PREQUEL

A storytelling tool for building a family culture

MASTER THESIS
BY JEANINE MOOIJ

PREQUEL: A TANGIBLE STORYTELLING TOOL FOR BUILDING A FAMILY CULTURE

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PREQUEL

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PREFACE

Dear reader.

I am very excited to share with you my result of five months of hard work. Before I do so, I would like to tell you what inspired this project. Being brought up by a Dutch father and Indian mother has thought me a lot of things. It thought me to look at things from multiple perspective and showed me there is a world outside of the bubble I live in. It also made me aware of the fact that multiple cultures in a household sometimes leads to friction, not only for the children but also for the parents. This motivated me to look into the role that culture plays when raising children and figure out how to help parents deal with this.

I first want to thank my supervisors Annemiek van Boeijen and Mathieu Gielen for their guidance during this project. I thoroughly enjoyed our meetings. Thank you for all encouragement. You ensured I had the confidence to try new things and develop as a designer.

I could not have done this without the support of my friends and family. Thank you for listening to me, thinking along with me, and reassuring me when I needed it. A special thank you to Tiara Spalburg, Maaike Weber, and Xiao-Mei Huang.

Last, I want to thank everyone that participated in my user tests. Your input made all the difference.

The past five months have been an incredible journey that thought me a lot about myself as a person but also as a designer.

I hope you enjoy reading my thesis.

EXECUTIVE SUMMARY

This report describes the development of the tool PREQUEL, a tangible storytelling tool to build a family culture. The tool is intended to support meaningful conversations between two parents. Through conversation and storytelling, the tool encourages them to explore the world of parenting and everything that comes with that.

Parenting always comes with challenges. However, intercultural parents experience added stressors. Being raised in different cultural groups, intercultural parents will probably hold diverse values, beliefs, and attitudes. The more opposing the values are, the greater the likelihood of the parents encountering problems. Values translate into practices which are particular ways of doing something. The challenge for these parents is to reconcile different childrearing practices that have these contradictory aims and goals.

The goal that guided the project is "to support new intercultural parents, in the safe context of their home, in building a family culture that both can rely on and are comfortable with by teaching them to reflect and communicate so that they can create a stable and consistent environment for themselves and their child(ren)".

PREQUEL is based on a framework comprising of six steps: awareness, understanding, evaluation, appreciation, adjustment, and execution. The framework is a way for parents to work through their experiences and evaluate their behaviour. They are supported in going through the steps, which concludes with them planning how to approach future parenting situations. They do this by identifying shared values and use them as a strength in their daily lives. This will lead to both parents and child(ren) being able to cherish the richness that sharing multiple cultures can bring.

GLOSSARY

This thesis contains terms that could be interpreted in various ways and from different perspectives. This section provides a brief description of terms used in this thesis to clarify how they are used in this report to avoid misinterpretation or confusion.

Acculturation is the process of cultural change and psychological change following meetings between cultures (Redfield, Linton and Herskovits, 1936).

Culture is the system of shared beliefs, values, customs, behaviours, and artefacts that the members of a society use to cope with their world and with one another, and that are transmitted from generation to generation through learning (Bates and Plog, 1976).

Cultural models are mental structures and patterns of behaviour that distinguish one culture from another, based on collective experience and shared by most members of a specific ethnic or social culture (Quinn, 2005).

Cultural sensitivity is being aware that cultural differences and similarities between people exist without assigning them a value (Bennet, 1993).

Cultural distance is the degree to which shared norms and values differ from one country to another (Hofstede, 2001)

Cross-cultural parenting describes the comparison of parenting attitudes, beliefs, behaviours and practices across different cultures (Crippen and Brew, 2013).

Intercultural relationship is a relationship between two people who identify with different cultural groups because they represent at least two nationalities (Bustamante and Nelson, 2011).

Intercultural parenting is when an intercultural couple raises children together (adopted, biological or stepchildren) in a single household (Crippen and Brew, 2013). A couple is defined as two people that are married, engaged, or otherwise romantically paired, and either member of this couple is referred to as a partner.

Values are the moral principles that we deem necessary in life. They are basic assumptions about how we should deal with each other. Cultural values are values shared by the members of a cultural group about what is desirable or undesirable (Schwartz, 2006).

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CHAPTER 1 INTRODUCTION

The first chapter of this thesis outlines the initial brief that shaped this project. The first section introduces the context and gives a first look into the topic. This is followed by the problem definition, a description of the assignment and scope of the project, and the approach used to guide the project.

Intercultural A word with Very different meanings

Inter between Bridging the gap

Cultural
Habits and upbringing
With all it implies

An ocean In between us

And us
Sailing eaither way
Meeting
On open sea

Sure to meet
The other shore

- Ellory Mace

1.1 BACKGROUND

Over the last decades, globalisation has accelerated (Anderson & Obeng, 2020). One of the effects of globalisation is that it stimulates interaction between people and countries worldwide. With increasing opportunities for interaction between people of different cultures, the likelihood of developing an intercultural relationship has increased (Bustamante & Nelson, 2011). In this project, an intercultural relationship is defined as a relationship between two people representing different nationalities while being aware that people can simultaneously belong to more (sub)-cultures (Gudykunst, 1994).

Couplehood is often seen as a transitional stage before starting a family (Cools, 2015). This project explores how intercultural couples communicate and make decisions concerning parenting. Raising multicultural children comes with a lot of joy and richness (Figure 1). Often, the children learn multiple languages, which permits them to communicate with friends and family from both sides. It also provides a greater number of festivities and traditions, and usually, there is more travelling involved because of extended family abroad. Long term, growing up with input from multiple cultures teaches children to be more culturally sensitive and that things can be done and thought about in numerous ways (Cools 2015).

Intercultural parenting can also be challenging. Most relational differences arise during the childrearing phase (Crippen & Brew, 2013). According to Cools (2015), "raising children is the real check of how well a couple has learned to handle their many differences; with children, all the issues surface and must be confronted" (p. 137).

Individual cultures share universal values regarding parenting, e.g., to nurture and protect (Bornstein 2012), but each culture also has its own unique beliefs and values. Values are basic assumptions about how we should deal with each other (Schwartz, 2006). All relationships come with conflict, but intercultural couples experience added stressors due to the increased probability of having different personal values. We become emotional when our values are enabled or inhibited (Trompenaars & Hampden Turner, 1998).

Persisting and recurring conflict between parents can lead to emotional disturbance in children and diminished quality of parenting (Bhugun, 2017), but conflicts can also negatively influence the relationship between parents (Bornstein, 2013).

1.2 PROBLEM DEFINITION

Current research into intercultural parenting has mainly been done from a systemic point of view in the field of family therapy and cross-cultural psychology. This research essentially concludes with implications for health professionals, e.g. frameworks for health professionals to understand intercultural couples (Crippen & Brew, 2013; Bhugun 2017), strategies for health professionals to guide conversation between intercultural parents (Crippen & Brew, 2007), strategies to help couples reframe their family culture (Bustamante et al., 2011), as well as identifying negation strategies that parents have come up with themselves (Bustamante et al., 2011; Crippen & Brew, 2007).

These health professionals have the challenge of discovering similarities, uncovering strengths, and building areas of consensus. Research shows that people in intercultural relationships might be more

alike than different in their beliefs and that these similarities should be highlighted (Bustamante et al., 2011). However, couples usually seek out health professionals when they can no longer solve their problems after experiencing significant conflict. Various research argues that it would be more valuable to intervene in the early stages of parenthood (Glade, Bean & Vira, 2005).

According to Sullivan and Cottone (2006), little research has been done to support intercultural couples in conceptualising practical interventions. Thus, a promising opportunity would be a design solution that intercultural parents can use in the context of their home, without the support of a health professional and before clinical interventions become a necessity. This solution will lead to both parents and child(ren) being able to cherish the richness that sharing multiple cultures can bring.

SOCIETY EXTENDED FAMILY THEIR CHILDREN THER CHILDREN THER CHILDREN THE CHILDREN

Figure 1. Intercultural parents in relation to their surroundings

1.3 ASSIGNMENT

The aim of this project is to design a product or tool that facilitates communication between intercultural parents in the safe context of their home so that shared values regarding childrearing can be identified and put into practice in ways that both parents can relate to and rely on.

To limit the scope of this project, the research will solely focus on intercultural parents (Figure 1). Their children, extended family and society, in relation to the intercultural parents, will be acknowledged in terms of direct influence, however, only from the perspective of the intercultural parents.

1.4 PROJECT APPROACH

This project uses several design methods to help direct its progress and development. However, the main progression of this thesis will follow the stages of Design Thinking. Design Thinking is a human-centred approach for solving problems by prioritizing the needs of the user. It relies on observing how people interact with their environment and uses an iterative approach to find solutions (Razzouk & Shute, 2012). This project follows the structure of the Double Diamond, which is a framework based on the principles of Design Thinking (Design Counsil, 2005). The framework consists of four phases: discover, define, develop, and deliver (Figure 2). The first diamond helps to understand the problem, and the second diamond encourages finding solutions to this problem.

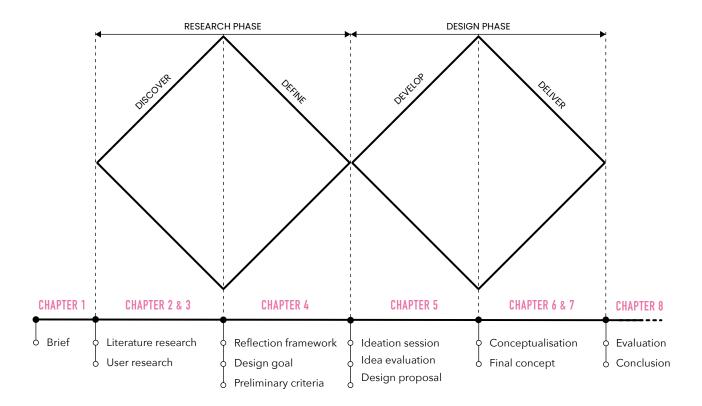


Figure 2. Double diamond structure and corresponding chapters, adapted from Design Counsil (2005)

Furthermore, for the level of detailing, this project aims a Minimum Viable Product (MVP), meaning that it will conclude with a proof of concept rather than a detailed end-product. In the MVP approach, the end-product has enough features to attract early adaptors, after which feedback is collected to create a better product that will resonate with future users.



CHAPTER 2

LITERATURE RESEARCH This chapter presents the literature research conducted

for this project. The research aimed conducted to gain in depth understanding of intercultural parents' experiences. The first section describes the method and the research questions used as a starting point for the literature research. The second section gives an overview of cultural theory and introduces several cultural models. The following section analyses parenting on both a universal and cultural level, identifies how different parenting approaches can lead to stress in the relationship, and how parents can cope with this stress. Finally, in the last section, found insights are discussed and next steps are presented.

2.1 APPROACH

Preliminary literature research in the broad area of intercultural parenting was conducted to get acquainted with the research topic and find a problem area. Based on this, research questions were set up to structure the literature research further.

2.1.1 METHOD

The aim of the literature research is to understand the context, provide a theoretical background, and contextualise later findings in relation to existing knowledge (Kumar, 2008). The three main themes reviewed are *cultural theories*, *intercultural parenting*, *and intercultural communication*. The cultural theories provide the needed background knowledge for the project, and the research into parenting and communication serves to find knowledge gaps and fields of opportunity.

2.1.2 RESEARCH QUESTIONS

The following research questions were used as a starting point for the literature research, and adapted throughout based on gained knowledge:

RQ1. What factors influence an intercultural relationship?

RQ2. How do partners in an intercultural relationship adapt to each other?

RQ3. What aspects of parenting can be considered universal, and to what extent does parenting vary across cultures?

RQ4. What are the main culture-related stressors that intercultural parents experience?

RQ5. What strategies do intercultural parents currently apply to deal with these stressors?

2.2 DEFINING CULTURE

Culture has many definitions and can be viewed from multiple perspectives. This section describes the definition and perspective taken in this project and introduces several cultural models used throughout the project. The aim is to understand the role culture plays in intercultural relationships.

2.2.1 ABOUT CULTURE

Culture can be defined as "the system of shared beliefs, values, customs, behaviours and artefacts that the members of a society use to cope with their world and with one another, and that are transmitted from generation to generation through learning." (Bates & Plog, 1976). Culture should be distinguished from human nature and

personality (Hofstede, 2005). It is important to study the intended users on each of these levels, as proposed in Hofstede's pyramid model of culture (Figure 3). Although general dimensions of culture are established at a group level, these may not necessarily be reflected in the behaviour of each individual. Therefore, using data from one level of analysis at another level is inappropriate (van Boeijen & Zijlstra, 2020).

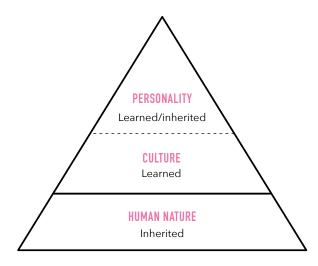


Figure 3. Hofstede's pyramid model of culture (2005)

There are various things to consider when examining culture (van Boeijen & Zijlstra, 2020). First, culture changes over time and analysing a culture only reveals something about the present. Second, culture is related to a specific time and place, and it is essential to examine culture in this particular context. Third, as stated before, culture is composed of various individuals that form a cultural group, but the behaviour of these individuals does not necessarily represent that culture. Further, when analysing the behaviour of an individual, it is hard to say which values and practices are based on inherited traits and which are learned through culture.

A well-known metaphor to describe culture is the cultural iceberg, developed by Hall (1976). Only part of the iceberg is visible above the water, and the rest is hidden underneath the surface (Figure 4). This is very similar to culture: only people's behaviour and practices, which are the things people say and do in a particular context (van Boeijen & Zijlstra, 2020), are observable and accessible to our senses, while other aspects, such as attitudes, beliefs, and values, remain hidden. Attitudes are how we have decided to think and feel about something. They can be positive or negative and are influenced by our emotions. Beliefs are concepts we hold to be true and from which we derive our values. Values are the moral

principles that we deem necessary in life. They are basic assumptions about how we should deal with each other. Cultural values are values shared by the members of a cultural group about what is desirable or undesirable (Schwartz, 2006).

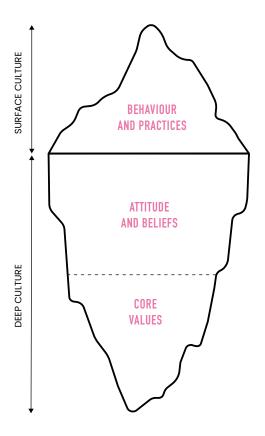


Figure 4. Iceberg model culture based on Hall (1976)

Culture can be analysed on various levels, e.g., on a national level; boundaries are set by nationality or, e.g., region, social class, generation, religion, professions, gender (van Boeijen, 2015). These boundaries are not fixed, and people can belong to multiple sub-cultures at a time. In this project, an intercultural relationship is a relationship between two people who identify with different cultural groups because they represent at least two nationalities (Bustamante and Nelson, 2011). Dahl (2003) has concluded that nationality is the preferred unit of analysis because "it can be established easy and early, avoids unnecessary duplication and removes ambiguity in the research" (p. 4). The latter is supported by the

finding that people from the same country will be shaped by largely the same values and practices (Hofstede, 1991).

2.2.2 CULTURAL DIMENSIONS

When a society is shaped by the same values, we speak of a value orientation (Kluckhohn, 1951). These value orientations can be measured on a scale, also known as a dimension, where one extreme of the value lies on one side of the scale, and the other extreme lies on the other end of the scale (Hofstede, 2010). Cultural dimensions can be defined as "independent preferences for one state of affairs over another that distinguish countries, rather than individuals, from each other" (Hofstede, 2010). The distance between countries on this scale can be defined as cultural distance.

Many researchers have tried to come up with dimensions to fully define a culture (e.g., Hall, 1976; Hampden-Turner & Trompenaars, 1998; Hofstede,1980; House et al., 2004; Kluckhohn and Strodbeck, 1961; Minkov, 2007; Peterson, 2004; Triandis, 1994). Although all frameworks aimed to provide a complete and comprehensive model of culture, they all present different findings (Yeganeh, Su & Sauers, 2009), indicating that none of the frameworks is exhaustive. In her dissertation, van Boeijen (2015) has created a new set of socio-cultural dimensions, based on existing dimensions and other theories (Cottle, 1967; Hall, 1976; Hofstede, 1980; House et al., 2004, Levine, 2006; Lewis, 1999; Lewin, 1936; Hampden-Turner & Trompenaars, 1998; Peterson, 2004), that aims to cover all relevant theory found so far, as well as make the dimensions more relevant for designers (Figure 5). It is argued that there might still be dimensions we do not know of (van Boeijen, 2015). There are a few things to keep in mind when using the framework. Value scores based on a country level cannot be used to compare individuals across countries (Fischer et al., 2010; Hofstede, 1980), and the scores on the dimensions are relative, thus only meaningful when used in comparison (Hofstede, 2010; van Boeijen and Zijlstra, 2020).

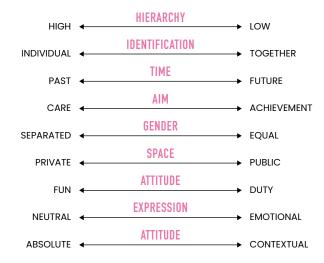


Figure 5. Cultural dimensions based on van Boeijen (2015)

The following descriptions of the socio-cultural dimensions are proposed by van Boeijen (2015). Hierarchy has to do with how power is divided within a group and the extent to which the group accepts power. Identification stands for the preferred extent of individual freedom and the tightness of the connection within the group. Time can be approached and experienced in different ways. Some cultures value their past, and other cultures focus on the future. Aim refers to the values a group seeks to live by. In particular, the aim of life can be focused on caring for each other or achieving success. Gender refers to the fact that, in some cultures, gender roles are strictly divided. Men must act in a certain way and women in another. Space has to do with how we cope with personal space. In some cultures, private and professional lives are closely linked, whereas, in other cultures, people compartmentalise different aspects of their lives. Attitude refers to how much importance is attached to life with duties and rules. Some cultures prefer to have clear rules to follow, while others prefer ambiguity and like to improvise. Expression stands for the fact that some cultures believe that controlling emotions is more efficient, while other cultures perceive not expressing yourself to be unnatural and cold. *Truth* has to do with how people communicate. People used to high context communication are less direct and pay more attention to the context of the words than their literal meaning. People who are used to low context communication tend to interpret what has been communicated as absolute truth.

2.2.3 MUTUAL ACCULTERATION

Acculturation is necessary when people migrate from one culture to another (van Boeijen & Zijlstra, 2020), for instance, when one partner moves to the country of residence of the other partner. According to Berry (2005), acculturation is "the process of cultural and psychological change that occurs as a result of contact between cultural groups and their members". Berry distinguishes four strategies for acculturation between cultural groups (Figure 6). The first is integration, which is considered the most successful in terms of health and wellbeing. Here the individuals adapt to the dominant culture while maintaining their heritage culture. Assimilation means that the individuals adapt to the dominant culture but mostly abandon their heritage culture. Separation is when individuals maintain their heritage culture without adapting to the dominant culture. The least successful strategy is marginalisation. The individuals cannot adapt to the dominant culture or maintain their heritage culture, which leaves them feeling confused and excluded.

When looking at intercultural couples, as in this project, it is more relevant to look at the process of *mutual acculturation*, first defined by Falicov (1995). Mutual acculturation is different from acculturation in the sense that both sides involved go through the acculturation process. Intercultural couples often come from family backgrounds having different cultural models that influence many aspects of relationships,

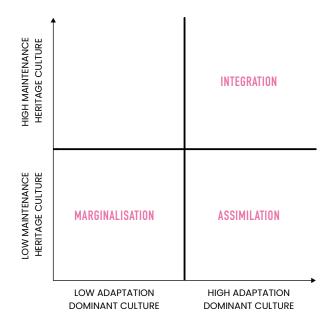


Figure 6. Acculturation model based on Berry (1980)

from childrearing values to communication styles (Crippen and Brew, 2007), requiring both partners to adapt to each other. As Falicov states: "Through the process of mutual adaptation and accommodation, intercultural couples could gain increased understanding and tolerance, which lead to 'personal transformations' that could be compared to a process of mutual acculturation". (p. 235).

Two models of mutual acculturation were compared (Table 1). The model of Seshadri and Knudson-Martin (2013) focuses on mutual within intercultural acculturation couples. whereas Crippen and Brew (2013) focus on mutual acculturation within an intercultural family. The models show two main differences. Firstly, Crippen and Brew do not acknowledge a scenario in which there is no mutual acculturation. The second difference is that Seshadri and Knudson-Martin do not define asymmetrical mutual acculturation, thereby not specifying that mutual acculturation can be unbalanced.

Convergent mutual acculturation and high mutual acculturation are considered the healthiest forms of mutual acculturation for both parents and children, comparable to the integration strategy

proposed by Berry (1980). Both parents maintain their own culture, which is vital for general health and wellbeing. However, they also adjust to each other, leading to a balanced family environment in which values from both sides are transmitted to the children. In practice, the process is closer to asymmetrical mutual acculturation because parents tend to prioritise the dominant culture's values to fit in with society (Crippen and Brew, 2013).

Table 1. Comparison between two models of mutual acculturation

	CRIPPEN AND BREW (2013)	SESHADRI AND KNUDSON-MARTIN (2013)	
No mutual		Unresolved: couples do not know how to handle their differences and experience much conflict. These conflicts are often a result of insecurities in the relationship, which both partners ignore.	
		Co-existing: both partners retain the values and practices of their own culture and do their own thing, but are willing to learn about each other's culture. They consider the differences appealing.	
Low mutual acculturation	Assimilation: one partner abandons their cultural norms and values to adapt to the other partner's culture. These couples will attempt to minimise any issues that occur.	Singularly assimilated: one partner defers to the culture of the other partner, which leads to minor cultural differences as one of the cultures is barely visible.	
Asymmetrical mutual	Cultural tourism: an unbalanced form of mutual acculturation in which the norms and values of the dominant culture (maternal culture) are prioritized. Fathers are more likely than mothers to let go of their cultural background. Children are occasionally introduced to practices from the paternal culture as long as they are not in conflict with the maternal culture.		
acculturation	Cultural transition: an unbalanced form of mutual acculturation in which the norms and values of the dominant culture (paternal culture) are prioritised. However, compared to when the father is the newcomer, mothers have a more substantial need to transmit their cultural values to their children.		
Convergent mutual acculturation	Cultural amalgamation: the couple recognizes cultural differences but view them as complementary. They aim to transmit both cultures to their children and develop new practices to create a newly blended culture.	Integrated: both partners adjust to each other's culture,	
High mutual acculturation	Dual biculturalism: Both partners adjust to each other's culture. The norms and values of both cultures are transmitted to their children, and they aim to teach their children two different perspectives. These parents want their children to know both cultures as separate and distinct rather than create a newly blended culture.	and both are celebrated. These couples are willing to communicate and learn about each other's cultural backgrounds.	

SUMMARY

Culture can be defined as "the system of shared beliefs, values, customs, behaviours and artefacts that the members of a society use to cope with their world and with one another, and that are transmitted from generation to generation through learning". Only people's behaviour and practices are observable, while

their attitudes, beliefs and values remain hidden. In this project, culture is analysed on a national level, as people from the same country are often shaped by the same values. When a society is largely shaped by the same values, we speak of a value orientation. These value orientations can be put onto a scale, also known as a dimension, with opposing values on each side, and these dimensions can be used to compare countries with each other. The distance between countries on these dimensions is defined as cultural distance. These dimensions cannot be used to compare individuals with each other, as the behaviour of a specific individual does not necessarily represent that culture.

When people migrate from one culture to another, such as in an intercultural relationship, they must acculturate. This becomes harder when the cultural distance increases. The healthiest form of acculturation is when people maintain their heritage culture while adapting to the dominant culture. When observing intercultural couples, it is more useful to look at mutual acculturation, a process in which both partners adjust to each other and pass both cultures onto their children. High mutual acculturation, or integration, is the healthiest in terms of health and wellbeing. However, values of the dominant culture are often prioritised because of parents trying to fit in with society, leaving less room for the heritage culture of one of the parents.

2.3 INTERCULTURAL PARENTING

Parenting can be conceptualised in many ways. This section describes several approaches to define parenting. It also investigates universal characteristics of parenting and the extent to which parenting is influenced by culture. Finally, it explains how parenting practices are passed down through generations and how different parenting approaches can stress the relationship.

2.3.1 PARENTING STYLES

Many studies have attempted to understand parenting and find a way to conceptualise it. For several decades, parenting has been characterised in terms of universal parenting styles (Baumrind, 1971; Smetana, 2017; Yeh & Singh, 2010). Parenting styles are behaviour models in which parents and children interact. Baumrind (1971) has identified four parenting styles based upon two aspects of parenting behaviour: demandingness and responsiveness. Demandingness refers to the degree a parent controls their child's behaviour, and responsiveness refers to the amount of affection, acceptance, and warmth a parent provides to their child. The four patterns that have been identified are authoritative, authoritarian, permissive and uninvolved (Figure 7).

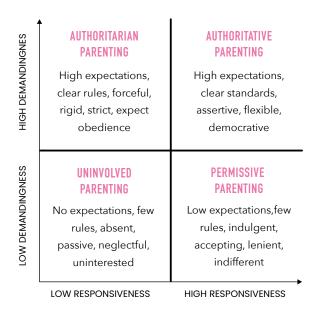
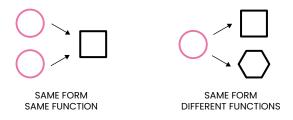


Figure 7. Parenting styles bases on Baumrind (1971)

Authoritative parenting is seen as the healthiest and most beneficial parenting style as it balances affection and support but still has a degree of parental control (Kopko, 2011; Smetana, 2017). This parenting style is more common in Western cultures, whereas an authoritarian parenting style is more common among ethnic minorities or families with low socio-economic backgrounds (Smetana, 2011). These families often live in poor and possible dangerous neighbourhoods, where an authoritarian parenting style is needed to protect their children (Darling and Steinberg, 1993). This has led to various concerns about these parenting styles having the same meaning across cultures (Smetana, 2017) and can thus be considered universal.

Research by Carlo and McGinley (2007) and Darling and Steinberg (1993) states that it would be more interesting to look at parenting practices, rather than parenting styles. Parenting styles combine several attitudes and are seen as stable across situations and domains (Baumrind, 1971; Darling and Steinberg, 1993), whereas parenting practices are specific parental behaviours that depend on the context (Smetana, 2017).



2.3.2 PARENTING PRACTICES

Some parenting practices are similar across cultures and can be considered universal, e.g., to nurture and protect (Bornstein, 2012), while the underlying values of other practices can vary across cultures (Yeh & Singh, 2010). This leads to a model that contrasts form with function (Figure 8). The form is the parenting practice, and the function is the meaning attached to this form. When a specific form has the same meaning in different cultures, one can speak of a universal practice, e.g., breastfeeding a baby, which commonly serves to provide nutrition for the child. A form can also have different functions across cultures. In some cultures, hitting one's child is seen as a basic form of discipline, whereas it is considered abuse in other cultures. Different forms can also serve the same function. For example, an authoritative parenting style leads to positive outcomes in European schoolchildren, whereas an authoritarian parenting style leads to positive outcomes in Asian schoolchildren (Bornstein, 2012). When different forms serve different functions in a different context, there is evidence of a cultural practice (Bornstein, 2012).

