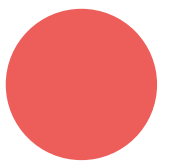


# PLAYFULLY CRACKING CULTURES

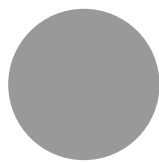
Master thesis by  
Lucas de Jong de Abril







# PLAYFULLY CRACKING CULTURES



Master thesis by  
Lucas de Jong de Abril  
19 July 2019

19 July 2019  
Delft, The Netherlands



Master Thesis for MSc Design for Interaction  
Faculty of Industrial Design Engineering  
Delft University of Technology

Chair: **Annemiek van Boeijen**  
Mentor: **Valentijn Visch**  
Client: **Fons Trompenaars**



This project has been commissioned by  
Trompenaars Hampden-Turner Consulting

DISCLAIMER:  
All faces depicted in this report are used to personalise  
fictional characters

**Lucas de Jong de Abril**  
4367502

# ABSTRACT

Cultural differences in the business world are often met with surprise and irritation. The aim of this graduation project was to create a persuasive game design that teaches managers in an international context how to work with cultural differences. For this, the game makes use of the the cultural theoretical model that was created by Fons Trompenaars and the most extensive database on cultural values. Through interviews and context research was concluded that managers want to learn personalised and pragmatic knowledge in a quick time frame that can be easily translated to the business domain. The game should be played individually and in preparation before the cultural encounter. After a brainstorm and showing my initial ideas to possible end-users was concluded that a boat travel narrative was most accessible, and a playthrough was worked out. Multiple visual styles were explored for the design resulting in three visual concepts. These were evaluated on scalability and through paper prototype tests. The chosen concept was slightly altered to become the final concept. A minimum viable game (MVG) has been created based on the Italian culture that takes managers through a narrative in which they have to travel to an island. During the journey they receive tips about culture and on the island they have a simulated meeting with three Italians, each having a slightly different culture based off the Italian culture. This MVG has been evaluated with the target group within a limited scope to confirm that the firstly described goal of the game had been reached. Finally, the project closes with future recommendations for the game.



# ACKNOWLEDGEMENTS

Many people have supported me throughout the project and I would like to express my gratitude to them.

First, a huge thanks goes to my chair Annemiek van Boeijen and mentor Valentijn Visch for their guidance by lending me their expertise and giving me insightful and useful feedback.

I would like to thank Fons Trompenaars for allowing me to work on his project and granting me access to his vast network of business associates, and Phyllis Stewart for her availability and helping me connect to the network. I would also like to thank Fanni Fejes, Gulayi Burunacik and Marie Megden whom I had the pleasure of sharing the office with and who gave me feedback as well.

I would like to thank all the c-level executives and managers from the companies with whom I had the pleasure to speak.

I would like to thank the countless amount of people that I have spoken to and shared my project with.

Finally, I will express gratitude to my family for patiently supporting me and giving feedback when I asked them to criticise my ideas during this project.



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# PREFACE

## Love on the first read

About eight months ago, I remember that I was walking upstairs through one of the hallways of the faculty to meet with a professor of mine. While walking, I was scanning the walls of the corridor as they are always well-decorated with posters of interesting projects. Then, one project brief particularly caught my eye: “Playfully Cracking Cultures”. So, I stopped and started reading.

It started off by describing a company, called Trompenaars Hampden-Turner Consulting. This company is a prominent player in the culture for business scene. The aim is connecting different cultural viewpoints between people and also companies. I was intrigued.

I have grown used to cultural encounters between nationalities as I am half-Dutch and half-Spanish. During the bachelor and master I have also had the pleasure of working with many different nationalities. I have seen many students work on projects in all kinds of ways (in their planning, listening to mentors, communication between team members, sensitivity in design, etc.). Comprehending where people are coming from and their values can be hard and I would like to explore this area more. I am motivated further by the expectation that this will be important for me in the future, as I expect to work in many international teams.

The next section introduced the project; the company wanted to create a digital mogame about working with different cultures. Fittingly, I had been working as a game designer over the past year for different gamification projects and serious games, during extra-curricular activities and for my internship. I would like to continue working on similar projects in the future. The reason I got interested in this project in particular was the connection with the business world. I had never worked with a target group in the business context before. I was especially interested in learning how to design a game for them by doing. This software driven project is a great environment, since it allows for a highly iterative process with much testing and end-user input. Besides, I have spent a lot of time programming outside of university, which I could use and already have used in past projects to build prototypes and MVP(s). This project will thus give me the freedom and allows me to use the tools to explore gamification further for this new target group.

