- "IDESiGN. The Goals for Teaching Design Thinking." Accessed January 8, 2015.
<http://idesignthinking.com/01whyteach/01whyteach.html>.
- Karlsson, Bjarni. Children living with relative poverty. Audio recorded interview, February 5, 2015.
- Lambert, Bruce. "How to Split a Bamboo Pole." *YouTube* video, 9:31. August, 2008.
https://www.youtube.com/watch?v=oXFy_QQRPzY&feature=youtube_gdata_player.
- Laverne, Lauren. "Why Play Is Important to Us All." *The Guardian*, October 5, 2014, sec. Life and style. <http://www.theguardian.com/lifeandstyle/2014/oct/05/why-play-is-important-to-us-all-lauren-laverne>.
- Miettinen, Satu. *Design Your Action: Social Design in Practise*. Helsinki: University of Art and Design, 2007.
- Munari, Bruno, and Patrick Creagh. *Design as art*. London: Penguin, 2008.
- Munari, Bruno, and Museum fur Gestaltung Zurich. *Far Vedere L'aria = Making Air Visible: A Visual Reader on Bruno Munari*. Baden Baden: Lars Müller Publishers, 2000.
- Orlandi, Ayşe E. Coşkun. "Experimental Experience in Design Education as a Resource for Innovative Thinking: The Case of Bruno Munari." *Procedia - Social and Behavioral Sciences* 2, no. 2 (2010): 5039–44.
- "Pattern of Play." *National Institute for Play*. Accessed November 30, 2014.
<http://www.nifplay.org/science/pattern-play/>.
- Pelham, David. *DuMont's Bastelbuch der Drachen*. Köln: DuMont, 1977.
- Pilloton, Emily. "Teaching Design for Change." *TED* video, 16:43. July, 2010.
https://www.ted.com/talks/emily_pilloton_teaching_design_for_change.
- Razzouk, Rim, and Valerie Shute. "What Is Design Thinking and Why Is It Important?" *Review of Educational Research* 82, no. 3 (September 1, 2012): 330–48.
doi:10.3102/0034654312457429.
- Sigurdardottir, Helga. Collaborative workshop of an elementary school teacher and a master of design student, April 17, 2015.
- "Skýrsla Barnaheilla - Barnafátækt Er Brot Á Mannréttindum Barna." Accessed December 2, 2014.
<http://www.barnaheill.is/Frettir/Frett/barnafataekterbrotamannrettindumbarna/>.
- "Socially Responsive Design." Wordpress. *Oslo National Academy of the Arts*, February 13, 2015.
<http://www.socialdesignresponse.com/goal-mission/>.

APPENDIXES

Letter of consent

Arite Fricke | MA Design graduating student (LHI) | 3

Varðandi flugdrekasmiðju

Consent and Release for Student to be Filmed/ Photographed/ Interviewed during the Hugarflug kite making workshop in collaboration with the elementary school Austurbæjarskóli and the teacher Helga Sigurðardóttir.

Consent and Release for Use of Image/Voice.

I, Parent/Guardian, hereby irrevocably grant to Arite Fricke the right to record the image and/or voice and use the artwork and /or written work of my child (please write name below)

on videotape, on film, in photographs, in digital media and in any other form of electronic or print medium and to edit such recording at their discretion.

Arite Fricke agrees to retain the integrity of the interviewee's image and voice, neither misrepresenting the interviewee's words nor taking them out of context.

I understand that my child's full name, address and biographical information will not be made public.

I hereby release Arite Fricke using my child's image and/or voice, artwork and/or written work pursuant to this release from any and all claims, damages, liabilities, costs and expenses which I or my child now have or may hereafter have by reason of any use thereof.

Arite will send you the material chosen before hand for final consent.

I understand that these records and pictures of my child, and transcripts (if transcribed) of the interview(s) will be maintained and made available indefinitely by Arite Fricke as part of her research and educational purposes as Arite shall determine.

I understand that the provisions of this release are legally binding.