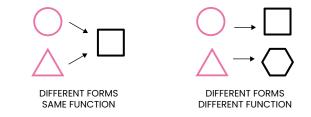


Figure 8. Contrast form and function, based on theory by Bornstein (2012)

2.3.3 PASSING DOWN CULTURALLY APPROPRIATE BEHAVIOUR

Each cultural group has specific characteristics and values that its members share and pass on to their children to ensure they can function as a member of that group (Bornstein, 2013). Various cultural models ensure that such culturally appropriate behaviours are passed down.

"Cultural models are cognitive schemas that members of some group or class of people share, which are learned through experience" (Quinn, 2005, p. 478). These models evolve because they provide solutions to specific tasks that individuals would not be able to develop by themselves, such as bringing up children. This task is too recurring and too critical to do without any solution. Raising

children is not only vital for human survival but also for the wellbeing of the group, which makes a common solution attractive. Passing down culturally appropriate behaviour is considered a universal aspect of parenting (Bornstein, 2012) and depends on *consistency, emotional arousal, evaluation, and pre-dispositional priming* (Quinn, 2005). Table 2 shows the steps involved.

Table 2. Passing down culturally appropriate behaviour

STEP	DESCRIPTION		
Consistency	Repeat desired behaviour regularly and avoid contradicting experiences to create behavioural patterns in the brain of the child.		
Arousal	Punish and praise the child accordingly to motivate the child to demonstrate desired behaviour and avoid undesired behaviour.		
Evaluation	Not only teach them what is right or wrong, but also specify the reason why to fully attain the learning experience.		
Predisposition	This is essential to predisposition the child for lessons later in life that would otherwise be hard to learn.		

Example from a German mother: whenever her son would wake up in the morning, she would leave him in the crib for about an hour. When he would cry or object, she would ignore it to teach him to comfort himself. The short-term goal for her was to have more time for herself, and the long-term goal was for the child to learn to be self-reliant in an individualistic country like Germany (LeVine and Norman, 2001).

Passing down culturally appropriate behaviour through these steps alters the brain patterns responsible for unconscious thoughts and behaviour (Rumelhart et al., 1986). Therefore, it is hard to let go of instilled behaviour and values (Quinn, 2005). According to Bornstein (2012), "some of these culturally constructed values can be so powerful that parents are known to act on them, setting aside what their senses might tell them about their children" (p. 213). This finding is supported by Keller et al. (2004), who state that parenting behaviour is relatively resistant to change, even if the cultural context changes.

2.3.4 WHAT HAPPENS WHEN DIFFERENT PARENTING STYLES MEET

In addition to the enjoyable experiences of becoming a family, parent's different unconscious and conscious (Quinn, 2005) attitudes and beliefs concerning childrearing may appear and need negotiation (Rosenblatt, 2009). Intercultural couples are more likely to encounter problems (Bornstein, 2012) because they hold even more diverse values, beliefs, and attitudes than couples of similar cultures (Hsu, 2001). Each child's developmental stage is a potential stressor for intercultural parents because of potentially contradictory aims and goals (Bornstein, 2012). The challenge is to reconcile different childrearing practices that have these contradictory aims and goals. Intercultural parents are challenged to create a new family identity, and they must develop strategies to construct a third culture (Crippen and Brew, 2015). It is better to integrate differences rather than deny them (Falicov, 1995). According to Crippen and Brew (2015), the couple can select what aspects to retain and discard by sharing each other's culture.

SUMMARY

Researchers have tried to conceptualise parenting in terms of universal parenting styles for the past decades, assuming that they are stable across situations and domains. However, as these styles seem to have different meanings across cultures and thus cannot be considered universal, it is more beneficial to look at parenting practices. A practice becomes culture-specific when that practice only has a particular meaning in that specific culture. These cultural practices are adapted to fit that cultural group. Members

of those cultural groups ensure to pass on their values, through these practices, to their children to ensure they can function as a member of that group.

Being raised in different cultural groups, intercultural parents will probably hold diverse values, beliefs, and attitudes. As the cultural distance between them increases, the likelihood of them encountering problems increases as well. The challenge for these parents is to reconcile different childrearing practices that have these contradictory aims and goals.

2.4 MAKING IT WORK

The previous sections have shown the importance of personal values, what makes it so hard to let go of them, and what happens if those values are challenged in the relationship. Many researchers have aimed to identify how to cope with this stress, and how to prevent and solve conflict as a direct result of this problem. This section describes several approaches to cope with stressors in an intercultural relationship. It will present a variety of coping strategies and two essential competencies to deal with culture. Finally, it will describe health professionals' role when couples can no longer function independently and need counselling.

2.4.1 COPING STRATEGIES

Couples in distress usually have an unbalanced or distorted view of their cultural similarities and differences. In these couples, cultural differences are inappropriately focused on, either through maximising and selectively highlighting them or through minimising and selectively submerging them. These signs are reliable indicators of problems regarding mutual acculturation (Falicov, 1995). Four papers identifying strategies for intercultural parents to cope with culture-

related stressors (Bhugun, 2017; Bustamante et al., 2011; Seshadri & Knudson-Martin, 2013 and Tili & Barker, 2015) have been analysed and compared (Table 3), revealing five themes: open communication, recognition of similarities, framing of differences, cultural appreciation, and cultural adjustment (Figure 9). The summary of the strategies presented in each paper can be found in Appendix A1.

Table 3. Comparison of strategies to cope with culture-related stressors

BHUGUN (2017)	BUSTAMANTE ET AL. (2011)	SESHADRI AND KNUDSON-MARTIN (2013)	TILI AND BARKER (2015)	OVERLAPPING STRATEGIES
Communication				
Having a plan		Emotional maintenance	Openness	Open communication
	Recognition of similarities	Creating a 'we'	Self-awareness and other-	Recognition of similarities
	Humour about differences	Framing differences	awareness	Framing of differences
Cultural literacy	Cultural appreciation	Appreciation	Respect	Cultural appreciation
Compromise	Cultural deference			
Flexibility	Cultural reframing	Positioning in context	Perspective taking	Cultural adjustment

The most crucial strategy is open communication (Seshadri & Knudson-Martin, 2013; Tili & Barker, 2015). Both partners need to find a way to express their emotions, insecurities, and feelings (Bhugun, 2017), listen to each other and not disregard any difficulties (Tili & Barker, 2015). It is also important to discuss and agree on how differences will be negotiated and managed in the relationship to avoid conflict (Bhugun, 2017). The next theme is recognition of similarities (Bustamante et al., 2011). The couple needs to find common ground by focusing on similar values even though they do things differently. When they reach this common ground, they can use it as strength and develop a shared goal to work towards (Seshadri & Knudson-Martin, 2013). Necessary are patience, perseverance, and communicating these goals to other people (Bhugun, 2017). Further, couples need a way to frame their differences (Bustamante et al., 2011; Seshadri & Knudson-Martin, 2013). Both partners need to be aware of themself and each other (Tili and Barker, 2015) and explore how the differences affect their relationship. For this, it is essential to be mindful (Seshadri & Knudson-Martin, 2013), flexible, open-minded (Bhugun, 2017; Tili & Barker, 2015), sensitive, and not assume that the other shares the same perspective (Tili & Barker, 2015). When addressing differences, humour and cultural stereotypes are considered effective (Bhugun, 2017; Bustamante et al., 2011). Another theme that emerged is appreciation of each other's culture (Bustamante et al., 2011; Seshadri & Knudson-Martin, 2012). Being exposed to other cultures (Bhugun, 2017) and engaging in practices that are different from what one is used to (Tili & Barker, 2015) enrich one's life (Bhugun, 2017; Bustamante et al., 2011. Crucial for this are respect (Bhugun, 2017; Seshadri & Knudson-Martin, 2013; Tili & Barker, 2015) and understanding (Bhugun, 2017; Seshadri & Knudson-Martin, 2013). To appreciate and embrace another culture, each partner needs to make an effort to educate themselves regarding the culture of their partner (Tili & Barker, 2015). The last theme is cultural adjustment (Bustamante et al., 2011). Both partners need to be willing to adjust in response to the differences (Seshadri & Knudson-Martin, 2013). This requires compromise (Bhugun, 2017), tolerance (Bhugun (2017), flexibility (Bhugun, 2017; Tili and Barker, 2015), and accepting that your perspective is not necessarily the only one or the best one (Seshadri & Knudson-Martin, 2013; Tili & Barker, 2015).



Figure 9. Strategies to cope with culture-related stressors

2.4.2 CULTURAL SENSITIVITY

The competence to be aware of and to experience differences and similarities between people and to be able to change your perspective can be defined as cultural sensitivity (Bennett, 1993; van Boeijen & Zijlstra, 2020) or cultural competence (Foronda, 2008). Cultural sensitivity is essential because it improves empathy (van Boeijen & Zijlstra, 2020), understanding and communication (Foronda, 2008). According to Foronda (2008), the main attributes of cultural sensitivity are: *knowledge, consideration, understanding, adjustment,* and *tailoring* (Figure 10).

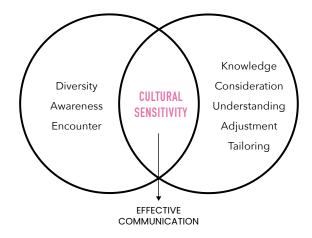


Figure 10. Becoming culturally sensitive (Foronda, 2008)

To become culturally sensitive, one must have knowledge of cultural differences and values. This knowledge can be acquired through experience but also education. The following attribute is considering each other's background, language, beliefs, and practices and being open and sensitive about it. Further, an individual must understand the importance of another's values and experiences. The next attribute is respect. One must be willing to show appreciation and regard. The last attribute is tailoring, which means altering one's perspective to meet someone else's needs. There are several requirements to employ cultural sensitivity. The first is the presence of individuals with different values, beliefs, attitudes, and practices. The second is awareness of one's own culture and accepting that people can be different. The third requirement is an encounter between people with different cultural backgrounds.

2.4.3 INTERCULTURAL COMMUNICATION COMPETENCE

To enjoy the benefits of an intercultural relationship, the couple must first understand how their cultures differ, adapt where needed, and develop intercultural communication competence (Bornstein, 2012). Intercultural communication competence is the ability to communicate effectively and appropriately

in various cultural contexts (Chen, 1988). Intercultural communication competence can be divided into four attributes (Figure 11), the skills needed to be competent: personal attributes, communication skills, psychological adaptation, and cultural awareness (Chen, 1988).

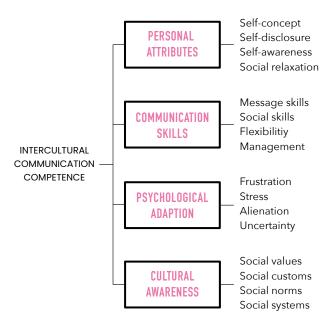


Figure 11. The concepts of intercultural communication competence, adapted from Chen (1988)

The first aspect of personal attributes is selfconcept. To communicate effectively, one must have a friendly, reliable, honest, and sincere attitude. Self-disclosure means that individuals should be willing to be open about themselves. Self-awareness refers to the ability to be aware of oneself so that one can better adjust to other cultures. Finally, self-relaxation stands for the ability to stay calm during communication. Communication skills consist of message and social skills, flexibility, and interaction management. Message skills imply the ability to use language correctly, use specific feedback at the appropriate moment, support the other person through body language and facial expressions, and express, answer and organise messages effectively. Social skills include empathy, identity maintenance and human relation skills. Empathy

or perspective-taking is the ability to put oneself in someone else's shoes. Identity maintenance stands for staying true to oneself, and human relation skills refer to the ability to express one's feelings. Flexibility and adaptability mean choosing appropriate behaviour in different contexts, and interaction management is the ability to take turns in interaction. *Psychological adaptation* refers to the ability to acculturate and deal with frustration, stress, alienation, and uncertainty. The last attribute, *cultural awareness*, entails understanding another's culture's values, customs, norms, and systems.

Cultural awareness and cultural sensitivity are often used interchangeably; however, there is a slight difference in meaning. Cultural awareness is the knowledge of the existence of different cultures, and cultural sensitivity means consciously accepting those differences (Seibert, Stridh-Igo & Zimmerman, 2002), being able to adjust your perspective (van Boeijen & Zijlstra, 2020), and adapting your behaviour accordingly.

2.4.4 COUPLES' COUNSELLING

As stated in the previous sub-section, effective communication requires that each partner

understands how the other's needs are met in the relationship (Chen, 1988). If a couple is unable to manage this, they can require help from a therapist. According to Hsu (2001), therapy serves to increase understanding between both partners and teaches the couple to appreciate each other's culture and negotiate differences in a way that both are comfortable with. To accomplish this, the therapist must assist the couple in identifying how their behaviour is influenced by culture and how this affects the relationship (Bustamante et al., 2011). The therapist can also help couples reframe their relationship by helping them define their values and beliefs (Falicov, 1995).

Although culture has long been considered a factor in therapy, recognising the need for culturally sensitive therapists is a relatively recent phenomenon (Sullivan, 2006). To be effective in helping couples, therapists need to know their own biases and avoid imposing their values (Bustamante et al., 2011). They should also be able to recognise the influence of culture (Falicov, 1995) and understand how couples define their cultural context (Crippen and Brew, 2015), so they can be sensitive to possible differences in the acculturation of each partner as well as the couple as a whole (Hsu, 2001).

SUMMARY

Couples in distress usually have an unbalanced or distorted view of their cultural similarities and differences. These signs are reliable indicators of problems regarding mutual acculturation. Much research has been done to define coping strategies for these couples to prevent and solve these problems: open communication, recognition of similarities, framing of differences, cultural appreciation, and cultural adjustment. Two competencies that can influence the success of the intercultural relationship are cultural sensitivity and intercultural communication competence. Cultural sensitivity is essential because it improves empathy, understanding and communication. Intercultural communication competence is essential because it improves effective and context-appropriate communication.

If a couple struggles with applying these coping strategies or achieving these competencies, they can require help from a cross-cultural therapist. The therapist can assist the couple with identifying how their behaviour is influenced by culture and how this influences the relationship.

2.5 DISCUSSION

As stated in the first chapter, intercultural parenting can be challenging. There are many culture-related stressors these parents can experience, and naming all these possible stressors would probably result in an endless list. It depends on the unique composition of the parents and their context, and it is impossible to create a universal set of stressors that can be applied to all of these (Figure 12).

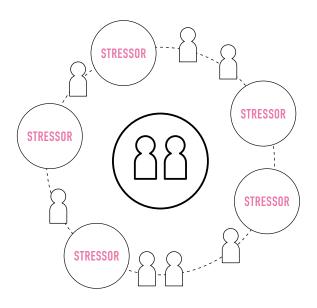


Figure 12. Unlimited amount of stressors

One approach to identify potential stressors in an intercultural relationship is using the socio-cultural dimensions presented in Sub-section 2.2.2. These dimensions give a relatively complete view of culture and its expressions. Value orientations can be mapped out, giving an idea of the cultural distance between national cultures. Any distance could be a potential stressor, but expected is a positive correlation between the distance and the amount of stress. Having different values can lead to having different priorities or expectations regarding the children (Sub-section 2.3.4). However, as previously stated, individuals do not necessarily represent the national culture, thus using these dimensions only gives clues as

to what can be investigated (Figure 13). One can also look at the degree of mutual acculturation in the relationship (Sub-section 2.2.3]. This does not necessarily say anything about the type of stressors but can give information about the dynamics between the parents and how well they have adjusted to each other. If this adjustment is unbalanced, it might indicate a higher probability of these parents experiencing stress in the relationship.

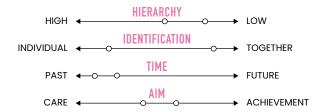


Figure 13. Opposing values can be cause for stress. E.g., if one partner comes from an individualistic country and the other partner comes from a collectivistic country.

Even though there is no universal set of culture-related stressors, researchers have attempted to create universal strategies to cope with these stressors (Sub-section 2.4.1): open communication, recognition of similarities, framing of differences, cultural appreciation, and cultural adjustment. It is assumed that applying these strategies can help parents cope with the stressors and prevent conflict.

To conclude, more research into intercultural parents must be done to fully explore the problem field and identify design opportunities. As all intercultural relationships are unique, further research should have a qualitative approach. Possible focus areas are: what influences their parenting style, how they communicate about parenting and any difficulties they experience with both these things.



CHAPTER 3 USER RESEARCH

This chapter serves to gain more insights into the lives of intercultural parents. This is research is partly based on insights gather during the literature research, but also aims to discover new fields of opportunity. The first section describes the chosen method and research questions. The following section presents the results of the user research, supported by quotes from the interviews and the final section gives an overview of the insights that will serve as a base for the define, and eventually development phase.

3.1 APPROACH

The main goal of the user research is getting to know the end-user and their context. Based on the outcomes of the literature research, knowledge gaps were identified, after which additional research questions were formulated to function as a starting point for the interviews.

3.1.1 METHOD

Contextmapping sessions were conducted to better understand the experiences of intercultural parents and their context (Sanders & Stappers, 2012). Contextmapping aims to reveal tacit knowledge and expose latent needs (Sanders, 2001). Tacit knowledge is knowledge that people act upon but cannot express in words. Latent needs are the needs people have that they are unaware of. "We want people to reflect on and to express their needs and values to explore future scenarios of use. However, needs and values are abstract qualities that people are not often used to talking about directly." (Sanders & Stappers, 2012, p. 56). Figure 14 shows an overview of the activities involved.

3.1.2 RESEARCH QUESTIONS

The literature research revealed several knowledge gaps that this user research will aim to explore with the following research questions:

- RQ1. What contextual factors influence (intercultural) parenting styles?
- RQ2. How do (intercultural) parents deal with their cultural differences regarding parenting?
- RQ3. What difficulties do they experience during this process?
- RQ4. How do (intercultural) parents communicate with each other about parenting?
- RQ5. What are their needs during this communication?

3.1.3 PROCEDURE

The contextmapping session consisted of two main activities: a sensitizing booklet followed by semi-structured interviews to explore the context further. The sensitizing booklet (Appendix B4) consisted of some short exercises to let the participants reflect on their behaviour and become aware of their experiences (Visser et al., 2005). The booklet was sent a week in advance and was followed up by semi-structured interviews. Since the project deals with a sensitive topic, it was chosen to have individual sessions. During the interview, a selection of images (Desmet & Xue, 2020) was used to evoke stories to reflect earlier experiences (Sanders & Stappers, 2012). The selected images can be found in Appendix B5. In their research, Desmet and Xue (2020) concluded that the images are not culturally biased and thus appropriate to use in different cultural contexts.

3.1.4 PARTICIPANTS

The study was conducted with eight couples from the target group recruited by non-probability sampling (Table 4). Six couples were recruited through voluntary response sampling (Kumar, 2005), also known as

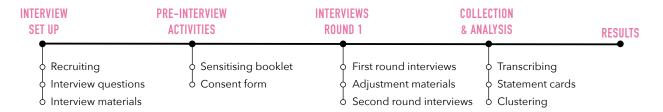


Figure 14. Research activities user research

self-selecting. The study was advertised on LinkedIn and Facebook, and all six couples responded via LinkedIn. See Appendix B1 for the used flyer. The other two couples (Interview 2 and 4) were recruited through convenience sampling (Kumar, 2005) and asked to participate via e-mail.

For the first six interviews (Interviews 1 to 6), the requirements were that the partners (1) had a different nationality from each other, (2) had at least one child and (3) were prepared to be interviewed together. Further requirements were that (4) at least one of the partners was Dutch and that (5) the couple currently resides in the Netherlands. Two additional interviews (7 and 8) were conducted in which the last two requirements did not apply: the first to explore the influence of a third culture and the second to get feedback and insights from an intercultural parent working as a cross-cultural psychologist. Two participants (Interviews 2 and 7) could not do the interview, but it was decided to proceed with the interview, keeping in mind that insights represent one partner and not the couple.

Table 4. Participants and their relevant characteristics

	NATIONALITY PARTNER A	NATIONALITY PARTNER B	COUNTRY OF RESIDENCE	AGE CHILDREN
Interview 1	Dutch	Iranian	The Netherlands	25 and 27
Interview 2	Dutch	French	The Netherlands	12 and 15
Interview 3	Dutch	Indonesian	The Netherlands	19 and 24
Interview 4	Dutch	Taiwanese	The Netherlands	14 and 16
Interview 5	Dutch	Antillean	The Netherlands	2 and 11*
Interview 6	Dutch	French	The Netherlands	12 and 13
Interview 7	Argentinian **	Australian	Australia	8 and 9
Interview 8	Polish	American	Belgium ***	5, 8 and 11

^{*} Child from an earlier relationship (partner B)

3.1.5 DATA COLLECTION

Each participant was asked to sign a consent form agreeing to participate in a video and audio recorded interview (Appendix B3). Semi-structured interviews were chosen to ensure comparability of the data (Kumar, 2008). An interview script was developed to guarantee that each interview would discuss the same topics. The script was designed to make the interview last about an hour; however, some interviews

^{**} Works as a cross-cultural psychologist

^{***} Live in a country that neither is born in, thus introducing a third culture

took longer. The interviews were conducted through Zoom, and the sensitizing booklets were filled in on Google Slides and reviewed before each respective interview. After two interviews, the script was revised to get more valuable insights (Appendix B6 and B7). The first five interviews were conducted in Dutch, and the last three interviews were in English. The interviews were transcribed according to clean verbatim transcription, thus preserving the meaning of all text. Unnecessary non-verbal communication and filler words or phrases were left out to increase readability (Sandelowski, 1994).

3.1.6 DATA ANALYSIS

After transcribing, transcripts were set aside for one week. Meaningful quotes were selected and interpreted by the researcher, after which clusters were made based on topics and patterns of meaning that repeatedly came up. Analysis of the data was done using on the wall analysis (Visser et al., 2005), following the general steps of thematic analysis. Thematic analysis is considered appropriate for gaining insight into people's knowledge, experiences, and values (Braun, Clark & Gray, 2017). The approach was inductive, allowing the data to determine the themes, and latent, reading into the assumptions underlying the data.

3.1.7 TRUSTWORTHINESS AND CREDIBILITY

As the researcher, I realize that my bicultural upbringing in the context of the Netherlands might give me a biased view in this research. Before the interviews, current knowledge and assumptions were mapped out (Appendix B2) to reduce the risk of projecting any preconceptions on the participants and provide a starting structure for the analysis (Visser et al., 2005).

3.1.8 LIMITATIONS

Voluntary response sampling is somewhat biased as some people will be more likely to volunteer than others. With convenience sampling, there is no way to tell if the sample represents the population, so it cannot produce generalizable results. Further, The Netherlands is chosen as the stable context. However, it must be kept in mind that there are various subcultures in the Netherlands, and the behaviour of individual participants is not representative of the Dutch national culture. Some of the interviews were conducted in Dutch, which required translation, which might have led to details going missing or meaning changing slightly. Also, it was attempted to make the interview scripts as similar as possible in English and Dutch. However, some questions might have changed slightly and been interpreted differently by the participants. The research does not conform to rigorous scientific procedures; however, it delivers valuable insights and inspiration for design purposes.

3.2 RESULTS

This section presents the general themes and clusters found after analysing the interview transcripts, supported by quotes from the interviews. Some of these findings may be similar to the experience of same-culture couples; however, the general assumption is that cultural differences amplify the experiences.

BIRDS OF A FEATHER FLOCK TOGETHER

People tend to associate with those who share similar interests or values. It does not matter if both partners come from the same country or other sides of the world. It is assumed that if you both have the same values, the chance of you getting along is more probable. However, if the values do not align, it will probably lead to problems in the relationship. Couples are often not aware of how hard it can be if their values are challenged and the impact that can have on their relationship. If the cultural distance is too big, it becomes harder to mediate and compromise. The priorities of someone's values can also change over time. One may seem to have the same values at the start of a relationship, but years later, they appear less compatible than expected. Therefore, it is crucial to envision situations that may arise in the future and discuss expectations.

"We talked extensively about values before we got married, went to pre-marital counselling, but differences still come up from time to time. We try to remember how much we love each other and compromise and pick the best from both cultures and go with that."

"You might have certain things which are common to when you first met, but then ten years later, you have kids, and you get some surprises about certain values you have which in the end aren't so compatible."

THERE ARE PLENTY MORE FISH IN THE SEA

A typical pattern was people looking outside their own culture for a partner. Some parents stated that they did not wholly identify with the main values of their culture and thus could not relate to potential partners within their own culture. This incompatibility made them hold back, whereas being with a partner from another culture that shares similar values gave them a feeling of freedom and belonging. For some, it goes further than looking for a partner from another culture. They expressed not liking the way people behave

in their own country, driving them to settle elsewhere.

"Partners from the same culture made me feel trapped because they didn't dare to colour outside the lines. [...] I wanted more. That is exactly why it clashed. I did not like that. With partners from other cultures, I felt free and accepted."

"I think in terms of values, I found someone who kind of matches what I wanted, and I couldn't find in an Argentinian person. I've always been a feminist or a very strong woman, so it was hard for me to find someone in Argentina who would let me be like that, who would let me be strong."

MORE HASTE, LESS SPEED

Each culture has different norms and customs. Being with someone from a different culture can sometimes lead to one partner accelerating or decelerating their timeline. They may have children sooner than expected by adapting to the customs of their partners' culture. In some cultures, a woman must be married before being allowed to live with their partner, which means that marriage might happen sooner than otherwise. Another thing is living together. Some relationships start as long-distance, which is not considered feasible long term. When one partner moves, often the choice is made to move in together instead of living separately first.

"I had my first child when I was thirty-two, which is considered very late at home, but quite normal in the Netherlands. I wanted to focus on myself before having children, which is often not a priority for women in my culture."

"We got married because otherwise, my parents wouldn't let us live together. That threshold was quite low, so to speak, but for me having a child is... you are responsible for the rest of your life, so you don't just do that."

A GOOD THING BEGUN IS HALF DONE

Several parents mentioned the benefit of getting to know their partner as a day-to-day person before children come into the picture because getting to know each other as an everyday person while figuring out to be parents is difficult. There are many things you consider normal that are not necessarily normal for the other. You need to learn about what you both consider normal and create a new normal that works for both of you. This only works when you are both open-minded and genuinely interested in learning about each other. You should respect each other's culture, accept any differences that come up and see how you can integrate those in the relationship.

"In any relationship, you have a period where you get to know each other. We never experienced that before we had children. That was integrated into raising the kids. During that, we were also discovering each other as day-to-day people; that was hard."

"You have many things that you consider normal, but that are not normal or obvious for the other. That already happens with people from the same culture, but certainly with someone who is not from your culture. So, you need to accept that what is normal for you is not normal for them."

YOU CANNOT HAVE YOUR CAKE AND EAT IT TOO

When entering an intercultural relationship, people need to be prepared that there are some things they will have to give up. An example is that one partner will have to move away from their friends and family. This can mean that your children will have less contact with that part of the family. However, as one parent mentioned, it also means more travelling and less interference from the in-laws.

"I wish my kids had the opportunity to grow up with cousins like I did. My cousins were special. They were like my siblings. My kids don't have that here. But I think that is a choice when you marry someone from another country. You can't have it all."