Finally, after reading the project brief I felt that I had grown a smile on my face. I was alone in the hallway smiling at the poster. Then I remembered again that I was going to meet with my professor, so I snapped a picture of the project brief and left. Fortunately, I was still on time for the meeting.

**PROJECT BRIEF**



**DESIGN GOAL**



**IDEAS**



**GAME NARRATIVE**



**VISUAL CONCEPTS**



**FINAL CONCEPT**



**EVALUATION**

# INTRODUCTION

This report will present the design process for a persuasive game about cultural differences.

Due to the nature of this project, I have chosen to use two methodologies to compose the planning; the Double Diamond method (UK Design Council, 2005) and the Cookbook Method (Siriaray et al., 2018).

The Double Diamond method guides the diverging and converging process that any design project goes through, and thus kept me on track of when certain design decisions had to be made.

The Cookbook Method is specifically made to guide the persuasive game design process, which fits the description of this project. The methodology was therefore used for its suitable terminology and proposed game design tools at each step of the process.

As with any project, I did deviate from the initial planning. So in the spirit of the planning but altered to fit the content, I have created a new structure for this report.

## REAL WORLD

The first phase of the report will explore the client, market and user to define the specific design goal of this project.

## GAME WORLD

In the second phase ideas are generated to define one fitting game narrative.

The game narrative is explored visually and interactively through three concepts.

One concept is chosen through the weighted objectives method and paper prototype testing. The final concept is worked out into a digital minimum viable game (MVG).

## FINAL EVALUATION

In the last phase, the MVG is tested in a final evaluation and future recommendations are given.



# REAL WORLD

This phase will focus on exploring the current situation. It will be categorised in exploring the client through literature research and expert sessions, the market through online research, and the user through interviews and questionnaires. The gathered insights are used to kickstart the design phase.



# The client

The first chapter will focus on exploring the client. It will introduce the company and its challenges. These challenges will be reframed into a goal for the project. By exploring the theory a viable design goal within a feasible design scope is then created.

## 1.1. The company

Trompenaars Hampden-Turner Consulting (THT Consulting) is a consulting agency specialized in cultural awareness and competence. The company consults its clients to learn about cultural differences between countries and how to reconcile business dilemmas based on "The Seven Dimensions of Culture" that were created by Fons Trompenaars; as described in his book "Riding the Waves of Culture" (Trompenaars & Hampden-Turner, 2015). This theory stands firm on vast and thorough research, which resulted in "the world's most extensive database on cultural values, corporate culture and business dilemmas of approximately 140,000 international leaders and managers".



*Fig. 1: The founders of THT Consulting: Fons Trompenaars (left) and Charles Hampden-Turner (right)*

Besides direct consultation work, THT Consulting offers their knowledge in three other ways: Keynotes, Licensee trainings and Tools (digital applications and books).





Organization are employees, managers and C-level that make use of the consulting, licensee trainings, keynotes and tools.



Individuals are freelancers or people that generally interested in the topic and make use of tools and licensee trainings.



Education are students and professors that make use of the keynotes and licensee trainings or courses.

*“Trompenaars Hampden-Turner works to perfect the integration between human (values, attitudes and potentials) and organizational factors (structures, systems and processes) that arise from differences in national, organizational, functional, disciplinary and cultural orientations that play a central role in the sustainable growth and performance of every organization.”* The main goal of the company is to spread the theory and acquired information to as many people as possible while making a financial profit. Their target audience for this can be categorized in three groups: Organization, Individuals and Education.

### *The company's challenge*

Impeding their goal is the limited accessibility to their intellectual property. The impressive database could become a powerful learning resource, but it is currently not that accessible to the public. Instead, the company's major outlet is Fons Trompenaars himself. People want to hear from him directly, as he is the face of his theory. He therefore brilliantly consults, presents the keynotes and hosts the licensee trainings himself by flying all over the world. This strategy is effective to the people he reaches, but greatly limits the amount of people he reaches with his knowledge and thereby limiting its accessibility.

This challenge has been tackled numerous times and in various ways. He has had more than 20 consultants working for him simultaneously, he has merged with KPMG (twice), he has created 22 applications, e-books and videos. Finally, he approached TU Delft for the creation of a persuasive game; resulting in this project.

## 1.2. The project

I can extract two objectives for this project out of the company analysis:

### Easily reached

To make the theory more accessible.