☐ I do not consent

Signature of Parent/Guardian: _____ Date _____

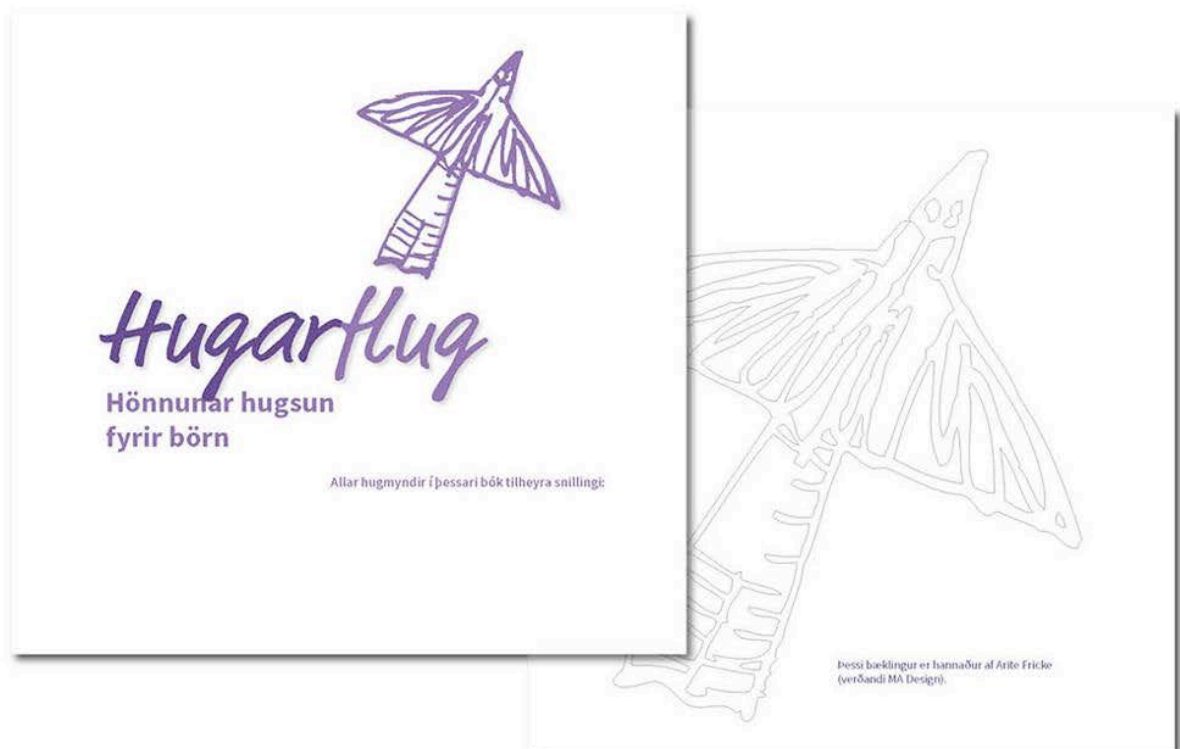
Name (printed): _____

E-Mail: _____

Signature of photographer/interviewer: Arite Fricke Date 9.7.15

Name (printed): ARITE FRICKE

The first prototype of a workbook



Þessi vinnubók er notuð í flugdreka-smíðjunni í Austurbæjarskólanum í 4. bekk hjá Helgu Sigurðardóttur.