"Because your brother, he lives next to your mother, and his children are raised by your mother. If we had lived there, it would have been... I might have put a stop to that. But we live here, so there is no need."

THE CHILD IS FATHER TO THE MAN

Sometimes values conflict, which requires adaptation from either or both partner(s). Actively trying to change learned behaviour requires conscious thinking (Quinn, 2005), especially when emotions run high. Any kind of stress can override the part of the brain used to reduce emotional reactivity. This increase in emotion takes away the ability for rational thinking, which is highly essential when consciously trying to adapt your behaviour (Arnsten, 2009). So, when emotions run high in a confrontation, people often relapse and perform the behaviour they were trying to change.

"I've been raised in the South of France, very vocal, a lot of shouting, a lot of swearwords. I am failing in not trying to reproduce that. [...] I am really fighting it, but sometimes it comes back, the nature, the whole background."

"I am consciously trying not to use physical punishment, which I did experience. I do feel that it costs me effort, but I have succeeded so far. It can be emotional, and sometimes I think that what you experienced as a child comes as an automatic reaction."

WHAT IS LEARNED IN YOUTH IS CARVED IN STONE

The primary influence on parenting styles is people their upbringing and experiences. What they experienced in their childhood is considered so normal and obvious that it is adopted unconsciously. Other things are done more consciously. Parents try to incorporate what they appreciated from their upbringing

because they want to give their children the same positive experiences. There are also things parents consider inappropriate, such as physical punishment. This impacted them as children, so they try their best to avoid practicing it. In general, avoiding negative experiences was prioritized over enforcing positive experiences. Finally, there are things that parents missed during their upbringing, such as quality time with their parents, encouraging them to prioritize that.

"There are some things you experienced as a child and now consider so normal. So, in many situations, I do those things unconsciously. Because I experienced it as a child; it's somehow in me."

"We have very different parenting styles. My style has been copied from my mother as much as possible. I think she did great as a parent, but I wouldn't know how to do it differently either."

"I had a horrible upbringing. My father was very dominant, and I was also like that twenty years ago. I took a lot from him. Now I mostly have it under control, but it took a lot of therapy."

WHEN IN ROME, DO AS THE ROMANS DO

Not only past experiences but also context plays a significant role. Parents try their best to teach their children the skills they need to survive in the dominant culture. This need mainly develops when children get a bit older and encounter people outside the home environment. Another reason to adapt to the norms of the dominant culture is to avoid the judgement of society. Every culture expects children to behave in a certain way. Parents will adjust their parenting to show others they are good parents through the behaviour of their children. Sometimes adapting to the dominant culture leads to criticism from family members back home. These parents explained that they usually temporarily adapt their parenting style when they visit their family.

"When they went to school, I had to let go a bit. Otherwise, they wouldn't have been able to survive here in the Netherlands. They needed to adapt so people would not misuse their kindness. So that was a bit of letting go. It was painful."

"They are always judging you. It is crucial to show that you are in control of your children. They are so happy when the children are polite, and they think I am a good mom when my children sit still for three hours and say nothing."

HUMAN NATURE IS LIKE WATER; IT TAKES THE SHAPE OF ITS CONTAINER

Parents acknowledge that what they experienced as a child is not always relevant anymore. It is imperative to see the world through the eyes of your children and accept that times change. Also, political and socio-economic developments influence how people parent. An example is the Black Lives Matter movement, which led to some parents feeling the need to pay more attention to racism and alter certain aspects of their parenting style to do so. Another example is the COVID-19 pandemic, drastically changing people's lives and their routines. Also, varying family structures, e.g., being a single parent or being divorced, require different parenting approaches suitable for that situation.

"There was a strong deterioration of my kids speaking Spanish since Covid started. We used to go to Argentina every year [...]. Spanish playgroup was cancelled and never started again, and because my husband is at home all day, I speak English with them all day."

"I never really understood or experienced racism. Because we have children together, I am much more aware that it is very important to take it seriously. You have a child who is going to experience something different than you have."

THE BEST OF BOTH WORLDS

Many parents expressed the desire for their children to know both cultures. They emphasized the importance of staying true to yourself and combining the values and practices of both parents to create a family culture. Having parents with different cultural background means having the opportunity to choose and combine those things you appreciate from each other.

"You also choose to adopt some habits or some stuff, or not. There are also things where you can say, "No, that I will bring from my culture, and we will make it work in the environment here". You bring stuff and you mix. It makes things interesting."

"There are some of those things that are just nonnegotiable, some things you can't get rid of. [...] You shouldn't. Integration is about respecting that we do have different values. You shouldn't be forcing anyone to drop their identity to be with someone."

Parents their primary motivation is to make their children well-rounded individuals. They mentioned that growing up with multiple cultures teaches children to respect other people and makes them aware that there are different realities than the one they are experiencing, which, long term, teaches them to have a more critical view of the world.

"We create a family culture as we get together. [...] We bring our cultural baggage with us. We create something new. We both come from different places, different family realities, different practices."

IT TAKES ALL SORTS TO MAKE A WORLD

People have different characters, opinions, and abilities, and you should accept this. Your upbringing is different, no matter what culture you grew up in. It is essential to learn about each other's growing up stories and discuss what the priorities for your children are. You should give

each other the space to talk, discuss what you find important and what you want to take from your upbringing. Coming from different families, you have different experiences and thus different expectations.

"I would say, take an interest in your partner's childhood because it's going to be part of your family history. I also think it is important to discuss what the priorities for your children are."

"I think it is very important that you learn about each other's growing-up stories. I didn't know, before I had kids, that my husband was raised in a certain way. It's important to know what it was like growing up because that's going to influence the way you raise your kids."

"By giving space, I mean that you also have to give the other person's culture space and talk about it, like "What do you think is important? What do you want to take from your upbringing?" I think if you discuss that in advance, you can meet each other halfway."

AN OUNCE OF PROTECTION IS WORTH A POUND OF CURE

Several parents mentioned that they talk about those topics before it becomes a problem because they expect there to be differences. Other parents explained only talking about differences when they present themselves. For example, when other parents or family members bring it up, when something goes wrong during the day or when one parent does something the other parent does not necessarily agree with. A few parents pointed out also having conversations about hypothetical situations that might or might not occur in the future, simply to get to know each other.

"Sometimes, I feel that we have fewer false expectations than people who come from the same culture. For the simple reason that we expect the differences in advance and therefore talk about them before they become a problem."

"Some things are situationally driven, so when a situation comes up or when either one of the parents acts the way they think is best. But some things are easier to anticipate; you talk, and then the situation arrives later."

"But it's not like we sit down and have a discussion. Just in passing, here and there. Usually, that is how it goes. Unless there really is an issue somewhere, then we will indeed take it a bit more seriously, sit down and discuss what we both think."

IF YOU WANT SOMETHING DONE RIGHT, YOU MUST DO IT YOURSELF

Most couples mentioned that one of them is more likely to initiate a conversation about parenting because they attach more significant meaning to certain things, such as bedtimes and food, while the other does not. Because they consider it more important, they will pay more attention to it and are more likely to find fault. The parent that initiates the conversations is often more proactive, while the other parent is more passive. The pro-active parent can feel like they are put in that role but have a hard time letting go of that responsibility because they do not trust that their partner will take over.

"He let things slide for a long time; he could take a lot from the children. [...] Because he allowed more and wasn't very bothered, I always had to initiate the conversation. [...] That was annoying."

"I'm the cop. Why do I have that role? I don't want that role. But since he will not, I will. Maybe if I don't, he will...
Maybe I'm too pro-active."

YOU CANNOT FIT A ROUND PEG IN A SQUARE HOLE

Some parents expressed having trouble starting a serious conversation because it was not

something they experienced in their youth. For example, one parent mentioned that he was not allowed to talk at home unless spoken to, making it hard for him to initiate or have a conversation. In these situations, it can help if the partner recognises the need for conversation and bring it up themselves. This would lower the threshold of talking about it because the other person has taken the first step. Another issue is that some topics are difficult to communicate face-to-face. It would be easier to bring it up on the phone or even write it down for the other person to read.

"Some people say more when they are not together. If I have to say something face–to–face, it's a very different kind of stress than if I text or call or write on a paper piece. Then I might say a lot more."

DIFFERENT STROKES FOR DIFFERENT FOLKS

Besides differing opinions or expectations, differences in language and communication styles can also cause conflict. People communicate the easiest in their first language. In many intercultural relationships, only one of the partners speaks their first language, while the other adapts, or both communicate in a second or third language, which can lead to many misunderstandings. Different cultures also have different ways of communication. What is respectful in one culture can be disrespectful in another culture, causing offence and confusion.

"We both value respect, but the way we show respect is very different. I find [...], and I still think I'm polite, but you think I'm doing a kind of cross-examination."

"I remember spending a lot of time confused, and he spent a lot of time being offended just because of the communication difference. [...] It did lead to some interesting discussions."

"The biggest hurdle was communication style. [...] Although intellectually I knew it meant something different to him, it

was hard to adjust how it made me feel."

IT TAKES TWO TO TANGO

You are not going to agree on everything, and it is crucial to accept that. You have your way of thinking, but you must realize there is also some truth in what the other person is saying. Several couples advised evaluating per situation how important it is to you and if the discussion is worth it. You should keep trying to achieve your own goals but also avoid hurting others during the process. Sometimes you need to give in to be able to survive together long-term. Some couples did say that some discussions were so persistent that they decided not to talk about it anymore, accepting that it is something they will keep disagreeing on.

"Instead of being right, it is more important that we can reach an agreement, understand each other and communicate. In the long run, there's no point in trying to be right. If we want to survive, we have to do it together."

"I backed off a bit, you know. I still disagree, but it's not something so essential that I have trouble backing off. If it were something I consider more important, then we would have a feistier discussion, and we would have to reach some conclusion."

HONEY CATCHES MORE FLIES THAN VINEGAR

Some things work better than others during conversations and discussions. The most important thing is to give the motivation behind your opinion and behaviour and not expect someone to understand what you mean immediately. Some people tend to use their cultural background as an excuse; however, more helpful would be to explain your reasoning and identify related values. Important characteristics are honesty, curiosity, empathy, patience and listening to each other. Being genuinely curious makes it easier to ask the right questions, and

being empathic helps you see things from another perspective.

"Worst case, culture is used as an excuse. "I can't accept what you're doing because my culture doesn't let me". In the end, culture isn't a thing. It doesn't really exist. You exist, I exist so that we can make choices about things, and we can try to understand why."

"Being empathetic is very important. If you are a good listener, you can also put yourself in someone else's shoes. That does so much good for society as a whole and also for people themselves."

Confrontation can be both a good thing or a bad thing. On the one hand, confrontation can lead to hurtful speech, but on the other hand, it can also lead to people being unfiltered and more honest. Things that do not work are trying to convince each other of being right and presenting your opinion as the truth. Also, immediately coming up with advice rather than listening can negatively influence the conversation. Starting a conversation should be done when both partners have the right mindset, are not occupied with other things, and can participate actively.

"You shouldn't immediately come up with solutions. That is often the first impulse. Sometimes you just need to listen [...]. Ideally, you might say, "Why? What feeling does that evoke?" That really shows that you respect each other."

"Sometimes, you need a bit of a confrontation. And then it's over. Then you really understand each other. People in the Netherlands don't do that. I think that makes it more difficult. [...] Every word carries so much more meaning then."

ALL IS WELL THAT ENDS WELL

The needs of people after a discussion are very different. Difficult discussions might lead to the parents needing some time to wind down individually. Other people need to know they and their partner are okay by exchanging warmth, either in words or physical contact. Others prefer to end a discussion by drawing a conclusion and deciding on action for the next time the situation comes up.

"Now I know that it is better not to do that. Now I wait until the following day when I am calm again and tell him that I am sorry. However, I do think it is important to discuss it still."

"I also want to know that when it's done, it's good. It's true what you say. I like that warmth. I often ask if you if we are okay again. That is what I want and need to hear."

3.3 DISCUSSION

The user research revealed a lot of information. The aim of the research was to get more insight into what contextual factor influence parenting styles and how parents deal with their differences. The literature research revealed the importance of open communication, which was chosen as an additional focus area.

There are many factors that influence parenting styles, with the most significant factor being parents their own upbringing and experiences. The behaviour they learned during upbringing is often performed unconsciously. Parents also consider what they appreciated and criticized during their upbringing and adapt their parenting accordingly. Further, parents want to fit in with society but also want their children to fit in. Thus, they adapt their parenting style to fit in with the dominant culture. Other factors that influence how people parent are demographic, economic, political, ecological, socio-cultural, and technological trends and changes. Parents must adapt to keep up.

It can also happen that parents have different opinions about how they should behave or parent. The interviews revealed that the most common strategy that they apply to deal with that is to accept that those differences are there. To achieve that, they try to identify what they both consider normal and attempt to create a new normal that works for both by integrating values and practices of both. Usually, one or both partner(s) adjust some of their behaviour to achieve. Sometimes parents decided to keep certain values and practices because they consider it part of their identity, and letting go would be too painful. Especially if people are put in stressful or emotional situations, it can be hard to adapt behaviour. In these cases, it can help the couple to determine the underlying values. If their values are in accordance, it is easier to accept that the practice might differ.

Not all differences are dealt with effectively. One of the causes is having different first languages or different communication styles, leading to miscommunication and misunderstandings. Some parents have recurring discussions about specific differences, and others avoid dealing with their differences because they know it will lead to conflict. It can also happen that the cultural distance between the heritage culture and dominant culture is too large, making it difficult for the newcomer to fully adjust as values between them and their partner can appear contradicting.

With the focus on communication, it was essential to figure out what triggers parents to talk about their children, what those conversations can look like, and what the goal of the conversation is. There are many reasons that can trigger a conversation about childrearing: prevention of future discussions, having to make a decision, reevaluating decisions, preparing for the future or wanting to get to know each other. Often, there is one parent that feels the need to initiate the conversation; because they know their partner will not, because it is something only they notice or because they attach greater meaning to that specific topic. Parents might wait for their partner to initiate because they have not learned this during their own upbringing, or because they do not recognize the need.

During the user research attention was paid to parents their needs during communication about childrearing. A vital attribute when having a conversation about childrearing is equal participation, so both voices are heard. Essential qualities are honesty, curiosity, empathy, and patience. Also, listening to each other without interrupting or making assumptions is appreciated. In return, the other person is expected to be honest and explain any underlying

thoughts. If a conversation turns into a discussion, both parents need to stay respectful and not put blame on each other as this can have lasting effect on the relationship. Most parents need closure after a discussion. However, the type of closure is highly dependent on the person.



CHAPTER 4 DESIGN FOCUS

This chapter combines insights found in literature as well as the user research and presents a focus area that the development phase can build on. The first section describes the definition of family culture. After that, a reflection framework based on insights from the literature is presented, along with a description of its application. The final sections present the formulation of the design goal and a preliminary list of design criteria the solution will have to meet.

4.1 FAMILY CULTURE

The user research, again, highlighted the uniqueness of all intercultural parents. This has led to the introduction of a new term: family culture. This section describes the definition and the insights leading to the use of this term, and gives a visual representation of the system.

4.1.1 DEFINITION FAMILY CULTURE

When trying to formulate a design goal based on the insights from the literature and user research, it became apparent that an extra step was needed. Because each family is unique and has different needs, not necessarily related to e.g., their nationality, it seemed impossible to come up with a goal that would work for all intercultural parents. It was concluded that the focus on national culture no longer sufficed, leading to introduction of a new term:

Family culture refers to the system of shared beliefs, values, customs, behaviours, and artefacts used within a family, transmitted from parent to child through learning (based on Bates' and Plog's definition of culture, 1976).

Family culture focuses on the dynamics within a family and aims to include everything that determines what a particular family needs and how they approach parenting. This can depend e.g., on personality, nationality, and host country.

4.1.2 COMPOSITION

Figure X gives a visual representation of a family culture. In the middle there are two parents that grew up in a different family with a different family culture. These families can have any type of composition. It could be a single-parent household, a three-parent household, either with siblings or without siblings, etcetera. Within the family you have a transmission of values from parent to child and between parents, depending on the degree of mutual acculturation. Further, a family culture is influence by the context, e.g., the value orientations of the national culture or interference from extended family. Also, demographic, economic, political, ecological, socio-cultural, and technological trends influence how parents approach parenting.

This visual shows why parenting can be so complicated. Everyone grows up in their own unique family culture, influenced by an unlimited number of factors. When two people come together, these family cultures come together in a new context with more external influences. Two different people must adjust to each other to make the relationship a success, and when children come into the picture, they must decide on which values they want to transmit to create their own family culture.

4.2 CREATING A REFLECTION FRAMEWORK

Section 2.4 described several approaches that intercultural couples can employ to fully enjoy the benefits of their relationship. Combining all these approaches and insights have prompted the development of a meta-strategy, taking the form of a framework. This section discusses the steps leading to the final framework, the characteristics of the six phases of the framework, and the final shape that the framework has taken.

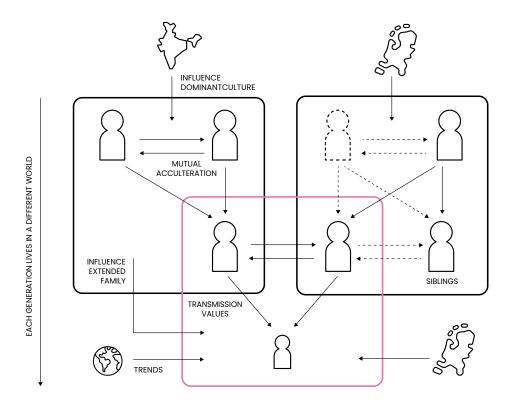


Figure 15. A visual representation of a family culture

4.2.1 FORMING A META-STRATEGY

The coping strategies identified in Sub-section 2.4.1 and the models of Chen (1988) and Foronda (2008), introduced in Sub-sections 2.4.2 and 2.4.3, respectively, displayed many similarities and considerable overlap. By mapping all strategies and attributes in a comparison matrix (Table 5), various patterns were identified, resulting in the following strategies: awareness, understanding, appreciation, and adjustment. Communication competence was found to be an essential competence in each of the strategies.

Table 5. Comparison coping strategies and models

COPING STRATEGIES (SECTION 2.4.1)	CULTURAL SENSITIVITY (FORONDA, 2008)		INTERCULTURAL COMMUNICATION COMPETENCE (CHEN, 1998)		INPUT FRAMEWORK	
Framing differences	Knowledge Consideration		Cultural	Personal	Awareness	
Recognition of similarities		Effective communication	awareness	attributes		
Open communication	Understanding			Understanding	Communication competence	
Cultural appreciation	Respect		Communication sk	tills	Appreciation	
Cultural adjustment	Tailoring		Psychological adaption		Adjustment	

The four papers (sub-section 2.4.1) identifying coping strategies focused on both intercultural couples and intercultural parents, indicating that the framework can be used by couples with or without children. For this research and to limit the scope (as defined in Figure 1), all descriptions related to the framework will only address couples with children (parents).

4.2.2 FROM META-STRATEGY TO FRAMEWORK

As stated in Section 1.2, current research into intercultural parenting has mainly been done from a systemic point of view in the field of family therapy and cross-cultural psychology, concluding with, e.g., frameworks and strategies for health professionals to assist couples in dealing with cultural differences. However, this requires extensive knowledge of the theory behind the strategies and training on how to apply it. All these implications seem to disregard intercultural parents as potential users of this knowledge, imposing the need of health professionals. A promising opportunity would be to make this knowledge accessible to intercultural parents and support them in its correct application.

To ensure the correct use of the strategies mentioned above, it was chosen to incorporate them into a meta-strategy presented as a framework. A meta-strategy is an overarching strategy determining which other strategy to use in a specific situation. Frameworks are used to provide structure to a set of steps that aim to solve a particular problem. The framework seeks to visualise the relation between the strategies and highlight the outputs of one strategy that can be used as the input of other strategies.

The goal of the final framework is to support intercultural parents in coping with potential culture-related stressors. It is a way for parents to work through their experiences and evaluate their behaviour. This can be either a stand-alone experience or a situation they are confronted with frequently. The framework comprises six stages (Figure 16), guides the process of reflection and focuses on learning from experiences. The framework helps parents identify why they behave in a certain way in specific situations and can also be applied to future situations by predicting how they would behave. Thus, the input of the framework is a description of a practice or behaviour, and the output is a plan of how you could adapt this for future situations, which is formed after identifying the underlying values.

Table 6. Steps of the framework in relation to intercultural communication competence

STEPS OF THE FRAMEWORK WITH DESCRIPTION	FOCUS COMMUNICATION COMPETENCE
Awareness stands for having knowledge about each other's cultural background, focusing on similarities and differences regarding practices, attitudes and beliefs, and norms and values. This knowledge is gained through education and experience.	It is essential to enter the conversation being open and honest about your thought and feelings and acting accordingly. It is also about explaining the rationale behind your statements so that your intent is understood.
Understanding is about identifying why you both behave in a particular way and considering how the mutual differences and similarities affect the relationship.	This step requires empathy and authenticity. It means allowing yourself to be vulnerable and openhearted, acknowledging other partner's feelings, and showing you care about them.
3. Evaluation is the process of judging or the quality, importance, amount, or value of what has been discussed previously.	During the evaluation, it is vital to have an unbiased mindset. This means being openminded, being able to look at the situation from all perspectives and not imposing your opinion on your partner (fair).
Appreciation means recognizing that something is important and showing and communicating this to each other so that you both feel respected and appreciated.	To be fully appreciative, you need to be willing to consider ideas and opinions that are new or different to your own (openness). You need to respect your partner's beliefs and love them for who they are.

STEPS OF THE FRAMEWORK WITH DESCRIPTION	FOCUS COMMUNICATION COMPETENCE
5. Adjustment refers to being able to alter your perspective, the way you think and behave, meet each other's needs, and behave appropriately in different contexts.	Finally, you need to allow yourself to consider something new as normal (accepting), find ways to relate to your partner and understand them how you would want to be understood.
6. Execution can be defined as the act of doing or performing something in a planned way.	

Applying the framework requires effective communication. To be able to effectively communicate in a relationship, it is important to be aware of the communication style you have and how this influences the relationship (Chen, 1989). A communication style is "the way one verbally interacts to signal how literal meaning should be taken, interpreted, filtered, or understood" (Norton, 1978, p. 99). Table 6 gives an overview of the six steps and defines how the step relates to (intercultural) communication competence. Communication competence is about gaining the skills needed to be effective and appropriate in another culture. Being effective means that you get to achieve your goals, and appropriate means that what you are doing is in no way disrespectful to others.

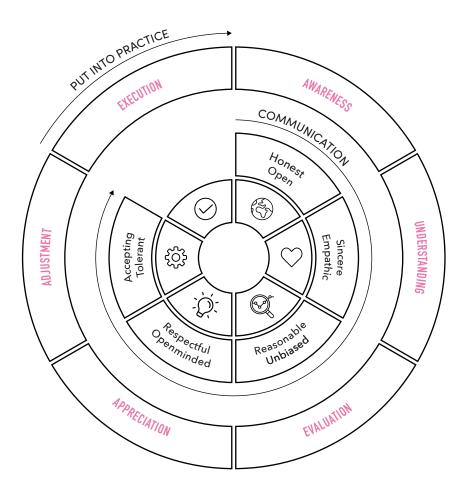


Figure 16. Final reflection framework

4.3 DESIGN GOAL

Based on the literature research and user research, a design goal for the design phase could be formulated. This section presents the design goal, an explanation of the definitions used in the design goal, and a description of the target group.

4.3.1 DESIGN GOAL

The goal is to support new intercultural parents, in the safe context of their home, in building a family culture that both can rely on and are comfortable with by teaching them to reflect and communicate so that they can create a stable and consistent environment for themselves and their child(ren).

Reflection and communication are essential components of dealing with culture. Section 4.1 presents a framework that supports parents in its application. The design solution will be based on the structure this framework provides.

Research has shown that a stable and consistent environment is beneficial for the wellbeing of both parents and children since everyone involved knows what to expect (Crippen & Brew, 2007; Seshadri & Knudson-Martin, 2013). Parents do not have to have the same approach to everything, as long they are consistent (Quinn, 2005). Stable refers to there being a balance between both parents in term of influence they have on parenting descisions.

4.3.2 TARGET GROUP

The target group of the design is intercultural parents. As defined in Sub-section 2.2.1, nationality was chosen as the cultural boundary, meaning that the parents represent at least two different nationalities. Further narrowing the scope, the design solution will focus on couples of which one partner has the Dutch nationality. As most of the interviews were conducted with couples residing in the Netherlands, of which one is Dutch, their statements and remarks made during the interviews were made relative to the Dutch culture being the dominant culture. Not enough research has been done to determine if the found insights also apply to couples in which another nationality represents the dominant culture. This does not mean that the final design is solely meant for this group but instead provides some focus to guide the design exploration process. Lastly, the design will focus on the couple in their first years of being parents. The user research showed that the transition from being partners to being parents requires the most adjustment, compared to the transition from, e.g., being friends to being partners.

4.4 DESIGN CRITERIA

Besides setting up the framework and defining a design goal to give direction to the design process, a list of design criteria has been set up to further structure the design process. This section describes the method used to set up the criteria and presents a preliminary list.

4.4.1 METHOD

Design criteria provide specific guidance to a project. They are explicit goals that a project must achieve to be successful and help focus the design process (van Boeijen et al., 2013). They can also be used to select promising ideas. The list of criteria will be added onto throughout the project, based on knowledge gathered.

4.4.2 PRELIMINARY DESIGN CRITERIA

The full list of design criteria that was used to shape the design solution can be found in Appendix D1.

- CR1. The tool is used at home without the supervision of a health professional.
- CR2. The tool is usable by people with varying cultural backgrounds.
- CR3. The tool supports the couple in dealing with culture and parenting.
- CR4. The tool supports the identification of shared values.
- CR5. The tool stimulates the application of gained knowledge in daily life.
- CR6. The tool requires equal and simultaneous participation of both parents.
- CR7. The tool encourages parents to learn new things about each other.
- CR8. Optimal use of the tool is unrelated to the degree of mutual acculturation of the couple.
- CR9. Use of the tool does not depend on the country of residence.
- CR10. The tool helps parents with identifying their needs regarding parenting.
- CR11. The tool encourages healthy and effective communication.
- CR12. The tool supports parents in reflecting on their behaviour.
- CR13. The content of the tool addresses all steps of the framework.
- CR14. The tool enables discussing differences and similarities.
- CR15. The tool enables discussing values and practices.
- CR17. The tool enables discussing several practices to highlight different aspects of parenting



CHAPTER 5 IDEATION

In this chapter, all previously acquired information and knowledge has been brought together to function as the base for the ideation process. Before starting the process, relevant existing solutions were studied and mapped to better understand how the theory can be brought into practice, find market gaps, and gain inspiration. These insights, combined with the insights gained during the brainstorm session led to the formulation of several ideas and ultimately a design proposal.

5.1 APPROACH

This section describes the several methods that were used in the brainstorm session and gives an overview of all research activities. Further, it gives a concise description of all activities in de the brainstorm session.