### Efficiently reached

To make the theory able to stand independently.

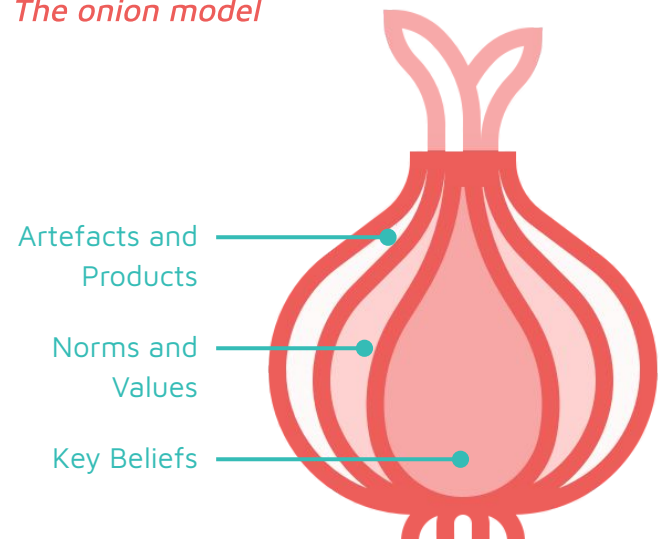
This is what the company would like to achieve with the game that will be designed. The final design should therefore support or, more extremely, replace the work that THT Consulting provides. This in turn means that the game will target the same challenges as what is being solved by applying the theory and knowledge from the database.

So, this phase will focus on finding the best design goal for this project based on the company goal. It will do this by researching the theory, the current market and the target group.

## 1.3. The theory

I will briefly explain the theory through the insights that I have gathered from the book (Trompenaars & Hampden-Turner, 2015) and the licensee training that I have done.

### *The onion model*



A culture can be seen as an onion of three layers. The outer layer is the visible layer that contains all products and artefacts that represent deeper layers of that culture. The next layer is that of values and norms, which will be actively used to determine and separate the good from the bad, and right from wrong. The final most inner layer is that of basic assumptions; these are key beliefs of a culture that are not actively thought about but just exist.

### *The context of our thinking*

As written in their book, THT Consulting explains culture as “the way in which a group of people solve problems”. People from all cultures share the same dilemmas during their lifetime, but how each individual approaches these is culturally determined.



*Fig. 2: Fons Trompenaars is presenting during the licensee training*



### *The 4-R approach*

The work that THT Consulting does is all based on the 4-R Approach as described in the book. Each R represents the next step in the process towards solving a dilemma. The first step is recognition, which is to increase awareness of the cultural differences and what they could mean in the current context. This step makes you aware that culture determines the way people approach dilemmas, and that there could be multiple desirable strategies. The second step is respect, which is to appreciate these cultural differences and accept that people approach things differently. The third step is reconciliation, which is to solve the dilemma by understanding both cultures and finding an approach that would please both cultures. The final step is realization, which is to implement the reconciled approaches in a multicultural setting.

The 4-R Approach has been created to specifically target managers and help them solve dilemmas to reach an effective outcome in the business context.