Dagur 1: Mánudagur 2.2.2015, kl. 9.30 - 12.00

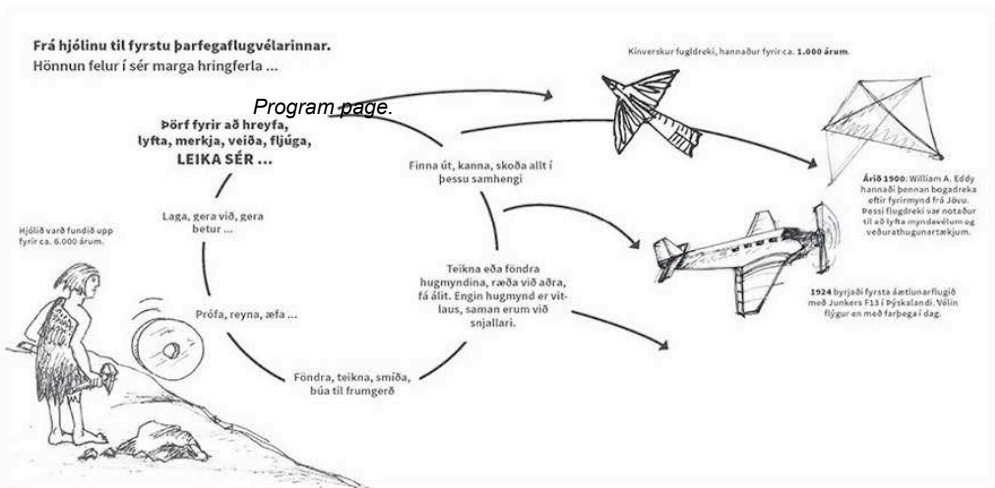
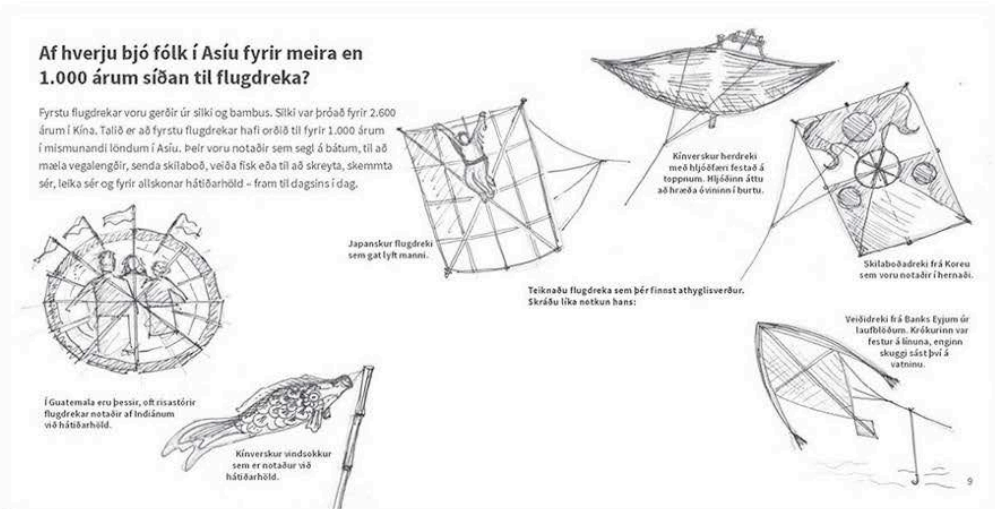
- Búum til nafnspjöld og kynnumst.
- Tölum um allt sem okkur finnst skemmtilegt að gera og af hverju.
- Allir nemendur fá vinnubókina sína.
- Merkjum bókina.
- Tölum um flugdreka og hvað er hægt að gera með þá.
- Af hverju bjó fólk í Asíu fyrir meira en 1.000 árum síðan til flugdreka?
- Tölum um atburði og hugmyndaflug.
- Tölum um hönnunar-hringa.
- Skoðum einfalt form, efni og verkfærinn sem hægt er að nota.
- Teiknum hugmyndir í bókina fyrir næsta smíðudag.

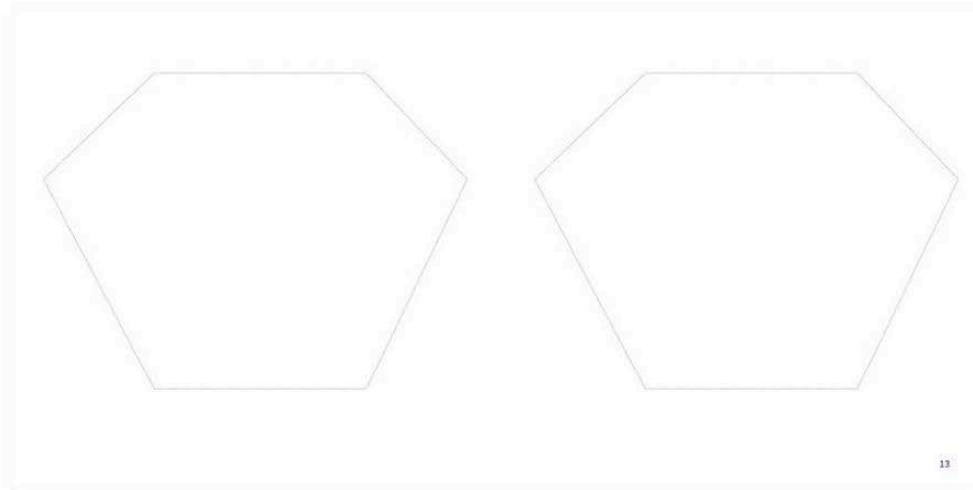
Dagur 2: Fimmtudagur 5.2. og föstudagurinn 6.2.2015, kl. 8.50 - 12.00