5.1.1 METHOD

A brainstorming session was conducted to find preliminary ideas. Before the creative session, a braindump was done to get all ideas and thoughts, developed during the research phase, out of the brain. The goal of this braindump was to avoid restricting the participants during the session and be able to look at the outcomes of the creative session without preconceptions. During the brainstorm session, several techniques were used to trigger creativity. How-Might-We's (HMW) serve as a trigger for participants to generate as many solutions as possible within the problem space (Heijne & van der Meer, 2019). What If-ing is a brainstorming technique used to expand on ideas (Snyder, 2009). Participants are asked to envision an alternate scenario in which they need to come up with solutions. This technique works best combined with other techniques, such as HMW's, which can now be answered from a different perspective. Last, Metaphors is a technique in which the participants look at problems in other domains with the same characteristics. By analysing how these problems are solved, inspiration can be found (Heijne & van der Meer, 2019). See Figure 17 for an overview of all activities.

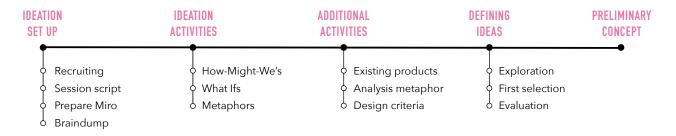


Figure 17. Research activities ideation

5.1.2 RESEARCH QUESTIONS

The main research question that was used to structure the brainstorm session was:

RQ. How can intercultural parents be guided through the reflection framework?

5.1.3 PROCEDURE

The brainstorming session consisted of two activities. The session script and a more detailed description of the activities can be found in Appendix C1. During the first activity, the participants were asked to individually answer three HMW-questions for three different scenarios, the HMW-questions being:

- How might we express our feelings and emotions to each other?
- How might we tell stories about previous experiences to each other?

• How might we document what we learn so that we can apply it in our daily life?

The three scenarios presented were a standard scenario and two alternate scenarios:

- Standard scenario: an intercultural couple doing this at home
- Alternate scenario 1: what if you were blindfolded during the communication?
- Alternate scenario 2: what if you and your partner did not have a common language?

During the next activity, the participants were asked to come up with a metaphor for 'family culture'. They first had to collectively come up with their definition of family culture, and afterwards, they had to look in other domains for similar concepts.

5.1.4 PARTICIPANTS

Three participants joined the brainstorm session (Table 7). The participants were recruited through convenience sampling (Kumar, 2005). The only requirements were that 1) the participants had a design background and that 2) they had minimum knowledge of the project.

Table 7. Participants and their characteristics

	OCCUPATION	
Participant 1	Design student	
Participant 2	Concept designer	
Participant 3	Content creator	

5.2 MAPPING EXISTING PRODUCTS

Before analysing the data from the brainstorm session, it was chosen to map out existing solutions to identify gaps in the market that can be transformed into fields of opportunity. This section shows the created map, gives a description of the performed analysis and presents additional design criteria that came out of this analysis.

5.2.1 IDENTIFYING MARKET GAPS

When looking at existing products, products in several domains were analysed, focusing on games and tools, all intended to facilitate communication (Appendix C2). Figure 18 presents a matrix in which a range of existing products is mapped out along two axes. The x-axis refers to the amount of structure that the product has, and the y-axis refers to the amount of supervision needed to use the product correctly.

The upper-left quadrant contains products with much structure and that are used in the presence of a therapist. These products have a clear learning objective and tackle serious topics. The products in the upper-right quadrant are also used in the presence of a therapist; however, they lack structure, leaving its application up to the therapist. The lower-left quadrant includes products with a clear structure and learning objective that can be done at home. The lower-right quadrant holds products that are freer in their use, most of them with an apparent fun factor, and can be used at home

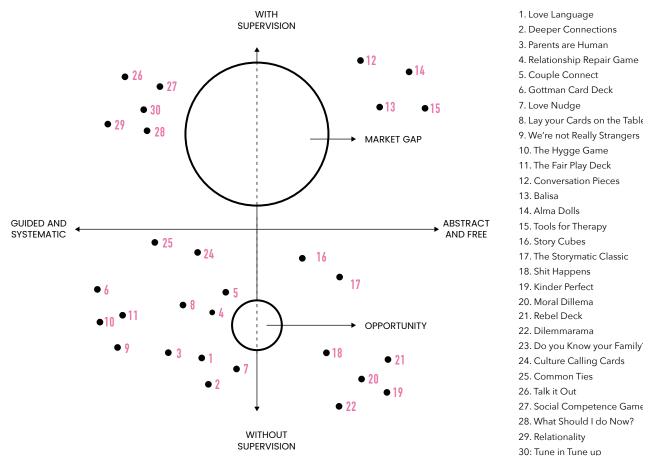


Figure 18. Matrix of existing solutions

5.2.2 PRODUCT OPPORTUNITY

The final design solution should trigger meaningful conversations, and should be usable by a range of parents with varying needs. As can be seen in Figure 18, both upper quadrants are relatively empty, leaving room for opportunity. However, as defined in the design criteria, the design will be used in the home environment without supervision of a therapist. This means that the solution needs some form of structure or guidance to ensure correct and optimal product use, putting the final solution in the lower half of the matrix, close to the y-axis. Further research will determine the location on the x-axis, depending on the desired ratio of structure and freedom. The product solution will stand out from other product in the lower half of the matrix by taking on qualities from the products in the upper half of the matrix, meaning it will be supporting parents in, not only, gaining the right knowledge but also applying this knowledge.

CR18. The tool has both fun and serious elements.

CR19. The tool encourages both superficial and deep conversation.

CR20. Use of the tool leads to improved communication (opposed to normal).

5.3 RESULTS

This section presents the metaphor that came out of the creative session. Several idea proposals could be formed as a result from the gained inspiration from mapping out existing solutions and by combining the solutions from the metaphor analysis and the creative session.

5.3.1 METAPHOR

As said before, metaphors is a technique in which the participants look at problems in other domains with the same characteristics. By analysing how these problems are solved, inspiration can be found. After the brainstorm session, it was chosen to proceed with the following metaphor:

Building a family culture is like building a large and complicated shelving unit together. It does not work if you try and do it on your own. Both partners need to communicate and work together effectively to achieve the goal. Both a shelving unit and family culture need to be constructed in a certain way to provide a stable and robust basis.

"Couples start arguing about a set of shelfs and by the end of the fight they are talking about each others parents and themselves and their kids."

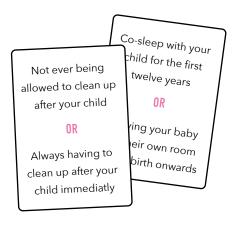
A complete analysis of the metaphor can be found in Appendix C3. During the analysis, it was attempted to answer the following question: How can building a shelf together be made easier?

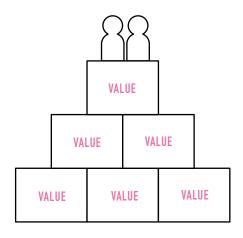
After this, several design criteria could be added.

- CR21. The tool fits in the existing living environment of the user.
- CR22. The tool can be used in different ways, fitting the need of the users.
- CR23. Parents have a clear overview of all content.
- CR24. The tool allows for a degree of flexibility in how the materials are used.
- CR25. Both parents can read the instructions of the tool at the same time.
- CR26. Used symbols and colours are culturally sensitive.
- CR27. The instructions of the tool are clear and concise.

5.3.2 IDEA DIRECTIONS

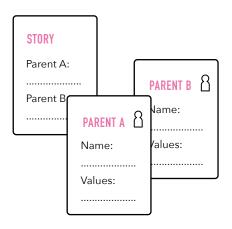
After a few rounds of ideation, a selection of nine ideas was chosen. Using the Itemised Response Method, all ideas were evaluated by making a list of positive, negative, and interesting features (see Appendix C4. The Itemised Response Method is a method to qualitatively evaluate early design ideas in a systematic way and helps to gain better understanding of the solution space (van Boeijen et al., 2013). The evaluation was done based on the design criteria, first mentioned in Section 4.4 (and added onto in Sub-Sections 5.2.2 and 5.2.3) to determine how promising the ideas were.





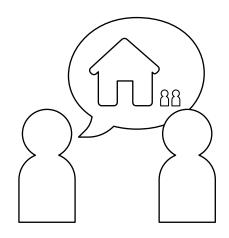
IDEA 1: EVERYDAY DILEMMAS

Parents are presented with a set of dilemmas with opposing parenting practices which they must choose between, e.g., not ever being allowed to clean up after your child or always having to clean up right after they make a mess. Assumed is that having to choose between two extremes will make parents rethink their values.



IDEA 3: VALUE PYRAMID

Parents are supported in making an overview of their personal values. Afterwards, they can compare their values and combine them into a set of values, representing their family. They then go through different scenarios, during which they use this set of values to come to joint decisions.

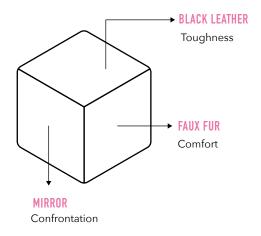


IDEA 2: ROLEPLAYING

Parents are presented with stories of real-life situations in which a decision must be made. They receive information about the values of the characters in the story, and they must act out the decision making as if they were those characters.

IDEA 4: STORYTELLING

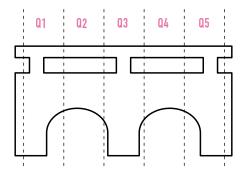
Parents are encouraged to tell each other stories about their childhood, evaluate those stories and relate those insights to their current behaviour. Further, they are challenged to think about any future situations that might arise.





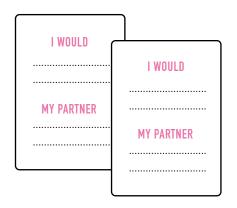
IDEA 5: EMOTION CUBE

Parents are asked to express their feelings regarding a range of different parenting topics. They do this by creating associations between their feelings and various materials that are presented to them. They then use these materials to materialise a tangible object, such as a cube, to communicate these feelings to their partner.



IDEA 7: I NEED...

A set of cards that parents can use when communicating with each other, creating a common language between them. The cards could express feelings and needs, e.g., if they want their partner to listen, give advice, ask what is wrong, or hug them.

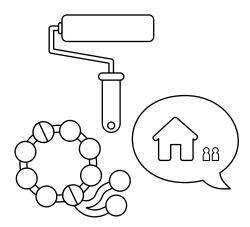


IDEA 6: BUILDING A BRIDGE

Parents give their opinion on a range of parenting topics by writing down their thoughts, after which they compare answers. The goal is to build a bridge. If their answers are similar, they get to build part of a bridge, but if their answers are too different, they break down part of the bridge.

IDEA 8: COMPATABILITY CHECK

A guessing game in which parents are presented with various parenting scenarios. Both parents describe what their approach would be, but also what they think their partner's approach would be. Thereafter they compare answers and see how well they know each other.



IDEA 9: STORY MASSAGE

Parents are encouraged to tell each other stories about their childhood. During this, they use various probes on each other's bodies, with the probes and their movements representing different emotions or actions.

5.4 DESIGN FOCUS

After coming up with a lot of ideas and clustering these into nine more concrete ideas, another round of converging was needed. This section describes the evaluation that was done to select one idea to proceed with.

5.4.1 IDEA EVALUATION

After evaluating all ideas, using the Itemised Response Method (Appendix C4), idea 4, 5, and 8 appeared to be the most promising. Idea 8 was soon discarded, as previous research (Section 3.2) has shown that making assumptions about other people is mostly seen as undesirable. Encouraging this behaviour thus seemed improper. After careful consideration, it was chosen to continue with idea 4, as it meets, or is expected to meet, all design criteria. The main reason was, however, that the storytelling aspect of the idea was very inspiring. It triggered many

ideas, one of them being: letting parents visualise their stories.

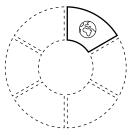
5.4.2 TANGIBLE STORYTELLING

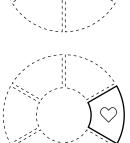
Storytelling is a powerful method to communicate emotions, values, and social skills (Goldman, 1998). It is a way of making sense of and recreating experiences and communicating these experiences to others (Wallbaum, 2017). Research indicates that the use of tangible or physical affordances will become increasingly imoprtant in the future. As Walton (1990) states, "It brings potential opportunities to improve storytelling tools, as well as the quality of the related user experiences by going more physical." Tangible objects offer the opportunity to interact with stories using our natural ability to understand the world (Walton, 1990). Research has shown (Echeverri & Wei, 2021) that the use of tangible objects can be playful, while engaging users and stimulating active participation by providing a multi-sensory experience.

5.5 DESIGN PROPOSAL

A tool that guides parents through all steps of the framework. Parents are encouraged to discuss various parenting practices and relate those to past experiences. They will be asked to turn their experience into a story and use the tool to make their story tangible. Afterwards, they will analyse and evaluate their stories and see how the experience has impacted them as a person. Finally they will be asked to identify common values, come up with a new approach for the practice and apply what they have learned in their daily life. A detailed overview of the relation with the framework can be found in Appendix C5.

"Stories convey values and emotions, and can reveal the differences and similarities between people's experiences." — Goldman (1998)

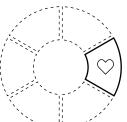






The couple identifies their current knowledge and assumptions regarding their behaviour and/or a specific parenting practice.

- Q. What are your assumptions and expectations?
- Q. What are the similarities and differences between you?



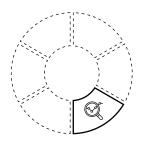
UNDERSTANDING

The couple links the behaviour or practice to a past experience and considers how this experience has impacted them as a person.

- Q. How does this experience connect to previous experiences?
- Q. What values surfaced for you during this experience, how?



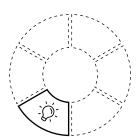
INTRODUCTION OF TANGIBLE STORYTELLING



EVALUATION

The couple tries to find relations between their experience and the current knowledge and assumptions they have.

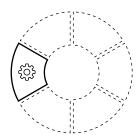
- Q. What was good and bad about the experience?
- Q. What are similarities and differences regarding values?



APPRECIATION

The couple compares what they have learned and try to identify shared values.

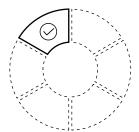
- Q. What have you learned about each other and the world around?
- Q. What can be concluded from the analyses you have undertaken?



ADJUSTMENT

The couple considers how they can use what they have learned for their own family and turns this into a plan of action.

- Q. How will you approach the situation when it arises (again)?
- Q. What does your plan of action look like?



EXECUTION

The couple is encouraged to apply what they have learned in their daily life, after which they can go through the framework again if re-evaluation is needed.

Q. How does the new approach work for you both?



CHAPTER 6 CONCEPTUALISATION

As stated in the introduction, Design Thinking is a human-centered approach for solving problems by prioritizing the user's needs. It relies on observing how people interact with their environment and uses an iterative approach to find solutions. This chapter presents the three iteration cycles that the design has gone through and concludes with the knowledge needed to create a minimum viable product.

6.1 APPROACH

The main goal of these user tests is to explore if and how the design solution works and how users experience it. This section describes the approach and the structure of each iteration cycle.

6.1.1 METHOD

Several prototypes were made and tested with potential users to further develop the preliminary concept presented in Section 5.5. Interaction Prototyping and Evaluation is a method that helps explore how users will experience future interactions with the design (van Boeijen et al., 2013. Interaction prototypes are typically low-fidelity and a simple version of the concept. Using this method, concepts can be tried out quickly to check if made assumptions are feasible, after which improvements can be made based on the user feedback. Figure 19 presents an overview of the activities.

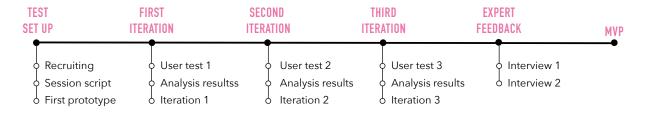


Figure 19. Research activities conceptualisation

6.1.2 RESEARCH QUESTIONS

The goal of this research was to figure out how and if the concept works and identify the balance between structure and guidance in the tool. The user research aimed to answer the following research questions:

RQ1. How structures should the tool be?

RQ2. What storytelling tool works best in this context of use?

RQ3. How detailed should the conversation trigger be?

6.1.3 PROCEDURE

Before each test, participating couples were asked if they were comfortable talking about having kids and if any sensitive topics should be avoided. All user tests were done in the participants' homes to simulate reality. The test was conducted three times, and in between each test, an iteration took place based on the insights gathered during the test. Thus, each test used an improved version of the prototype (Table 9). The participants were given a box containing the tool and an instruction booklet and were asked to use the prototype as they would the actual product. Subsequently, an interview was conducted based on observations made during the test. After three tests, the prototype was adjusted a final time before presenting it to several experts.

6.1.4 PARTICIPANTS

Three couples (Table 8) participated in the user test, recruited through convenience sampling (Kumar, 2005). The requirements were that the partners (1) had a different nationality from each other, (2) were prepared to test the prototype together, (3) currently reside in the Netherlands, and that (4) at least one of the partners is Dutch. Initially, a fifth requirement was that the couple had a child under three; however, this requirement was left out due to time constraints. None of the couples had kids or was pregnant at the moment of participating in the user test, but they all expressed the desire to have kids in the (near) future.

Table 8. Participants and their characteristics

	NATIONALITY PARTNER A	NATIONALITY PARTNER B	COUNTRY OF RESIDENCE	AGE CHILDREN
User test 1	Dutch	Dutch	The Netherlands	-
User test 2	Canadian	Dutch	The Netherlands	-
User test 3	Surinamese	Dutch	The Netherlands	-

6.1.5 DATA COLLECTION

Each participant was asked to sign a consent form agreeing to have pictures taken during the test and participate in an audio-recorded interview. The test was designed to take approximately an hour; however, participants were not restricted from sharing additional stories beyond that time frame. During the test, written notes were made based on observations (Appendix D3, D4 and D5). These notes were used to structure the interviews conducted after each test.

6.1.6 DATA ANALYSIS

Data analysis was done by extracting relevant quotes from the interview and linking those to observations made during the test. These insights were compared to the list of design criteria, indicating what aspects of the prototype needed adaption or improvement.

6.1.7 LIMITATIONS

Each prototype was only tested by one couple, meaning that adjustments were based on a small sample. Further, non of the participants had children, which might influence how they approached the conversation as they had no or limited experience with the topics. The participants were being observed while using the prototype, which could have influenced the content of the conversation. They might have avoided sharing specific stories or insights, making it harder to evaluate if the concept has had the desired effect, referring to the meaningful conversations. The interviews with the experts were conducted online, meaning the experts could see the prototypes but not directly interact with them. Their feedback was thus based on their assumptions about how the product would be used.

6.2 OVERVIEW PROTOTYPES

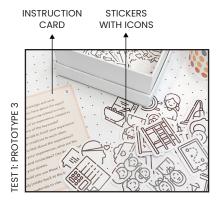
This section presents an overview of the six prototypes used in the user tests. All prototypes follow the steps described in Section 5.5, but the tools to execute each step differs per prototype. This was done to explore several possibilities and find out what works. The full pictures can be found in Appendix D2.

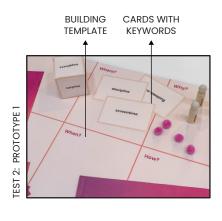
Table 9. Overview of the prototypes	
	PROTOTYPE 1
DECIDING THE TOPIC	Card with keyword
AWARENESS	
The couple identifies their current knowledge and assumptions regarding their behaviour and/or a specific parenting practice.	
TRIGGERING MEMORIES	Dice with emotions
UNDERSTANDING The couple links the behaviour or practice to a past experience and considers how this experience has impacted them as a person.	
MAKING THE STORY TANGIBLE	Tinkering materials
EVALUATION The couple tries to find relations between their experience and the current knowledge and assumptions they have.	
APPRECIATION	
The couple compares what they have learned and try to identify shared values.	
ADJUSTMENT	
The couple considers how they can use what they have learned for their own family and turns this into a plan of action.	
EXECUTION The couple is encouraged to apply what they have learned in their daily life, after which they can go through the framework again.	



CLAY

QUESTION





USER TEST 1		USER	USER TEST 3	
PROTOTYPE 2	PROTOTYPE 3	PROTOTYPE 1	PROTOTYPE 2	PROTOTYPE 1
Card with question	Card with picture	Card with keyword	Illustration	Illustration
Word association	Prompting question	Dice with emotions	Dice with emotions	Dice with emotions
Modelling clay Strings of wool and pins to analyse the clay models	Stickers with icons Markers that are used to write on the stickers	Tinkering materials	Geometric shapes	Geometric shapes A marker to annotate the geometric shapes
			Appreciation and disagreement tokens to evaluate	Appreciation tokens to give each other compliments
MODELLING CAR	Composition of an assessment of the straight of the first of the straight of t	- Parameter and the second and the s	TEST 3: PROTOTYPE 1	METRIC DETAILED

ILLUSTRATION DISAPPROVAL TOKENS

SHAPES

EMOTION DICE

TEMPLATE

6.3 USER TEST 1

In this user test, the couple was presented with three different prototypes (Section 6.2). This section describes the insights that came out of the test, supported by quotes from the couple. Each insight concludes with a statement that was used to improve the design for the next user test. The insights mention the design criteria (CR) they directly relate to. Use of the cross (\otimes) indicates the criterion is not yet met.

GUIDING THE PARENTS

Having all the instructions on one card is confusing (\otimes CR27). Users should have a clear overview of all the steps so they know when to pause and when to continue. This also clarifies when they have accomplished a step, bringing them closer to their goal.

- ► Each instruction step should be presented on a separate card.
- The cards should indicate what questions need to be answered out loud and which should only be thought of.

"I would like to have a starting point. We will probably fail because children are unpredictable, but I would like to make some agreements about it."

Using the guide cards gives structure to the conversation, making it easier to make connections between things that are said (CR11). However, it also feel slightly forced, as it is not completely clear how much they are allowed to go off track (\otimes CR24).

Make clear that the proposed questions only serve as a starting point for the conversation.

Sharing stories adds an extra dimension to conversations about parenting, because they are stories that would not necessarily be shared otherwise.

TRIGGERING THE CONVERSATION

Presenting participants with a single keyword or question limits the participants in relating the topic to their personal lives, as it is too specific. A picture is more ambiguous but introduces the extra step of having to choose what part of the picture to focus on (**©CR17**).

➤ The trigger card should contain several parenting practices, rather than one. This gives parents some direction of what to talk about, but also gives them the freedom to choose something that is relevant for them.

The emotion dice encourages parents to look the topic from a different perspective (CR12), thus leading to unexpected insights, but it sometimes restricts the free flow of associations.

Have the emotion dice should display a wider range of emotions to increase the chance of the parent resonating with the emotion.

"I thought the dice was interesting because there is a certain degree of randomness, and it encourages you to think about subjects differently than you would normally do."

BUILDING THE STORIES

The template makes it easier for parents to shape their story (CR28). However, having all separate elements makes it hard to combine all different components into one coherent story (\otimes CR24).

Provide parents with the structure that a template would have, but make it modular. For building the stories, the materials should be abstract enough so they can be used for all stories (\otimes CR29), but they should have some existing form to provide a basis. This can avoid parents feeling overwhelmed. Further, users want to know what materials they have so they can decide what to use, rather than having to look through everything (\otimes CR23).

- Give the users a clear overview of the types of building materials in the tool.
- The materials should have basic shapes and the amount of different shapes should be limited.

The participants found it enjoyable to guess what the other person had build before telling the story to each other. It added the playful element (CR22).

Add guessing to the instruction. It can still be optional, but it can give the user an idea of the possibilities.

Building the stories is enjoyable, however, users want to know what the larger goal of the tool is and they desire information about what all the steps are leading to (\otimes CR11 and \otimes CR9).

 Provide the user with an information booklet, explaining the larger goal and informing them about what they can expect.

"I would use similar techniques. It's quite a natural approach because you always reason from your own experiences and after which, you explain them."

6.4 USER TEST 2

After improving the design based on feedback from the first user test, a second user test could be conducted. In this test, a new couple was presented with two different prototypes. In these prototypes, several new elements were introduced (Section 6.2): appreciation and disapproval tokens, a detailed emotion dice, and new building materials.

GUIDING THE PARENTS

The questions on the back of the instruction cards were appreciated as they gave structure to the conversation (CR11). However, they sometimes did feel forced and led to repetition in the conversation when the questions were too similar (\otimes CR11).

- ▶ Limit the amount of extra prompts.
- Keep the guide cards simple and collect extra information in a separate place, indicating that it is optional.

It was unclear how the appreciation and disapproval tokens needed to be used, as an explicit instruction was missing. Participants thought they were supposed to be used in the appreciation phase because of the corresponding words, creating even more confusion about the disapproval tokens.

- Leave out the disapproval tokens to keep the conversation positive.
- Explicitly mention what the appreciation tokens can be used for.

The participants wanted to capture their insights somewhere because this allows reflection at a later moment after having more parenting experience and remembering the stories shared to achieve these insights (\otimes CR5 and \otimes CR12).

 Add a feature that allows parents to document their insights, which can support them in applying their learnings in daily life.

TRIGGERING THE CONVERSATION

The illustration with the different topics was well-understood. Many parenting practices were recognised and even some additional topics, that were not purposely designed, were identified (CR17).

Create additional trigger cards.

BUILDING THE STORIES

The building materials in both prototypes worked well. However, the participants used the scissors to adapt the materials to make them fit their needs, thus preventing future use. This indicates that participants need the ability to adjust the materials as they see fit (\otimes CR22, \otimes CR24).

Make the building materials adjustable, without limiting future use.

The template, again, was confusing. It was clear what the goal of the template was, but there was a mismatch between the structure it provided and the freedom needed to visualise the stories (\otimes CR24).

- Provide the parents with a blank canvas they can use as they see fit.
- Allow adaptation of the canvas, again, without limiting future use.

"I think we are going to be very involved parents; however, our parenting style will also depend on the character our child will have. What if our child is a psychopath? Then we would have to do this again, I think ha-ha."

6.5 USER TEST 3

Once again, the feedback of the previous user test was used to improve the design. In this user test, the couple was presented with a single prototype. The design was improved on its usability, but the biggest improvement was making the building elements and template modifiable (Section 6.2).

GUIDING THE PARENTS

The background information in the information booklet shows the amount of research gone into the development of the tool, raising its credibility, but also clarifying the overarching goal and the expectations (CR3).

Keep the information concise and clear.

Some wording in the information booklet seem to contain assumptions about how parents want to raise their kids. Some sentences are also too strong, with statements such as 'every parent' (\otimes CR2).

► Use language and wording that applies to all users of the tool.

"I am not sure about parents needing to raise their child to be kind and sensible... Not every parent has the same goal for their children."

TRIGGERING THE CONVERSATION

The trigger cards are considered one of the more useful parts of the tool, as it makes users come up with topics they otherwise would probably not (CR17).

BUILDING THE STORIES

Being able to personalize and adjust the elements give space for the participant to add details to the story that might get lost otherwise (CR24).

Having different coloured elements could lead to users focusing on using the right/same colour, rather than building the story. It is something they must choose between, without it necessarily adding something to the story (\otimes CR29).

 Unity in variety: use different shapes building elements, but keep other characteristics such as material the same.

Being able to make annotations on the whiteboard is not necessary, but is nice to have the option. Especially during guessing each other's stories, it was helpful to add extra details to make the guessing more fun (CR22 and CR24).

"I messed up the NS sign, that's why I decided to draw a train during the guessing. To make my story more clear."

6.6 EXPERT FEEDBACK

After the three tests, the design was improved once more before presenting to two experts: a cross-cultural psychologist and an experienced product designer. Both were approached as potential stakeholders.