***“Leadership is about reconciling dilemmas”***

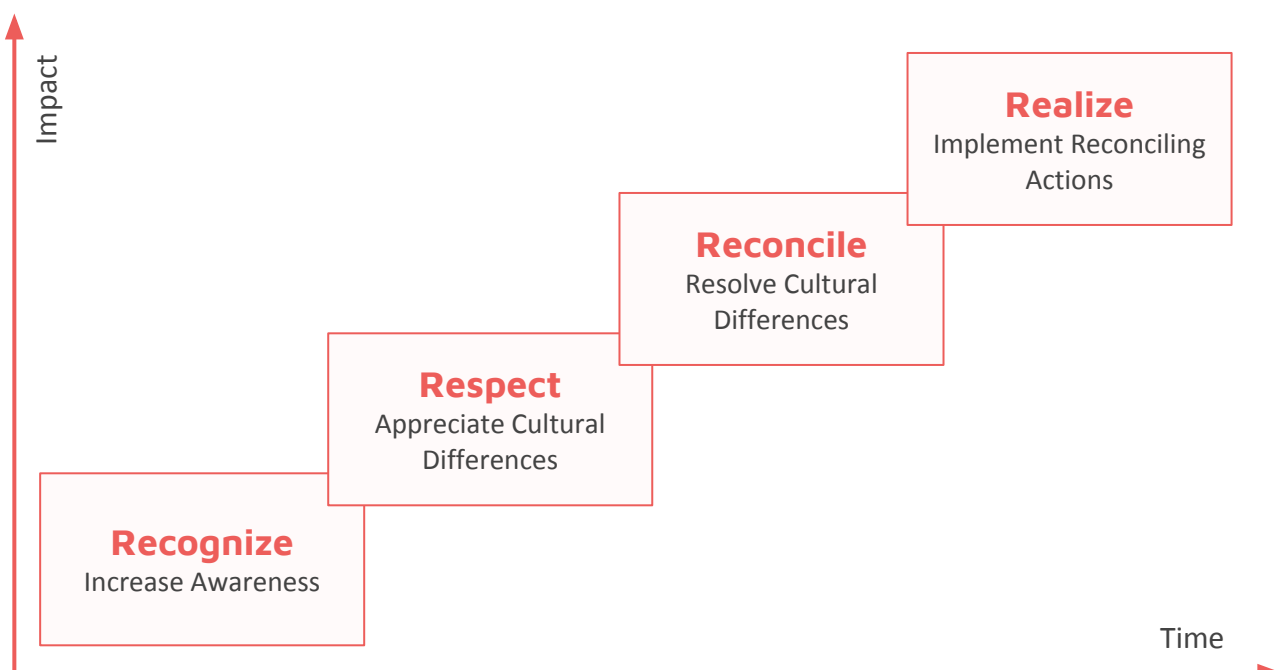
*Fons Trompenaars*

### *Reconciling dilemmas*

The 4-R Approach can be gone through in an easy-to-follow seven step process. The first step to successfully reconcile a dilemma is determining whether a dilemma is present. A dilemma consists of two opposing but both desirable propositions, almost always with opposing stakeholders. It can be framed as “on the one hand..., while on the other hand...” Reconciling is the act of using both opposites to strengthen each other and ending up with a synergetic strategy that is desirable to all parties.

### *Intercultural Competence Profile (ICP)*

The ICP is an online tool developed by THT Consulting that can be used to assess intercultural competence. Basically, upon answering questions the tool will create a personal ICP based on how able you are in each step of the 4-R Approach.



### *The Seven Dimensions of Culture*

At the heart of the THT ideology lay the seven dimensions. Chapters 4 to 10 in the book describe how cultures can be split up into seven cultural dimensions. Five of which are based on relationships with other people, one is in relation to time and one is in relation to the environment. Each dimension is based on two opposing extreme beliefs. Every existing culture has a place in between those two extremes on all seven dimensions.

### *Corporate culture*

As THT Consulting is focusing their theory on business. Besides the cultural dimensions, they have defined four different types of corporate cultures. These closely relate to national cultures, but they will not be explored here as this project will not be covering them.

#### *Universalism vs Particularism*

Universalists believe that rules should be followed no matter what situation as that is the moral standard. Particularists believe that every circumstance should be treated differently.

#### *Individualism vs Communitarianism*

Individualists see themselves as one person and will take care of only themselves and close others. Communitarianists see themselves as part of a group and will put the group before the individual.

#### *Specific vs Diffuse*

Specifically oriented people see the whole as a sum of its parts, they will separate their life at work from their personal life. Diffusely orientated people see every part as part of the whole, they will easily mix work and personal life.

#### *Neutral vs Affective*

Neutral people control their emotions and will try to not show their feelings. Affective people freely express their emotions.

### *Intercultural Awareness Profile (IAP)*

This is a tool developed by THT Consulting. The full IAP consists of a 57 questions, which determine your personal cultural profile and corporate culture upon answering. The “shorter” version consists of 43 questions and will create a personal cultural profile, but no corporate culture profile.

### *Achievement vs Ascriptive*

Achievement oriented people put value on what you have achieved in life. Ascriptive oriented people put value on what you are; e.g. old, male and highly educated.

### *Time*

Past oriented people perceive the future as repetition of the past. Present oriented people believe that present actions steer life. Future oriented people deem that actions are always directed towards future outcomes.