- Kynnum okkar hugmyndir, sýnum og útskýrum.
- Finnum efnið og verkfærin.
- Búum til flugdreka.
- Leikum með flugdrekana.

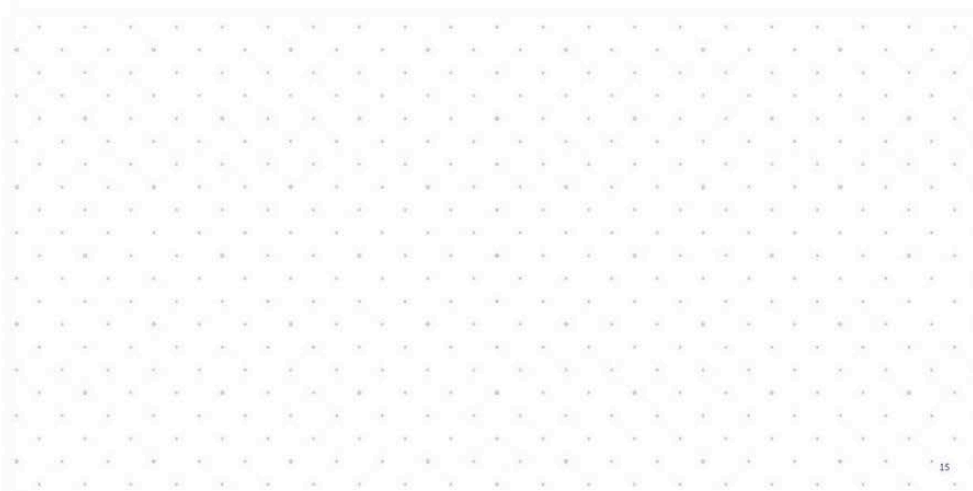


Back page with illustration.





13



15

VERKFERI OG EFNI

Hér fyrir neðan sérð þú verkferlin sem gott er að hafa við höndina við smíði á sleða-flugdrekanum:

Pannur þráður úr polyester eða bomull.

Bjántur og penslar.

Límstifti.

Skæri.

Límband.

Maði.

Trélm.

Sterkari litríkur þráður úr polyester eða bomull fyrir flugdrekanum (á að vera vel sýnilegt fyrir þig og aðra).

Litríkur fíndurpappír eða gegnsær léttur flugdrekapappír, sniðapappír eða annað sem er við hendina, dagblöð, plast, ...

Heftari til að festa halann.

Litrík gjafabönd fyrir halann.

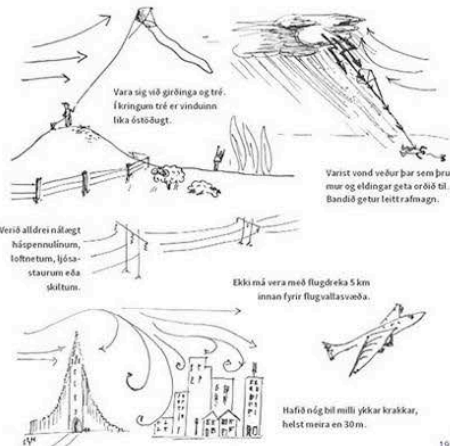
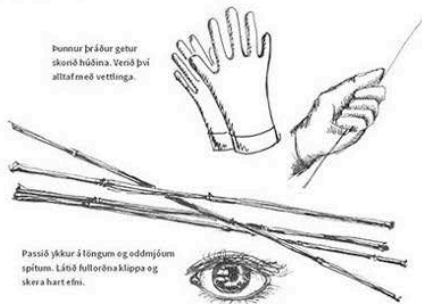
Gatari til að gata tvö göt á sitt hvorn væng.