ADDRESSING THE PARENTS

It is best to use neutral words and avoid words that can lead to an argument because they mean something different to different people, e.g., the word reasonable. What is considered reasonable? The words should also not be heavily loaded, e.g., the word tolerant often has a negative connotation, so it is better to use understanding.

Use clear and neutral language.

SUPPORTING THE PARENTS

It is critical to consider what will happen if a couple cannot figure some things out. The couple might not know how to use the product or discover differences they cannot deal with on their own. They could need some extra support to cope with that. It can also happen that one parent is very eager to use the tool whereas the other parent is apprehensive. How to pull that parent in?

Support the couple in dealing with difficulties that can occur during use.

GUIDING THE PARENTS

The most crucial goal of the tool is to get couples talking, so the questions should be open-ended. There should not be too many questions as it can make people feel like they analyzing interrogated. Instead, provide them with a starting point and let them figure out if they need some extra prompts. The tool should be kept simple to prevent the experience from becoming overwhelming. Focusing on the playful element of the tool can help with that.

▶ Limit the amount of essential information.

6.7 DISCUSSION

This research mainly served to evaluate the usability of the tool in terms of balancing structure and freedom. After analysing the feedback provided by the participants, several findings were considered to improve and define the final prototype.

GUIDING THE PARENTS

The couple needs to know where to start and what is generally expected from them. This could be done by providing a simple overview of all six steps and the goal of each step in the information booklet. However, the steps on the instruction cards should not be too detailed or structured because it can make the conversation seem forced and unnatural. Having to look at the questions constantly eliminates the

natural flow of the conversation (\otimes CR11). The couple should be able to decide for themselves if they want or need more help or structure. It could be helpful to collect this information in one spot so that the couple can reach for it if desired. The tool should have the opportunity to be turned into something playful but should also work in contexts where more serious conversations are desired (CR18). The users should be informed about the different ways the tool can be used (CR22), after which it is up to them as to how to use this information (CR24).

Users seem to want to document their insights. Adding this extra step can help them execute the adjustment step, and it is something they can later look back on (CR5). This step could focus on the stories told (CR28), gained insights, and common values (CR4). This also fits with the goal of supporting parents in building their family culture. The compilation of insights collected over time could be defined as the family culture (CR3).

TRIGGERING THE CONVERSATION

The users preferred to have some control over choosing the topic (CR24). They can then choose topics that are relevant for them, and it avoids situations wherein they have a topic that does not apply to them. So, the trigger should be rich in context, but it should be up to their interpretation as to what topic they ultimately choose. Leaving it up to interpretation also increases the suitability for different people with various cultural backgrounds.

BUILDING THE STORIES

The user test showed that the users need abstract tools that can be used for each story but can also be adapted (CR29) and personalized to include additional details (CR24). Having too much freedom, e.g., with the clay, can make it hard for users to know where to start. It can also lead to significant differences in the level of detail included (\otimes CR6), which contradicts the design criteria stating that the tool should lead to equal participation. Tools with too many details, however, make it hard for users to apply to their stories (\otimes CR29). The elements of the tool should be consistent in terms of colour and material so that users can focus on the bigger picture. The users preferred the elements with some thickness as it makes it more satisfying to put them against each other, preventing the elements from accidentally overlapping. To prevent the elements from moving and falling, they should stick to the surface, e.g., by using magnets.

Based on the insights from the user test, several new criteria could be formulated. Insights and knowledge gathered during these user tests, as well as the full list of criteria served to finalise the design. This design will be presented in the next Chapter, after which a final user test will be conducted to evaluate its use.

CR30. The tool provides additional support if parents need it.

CR31. The tool reinforces good behaviour rather than punish bad behaviour.

CR32. The tool does not consist of single-use materials.

CR33. The tool can be used in a time frame of an hour.

CR34. The tool keeps its novelty after multiple uses.

CR35. The trigger cards include all important milestones of the child's development.



CHAPTER 7 FINAL CONCEPT

After going through several iterations, the final concept was born: PREQUEL. This chapter presents the concept, its use, and gives a detailed description of its components. The first sections describe the insights that led to the development and the goal of the tool. After that, the tool will be fully explained. The last section presents a marketing and implementation proposal.

7.1 PRESENTING PREQUEL

/ ' pri ː kw(ə)l

noun, plural 'prequels'

A story that takes place before the events of the original story, that features returning characters in similar or different situations and focuses on backstories and revelations.

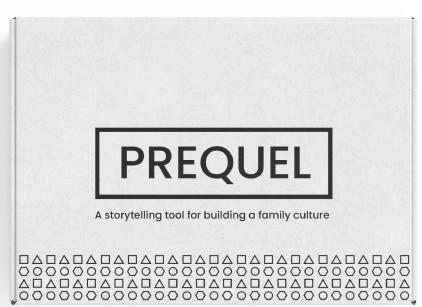
When people have children together, their relationship changes completely. In addition to being partners, they also become parents. Together they must raise this little person to become a competent adult.

Every parent has their ideas about how children should be raised, what is important within the upbringing and how the child should be guided towards adulthood. How parents want to raise their child(ren) is often determined by how they themselves were raised and especially how they experienced this upbringing. When parents look back positively on their childhood, they will often adopt things from their parents. When they look back a little more negatively on how their parents raised them, they will try to do it differently.

Parents carry their past when they start to shape their child's upbringing, and there is a good chance that they do not think the same about everything. This chance is even higher when each parent has a different cultural background, for instance, if they grew up in different countries. It can then be quite a challenge to arrive at a parenting style that both parents feel comfortable with.

This tool is intended to support meaningful conversation between two parents. Through conversation and storytelling, the tool encourages them to explore the world of parenting and everything that comes with it. Storytelling is a way to learn about life, make sense of experiences, and express emotions. It is important for the parents to take the time to listen to each other and, above all, to understand each other. By reflecting on their upbringing and sharing their growing-up stories with each other, they can work together towards building their own family culture.





INFORMATION BOOKLET

This is the first component of the tool that the parents must use. The information booklet provides them with some background information, informing them of the value the tool can have (CR3), as well as what is expected of them. The parents will also find an overview of all the components with a brief description (CR23), and a complete overview of all the building elements in the toolkit (CR23). Further, the booklet will give a more detailed description of all the steps, in case additional support besides the guide cards (CR30) is desired. Lastly, the information booklet provides the parents with some theory about healthy communication (CR11).

GUIDE CARDS

The guide cards (Figure 20) are the main component during the actual use of the tool. Each step is presented on a separate card and contains a one-sentence instruction (CR27) and a supporting question that can help get them started (CR12). These guide cards are structured according to the reflection framework (CR13). As said before, if parents notice they need extra support, they can always choose to look at the information booklet and use the more elaborate instruction (CR30).

TRIGGER CARDS

Parents are provided with a selection of trigger cards, each containing an illustrator in which various parenting practices are incorporated (CR17). The illustrations give enough detail to trigger the parents but are ambiguous enough so parents can interpret the situation personally. The illustrations aim to give an unbiased representation of what parenting can be like without shaming or encouraging any behaviour.

EMOTION DICE

Parents use the emotion dice in combination with the trigger cards. The emotion dice has six sides, each displaying one emotion: sadness, happiness, disgust, anger, surprise, and fear. Around these emotions, a selection of sub-emotions can be found, so that parents can choose the emotion they resonate with most. (CR10) The emotion dice aims to help parents view topics from various perspectives and come up with stories they would not necessarily tell otherwise (CR28).

BUILDING ELEMENTS

The design of the building elements is based on the design principle unity in variety, meaning that the elements need to be similar enough and perceived to belong together, but varied enough to be interesting. The elements have a variety of geometrical shapes but are all composed of the same material and size ratio. Parents can make unique combinations to ensure the elements fit their story (CR29), but the elements are similar enough so that the story can be observed in its entirety. Additionally, the building elements possess whiteboard qualities (CR32), allowing the parents to personalise and detail them with a whiteboard marker (CR24). Through the use of magnets, the elements stick in place on the whiteboard, letting parents hold the surface upright to tell their stories. However, the whiteboard also allows parents to make extra annotations to their story if they feel the need (CR24).

APPRECIATION TOKENS

The appreciation tokens are an optional component of the tool that parents can use to communicate their appreciation for each other without words. Their use is completely up to the parents. They can use them to compliment the story of their partner or offer the token as a sign of support. Expected is that it is easier for people to exchange these tokens rather than verbalizing their thoughts. Appreciating a partner becomes a conscious activity, focussing on the positive,

rather than the negative (CR31).

OUR FAMILY CULTURE

The booklet is used in the final step. Parents are asked to document their learning from using the tool. The book provides space for them to describe their stories in keywords so that they can look back later and to relate the insights. Parents are also asked to reflect on what they appreciate in each other. This is intended to provide positive closure after using the tool. Lastly, there is space for them to describe their insights about common values (CR4) and a plan of action of how they can employ these new insights in their daily life (CR5).

To look inside the information booklet or in the the book 'Our Family Culture', see Appendix E.

7.2 INSTRUCTIONS

Step 1. Awareness

Grab a trigger card and choose a topic you would like to talk about.

What current knowledge and assumptions do you have about the topic?

Step 2. Understanding

Roll the emotion dice and choose one of the emotions.

Can you think of an experience, related to your topic, that felt like that?

Turn your experience into a story and visualise it using the building elements.

Can you guess what your partner built?

Tell your stories to each other.

What did you learn from your experience? What values surfaced?

Step 3. Evaluation

Analyse your experience.

(How) did the experience influence you as a person? Does it clarify your current behaviour and/or assumptions regarding the topic? If so, how?

Step 4. Appreciation

Compare your experiences.

What similarities and differences did you find? What do you both find important?

Step 5. Adjustment

Make a plan of action using the book "Our family culture"

How will you approach the situation when it arises (again) in the future?

Step 6. Execution

Apply what you have learned in your life.

(How) does it work for your family? Feel free to use the tool again if you need to.

Figure 20. The guide cards

This section gives an overview the guide cards. Each card represents one step of the framework.

7.3 MARKETING

Prequel will be marketed as a tool that couples can use to talk about parenting in a playful and structured way. The marketing will focus on the added benefits of the tool, rather than presenting it as something that parents can be used to solve problems. This section describes the branding elements and gives a plan for implementation.

7.3.1 BRANDING

As it is a new concept, the tool and the packaging should intrigue potential users, but also make the tool look approachable. This is done by giving the tool a short, but interesting name, but also adding a subtitle that gives slightly more information. The back of the box will contain a more elaborate, but still concise, explanation of the tool. This information will be an adaption of Section 7.1.

It was attempted to keep the branding (Figure 21) clear, simple and to the point. The pattern on the box is a recurring element in most components of the tool to increase the cohesion Extra attention was paid to ensure the tool would not look to playful or childish, so that it would not be categorized as a game. Using the word 'tool' on the box is an extra step that helps that.

7.3.2 REACHING THE TARGET GROUP

For a product to survive in the market, it needs to be adopted by first early adopters and then the early majority. To make people aware of the product, several channels can be utilized. First, the tool can be introduced on Kickstarter. Kickstarter attracts early adopters and people that are passionate about supporting new ideas. Other than that, it can provide the funding to launch the product. Next, influencers on several social media platforms can be approached for sponsorships. These influencers have a platform to connect with their vast following, often people with common interests. Further, health professionals can be approached and asked to recommend the tool to their patients. In all these cases, word of mouth is the leading marketing strategy.

Marketing should focus on the value that it brings. As stated in Chapter 1, little research has been done to support intercultural couples in conceptualising practical interventions. That is why advertisements should highlight the focus on intercultural parents, as this market is still unsaturated. Parents should be made aware that this tool can significantly improve their life. It should be avoided to market the tool as something to solve the problem because this would likely raise the threshold for using the tool.

7.4 FINAL DESIGN

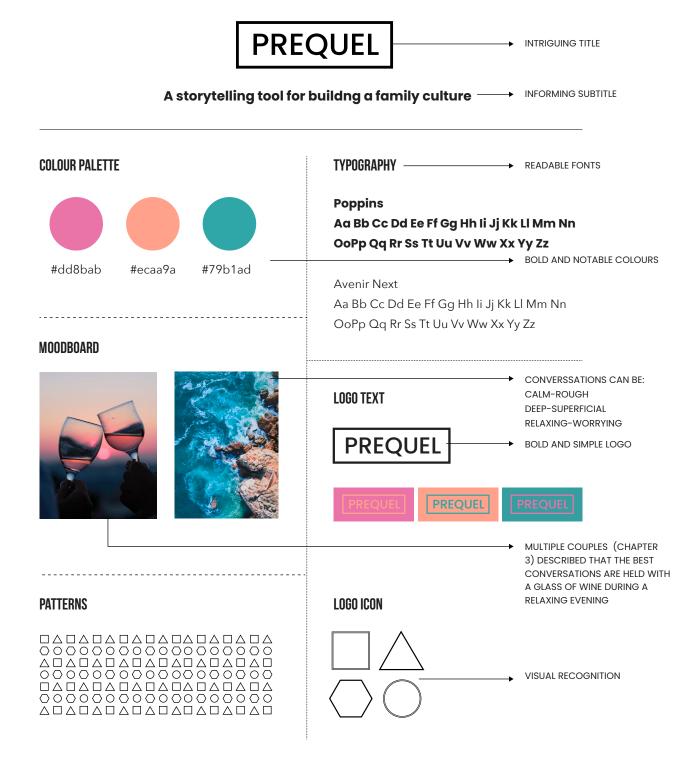
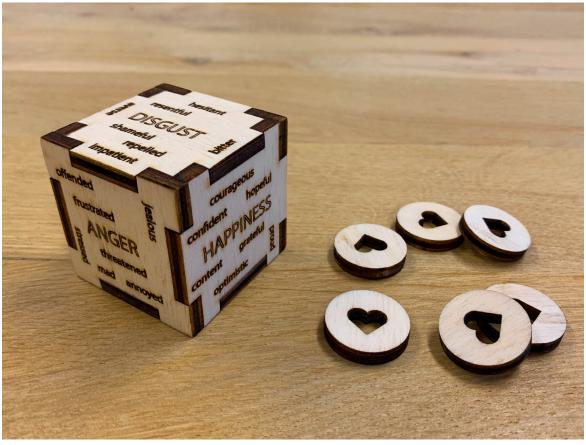


Figure 21. Branding of PREQUEL















CHAPTER 8 **EVALUATION**

This last chapter describes the evaluation of the final design. A final user test was conducted to understand the value of the tool, determine if the design goal is achieved and if the design criteria are met. The first section describes the test plan. The next section describes the results and after that the results are discussed. The chapter concludes with an analysis of which design criteria are met and what can still be improved.

8.1 APPROACH

To evaluate the final design, a last user test with four couples was conducted. This section describes how the user test was approached, gives an overview of all the research activities, and presents the design goal.

8.1.1 METHOD

A final prototype was made and tested with potential users. Product Usability Evaluation serves to validate product usability enabling to understand the quality of a design in actual use conditions. It can also help discover useful issues, possible improvements to resolve those issues and opportunities to improve the user experience (van Boeijen et al., 2013). Figure 22 shows the research activities.

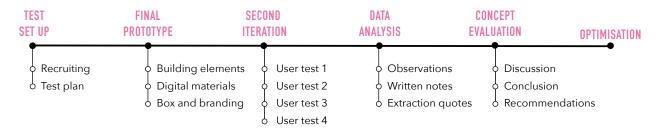


Figure 22. Research activities final user test

8.1.2 RESEARCH GOAL

The goal of this research is to understand the value of the tool, determine if the design goal, presented in Section 4.3 is achieved and if the design criteria (Appendix D1) are met.

8.1.3 PROCEDURE

Before each test, participating couples were asked if they were comfortable talking about having kids and if any sensitive topics should be avoided. Each participant was asked to sign a consent form, informing them of the risks. All user tests were done in the participants' homes to simulate reality. The participants were given a box containing the tool, and were asked to use the prototype as they would the actual product. Subsequently, an interview was conducted based on observations made during the test. Some questions were formulated beforehand to ensure comparability of the data (Appendix F1).

8.1.4 PARTICIPANTS

Four couples participated (Table 10) in the user test, recruited through convenience sampling (Kumar, 2005). The requirements were that the partners (1) had a different nationality from each other, (2) were prepared to test the prototype together, (3) currently reside in the Netherlands, and that (4) at least one of the partners is Dutch. A wish was that the participants had children.

Table 10. Participants and their characteristics

	NATIONALITY PARTNER A	NATIONALITY PARTNER B	COUNTRY OF RESIDENCE	AGE CHILDREN
User test 1	Surinamese-Chinese	Dutch-Brazilian	The Netherlands	-
User test 2	Chinese	Dutch	The Netherlands	-
User test 3	Indian	Dutch	The Netherlands	Pregnant
User test 4	Brazilian	Dutch	The Netherlands	2 and 3

8.1.5 DATA COLLECTION

Each participant was asked to sign a consent form agreeing to have pictures taken during the test and participate in an audio-recorded interview. The test was designed to take approximately an hour; however, participants were not restricted from sharing additional stories beyond that time frame. During the test, written notes were made based on observations. These notes were used to structure the interviews conducted after each test.

8.1.6 DATA ANALYSIS

Data analysis was done by extracting relevant quotes from the interviews and linking those to observations made during the test. These insights were compared to the list of design criteria, giving an indication of what aspects of the prototype worked well and which still need improvement.

8.2 RESULTS

This section presents the insights that came out of the final user test. As in Chapter 7, the insights conclude with further improvements that can be made, as well as with several proposals for future application. Where relevant, the insights will refer to the design criteria they support.

GUIDING THE PARENTS

Not everyone feels the need to read the information booklet creating confusion about the exact link between the guide cards and the information booklet (\otimes CR27). One participant thought the instruction in the information booklet was the exact same information, while another participant thought the instruction in the information booklet was part of the preparation and had nothing to do with the cards.

 Make the guide cards mention the information booklet as additional source.
 This shows that the cards can be used on their own, but that there is extra information available if needed. It also explicitly mentions the relation between the guide cards and the information booklet, indicating that it regards the same information.

It helps users to have an overview of the building elements. The overview in instruction booklet was consulted several times during the user tests by different participants (CR23). In all cases, this was done just before they had to start building. One participant wanted to know what shapes

were available without having to go through all of them, while another participant used the overview as inspiration for how to start building (CR29).

Mention the overview on the guide card containing the instruction for building.

The guide cards provide the right amount of structure. They guide to a certain extent, while also giving users the freedom to discuss the things they want to (CR24). Further, they inform users about the general direction of the conversation, which, for some, reduced some of the nerves.

HAVING THE CONVERSATION

At the beginning, especially in the awareness phase, the conversation can be a bit awkward and feel forced or unnatural (**©CR11**). This could also be due to my presence. In most cases, building the stories was the turning point from where on out the conversation flowed better.

Have an icebreaker at the beginning including the building the elements.

Going through all the guide cards is fine if the conversation goes well. However, particular difficult topics or disagreements might require having a break and pausing the conversation (\otimes CR22).

- Mention this in the information booklet.
- Provide a template in 'Our Family Culture' where intermediate results can be documented.

'Our Family Culture' worked well for couples to make their insights concise. It also provided a moment of closure for the couples (CR10).

"I like the appreciation question in the book. It makes me feel loved even though the compliment is very simple. It felt really good hearing that."

TRIGGERING THE CONVERSATION

The trigger cards work well for several reasons. They help users to come up with topics to talk about, as was intended. Even a small detail in the illustration would trigger associations (CR17).

"The mother has wet spots on her boobs. She is probably contemplating if she should wake up the baby or pump.
[...] I think I would like to stay home for a while after the birth, to be able to breastfeed, but also to bond with our baby. [...] I want to be a working mother, so I will probably have to pump. I wonder how much time we will both get of work. [...] Maybe by then we will still be working from home because of the pandemic. That would make breastfeeding during work possible. Otherwise, there should be a pumping room at work."

The trigger cards also appear to add a playful element, as all couples in the tests first tried to guess the story behind the card (CR22).

► The trigger cards can also be used on their own, showing parents or couples how different their interpretations can be and letting them identify where their assumptions come from.

The quotes below show two different interpretations of the same illustration (CR2), both focusing on something different (physical touch vs. absence partner).

"I think it is a mother taking care of her child. Her hand is on the baby so I think she loves the baby very much."

"I think the mother is exhausted and doesn't know how to deal with everything because her partner is gone."

It was hard to use the trigger cards in combination with the emotion dice. In most cases, participants either preferred the emotion dice, or the trigger card, but rarely both. Because it is quite difficult to

think of experiences that far back, having both a topic and emotion is too restricting (**©CR24**).

- Parents can use the emotion dice and relate this to any topic they want.
- Parents can choose a topic from the trigger cards and combine this with any emotion on the dice.

"The emotion dice worked very well for me. Because I rolled fear, it was easier for me to discuss fears that I am having. [...] I am quite relieved now because he was able to really reassure me."

"What if I have an experience related to the topic that is very important to me, but I did not roll the right emotion?"

BUILDING THE STORIES

The building elements add the right amount of playfulness to the tool. Most participants interacted with them throughout the whole conversation. Fun fact: one couple stayed after the test to continue building and guessing and another couple asked to borrow the building elements to have same extra time to play morev (CR34).

The building elements can also be used on their own for relaxation purposes. Making the story tangible not only adds value to telling the stories (CR28), but it also leads to personal insights for the author (CR12). This can be concluded from the usage of sentences like "Now I see this..." and "Actually, this might have...". In both cases, the interview afterwards confirmed this being a result of the building and not just telling the story.

In future applications, the tool could also be used for self-reflection

Being able to draw on the whiteboard and elements worked well for about half of the participants. One half of the participants expressed not feeling the need to draw, while the other half explained liking to add small details, clarifying the context, or filling up the time while their partner was still building (CR24).

Clarify that the building elements can be drawn on to inform users of the option.

All stories visualized with the building elements seem to have relatively the same 'quality'. This observation is based on the amount of (different) building elements used by the participants, the time it took them to build, how well the stories could be guessed and the number of details added (CR2 and CR6).

8.3 DISCUSSION

The aim of the tool is to teach parents to reflect and communicate so they can create a family culture. This section describes if and how the design solution achieves that goal, thereby mainly focusing on the value of the framework. In short, does the tool teaches parents to reflect and communicate?

Based on the user tests, the goal seems to be achieved. All couples mentioned the tool triggering a conversation different from their everyday conversations (CR20). This insight primarily applies to communication during the evaluation, appreciation and adjustment steps. Most couples expressed their conversation during the awareness step to be similar to their other conversations because it mainly deals with giving opinions about a certain subject. Important to note is that all couples in the user test seem to fall in the categories convergent or high mutual acculturation, meaning that the conversation was quite balanced in terms of participation. Also, all couples had a good understanding of the English language. Interesting would be to explore how low mutual acculturation and language problems would influence this communication. As stated before, the most significant difference occurred during the appreciation and adjustment steps. Participants mentioned the tool leading to more meaningful conversations because it supported the identification of underlying values (CR4), revealing deeper layers.

"I think the tool was very valuable. We were able to make connections that we wouldn't have made otherwise. It is different than just having a conversation about raising children, because you are building. But it still felt very natural to do it this way and it adds that extra stimulation."

The inner circle of the framework, the intercultural communication competence, could not be evaluated. It was aimed to use the transcripts of the user test to gain insights. However, not enough research has been done to be able to recognise these varying characteristics. This might have to do with the observed couples having a seemingly way of communicating, thus applying all these characteristics to their way of communicating. It could also be that the categorisation is not as rigid as proposed, but more fluid.

Part of the design goal, building a family culture, can only be evaluated after long-term use, as that requires repeated use of the tool. The first tests, however, look promising, as all couples were able to formulate a plan of action for their family that both agreed with (CR5). However, executing the plan, and applying the framework to a number of practices is required to fully achieve the goal, which could not be observed within the time frame of this project.

"I am glad I can express it beforehand, because when it happens, we have already talked about it. He knows I will be scared. I think both of us agree that it is very important to create a sense of security. That is something I did not expect when jumping into the conversation, to get to that level."

The users went through the steps of the framework less linear than expect. Even though following the general flow of the framework, they tended to move between steps (CR13). This mostly had to do with two people going through the framework at the same time. The participants would first discuss one of the stories, going through the understanding and the evaluation phase. After that, they would go back to the understanding phase to discuss the other story.

The awareness phase was initially intended to make parents discuss their current knowledge (CR14), sticking to statements. However, in between, they kept touching upon the evaluation phase, leading to

overlap when they would eventually reach that stage. This had to do with the participants reacting to each other by asking questions, during which some analysis already took place.

Despite participants going back and forth between the first three steps of the framework, the last three steps were gone through more linear. This mostly had to do with the steps addressing deeper layers, which does not come naturally to most people. Most participants thought they were done after evaluating their stories (step 3), only realising there were more steps because of the guide cards. This can indicate that the appreciation and adjustment steps of the framework add the most value to the conversation. The appreciation step was considered the hardest, which was also expected, as it requires participants to dive underneath the surface (iceberg model) and make connections explicit (CR4). All couples managed to exchange new information during the adjustment step, indicating that this step is needed to fully utilise the conversation, and thus not redundant.

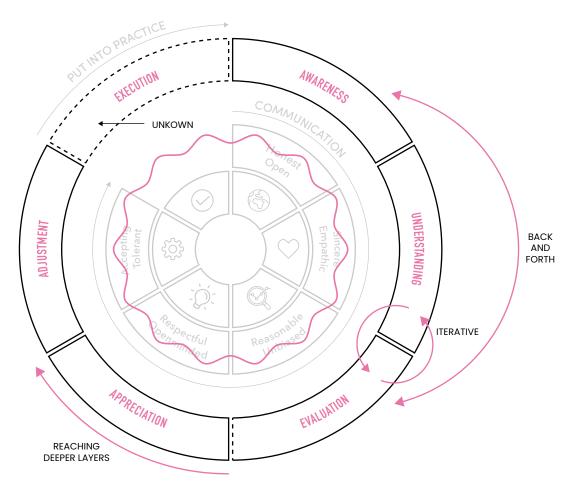


Figure 23. Observations shown on the original framework

As stated in Chapter 2 and 3, adapting behaviour and letting go of values is hard. Couples used the tool in a relaxing and comfortable environment, enabling them to complete all steps and formulate a plan. Actually executing the plan, probably done in a less relaxing setting, might be challenging. Observing parents over a longer period would thus be needed to evaluate the value of the framework.

Storytelling and building the stories seem to be the most successful and promising part of the tool (CR28). This was something mentioned by almost all couples. Part of this will probably have to do with the users being able to immediately see the result and value of building the story, whereas the value of the entire tool, as stated before, requires repeated use. In particular, making the stories tangible made the most significant difference, as can be read in the following quotes. This indicates that tangible storytelling adds value to the tool that normal storytelling would not have.

"At first, I was not sure if I chose the right story because it was a very strange experience. But because I build it, I could place it better. After all these years, I now know how to feel about it because I could actually see where I stood in the story. I am not sure if I would have reached that insight if I had just told it."

"Because we made our story visual, it was really helpful to refer back to when going through the other steps. The guessing really added that playful aspect to the conversation. It makes it fun, but it also forces you to empathize with your partner because you have to look from their perspective to be able to guess what they have built."