Bambus spítur eða grill pinnar (grillpinnar eru kannski styttri en 45 cm - einfalt er að minnka flugdrekaflatmálið í samræmi).

17

MIKILVÆG ÖRYGGISATRIDI

Bæði, á meðan flugdrekin er smíðaður og prófaður, er gott að hafa vín eða fullorðin sér til aðstoðar. Gætið ykkar á hnifum og skærum þegar klípt er eða skorið. Farið gætilega með lím og gangið vel frá á eftir ykkur. Þá munuð þið eiga árangursríkan dag.



19

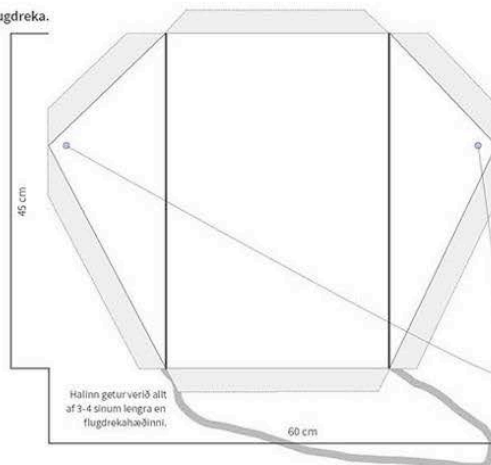
Sleði (sted). Einfalt dæmi um flugdreka.

Efni:

2 bambus spítur
léttur papír stærð 70 x 50 cm (gott að hafa gagnsætt efni eins og snítapapír eða plastpoka)
þráð úr bómull
falllegt band fyrir skottið
léttur föndurpapír

Verkfæri:

Skæri
Límband
Límstifti (trélim gengur líka)
Gattari
Heltari
Vettlinga (svo að þráðurinn meðli ekki puttana)



Þráðar og hönd:

Þverþráðurinn (beisli) er ca. 5 sinnum lengri en flugdreka-lengð, frekar mjór en samt sterkur (t.d. polyester). Festið þið báða enda þráðsins í tilheyrandi götum. Verið þið svo nákvæm í að fenna möðurni á þráðnum. Bindið þar knútt með slaufu til að festa flugdreka tauminn.

Taumurinn getur verið 5 - 10 metrar, á að vera í liti og sterkur (ekki nota veidigirni).

21

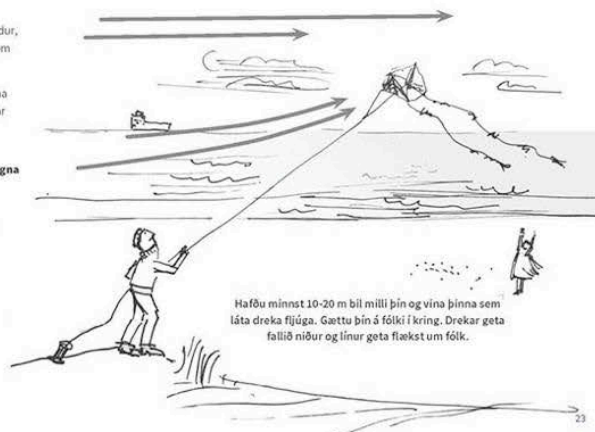
MIKILVÆG ÖRYGGISATRIDI

Umhverfi sem hentar flugdrekum er öryggt og óbyggjst eins og við strendur, á túnnum eða stórum opnum svæðum. Oft er gott að standa á stöðum sem liggja hærra í landi en nálægir fletir.

Láttu spóluna liggja á jörðinni á meðan drekin flýgur, þannig má stjórna línunni betur. Þegar þú dregur línuna til þín, lækkar drekin flugið. Þegar hann liggur á jörðinni, þá spólar þú línuna upp á keflið. Þannig slítnar búnaður síður.

Mjög stórir drekar eru ekki fyrir börn. Þau geta lyft upp. Þess vegna henta bara litlir drekar fyrir börn.

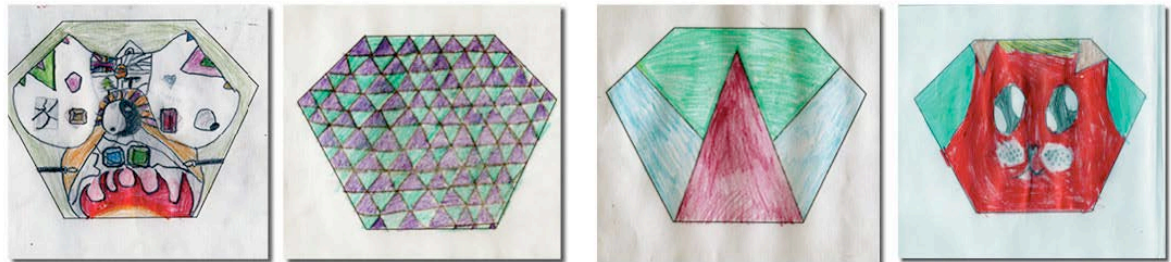
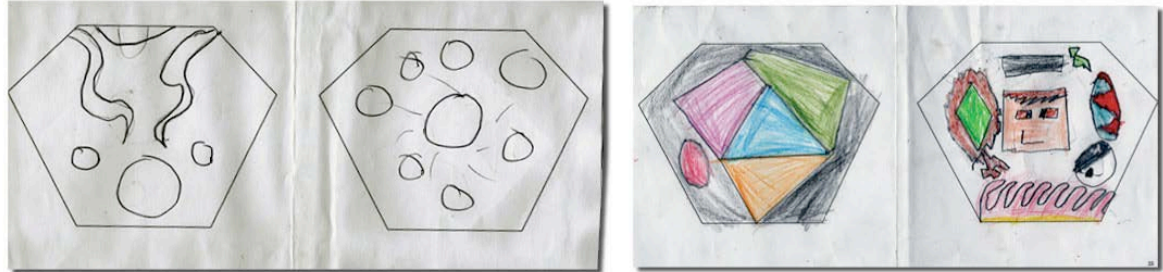
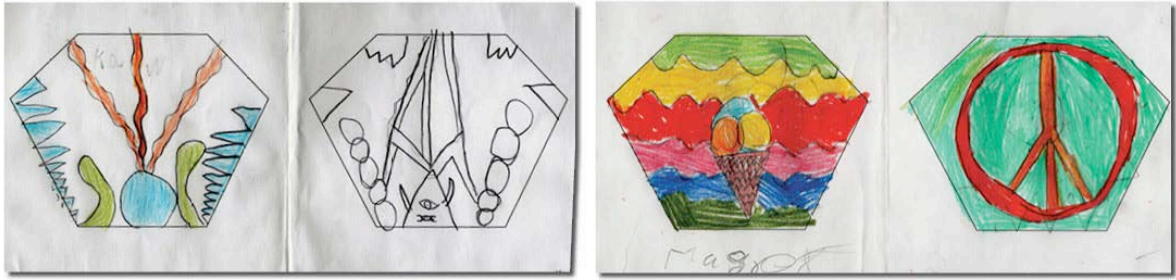
Skráðu allt sem þér finnst mikilvægt að hafa í huga:



23

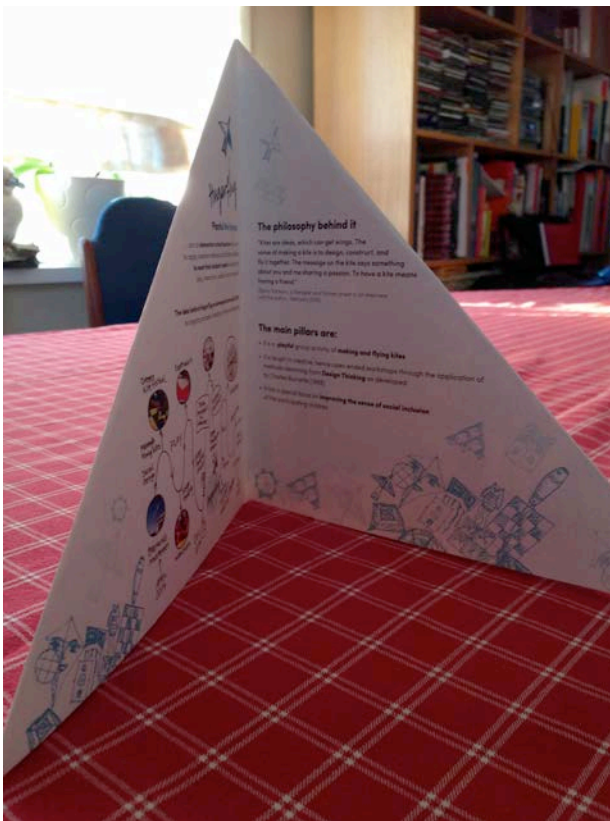
Drawings the children presented after the step of ideation