8.4 CONCLUSION

The design goal that led to the design solution is to support new intercultural parents, in the safe context of their home, in building a *family culture* that both can rely on and are comfortable with by teaching them to reflect and communicate so that they can create a stable and consistent environment for themselves and their child(ren).

The tool is based on a communication and reflection framework comprising six steps. The user tests suggest that the tool indeed teaches parents to reflect and communicate. Due to the structure the framework provides, parents reach deeper layers in their conversation than they would normally. This becomes apparent from step four onwards. The first half of the framework comes quite naturally to the users, whereas the second half challenges them to look further. Research also showed that the tool helps parents in defining goals for their family, which is the first step towards creating a family culture. To evaluate if the tool supports parents in building a family culture, long term observation would be needed. Tangible storytelling has proved a valuable addition to the tool as it supports hands-on reflection and lets parents come to the insights needed to proceed from the second to third step of the framework.

As stated before, current literature into current literate concludes with implications for health professionals. These implications consist of strategies to be used by therapists, but they are unusable for intercultural parents due to the need for in depth knowledge of the theory. The framework contributes to literature in the sense that it provides an overview of the relations between strategies and provides direction for application by intercultural parents themselves. Especially the second half of the framework looks promising because it adds an extra dimension to conversation that intercultural parents would not be able to accomplish by themselves.

8.4 RECOMMENDATIONS

This final Section will propose some recommendation based on insights gathered during this project. First, it will decsribe how the final design could be optimised. Next, the limitations of the project will be described, after which opportunities for future work are presented.

8.4.1 OPTIMIZATION DESIGN

The trigger cards and the building elements can be considered the most successful components of the tool. However, the emotion dice and appreciation tokens still need further testing.

The topics included in the trigger cards were based on the interviews with intercultural parents, knowledge gathered from (American) films and series, and observations made (in the Netherlands) during this project. The current trigger cards already proved to contain many recognizable elements; however, there are probably many topics that I do not know of. More research with stakeholders would be needed to explore any gaps. Additional intercultural parents should be interviewed to identify relevant topics, and (intercultural) family therapists could help come up with topics that are often the subject of their sessions.

Both the emotion dice and appreciation tokens need further testing to determine their added value. The appreciation tokens were only used during one of the tests, so it remains unclear how they work for other couples. All couples used the emotion dice, but the opinions differed; thus, no valid conclusion can be made regarding their necessity.

The user test revealed that participants stack the building elements on top of each other, even though only the bottom elements are magnetic. The building elements could be improved by making them completely magnetic, e.g., by putting a strong magnet inside, making them stackable. This also eliminates the risk of the magnets coming off. However, this does leave more discussion regarding sustainability. Something else related to sustainability is the use of materials. In this prototype, the building elements were made from Populus wood and finished with a transparent sticker (made from polypropylene) to give the elements whiteboard qualities. Another possibility would be making the building elements from plastic, for instance, PLA, a relatively cheap material suitable for recycling. If finished appropriately, PLA has a smooth surface making it ideal for whiteboard markers, thus eliminating the need for a sticker as extra later.

8.4.2 LIMITATIONS

Four criteria will be used to judge the correctness of this thesis: transferability, credibility, dependability, and conformability (Guba and Lincoln, 1994).

Transferability refers to "the degree to which the results of qualitative research can be generalised or transferred to other contexts or settings". First, the design was only tested with a limited number of users, meaning the sample size was too small to gain significant results. Second, with convenience sampling, there is no way to tell if the sample represents the population, so it cannot produce generalisable results. The prototypes were tested with several couples, but only two couples represented the target group. Further, most participants that took part in the user tests were highly educated and did not experience any issues with language. Also, as stated in Section 8.3, all couples had a seemingly healthy relationship. It would be valuable to test with couples that experience a more considerable cultural distance, that both speak in a second language, or that have already experienced significant amounts of conflict. For the latter, it could be useful to test the design with supervision of a health professional. The health professional would not intervene but simply observe. They could help determine if the tool provides enough support to those couples and, if not, what should be included in the tool.

The credibility criteria involves "establishing that the research is credible from the perspective of the participants". All user tests were followed up with an interview in which couples were asked about their opinion. At first view, it seems that users consider the research credible, with some of the users expressing the information booklet especially making the tool sound convincing. However, because of time constraints, no follow up sessions were conducted with the couples, making it impossible to evaluate the long-term impact of the tool. The couples were informed about the executions step but could not execute it within the timeframe of the thesis. There is also no way to say if the participants were polite, with me being the researcher. It might have been better to have a third person conducting the user tests to avoid this influence. Future research would be needed to determine the credibility fully.

Dependability describes "the need for the researcher to consider variables in the context in which the research occurs". It was attempted to keep the user test as close to the actual situation as possible to increase the dependability of the research. The context in which the tool will be used will be everchanging, and the user tests were supposed to reflect this. The tool was tested with participants that are now in the stage of having children, whereas the interviews were conducted with parents that have had children for a while. Future users might not have kids for at least a decade. As described in Chapter 4, parenting is hugely influenced by the context: dominant culture and trends. Trends are known to change over time, meaning that there are discrepancies between the initial research, evaluation of the tool, and the future users.

Last, comfortability refers to "the degree to which results can be confirmed by others". During this

project, there was only one researcher present during all interviews and user tests. It was attempted to, throughout the research, document assumptions and be aware of any biases, but this noone is free from bias. To enhance the conformability, a second researcher would have to recheck the data from the interviews, reevaluate the framework, and conduct additional user tests.

8.4.3 FUTURE WORK

Future work could concentrate on the soundness of the framework. It could focus on the inner circle of the framework, evaluating the categorisation of intercultural competence, or it could focus on the outer circle of the framework, assessing the reflection process. Interesting would be to see if the framework also functions in other contexts: another dominant culture, varying family compositions, e.g., adopted children or samesex couples, and different generations. Another opportunity would be to explore the long-term effect of using the tool. One focus area could be measuring improvement in communication for both partners and how this influences the relationship. Other research could target the execution step of the framework and explore how the plan of action is applied in daily life, e.g., by using the Fogg model. Overall, there are many areas that can still be looked at, with the examples above being the tip of the iceberg.

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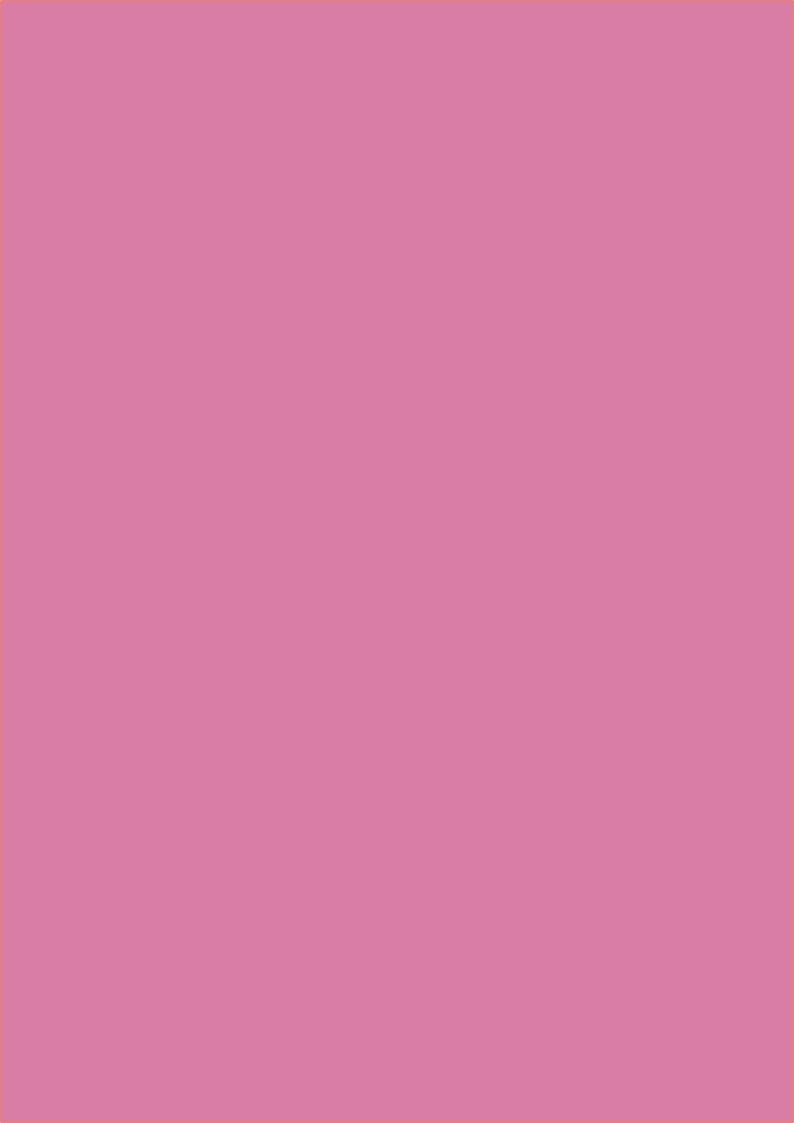
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APPENDIX A

ADDITIONAL LITERATURE RESEARCH

A1 COPING STRATEGIES

Bhugun (2017) defines advice for intercultural parents to cope with stressors, from a system perspective, on an individual and a couple level. Important characteristics on an individual level are patience and perseverance, tolerance and acceptance, flexibility, and open-mindedness. Patience and perseverance are needed to understand each other's behaviour and to be able to tune out any negative attitudes from one's surroundings. Tolerance and acceptance refer to the importance of understanding, accepting, and integrating each other's culture. Flexibility and open-mindedness have to do with being knowledgeable about one's partners culture and recognizing the differences the intercultural relationship brings. On a couple level, essential attributes are communication, compromise, flexibility, cultural literacy and having a plan. Communication is seen as the most important and is described as talking about feelings and listening to each other. Next, compromise and flexibility are needed to avoid conflict and gain the most out of both cultures. Cultural literacy stands for understanding, appreciating, and embracing each other's culture. Lastly, having a plan means discussing and agreeing on how differences will be negotiated and managed in the relationship to prevent conflict.

Bustamante et al. (2011) describe five strategies to cope with culture-related stressors: humour about differences, cultural deference, recognition of similarities, cultural reframing, and cultural appreciation. Humour refers to lightening up the situation by using cultural stereotypes as a basis. Cultural deference stands for both partners trying to acculturate to deal with the differences. Recognition of similarities is important because common values can be used as a strength in the relationship. Cultural reframing is a strategy in which a couple comes up with a new set of values and practices that combine the best aspects of both cultures. As Bhugun (2017) also states,

there is a need for general *cultural appreciation* to fully enjoy the advantages of an intercultural relationship.

Seshadri and Knudson-Martin (2013) focus on how intercultural couples manage their differences. The five strategies they have identified are: creating a 'we', framing differences, appreciation, emotional maintenance and positioning the relationship in context. Creating a 'we' means focusing on the similarities in the relationship by creating a common ground, focusing on shared values, and using that as a strength to come up with a shared goal. Framing differences stands for acknowledging that differences are something to learn about. Flexibility, respect, and understanding play a vital role in that, as well as the willingness to appreciate the other partner's culture. Emotional maintenance means dealing with emotions and insecurities by open communication and being willing to adjust your behaviour. Positioning the relationship in context entails that the couple communicates their relationship to people in their surroundings to avoid interference and accepting that other people may need time to accept the relationship.

In their research, Tili & Barker (2015) look at essential competencies in an intercultural relationship and strategies to manage conflict in an intercultural relationship. Essential competencies are self-awareness and other-awareness, openmindedness and showing respect. Self-awareness and other-awareness are necessary to recognize cultural differences and similarities. Openmindedness means not making assumptions about similarities but considering each other's needs and wants and being respectful of those. The first strategy to manage conflict is to change your perspective and accept that things can be done differently than you are used to. The second strategy is openness. A couple needs to communicate and not disregard their problems.

APPENDIX B

USER RESEARCH

B1 RECRUITMENT FLYER

The recruitment flyer was shared through Facebook and LinkedIn. Six out of eight couples found the flyer on LinkedIn and two of the couples were found through mutual connections and were directly contacted by me via email.



Figure 24. Recruitment flyer: call for participants

B2 ASSUMPTIONS

As the researcher, I realize that my intercultural upbringing in the context of the Netherlands might give me a biased view in this research. I will not be interviewing couples that are friends of my parents, to avoid either party not wanting to ask/answer particular questions.

- I assume that there will be fewer differences in the western couples, compared to the couples where one partner is non-western.
- I assume that the differences within the couple will be more significant if the female partner is an immigrant because research indicates this.
- I assume that these couples have good relationships because they are willing to participate in the interview together and talk about their experiences.
- I assume that these couples are more culturally sensitive than the average couple because they are interested in participating.
- I assume that most of the couples largely parent according to the cultural model of the dominant culture (the Netherlands) because this is how I was brought up.
- I assume that most of the couples are welleducated because they are interested in participating, which can influence their perspective.
- I assume that parents consciously sit down to have a conversation about parenting because I believe that this is how I would approach it.

B3 CONSENT FORM

Dear participant,				
University of Technology, for van Boeijen and Mathieu (relationship talk about raisi	aculty of Industrial Design E Gielen. This research aims ng their children and what a	ly. This study is part of my Mas ingineering. The project is sup- to gain insight into how parer aspects are involved. The inter fully and ask me any questions	ervised b nts in an view wi	oy Annemiek intercultural II last about
Taking part in the study	Yes	No		
I have read and under been able to ask ques answered to my satisfa				
I consent voluntarily to refuse to answer ques without having to give				
	w will be transcribed and th	a video-recorded interview. I nat the recording will be		
I understand that infor thesis, as well as poter				
I understand that pers such as my name, will				
Signatures				
Name participant 1	Signature	 Date		
Name participant 2	Signature	Date		
Contact details for furthe	r information			

B4 SENSITIZING BOOKLET

The sensitizing booklet was created in Adobe Illustrator and imported into Google Slides as a background image. The participants were able to adjust the text boxes and move particular objects, e.g., the timeline elements, while the rest was locked.

Stel hier jullie gezin samen door de objecten te verwijderen die niet van toepassing zijn. Door ctrl + c en dan ctrl + v te klikken kun je een object kopieren indien nodig.

ONS GEZIN & ONZE CULTUUR

HALLO!

Ten eerste, onwijs bedankt voor het meedoen! Dit boekje gaat over jullie ervaringen met cultuur en opvoeding.

Het boekje bevat een aantal kleine opdrachtjes die jullie voor het interview kunnen doen. Het zal ongeveer 10 tot 15 minuten duren. Ik wil jullie vragen dit boekje samen in te vullen.

Er zijn geen goede of foute antwoorden en ook geen goede of foute manier om de vragen in te vullen. Ik wil graag meer weten over jullie ervaringen als ouders. Doe vooral wat goed voelt!

Groetjes Jeanine

JULLIE ALS GEZIN

Voordat we beginnen, wil ik graag wat dingen weten om een idee te kunnen krijgen over jullie gezin.

PARTNER 1 Ik heet en ik ben opgegroeid in

PARTNER 2 Ik heet en ik ben opgegroeid in

KIND 1 Leeftijd jaar

KIND 2 Leeftijd jaar

KIND 3 Leeftijd jaar

TIJDLIJN

Ik wil jullie nu vragen deze tijdlijn in te vullen **vanaf het moment dat jullie elkaar ontmoet hebben** tot nu. Geen zorgen, dit mag heel algemeen zijn! *Jullie kunnen hierbij denken aan een eventuele trouwerij, geboorte kinderen, een nieuwe baan, maar bijvoorbeeld ook grote verhuizingen.*



JULLIE ALS KOPPEL
Hoe zouden jullie jezelf als koppel in een paar woorden omschrijven?
Waarin verschilt jullie relatie met relaties waarin beide partners uit hetzelfde land komen?
JULLIE ALS OUDERS
Wat betekent opvoeden jullie voor jullie in 1 of 2 zinnen?
Wat zijn een paar belangrijke dingen die jullie, als ouders, je kinderen willen meegeven?

samen doen en beslissen?	t is die verdeling? Wat zijn de dingen die j	eding ullie	
PARTNER 1	PARTNER 2	SAMEN	
JULLIE ALS	SOUDERS		
)() / \	O O O D L N 3		
Hebben jullie een bepaald	de rolverdeling thuis als het gaat om opvoo t is die verdeling? Wat zijn de dingen die j	eding ullie	

JULLIE ALS OUDERS Zijn er bepaalde onwerpen (rondom opvoeden) waarin jullie merken dat jullie verschillende meningen hebben? Of waren er in het verleden onderwerpen waarin dat duidelijk was? Wat zijn deze ontwerpen? We zullen hier tijdens het interview meer over praten.

BEDANKT EN TOT BINNENKORT!

B5 IMAGES TOOLKIT



B6 REFLECTION ON FIRST TWO INTERVIEWS

To prepare for the interview, the interview script was discussed to evaluate the clarity of both the sensitizing booklet and the questions. It was discussed with two parents, separate from each other. Dutch was the native language for one partner and the third language for the other partner. However, during the interview, it appeared that there was quite some overlap across questions, which was not noticed beforehand as only the clarity and not the interaction was evaluated. A complete pilot should have been conducted so that the interview script could have been adapted accordingly.

During the interview, some questions worked better than others. First, it is pretty hard for people to reflect on past situations beyond a specific timeframe. Over time, problems become more neutralized. Letting people reflect thus does not give an accurate view of the past situation. Further, letting people think about a future situation that relates to current habits is challenging. People are often so stuck in their habits that they have trouble being creative. First, the interview was set up according to the path of expression (Visser et al., 2005), guiding the participant through the present, past, and future. However, because of the varying ages of the participants and their children and their different life phases, this did not give reproducible results. It was decided to create a script based on topic instead of time.

What did work well is letting people reflect on each other. People are often not aware of their behaviour and are thus unable to describe behaviour. People in your surrounding area are often more aware and can better reflect and describe it, which then gives opportunity for a two-way conversation in which both partners trigger each other.

B7 INTERVIEW SCRIPT

Hi, name and name [possibly ask how a name should be pronounced],

Thank you very much for participating in my research. Let me introduce myself first. I am Jeanine and I study Industrial Design. In my master, I mainly look at how people behave during certain situations and what role products play in this. For my graduation, I chose this subject because of my parents. My father is Dutch and my mother is from India and I was very curious if other families have similar experiences regarding the influence of culture during upbringing.

I see you have signed the consent form. Do you have any questions about that? Do you mind if I start recording now?

How did you feel about completing the assignments? Did you have to think a lot?

INTRODUCTION

You have completed the timeline.

Can you tell me a bit more about how you and your partner met?

RELATIONSHIP

You have described yourselves as a couple and identified what differences are.

- What are the nice things about the fact that you and your partner have a different background?
- Does it sometimes make things more complicated?
- Was there a specific moment in the relationship when you started talking about children? If yes, what kind of things did you discuss then?
- Did you talk about expectations back then?

PARENTING

We are now going to talk a little more about parenting.

- What are the most significant differences between Argentina and Australia regarding parenting, based on your own experience?
- Do you recognize those things in your partner?
- What are essential things from your culture to teach your children? How is the balance of the different cultures at home?
- Are there things from your upbringing that you consciously try to do differently?
- What are things from your own upbringing that are difficult to let go of?

ROLE DIVISION

I see that you have a pretty clear division of roles.

- How did that division come about?
- Are some of those roles also related to expectations within your cultures?

COMMUNICATION

We are now going to talk more about the communication between you, with a focus on "childrearing" as the topic of conversation.

- Is upbringing often the subject of conversations?
- What are or were the moments where these kinds of things came up? Who was the initiator for those conversations?
- If you had to choose 1 image to describe your way, which one would you choose? You may both choose 1, they do not have to be the same.

DISCUSSIONS

There may also have been times when communication was less smooth.

- Are there specific topics where you notice that you have different opinions, which may have led to conversations that did not go as smoothly?
- Which of these do you think have to do with the culture in which you grew up? Can you tell me a bit more about your experiences?
- Can you both now choose an image that depicts your discussions? Can you tell us a bit more about that?
- What are things you should not do or say at such a time?
- How is a possible decision ultimately made? Is this usually the case?
- Is the family involved too? To which extent?

REFLECTION

- What is the ideal context for such a conversation? What are less suitable moments? What do you expect from the other person at such a time?
- Looking back, are there things you would have liked to know about each other earlier in the relationship? Would you have done certain things differently? This can be related to parenting, but also the communication between you.
- What advice would you like to share with other intercultural couples who are talking to each other about raising children?

POSITIVE CLOSURE

• What do you value most in each other as a parent?

APPENDIX C IDEATION

C1 SESSION SCRIPT

Thank you for participating in this brainstorming session. The session consists of two different parts and will last approximately 45 minutes. Before we start, I will give you some background information about the project.

My design goal is "to support new intercultural parents, in the safe context of their home, in building a family culture that both can rely on and are comfortable with, by teaching them to reflect and communicate so that they can create a stable and consistent environment for themselves and their child(ren)". I would like to zoom in on two elements. The first is family culture. In this example I assume a family with two parents who live in the Netherlands. Both parents come from different countries and have experienced and learned different things, within the family, but also society. So, they both grew up in different family culture. Together they have two children and both parents try to pass on their norms and values to their children. At the same time, there are outside influences, for example political or economic, that influence how parents raise their children. They have created their own family culture, influenced by their own cultural backgrounds and other external factors. So, I want to support parents in creating this family culture by teaching them how to reflect and communicate. To achieve that, I have created this framework consisting of six steps. Each step encourages the parents to reflect on specific subjects, so they can draw conclusion on how to parent.

The first part consists of three subparts, each with three rounds. The process is similar to the 6.3.5 method. Each of you will start with a different question and after each round you will move on to the next question. We will to this three times, each time with a different scenario in mind. *Describe scenarios*. You will work individually, but you are free to hitchhike on each other's ideas. Each round will last 2 minutes.

The second part consists of two subparts and will be done together as a group. At the start I explained what a family culture is. I now want you to make your own definition and think about what characterizes a family culture. You have around 4 minutes. The next step is to look at these characteristics and think of what other concepts this reminds you of. What metaphors can you come up with to either describe or visualize a family culture? You have around 7 minutes for this.

C2 EXISTING PRODUCTS

- Love Language: A card deck with specific questions to accelerate intimacy between two loved ones, specially designed to create meaningful and fun conversation.
- 2. Deeper Connections: a card game with thought-provoking questions to help drive meaningful conversations between couples and strengthen emotional intimacy.
- 3. Parents are Human: a bilingual card game that encourages children to connect more deeply with their immigrant parents by having meaningful conversations.
- Relationship Repair Game: a card deck that teaches couples the practical and emotional skills to resolve conflicts without help of marriage counseling.
- 5. Couple Connect: a card game for couples that helps initiate deep conversations and thoughtful activities while allowing them to track their relationship progress.
- 6. Gottman Card Deck: a research-based application that offers helpful questions, statements, and ideas for couples to improve their relationship.
- 7. Love Nudge: a habit-forming app that helps couples identify their love language and express love in ways that are most meaningful to their partner.
- 8. Lay your Cards on the Table: a card deck with conversation starter that encourages in-depth conversations between people from different generations.
- 9. We're not Really Strangers: a card deck with three levels of questions and wildcards that allow people to deepen their existing relationships and create new ones.
- 10. The Hygge Game: a card deck that brings people together by encouraging them to share stories and discuss the things in life.
- 11. The Fair Play Deck: a conversation deck

- that helps couples to create an equitable partnership and prioritize what is important in the relationship.
- 12. Conversation Pieces: tangible objects that can be used during therapy to bridge the gap between reason and emotion and that can help people describe their emotions.
- 13. Balisa: a therapeutic tool, consisting of a series of objects, that accompanies and supports the healing process of adult survivors of childhood sexual abuse.
- 14. Alma Dolls: a series of wooden toys that can help kids process difficult or repressed emotions as part of the therapeutic process.
- 15. Tools for Therapy: a communication toolkit with different objects that helps people in therapy express their thoughts.
- 16. Story Cubes: a set of dice with a variety of symbols on each side to stimulate imagination and encourage storytelling.
- 17. The Storymatic Classic: cards that prompt stories, characters, scenes, situations, and plots and encourages people to tell stories in different ways and from different point of views.
- 18. Shit Happens: a game that presents players with undesirable situations that need to be arranged on the 'lane of pain'.
- Kinder Perfect: a card game for parents inspired by Cards of Humanity about the challenges of parenthood.
- 20. Moral Dilemma: a game of ethical datable in which people are put in the position to discuss some outrageous predicaments with terrible solutions.
- 21. Rebel Deck: a card deck for couples that presents them with in your-face messaged about love and relationships.
- 22. Dilemmarama: a game with a collection

- of absurd dilemmas that will cause heated debates and feisty duels amongst friends and family.
- 23. Do you Really Know your Family?: a game where family members learn new things about each other, that sparks interesting conversation and creates family memories.
- 24. Culture Calling Cards: an icebreaker card deck that encourages insightful conversation about cultural differences and similarities.
- 25. Common Ties: a game in which newcomers learn and internalize traditions, behaviour, and values of their new culture without losing their identities or respect for their original culture.
- 26. Talk it Out: a game designed to get people talking and that supports the therapeutic process by addressing cognitive, emotional, and behavioural issues that affect adolescents.
- 27. Social & Emotional Competence Game: a game that teaches empathy, communication skills, self-awareness, social awareness, relationship skills, self- management and decision making.
- 28. What Should I do Now?: a game to help people understand different reactions to difficult situations and how these responses affect other people.
- 29. Relationality: a research-based game that encourages conversation and helps people to learn about relationships in an easier way.
- 30. Tune in Tune up: a card game that supports people in feeling closer and that helps improve their listening and empathy skills.

C3 ANALYSIS METAPHOR







Figure 26. Couples building a shelving unit

The analysis of the metaphor was done based on own experience and several Youtube videos in which couples challenged themselves to build something from IKEA without fighting. Some of the insights are:

- One couple tends to take the lead.
- The couple often underestimates the effort it might take because it looks so easy on paper
- Couples tend to attribute own mistakes to external factors (e.g. the instruction) and others mistakes to internal factors (you read the instructions wrong).

TIPS AND TRICKS

- Be mindful, it will be frustrating.
- Take the time to check in with each other.
- Ask question to each other.
- Listen to what they are actually saying.
- Find the humour in what you are doing.
- Assign responsibilities.
- Divide and conquer.
- Take breaks, step away when needed.
- Remember the common enemy.

BUILDING A UNIT

- Have enough space to build the shelving unit.
- A clear overview of all the parts and hardware.
- Parts can be used in multiple ways, not only as described in the instruction manual.
- There is a structure to the steps, but it does not matter if some are done out of order.
- A big instruction manual that can be used simultaneously by both partners.
- Assign responsibilities so partners are less like to interfere with each other.

C4 ITEMISED RESPONSE METHOD

IDEA 1: EVERYDAY DILEMMAS

Parents are presented with a set of funny and extreme dilemmas with opposing parenting practices which they must choose between, e.g., not ever being allowed to clean up after your child or always having to clean up right after they make a mess. Assumed is that having to choose between two extremes will make parents rethink their values.