Folder presenting the concept behind Hugarflug







The philosophy behind it

"Kites are ideas, which can get wings. The sense of making a kite is to design, construct, and fly it together. The message on the kite says something about you and me sharing a passion. To have a kite means having a friend."

(Blairi Karlsson, a therapist and former priest in an interview with the author, February 2015)

The main pillars are:

- it is a **playful** group activity of **making and flying kites**
- it is taught in creative, hence open ended workshops through the application of methods stemming from **Design Thinking** as developed by Charles Burnette (1989)
- it has a special focus on **improving the sense of social inclusion** of the participating children

A project about playfulness, creativity and making kites together

Hugarflug comes forth from my personal passion about making kites and my search for **implementing more playfulness and joy into work and private life**. Studies of the phenomenon of play in diverse contexts have shown that being able to get absorbed in **playful activities through all life improves our social skills** and our ability to adapt to the constantly changing environment. During the workshops I facilitated since April 2014 in connection with my Master of Design final thesis and through conversations with

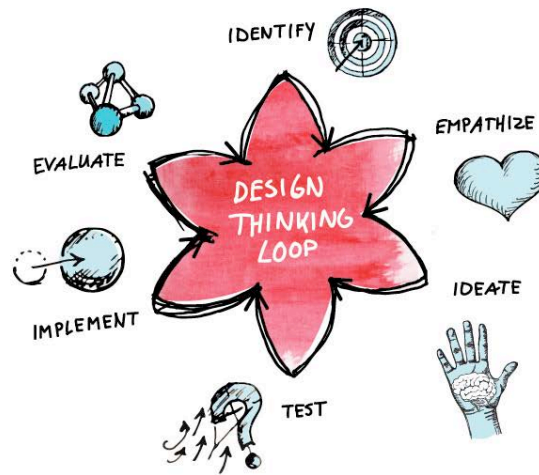
teachers, parents and professionals I came to see the wider dimensions and possibilities that this activity offers. For children that experience **social isolation caused by diverse forms of poverty**, creative and purposeful group workshops facilitated during teaching time in public elementary schools can **improve their sense of social inclusion, key competencies and various abilities and skills**. They will **gain the confidence** of being able to **creatively respond** to the challenges that they will be faced with, now and in the future.

What is Design Thinking?

Design Thinking is a method, which enables groups in solving tasks and problems in a creative and human oriented way.

Stemming from Charles Burnette who developed the approach from 1989 onwards, it gradually entered diverse fields such as business. It consists of various steps, starting with a human need or an issue, which requires a solution. After identifying the need and establishing empathy with the people concerned, a solution is sought through ideating, testing, implementing and evaluating the process.

Designers, who aim to respond to societal issues, start their collaborative projects with Design Thinking. The method embraces and improves the diverse skills and characteristics of individuals and helps them to collect experiences through playing, learning, building, failing and succeeding in a group.



1. We identify the task by collecting information regarding the topic, e.g. through story telling or field-trips to sail makers, artists and others. Kite making can be explored through its history, mathematics, physics, art, design and function. Through getting to know the various materials and tools we get a feeling for the several possibilities and connect on a practical level with the subject.



2. We empathize with the topic, e.g. through learning about kite making traditions elsewhere in the world. We become inspired, see opportunities and are therefore motivated to seek our own individual solutions. Through developing ideas together in small groups, it will have an impact on the sense of social inclusion.



3. We ideate through sketching or making mood boards of our ideas. Drawings are made and small-scale prototypes of the kites are quickly built and the material at hand is used. We learn that making mistakes is an important part of the learning process.