- ▶ + It is an easy way to trigger conversation.
- It might be hard for parents to relate it to their own lives.
- It could cause offence because practices have different meaning across culture.
- ▶ It only directly touches upon the awareness phase.
- ▶ ! It could be made into a fun parenting game if the dilemmas are chosen carefully.

IDEA 2: ROLEPLAYING

Parents are presented with stories of real-life situations in which a decision must be made. They receive information about the values of the characters in the story, and they have to act out the decision making as if they were those characters.

- + Parents learn to look at situations from different perspectives
- + Parents gain knowledge about various cultures.
- ▶ + Parents go through all steps of the framework.
- It might be hard for parents to relate it to their own lives.
- ▶ As they are roleplaying, they might not get to know new things about each other
- ▶ ! Stories from the user research can be taken as inspiration.

IDEA 3: VALUE PYRAMID

Parents are supported in making an overview of their personal values. Afterwards, they can compare their values and combine them into a set of values, representing their family. They then go through different scenarios, during which they use this set of values to come to joint decisions.

- ▶ + It is a practical method for parents to identify their priorities.
- ▶ + It teaches parents to work together to achieve a goal.
- ▶ + Parents go through all steps of the framework, though maybe not chronologically.
- It can be hard for people to define their values.
- ▶ Having the same values does not necessarily mean you have the same approach to things.
- ! It could be related back to cultural theories as part of educating and informing the couple.

IDEA 4: STORYTELLING

Parents are encouraged to tell each other stories about their childhood, evaluate those stories and relate those insights to their current behaviour. Further, they are challenged to think about any future situations that might arise.

- ▶ + It encourages meaningful conversation.
- + Parents probably learn new things about each other.
- ▶ + Parents go through all steps of the framework.
- ▶ It might be hard to relate past experiences to their current behaviour.
- ! Stories can be told and shared in many ways.

IDEA 5: EMOTION CUBE

Parents are asked to express their feelings regarding a range of different parenting topics. They do this by creating associations between their feelings and various materials that are presented to them. They then use these materials to materialise a tangible object, such as a cube, to communicate these feelings to their partner.

- ▶ + Having a tangible object might make it easier to communicate feelings.
- ▶ + It can encourage people, that are not comfortable with words, to share feelings.
- ▶ + If instructed clearly, parents go through all steps of the framework.
- ▶ It is very abstract and the materials might not mean the same thing to both partners.
- ▶ ! Being blindfolded could result in interesting revelations.

IDEA 6: BUILDING A BRIDGE

Parents give their opinion on a range of parenting topics by writing down their thoughts, after which they compare answers. The goal is to build a bridge. If their answers are similar, they get to build part of a bridge, but if their answers are too different, they break down part of the bridge.

- ► + It visualises current compatibility between parents.
- ▶ + Parents go through all steps of the framework, if not discouraged by the collapsing bridge.
- ▶ It can be confronting if parents have different opinions.
- ▶ Having different opinions is not necessarily a bad thing if you are able to deal with it.
- ▶ ! Building the bridge could be made into a challenge.

IDEA 7: I NEED...

A set of cards that parents can use when communicating with each other, creating a common language between them. The cards could express feelings and needs, e.g., if they want their partner to listen, give advice, ask what is wrong, or hug them.

- + It makes expectations known, which improves communication.
- It is not an activity you do together, rather something that is reached for when needed.
- ▶ It is only related to the communication aspect of the framework, rather than to every step.
- It does not directly teach the couple on how to deal with culture and parenting.
- ! Could be a way for couples to deal with different communication styles.

IDEA 8: COMPATIBILITY CHECK

A guessing game in which parents are presented with various parenting scenarios. Both parents describe

what their approach would be, but also what they think their partner's approach would be. Thereafter they compare answers and see how well they know each other.

- ▶ + It teaches perspective-taking and makes assumptions and expectations known.
- ▶ + Parents go through all steps of the framework.
- ► + Motivates parents to take each other's opinion into account.
- Making wrong assumptions can be counter-effective and lead to discussions.
- ▶ ! Could be turned into a parenting game.

IDEA 9: STORY MASSAGE

Parents are encouraged to tell each other stories about their childhood. During this, they use various probes on each other's bodies, with the probes and movements of the probes representing different emotions or actions.

- ▶ + It creates a moment of intimacy.
- ▶ + It probably teaches the parents new things about each other.
- ▶ Parents might get distracted from the conversation, not going through the framework.
- ▶ It might require more trust as someone else interacts with your body.
- ▶ It might be hard to make relations between past experiences and their current behaviour.
- ▶ ! It can be a form of foreplay.

C5 DESIGN PROPOSAL IN RELATION TO THE FRAMEWORK

STEP FRAMEWORK	USER ACTION	INSIGHTS TO GAIN	COMMUNICATION COMPETENCE
	The couple chooses a parenting practice they would like to talk about.		
1. Awareness stands for having knowledge about each other's cultural background, focusing on similarities and differences regarding practices, attitudes and beliefs, and norms and values. This knowledge is gained through education and experience.	The couple identifies their current knowledge and assumptions, gained through education and experience, regarding behaviour or a specific practice (input)	What are your assumptions and expectations? What knowledge do you have? What are the similarities and differences between your approaches?	It is essential to enter the conversation being open and honest about your thought and feelings and acting accordingly. It is also about explaining the rationale behind your statements so that your intent is understood.
2. Understanding is about identifying why you both behave in a particular way and considering how the mutual differences and similarities affect the relationship.	The couple links the behaviour or practice to a past experience and considers how this experience has impacted them as a person. They do this turning their experience in a story, making the story tangible, and teleling it to each other.	How does this experience connect to previous experiences? What values surfaced for you during this experience, and in what ways? How does the memory make you feel?	This step requires empathy and authenticity. It means allowing yourself to be vulnerable and openhearted, acknowledging other partner's feelings, and showing you care about them.
3. Evaluation is the process of judging or calculating the quality, importance, amount, or value of something.	The couple tries to find relations between their experience and the current knowledge and assumptions they have.	What was good and bad about the experience? What are similarities and differences regarding values? Are your experiences similar or different in important ways?	During the evaluation, it is vital to have an unbiased mindset. This means being openminded, being able to look at the situation from all perspectives and not imposing your opinion on your partner (fair).
4. Appreciation means recognizing that something is important and showing and communicating this to each other so that you both feel respected and appreciated.	The couple compares what they have learned and try to identify common values.	What have you learned about each other and the world around you? What can be concluded from these experiences and the analyses you have undertaken?	To be fully appreciative, you need to be willing to consider ideas and opinions that are new or different to your own (openness). You need to respect your partner's beliefs and love them for who they are.
5. Adjustment refers to being able to alter your perspective, the way you think and behave, meet each other's needs, and behave appropriately in different contexts.	The couple considers how they can use what they have learned for their own family and turns this into a plan of action (output).	How will you approach the situation when it arises (again)? What does your plan of action look like?	Finally, you need to allow yourself to consider something new as normal (accepting), find ways to relate to your partner and understand them how you would want to be understood.
6. Execution can be defined as the act of doing or performing something in a planned way.	The couple is encouraged to apply what they have learned in their daily life, after which they can go through the framework again if re-evaluation is needed.		

APPENDIX D

CONCEPTUALISATION

D1 DESIGN CRITERIA

The aim of this project is to design a product or tool that facilitates communication between intercultural parents in the safe context of their home so that shared values regarding childrearing can be identified and put into practice in ways that both parents can relate to and rely on.

REQUIREMENTS DESIGN BRIEF

- CR1. The tool is used at home without the supervision of a health professional.
- CR2. The tool is usable by people with varying cultural backgrounds.
- CR3. The tool supports the couple in dealing with culture and parenting.
- CR4. The tool supports the identification of shared values.
- CR5. The tool stimulates the application of gained knowledge in daily life.

FAMILY CULTURE

- CR6. The tool requires equal and simultaneous participation of both parents.
- CR7. The tool encourages parents to learn new things about each other.
- CR8. Optimal use of the tool is unrelated to the degree of mutual acculturation of the couple.
- CR9. Use of the tool does not depend on the country of residence.
- CR10. The tool helps parents with identifying their needs regarding parenting.

FRAMEWORK

- CR11. The tool encourages healthy and effective communication.
- CR12. The tool supports parents in reflecting on their behaviour.
- CR13. The content of the tool addresses all steps of the framework.
- CR14. The tool enables discussing differences and similarities.
- CR15. The tool enables discussing values and practices.
- CR17. The tool enables discussing several practices to highlight different aspects of parenting

EXISTING PRODUCTS

- CR18. The tool has both fun and serious elements.
- CR19. The tool encourages both superficial and deep conversation.
- CR20. Use of the tool leads to improved communication (opposed to normal).

METAPHOR

- CR21. The tool fits in the existing living environment of the user.
- CR22. The tool can be used in different ways, fitting the need of the users.
- CR23. Parents have a clear overview of all content.
- CR24. The tool allows for a degree of flexibility in how the materials are used.
- CR25. Both parents can read the instructions of the tool at the same time.
- CR26. Used symbols and colours are culturally sensitive.
- CR27. The instructions of the tool are clear and concise.

IDEATION

- CR28. The tool encourages parents to tell stories about their childhood.
- CR29. Parents can build any story they want with the tool.

ITERATIONS

- CR30. The tool provides additional support if parents need it.
- CR31. The tool reinforces good behaviour rather than punish bad behaviour.
- CR32. The tool does not consist of single-use materials.
- CR33. The tool can be used in a timeframe of an hour.
- CR34. The tool keeps its novelty after multiple uses.
- CR35. The tool includes all important milestones of the child's development.

WISHES

- W1. Using the tool is enjoyable for both parents.
- W2. The tool is made from sustainable materials
- W3. The tool can be used as a family game (Pictionary) if parents are done using it.
- W4. The tool prevents possible intervention by a health professional.
- W6. The tool can be used for other themes (e.g. living together, marriage or pregnancy etc.)
- W7. The tool can have expansion packs (e.g. baby, toddler, teenager, etc.)

D2 SESSION SCRIPT

Hello, thank you for participating in my user test. [Discuss consent form]. During my project I have researched intercultural parents and the role that culture plays in the upbringing of their children. The outcome of the project is a communication tool that supports them in that. Today, I would like to test one/several versions of the tool with you (1,2, or 3 depending on the iteration round). I will give you the box and I want to ask you to use it as you would without someone else present. I will observe silently and make notes and afterwards I would like to ask you some questions.

Do you have any questions for me?

D2 PROTOTYPES



Figure 27. User test 1: prototype 1



Figure 28. User test 1: prototype 2



Figure 29. User test 1: prototype 2

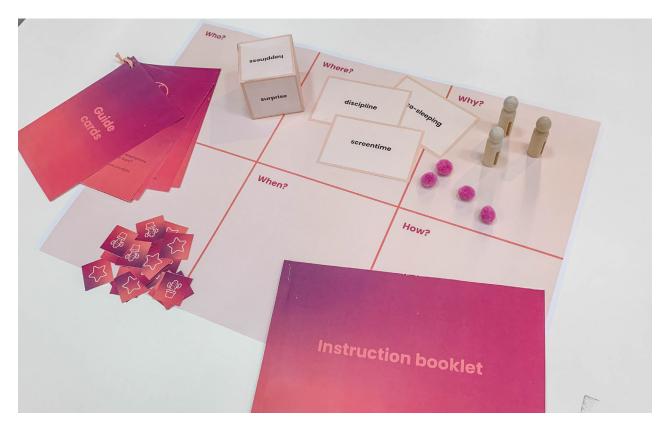


Figure 30. User test 2: prototype 1



Figure 31. User test 2: prototype 2



Figure 32. User test 3: prototype 1

D3 USER TEST 1

The couple expressed that it felt very natural to use the toolkit. For them, it seems logical to discuss your childhood when you are asked about your assumptions and knowledge about parenting. Further, they stated that they are pretty communicative by nature, meaning they had already discussed many things regarding children. However, sharing the stories added an extra dimension, as these were not stories they would have necessarily shared otherwise.

"I would use similar techniques. It's quite a natural approach because you always reason from your own experiences, after which you explain them."

The instruction cards were hard to follow. It was unclear when you were supposed to think about the answer and when you had to discuss it together. The cards also lacked structure, making it hard to see what went together and when a new step started. Because of the lack of overview, they would sometimes start discussing things that were part of a later step. They expressed that they would have liked to have more information about the overarching goal of the toolkit and the context it would be used in because they did not understand what they were working towards.

"These are quite fundamental questions. Is there really a moment where you sit down and decide to talk about it or does it present itself?

"Ideally, yes. At least, I would like to have a starting point. We will probably fail because children are unpredictable, but I would like to make some agreements about it."

Grabbing a card with a topic seems quite forced and unnatural. When having a conversation about raising kids, it would feel more natural to talk about topics that are relevant at that specific moment; either because you know you have different opinions, because it is something you want to have more knowledge of, or because you know it will become significant soon. Choosing the topic would increase the motivation to have effective communication because there is a clear goal. In that sense, the pictures were nice, but it adds the extra step of choosing which aspect of the picture to focus on. The emotion dice was considered interesting because it triggered the participants to look at the same topic from a different perspective, missing in the second and third rounds.

"I thought the dice was interesting because there is a certain degree of randomness, and it encourages you to think about subjects differently than you would normally do. I like that."

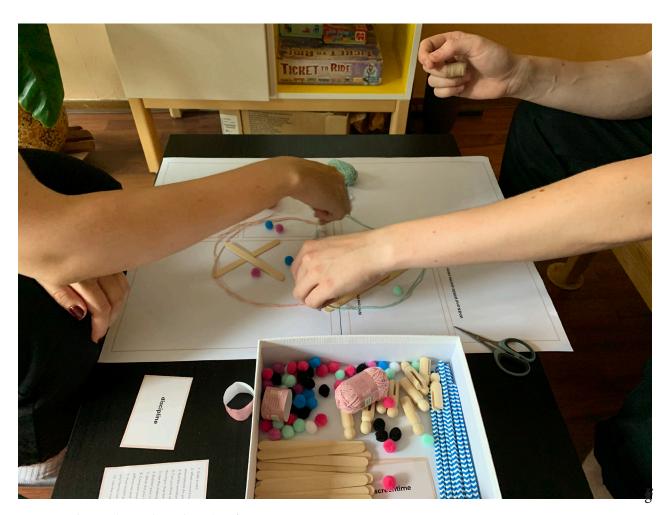


Figure 33. The couple visualising their plan of action

The tinkering materials were preferred most out of the three options. They allowed the participants enough freedom to build anything they wanted while also providing a sound basis of shapes to choose from. However, they were missing the suitable materials to make round shapes, leading to elements of the

story not being built. The modelling clay gave the participants the freedom to build anything they wanted. However, one participant mentioned getting lost in the number of details that could be added. This led to a clear difference between the amount of effort put in by both participants, leading to some feelings of inferiority. The stickers were hard to use for the opposite reason. The icons were quite specific, making it hard to find the right ones to use for the stories. The participants mentioned this also having to do with not knowing what the collection consisted of, thus not knowing when to compromise.

The participants had mixed feelings about using the 5W1H template. It was unclear why the categories were made that way, and it was hard to make one story out of all separate categories. However, the template did provide some structure which made it easier to start building the story.

D4 USER TEST 2

Before starting the test, one of the participants had made tea for her and her partner, saying that they needed to be comfortable if they were going to talk about serious topics. During the test, both participants would browse the information booklet and instruction cards together rather than one person reading it aloud. They said it was more intimate to be doing the same thing, both physically and mentally.

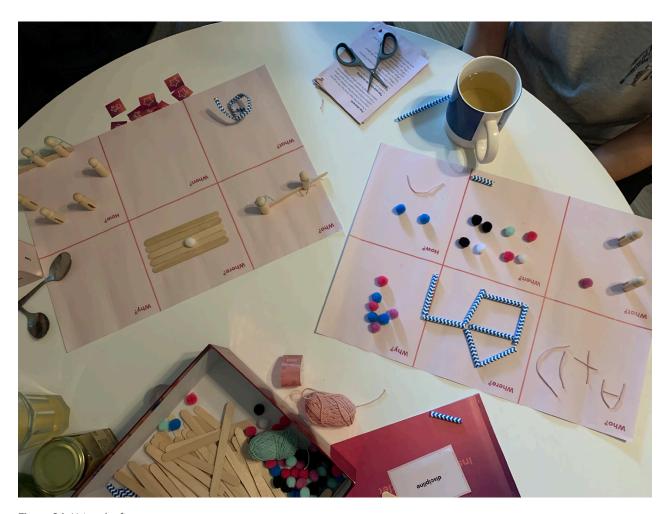


Figure 34. Using the first prototype

Compared to the previous test, it was much clearer for the participants what they had to do and what the different steps were. They stated it would have been better to read all steps before starting, as it would have managed expectations. The questions on the back of the instruction cards were appreciated as they gave structure to the conversation. However, they sometimes did feel forced and led to repetition in the conversation when the questions were too similar. The step 'appreciation' was the hardest to do because they found that the questions on the cards did not correlate with the title. They thought the title indicated that you were only allowed to talk about the positive things, while the questions on the cards asked for all insights. They also did not understand how the appreciation and disapproval tokens needed to be used, as an explicit instruction was missing.

The illustration with the different topics was well-understood by the participants. Many topics were recognised as designed; however additional topics that were not intended were also identified. The participants immediately skipped some topics because they already knew they would agree or because the topic was not relevant for them. For instance, they did not consider talking about the dog because one them is allergic and getting a dog would not be an option for them. The participants used both the simple and the detailed emotion dice. Ultimately, they preferred the detailed dice because it inspired more, whereas the simple one was quite restricting.

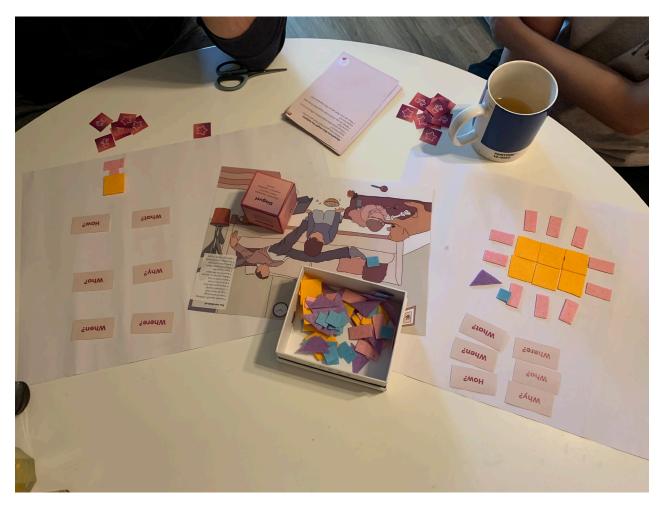


Figure 35. Using the second prototype

Both the tinkering materials and 2D materials worked quite well. However, when using the tinkering materials, the participants used the scissors to adapt the materials to make them fit their needs, thus preventing future use. This indicates that participants need the ability to adjust the materials as they see fit. Related to this, one of the participants said they would have liked to use a marker to annotate what they had built to clarify. For both prototypes, the 5W1H template led to confusion. It was clear what the goal of the template was, but there was a mismatch between the structure it provided and the freedom needed to visualise the stories.

Finally, the participants expressed that they would have liked to capture their insights somewhere. This allows reflecting on the insights after having more parenting experience and remembering the stories shared to achieve these insights.

"I think we are going to be involved parents; however, our parenting style kind of depends on the character our child will have. What if our child is a psychopath? Then we would have to do this again I think ha-ha."

D5 USER TEST 3

The participants first started reading the information booklet and said that it seemed much research had gone into it. This raised the credibility. They appreciated this because it explained the toolkit's goal and what they had to gain from using it. They did make some comments about the words used in the information booklet as it contained some assumptions about how parents want to raise their children.

"I am not sure about this part: they have to raise their child to be a kind and sensible adult... Not every parent has the same goal for their children."

Visualizing the stories seemed to work best in this test. Especially the playful element stood out more, compared to the previous user tests. Being able to personalize and adjust the elements give space for the participant to add details to the story that might get lost otherwise. It makes the guessing more fun. The participants would first build their story and add details with the markers. After that, the partner would guess, often wrong, during which the other partner kept adding extra details to help their partner guess right.

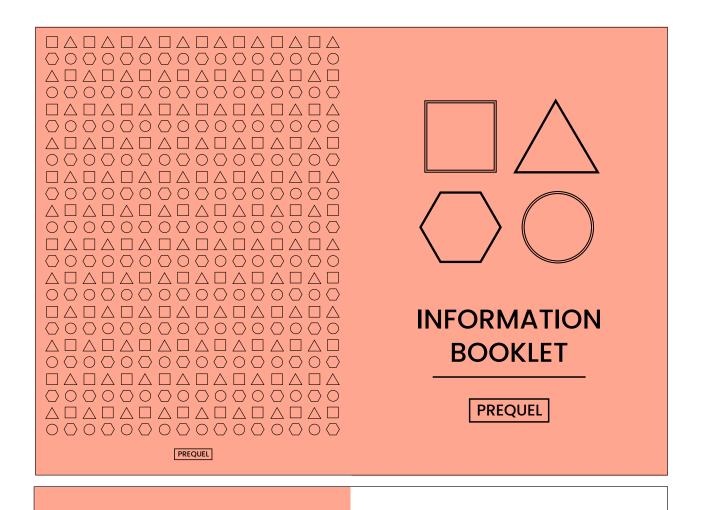
"I messed up the NS sign, that's why I decided to draw a train during the guessing, to make my story more clear."

Two different coloured elements were used in this test. One participant stated that they would have preferred them all to be the same colour because now they would focus on using the same colours rather than the story. Usability wise, the magnets on the back should not be too strong because it makes it hard to move the shapes around. They appreciated the shapes sticking down because then the product could even be used on the couch without the shapes falling. Last, the magnets should not be too small because it could be dangerous if they fall off, but it also makes the shapes wobble when drawing on them.



Figure 36. Using the final prototype

APPENDIX E FINAL DESIGN



Contents

01. Introduction

02. About the tool

03. What is inside?

04. What do you do?

05. Recommendations

06. References

Prequel

/ ' pri : kw(ə)l

noun, plural 'prequels'

A story that takes place before the events of the original story, that features returning characters in similar or different situations and focuses on backstories and revelations.

01. Introduction

When people have children together, their relationship changes completely. In addition to being partners, they also become parents. Together they must raise this little person to become a competent adult.

Every parent has their ideas about how children should be raised, what is important within the upbringing and how the child should be guided towards adulthood. How parents want to raise their child(ren) is often determined by how they themselves were raised and especially how they experienced this upbringing. When parents look back positively on their childhood, they will often adopt things from their parents. When they look back a little more negatively on how their parents raised them, they will try to do it differently.

Parents carry their past when they start to shape their child's upbringing, and there is a good chance that they do not think the same about everything. This chance is even higher when each parent has a different cultural background, for instance, if they grew up in different countries. It can then be quite a challenge to arrive at a parenting style that both parents feel comfortable with.

02. About the tool

This tool is intended to support meaningful conversation between you and your partner. Through conversation and storytelling, the tool encourages you and your partner to explore the world of parenting and everything that comes with it. Storytelling is a way to learn about life, make sense of experiences, and express your emotions. It is important to take the time to listen to each other and, above all, to understand each other. By reflecting on your upbringing and sharing your growing-up stories with each other, you and your partner can work together towards building your own family culture.

66 Listening is much more than hearing what the other person is saying. It's the active willingness to understand their perspective, show empathy, get curious, and offer flexibility in taking a path forward.

03. What is inside?



1. Information booklet

This booklet will introduce you to the contents of the tool and provide you with the necessary information to get started.



3. Appreciation tokens (12x)

While using the tool, you can use the tokens to show appreciation for your partner, whether it is something they say or do or you simply want to say thanks.



These cards will guide you through the steps of the tool. Each card contains some instructions, helpful tips, and additional information.



4. Trigger cards (5x)

The cards illustrate various parenting situations to trigger the conversation and inspire you to share stories from your own upbringing.



each side, this dice is used in combination with the trigger cards to let you view the topic from a different perspective.



7. Whiteboard (2x)

The whiteboard can be used as a surface for the building elements. You can use the markers to write on the whiteboard, as well as the building elements.



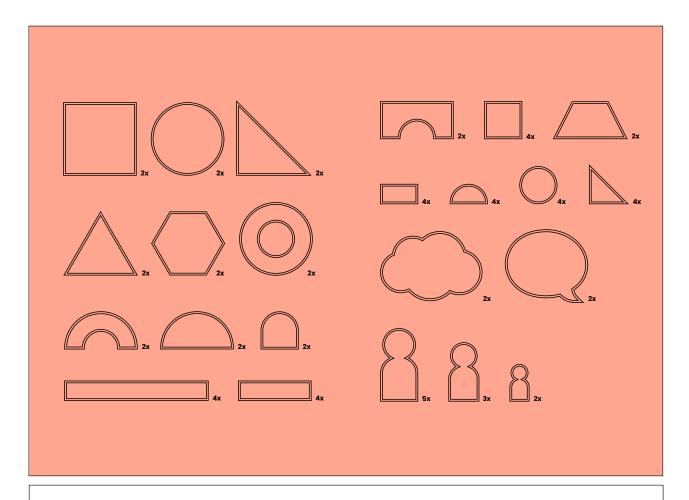
6. Building elements

The tool contains a collection of various magnetic building elements that you can use to visualise your stories. Feel free to add details!



8. "Our family culture"

After going through all the steps, the insights can be captured in this book to create an overview of your parenting journey.



04. What do you do?

This tool guides the process of reflection and focuses on learning from experiences. It is a way for you to evaluate your parenting practices and define common priorities, goals, and desires to improve upon these practices

Step 1. Awareness

First, using the trigger cards, you will choose a topic that you would like to talk about. You will then discuss the current knowledge and assumptions you have regarding the topic. What was the norm where you grew up? How did your parents approach it? Are your approaches similar or different? Try to be as descriptive and objective as possible.

Step 2. Understanding

Using the emotion dice, you will try and recall a past experience related to the topic. Take some time to recollect what happened. Who was there? Where and when did it happen? Both of you will use the building elements to tell your story. Can you guess your partner's story?

The next part of this step is to understand the experience. How did the experience make you feel? What did you learn? What personal values surfaced during the experience? You can use what you have built to explain your answers.

Step 3. Evaluation

During this step, you will analyse the findings from the previous steps. (How) did the experience influence you as a person? Does it clarify your current behaviour or assumptions about the topic? If so, how? Would you have a different attitude without that experience?

Step 4. Appreciation

You will now compare both of your insights to find common values. What have you learned about each other and the world around you? What similarities and differences can you find? What do you both value? Focus on the things that can contribute to your relationship, rather than what might be problematic.

Step 5. Adjustment

The following step is about considering what insights you can use for your family and defining concrete steps that you can take. How will you approach the situation when it arises (again) in the future? What does your plan of action look like? Think about your personal strengths and how those might help. Define your intentions so that you can commit to them.

Step 6. Execution

This is what happens after using the tool. You are encouraged to apply what you have learned in your daily life and analyse if and how it works for you both. You can always use the tool again to re-evaluate and adapt if needed.

Preparation

- Sit with your partner for an hour when you are both relaxed and feeling good.
- Make yourself comfortable. Put on some music and prepare some drinks and snacks.
- Turn off or put down any distracting technology and give your partner your full attention.

05. Recommendations

These recommendations are carefully drafted based on interviews with intercultural parents and cross-cultural psychologists. However, each relationship is unique and should be appreciated that way. What works for one couple may not work for another couple and vice versa. If you are engaging in this tool without the guidance of a therapist, do not try to dive too deep into the answer if it is unrealistic or impossible. Instead. use the conversation as an opportunity to learn something new about each other and plan for your future together.

Communicate your needs

To be able to communicate effectively, it is important that you and your partner are on the same page. Discuss what things you can both do to feel safe and heard. Being direct about what you need can alleviate some of the miscommunication or stress. By letting them know ahead of time, you can maybe prevent

those unnecessary disagreements brought on by miscommunication. Sometimes you just want to vent and feel supported by your partner, other times you may want advice. Tell them this beforehand, so that they can respond accordingly.

Avoid mind reading

Another communication skill is asking your partner questions rather than making assumptions. Sometimes you can tell what your partner is feeling, but more often, you cannot. You are not a mind reader, and you should not have to be. So, if you are not sure what your partner is feeling, ask them. The other way round, make sure to communicate what you are thinking and feeling when making statements. Let your partner know your reasoning and underlying motivation for doing or saying specific things.

Listen as much as you talk

Relationships are about two people, and each should have an equal say about things. You both deserve to feel heard and be able to share what is on your mind. Active listening is a way of listening and responding to another person that improves mutual understanding. Instead of responding verbally, you support your partner through body language, meaningful looks, or facial expressions. This provides the chance for your partner to verbalise their thoughts and feelings without interruption, and helps you better retain and remember what your partner is saying. Wait for a natural break in the conversation and then ask your questions or offer your thoughts.

Agree to disagree

You and your partner will not agree on everything, and it is crucial to accept that. You both have your way of thinking, but you must realise there is also some truth in what the other person is saying. Instead of trying to win the argument, look for solutions that meet both of your needs. Either through compromise or a new creative solution that gives you both what

you want. Not every problem will be solvable because you and your partner will have different opinions from time to time. Realise the relationship is bigger than any problem. Sometimes you need to give in to be able to survive together long-term.

"I appreciate you"

Everyone wants to feel appreciated and valued. When you take the time to openly appreciate your partner's positive qualities and good deeds, you create a welcoming environment. Notice something about your partner that you feel grateful for? Share it! Often, we tend to focus on what we do not have or what is not working in relationships. Shifting your focus from negative to positive can make all the difference. You might find your partner begins to share their appreciation for you as well. Taking the time to understand your partner's perspective can significantly impact on the quality of your relationship.

06. References

This tool is part of the master thesis by Jeanine Mooij for the programme Design for Interaction at Delift University of Technology. The aim of the thesis was to get insight into how intercultural parents integrate their cultural values into the upbringing of their children and how they can be supported in this process.

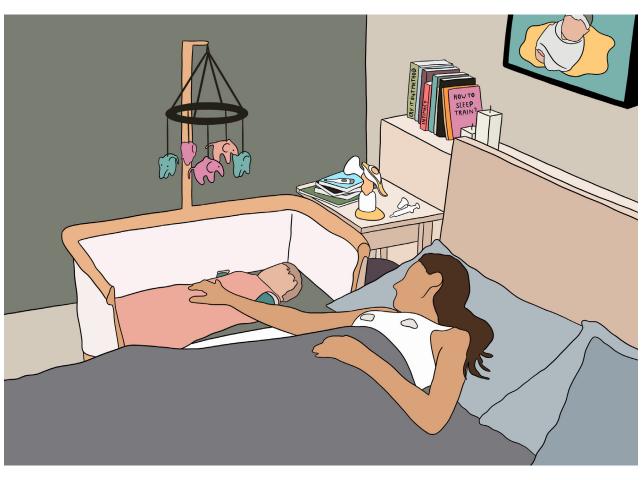
The outcome of the thesis is a communication tool that encourages parents to share their growing-up stories and find relations between those stories and their current and future behaviour. This is a prototype of what the final tool should look like, however more tests are needed to fully validate the concept.

For more information about the development of the tool, see: [unavailable]



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Our goal for our family is	are using this too	ol to
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Chapter 01.		Chapter 02.		
Today, we talked about Describe your stories in three keywords.		Today, we talked about Describe your stories in three keywords.		
1	1	1	1	
2	2	2	2	
3	3	3	3	
What I appreciated most about my partner today is	What I appreciated most about my partner today is	What I appreciated most about my partner today is	What I appreciated most about my partner today is	
What we both find important/have in common is		What we both find important/have in common is		
if and when this situation arises (again) in the future, we will		If and when this situation arises (again) in the future, we will		
If and when this situation arises (again) in the future, we will		If and when this situation arises (again) in the future, we will		





APPENDIX F **EVALUATION**

F1 SESSION SCRIPT

Thank you for participating in my user test. [Discuss consent form]. During my project I have researched intercultural parents and the role that culture plays in the upbringing of their children. The outcome of the project is a communication tool that supports them in that. Today, I would like to test that tool to you. I will give you the box and I want to ask you to use it as you would without someone else present. I will observe silently and make notes and afterwards I would like to ask you some questions. Do you have any questions for me?

[After using the tool]

- How did you experience the tool in general?
- Using the information booklet, was it clear what was expected?
- Was it clear what you had to use, when you had to use it and why you had to use it?
- How would you describe the communication you had?
- Was it different than other conversations you have had about childrearing?
- Did you learn new things about each other?
- How did you experience the structure of the guide cards?
- How did you experience the emotion dice?
- How did you experience the trigger cards?
- How did you experience using the building elements to tell stories?
- How did you experience being able to use the whiteboard markers with the building elements?
- How did you experience the appreciation tokens?
- How did you experience writing down your conclusions?
- Did you experience any problems using the tool?
- Do you have any suggestions on how the tool could be optimized?

F3 NOTES USER TEST 1

Was not completely clear when the tool was supposed to be used > had to do with the instruction.

Should say that it is a tool to talk about your children.

Would have added a surprise element if the tool was presented in a box, because then it can feel like unpacking something.

All building elements were spread out across the table to have clear overview. The overview page in the information booklet was consulted during the building. Participants immediately noted that it was similar to the Ikea instruction booklets.

All materials in the box were looked at before starting. The information booklet was read completely. One participant mentioned that it was very helpful information, but quite a lot to read at once. However, the other participant mentioned finding it nice to read through all of it, as it gave him a better idea of what to expect.

It was noticed that the instructions in the information booklet were similar to the instructions on the guide cards, however, it was not clear if they were actually the same thing. It would be better to mention that the instructions on the guide cards are the short version of those in the information booklet.

Wet spots mother > wake up baby or pump > would like to stay at home after the birth for breastfeeding and bonding > want to be a working mom so pumping will be a thing > how long will the father have time off > maybe mom can work from home so breastfeeding can be done during work > pumping stations at workplaces.

Rolling the emotion dice and having to stick with an emotion is difficult.

"What if I have an experience that is very important to me, but is not the right emotion?"

The dice could serve as inspiration, but choice can be left up to the parents.

During building and telling stories, some analysis was already done which made one of the guide cards redundant. One participant mentioned that this didn't matter, because it still serves as a reminder in case you forget some other time.

Telling stories triggered other stories. Participants started telling similar stories from their perspective.

The building elements themselves could also be magnetic so that you can stack them. For instance, a person lying on a bed. Building elements worked well. One participant used the marker to add details, while the other participant mentioned not being very comfortable with drawing, thus not using the marker. Wasn't seen as a problem, but rather as having the choice to do what is most comfortable.

Having the guide cards provided a nice structure to the conversation. It also removes some heaviness, because both partners have some idea of the direction the conversation will take.

Appreciation tokens were well received. They make you more aware of what you communicate to your partner and makes giving compliments/appreciation a conscious activity.

Our family culture was also well received.

However, the order of the questions should be changed slightly to improve the flow. Participants mentioned that it would be nice to look at the book later.

Trigger cards were seen as the strongest part of the tool, because they already triggered so many conversation topics. It even would be nice to have a set of cards, without the rest of the tool.

Conversation quite similar to other conversation they would have about childrearing. Biggest difference was looking at the underlying values and comparing those. It added an extra layer to the conversation.

"I think the tool was very valuable. We were able to make connections that we wouldn't have made otherwise. It is different than just having a conversation about raising children, because you are building. But it still felt very natural to do it this way and it adds that extra stimulation. "

"The booklet contained quite a bit of information. It was useful information, but I really wanted to start building things."

"Because we made our story visual, it was really helpful to refer back to when going through the other steps. It also makes the storytelling more creative, even though the content of the story is not necessarily different. The guessing really added that playful aspect to the conversation. It makes it fun, but it also forces you to empathize with your partner, because you have to look from their perspective to be able to guess what they have built."

F4 NOTES USER TEST 2

It felt a bit like a board game, because you first read the instructions and then you start playing. We don't have a really good attention span, so we kind of put the information booklet away and went to the guide cards. They were more clear. In the information booklet, it was helpful to understand all components of the tool. If they would use the tool again, they would completely leave out the information booklet because the guide cards provide enough guidance.

At the beginning it felt quite forced, also felt quite nervous and pressured because they did not know what they would have to talk about. That only really changed when we started talking about our own experiences. Building and guessing was the most fun, it made it really playful. They mentioned it would be nice to have an icebreaker beforehand using the building elements.

"Then we are in the safe-mode, the ready-to-engage-mode."

Emotion dice was nice, even though a bit rigid, because there was some randomness regarding the emotion you would get. They both rolled their own emotion. Because they did not use the trigger cards, they came up with an experience without limiting themselves to a certain topic. The emotion, rolled fear, made it possible/easier for her to discuss fears she was having. She mentioned feeling relieved after the conversation as a result from the answers she received.

Trigger cards worked less well. It was also not clear what the trigger cards were, which is more a design thing. Both participants interpreted the trigger cards differently. For one participant it was a loving mother taking care of her child and for the other participant it was an exhausted mother not knowing how to deal with everything.

They expressed that when the kids would be a bit older, you probably have less time to talk about everything or even use the tool. In that case, you would have to limit yourself to one topic.

One of the participants was quite apprehensive about speculating about future situations, because he felt it would be better to deal with it when confronted with the situation. So, they stuck to topics that were relevant at this certain moment.

Did not use the appreciation tokens. They did answer the appreciation question in Our Family Culture, which they did like. It made them feel loved, even though the compliments were very simple.

"I felt really good after he told me that."

Communication was great, especially when they become more comfortable after the building. The conversation got in a certain flow and became more natural. At a certain point they went of script, which made them both feel at ease because it felt more like a conversation.

The conversation was quite similar to how they normally communicate. However, they did talk about certain topics they had not done before, triggered by the emotion 'fear'. They mentioned feeling more reassured after, as their partner answered how they wanted.

"I am glad I can express it beforehand, because when it happens, we have already talked about it. He knows I will be scared. I think both of us agree that it is very important to create a sense of security. That is something I did not expect when jumping into the conversation, to get to that level."

"I think it would be easy to use lack of time as an excuse, especially if you are very busy with the kids. But then it might be a good idea to choose one topic at a time. It takes less time instead of talking about everything and at least your reach a conclusion."

F5 NOTES USER TEST 3

The participants were sitting across of each other. One person started reading aloud while the other person was listening and already started playing with the building elements. They did not read all the information of the information booklet, but decided to proceed with the guide cards. The interview afterwards revealed that one participant would have liked to read everything, but let go because the partner did not want to. That participant stated that they never read instruction booklets, for instance for games such as Monopoly.

The trigger card worked very well. They expressed that it was very interesting to guess the story behind the trigger card by observing and making assumptions about what is happening. It introduces a playful element. This also involved linking all components in the trigger card together. They started talking from a first-person perspective, as if they were the people in the picture.

"I see a seringe. For who is it? Is someone sick? I only see you in bed, maybe I am at work. Maybe I am on parental leave. In that case, I am clearly doing something else because I am not here. Maybe I am getting you medicine."

They were able to choose a topic and relate that back to their own upbringing. Both participants ended up

focusing on what they did not appreciate and started talking about how that impacted them as children.

"I wouldn't want to start my own company, because that comes at the expense of the family. I experienced that with my own father. He was not there very often. It must hurt if a child says they prefer one parent over the other. I don't want to be that parent."

Step 1 and 3 were combined and some elements from step 5 were already being discussed.

When going through the guide cards, they kind of let go of the topic.

They did not immediately recognize the whiteboard qualities of the building elements.

With the emotion dice it was not clear who should have experienced that emotion, if that emotion was supposed to be felt during the experience or now, when thinking back.

During the conversation they referred to the theory mentioned in the information booklet.

"The booklet states that you often do what your parents did, but I really don't want to. I probably will because I am used to it. But if I do, you should tell me, okay?"

It was not clear what component to start with. That also had to do with the location of the watermark. You would normally expect the step to be in that space.

The steps were very clear. The guestions were very clear and the guide cards were very structured.

The communication was different than normally. We are used to talking through stories.

"At first, I was not sure if I chose the right story, because it was a very strange experience. But because I build it, I could place it better. I could see where I stood in the story. I am not sure if I would have had that if I had just told it."

"I don't think the stories really matter, as long as they contribute to the upbringing of our children. The topics are probably just to start the conversation."

The trigger cards help the participants share stories they would not necessarily share otherwise.

The question "What do you appreciate...?" was not completely clear. They now answered what they appreciated about the communication, but it could also have meant that they were supposed to answer what they learned about each other and what they appreciated about that.

If they hadn't had agreed, they would have liked to be able to pause the process. not everything can be solved in one session and it might be helpful to come back to it later. Now it seems as if everything should be done in one session.

"Now the stories were mainly fun because we kind of have the same opinion, so it just taught us things about each other. I think they become more essential if you have a different opinion because then it really helps in understanding each other."

F6 USER TEST 4

Notes from this user test have been omitted from the report due to privacy reasons.



IDE Master Graduation

Project team, Procedural checks and personal Project brief

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

- The student defines the team, what he/she is going to do/deliver and how that will come about.
- SSC E&SA (Shared Service Center, Education & Student Affairs) reports on the student's registration and study progress.
- IDE's Board of Examiners confirms if the student is allowed to start the Graduation Project.

USE ADOBE ACROBAT READER TO OPEN. EDIT AND SAVE THIS DOCUMENT

Download again and reopen in case you tried other software, such as Preview (Mac) or a webbrowser.

STUDENT DATA & MASTER PROGRAMME

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family name	Mooij	Your master program	nme (only select the options that apply to you):
initials	J. given name Jeanine	IDE master(s):	IPD Dfl SPD
student number	4359534	2 nd non-IDE master:	
street & no.		individual programme:	(give date of approval)
zipcode & city		honours programme:	Honours Programme Master
country		specialisation / annotation:	Medisign
phone			Tech. in Sustainable Design
email			Entrepeneurship

SUPERVISORY TEAM **

** chair ** mentor	Dr. ir. A.G.C. van Boeijen MSc. M.A Gielen	dept. / section: dept. / section:	HCD/DA HCD/DCC	•	Board of Examiners for approval of a non-IDE mentor, including a motivation letter and c.v
2 nd mentor	organisation:	country:		•	Second mentor only applies in case the assignment is hosted by an external organisation.
comments (optional)				•	Ensure a heterogeneous team. In case you wish to include two team members from the same section, please explain why.

Chair should request the IDE

APPROVAL PROJECT BRIEF To be filled in by the chair of the supervisory team					
chair <u>Dr. ir. A.G.C. van Boeijen</u>	date	<u> </u>	-	 signature _	
CHECK STUDY PROGRESS To be filled in by the SSC E&SA (Shared Service Continuous The study progress will be checked for a 2nd time)				fter approval of t	he project brief by the Chair.
Of which, taking the conditional requirements					year master courses passed 1 st year master courses are:
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To be filled in by the Board of Examiners of IDE TU Next, please assess, (dis)approve and sign this Pro					ne parts of the brief marked **
 Does the project fit within the (MSc)-programme the student (taking into account, if described, activities done next to the obligatory MSc specourses)? Is the level of the project challenging enough the MSc IDE graduating student? Is the project expected to be doable within 10 working days/20 weeks? Does the composition of the supervisory team 	the cific for a	Proce		APPROVED APPROVED	NOT APPROVED NOT APPROVED
comply with the regulations and fit the assignment of the complex comply with the regulations and fit the assignment of the complex co			<u>-</u>	signature _	comments
IDE TU Delft - E&SA Department /// Graduation pour Initials & Name J. Mooij	roject brie	ef & study	overviev	ū	Page 2 of 7

Title of Project <u>Intercultural Parenting: Coping with Culture-Related Stressors</u>



<u>Intercultura</u>	l Parenting: Coping witl	ո Culture-Related Տ	tressors	project title
				' '

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

start date <u>04 - 03 - 2021</u>

<u>25 - 08 - 2021</u> end date

INTRODUCTION **

Please describe, the context of your project, and address the main stakeholders (interests) within this context in a concise yet complete manner. Who are involved, what do they value and how do they currently operate within the given context? What are the main opportunities and limitations you are currently aware of (cultural- and social norms, resources (time, money,...), technology, ...).

Over the last decades, globalization has accelerated (Anderson and Obeng, 2020). One of the effects of globalization is that it stimulates interaction between people and countries all over the world. With increasing opportunities for interaction between people of different cultures, the likelihood of developing an intercultural relationship has increased (Bustamante and Nelson, 2011). In this project, an intercultural relationship is defined as a relationship between two people representing different ethnic groups, while being aware that people can belong to more (sub)-cultures at the same time (Gudykunst, 1994).

Couplehood is often seen as a transitional stage on the way to starting a family (Cools, 2015). This project will explore how intercultural couples communicate and make decisions concerning parenting. Raising bi-cultural children comes with a lot of joy and richness. Often, the children learn multiple languages which permits them to communicate with friends and family from both sides. It also provides a greater number of festivities and tradition and often there is more traveling involved because of extended family abroad. Long term, growing up with input from multiple cultures teaches children to be more culturally sensitive, but also that things can be done and though about in multiple ways (Cools 2015).

Inter-cultural parenting can also be challenging. Most relational differences arise during the child-rearing phase (Crippen and Bew, 2013). According to Cools (2015) "Raising children is the real check of how well a couple has learned to handle their many differences; with children all the issues surface and must be confronted".

Individual cultures share universal values with regard to parenting, e.g. to nurture and protect (Bornstein 2012), but each culture also has its own unique beliefs and values. Values represent affective beliefs and they are basic assumptions about how we should deal with each other. All relationships come with conflict, but intercultural relationships experience added stressors due to the probability of having different personal values being much higher. We become emotional when our values are enabled or inhibited (Trompenaars and Hampden Turner, 1998). Intercultural parenting involves ongoing negotiation of family and cultural boundaries.

Conflicts between parents can lead to emotional disturbance in children and diminished quality of parenting (Bhugun, 2017), but also negatively influence the relationship between parents.

space available for images / figures on next page

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Initials & Name	J. Mooij	Student number 4359534		
Title of Project	Intercultural Parenting: Coping with Culture-	Related Stressors		

introduction (continued): space for images



image / figure 1: My parents: Indian mother and Dutch father (year unknown)

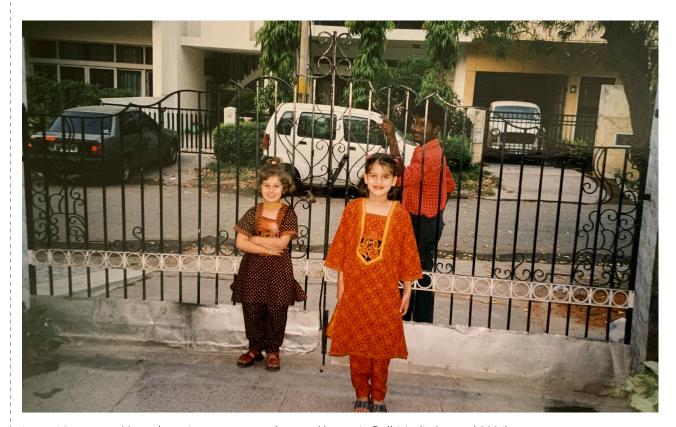


image / figure 2: ___ Me and my sister at my grandparents' house in Delhi, India (around 2004)

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Initials & Name J. Mooij Student number 4359534

Title (IR in the Internal Page 4 of 7)



PROBLEM DEFINITION **

Limit and define the scope and solution space of your project to one that is manageable within one Master Graduation Project of 30 EC (= 20 full time weeks or 100 working days) and clearly indicate what issue(s) should be addressed in this project.

"Perhaps the most important thing that a parent does for their child is determine the culture into which that child is born." (Weisner, 2002).

Current research into inter-cultural parenting has been mainly done from a systemic point of view in the field of family therapy, concluding with implications for health professionals. Several examples are frameworks for health professionals to understand inter-cultural couples (Crippen and Brew, 2013); (Bhugum 2017), strategies for them to guide conversation between inter-cultural parents (Crippen and Brew, 2007), strategies to help couples reframe their family culture (Bustamante and Nelson, 2011), as well as identifying negation strategies that parents have come up with themselves (Bustamante and Nelson, 2011); (Crippen and Brew, 2007).

These health professionals have the challenge of discovering similarities, uncovering strengths and building areas of consensus. However, health professionals are usually sought out when a couple can no longer solve their own problems, after already experiencing a significant amount of conflict. Research argues that it would be more valuable to intervene in the early stages of parenthood (Glade, Bean and Vira, 2005).

Thus, a promising opportunity would be a design solution that inter-cultural parents can use in the context of their home, without support of a health professional and before clinical interventions become a necessity, as many people will not seek therapy unless there is a high need (Glade, Bean and Vira, 2005). This will lead to both parents and child (ren) being able to cherish the richness that sharing multiple cultures can bring.

ASSIGNMENT**

State in 2 or 3 sentences what you are going to research, design, create and / or generate, that will solve (part of) the issue(s) pointed out in "problem definition". Then illustrate this assignment by indicating what kind of solution you expect and / or aim to deliver, for instance: a product, a product-service combination, a strategy illustrated through product or product-service combination ideas, In case of a Specialisation and/or Annotation, make sure the assignment reflects this/these.

The goal of this project is to design a product, approach or tool that facilitates communication between inter-cultural parents in the safe context of their home so that shared values regarding childrearing can be identified and put into practice.

Research shows that people in inter-cultural relationships might be more alike than different in their beliefs and that these similarities should be highlighted (Bustamante and Nelson, 2011).

Research questions are:

- 1) What are the needs and values of inter-cultural parents regarding upbringing?
- 2) How do parents communicate with each other about the upbringing of their children?
- 3) What are the main culture-related stress factors that these parents experience?
- 4) What are current negotiation strategies on parenting that inter-cultural parents apply?

The main design question is:

5) How can design support inter-cultural parents with identifying and communicating their personal values with regards to parenting?

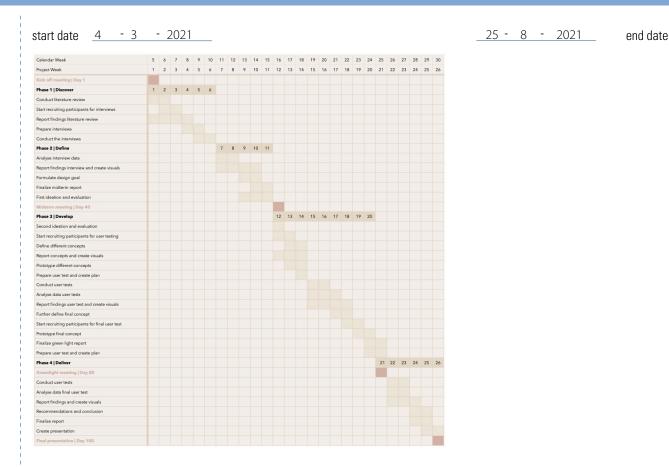
Part of this project will be finding tools and methods that can bridge the gap between the qualitative research outcomes and my design solution. Possible directions/fields are Positive Design and Storytelling.

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Title of Project	Intercultural Parenti	ng: Coping with Culture-Related Stressors	



PLANNING AND APPROACH **

Include a Gantt Chart (replace the example below - more examples can be found in Manual 2) that shows the different phases of you project, deliverables you have in mind, meetings, and how you plan to spend your time. Please note that all activities should fit within the given net time of 30 EC = 20 full time weeks or 100 working days, and your planning should include a kick-off meeting, mid-term meeting, green light meeting and graduation ceremony. Illustrate your Gantt Chart by, for instance, explaining your approach, and 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 activities.



This project will be done part-time due to ongoing recovery from a burnout. I will start with 3 days a week and build up to 5 days a week. This has been discussed with both my supervisors and the academic counsellor.

For this project, I will conduct both primary and secondary research. Within literature, I will look at culture in general and positive design theories, cross-cultural parenting, intercultural parenting and various strategies that are used to facilitate communication in (intimate) relationships. This initial research will provide background knowledge of the topic so that the scope of further research can be more focussed. After this, I will conduct field research. I will conduct contextmapping sessions to understand the needs and values of intercultural couples concerning parenting. Insights gathered during both the literature review and the field research will help define a specific design goal. Various concepts will be tested through an iterative approach and a final concept will be evaluated with the target group in the chosen context. These steps can differ slightly depending on the insights gathered during the initial research phase.

At the end of this project, I will deliver a concise report, supported by clear and communicative visuals, a physical and/or digital prototype and a final presentation. The final presentation will be supported by either a poster or a video, which will be determined later in the project based on the value it gives to the final outcome. The project will also provide detailed qualitative insights that can be used as a starting point for further academic research.

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MOTIVATION AND PERSONAL AMBITIONS

Explain why you set up this project, what competences you want to prove and learn. For example: acquired competences from your MSc programme, the elective semester, extra-curricular activities (etc.) and point out the competences you have yet developed. Optionally, describe which personal learning ambitions you explicitly want to address in this project, on top of the learning objectives of the Graduation Project, such as: in depth knowledge a on specific subject, broadening your competences or experimenting with a specific tool and/or methodology, Stick to no more than five ambitions.

This project is close to my heart, having been brought up by a Dutch father and Indian mother. Many of the struggles that are described in literature have been part of my upbringing, for example, the tendency of intercultural couples to prioritize the host-culture (in my case the Netherlands). Many of the relational struggles my parents had were due to different expectations and conflicting goals for me and my sister. Realizing the lasting impact this has had on me serves as a huge motivator to tackle the problem and to shift focus from negative effects of intercultural parenting to the positive experience it could provide.

The project touches upon multiple themes that fit me as a designer: creativity, visualization, user-centred design approaches and a diverse target group with many underlying values. The main competence I want to develop is the ability to make sense of a huge amount of qualitative data from many different types of people by utilizing various culture sensitive design approaches. I will remind myself to be aware of any blind spots I might have and be open to any experiences other than my own, since I have my own assumptions having grown up with intercultural parents. Another competence I will be working on is the use of functional prototypes; from low fidelity prototypes during the research phase, to high-fidelity prototypes in the evaluation phase. Prototypes are an efficient tool to collect stories from your users (van Boeijen and Zijlstra, 2020), which can enable me to come to a better and more meaningful design solution. A final competence is to create a strong and visual report. I want my visuals to be communicative and inspiring and the report should be concise to clearly convey insights gathered during the project.

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