4. We test or we play with our prototypes, present and share them to receive feedback; ideas are combined, which leads to unexpected and innovative outcomes. Thus we gain the confidence of being able to creatively respond to the challenges that we are faced with, now and in the future.

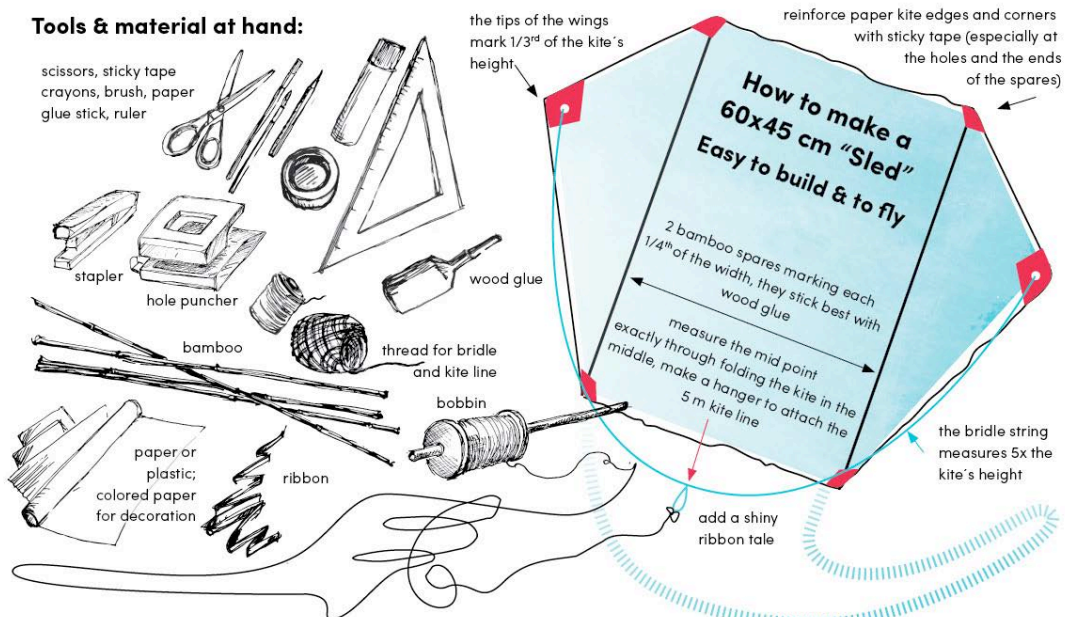


5. We implement meaning we build our real-size kites together and present it to the real world, perhaps during a small kite festival. The event as final point of the workshop gives the task a greater dimension and makes us part of a bigger whole.



6. We evaluate our learning process through reflecting and evaluating our process, how the group work went, what our roles were, how our relationships developed and what skills we gained. We therefore become conscious of our strengths, skills and interests and of what we could improve further.

Tools & material at hand:

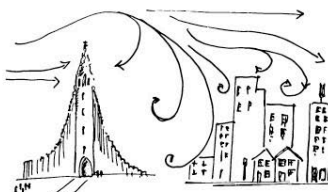


Safety advice:

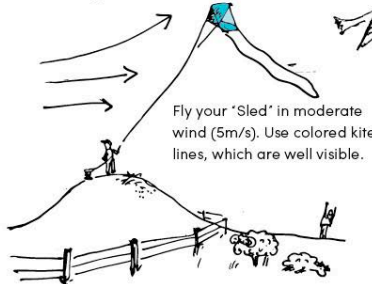
Always use gloves
when flying your kite.



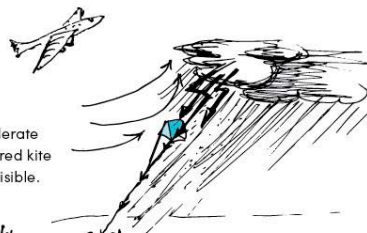
Avoid flying kites near airports, power lines
and fences.



Winds are unstable near high buildings and
trees. Keep distance to other kite flyers and
pedestrians.



Fly your "Sled" in moderate
wind (5m/s). Use colored kite
lines, which are well visible.



Do not fly the kite during stormy weather and
thunderstorms.