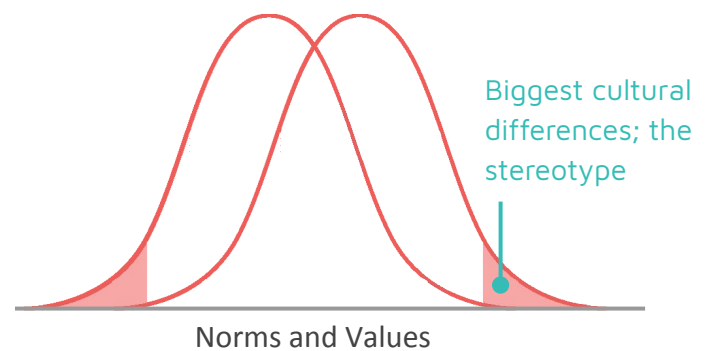
Sequentially oriented people structure their time orderly one action after another, tightly planning all events in series. Synchronic oriented people structure their time in parallel, they are renowned multitaskers as many things can be happening at once.

### *Internal vs External*

Internally controlled people believe that they control where they are heading. Externally controlled people believe that it is not up to people but the environment plays a bigger part.

### *Gaussian cultures*

As mentioned before, the cultural dimensions are backed by an extensive database. At the time of publication of the book, the database contained data from 80,000 participants of 140 countries. This data was acquired through questionnaires and then categorized per nationality. Unsurprisingly, not every person from the same culture had the exact same score on every dimension; as not every person from the same nationality would have the same norms and values. It did however show a normal distribution around one average. This average can be seen as the most predictable behaviour of a culture.



### *Stereotypes*

This average representation of a culture is notably not the stereotype however. As mentioned in the book as well, stereotypes are extreme behaviours. Extreme behaviours from one culture that are easily distinguishable from other cultures can be used to characterise (stereotype). If you place two cultures in the same graph, you could see that most norms and values overlap. The points where they do not overlap are the cultural differences, these are used to create stereotypes. Most of the time these extremes are further enlarged to emphasize the difference. National stereotypes could therefore be described as the exaggerated cultural differences from a nation. Mind the word ‘differences’, meaning that a stereotype can only exist in relation to another culture.

## Conclusion

To summarize, the theory consists of explaining cultural differences through the seven dimensions. This cultural model helps to frame dilemmas and can be used to successfully go through the 4-R Approach, which will end up in the implementation of approaches that benefit all parties involved in a business context.

The problem of the target group is therefore not knowing how to solve the dilemmas that they face with other cultures, as they do not understand other cultures. The root problem of the target group can be defined as not knowing how to interact with other cultures. This problem can be seen as the design challenge.

## 1.4. The design

In conclusion, the game should offer people help to interact with other cultures in the business context through the 4-R approach.

### *Defining the design scope*

To be able to end this project within the given timeframe, the design scope has to be narrowed down.

The design goal that has been stated contains three broad elements that make the design goal too complex (I am calling them elements and not dimensions to avoid confusion with the cultural dimensions). The elements are the types of culture, the types of help and the target group. To make the project feasible, each will be defined in more detail.

### *Types of culture*

The concept of culture can be approached in various ways and on different levels. Inspired by the onion model, for this project I will define culture as the collection of key beliefs, norms and values, and artefacts and products that people adhere to.

The onion cultures in question are in this case created by taking the average cultures of countries based on the database of THT Consulting; and will be referred to as national cultures.

Most commonly cultures are described between countries, but other important types of culture are gender, generation, religion and corporation. Even though these can all be of relevance to the target group, only one type of culture has been chosen. Besides the time limit, this cultural type limitation can positively be seen as focus, which will make the game more understandable and accessible.

### *Types of help - The 4-R approach*

The type of help can be grouped according to the 4-R Approach. Having established that national cultures will be discussed, the lowest level would be to recognize the national cultural differences. The first step will be to put the user's culture against one other culture, the user can then be helped by understanding another way of thinking through the cultural differences. The user will therefore be sensitized and avoid being surprised by responses.

The next level is respect. The user could be helped on this level by accepting the cultural differences. If the game were to stop here it would serve to show the user how to adapt and prevent unwanted outcomes.

Next is reconciliation. On this level the user will need to take both cultures into account and work on a specific dilemma. We have covered this step during the licensee training and it is a hard process to go through. The added complexity here comes from the introduction of a dilemma and finding a solution. Completing this step will allow for thinking about an implementation of the reconciliation, which is the final level.

Because no specific dilemma is introduced, the game will help up to the respect level. In this way the game provides depth, but stays accessible to the target group.

### *Target group - Business people*

As mentioned before, THT Consulting emphasizes on cultural differences and dilemmas in the business context. The business context is defined here as an environment in which activities are done to make a financial profit. The ultimate goal of knowing how to interact with other cultures is therefore the financial prospect. THT Consulting uses its theory to smoothen business activities and relationships in a multicultural setting. They hereby target the three previously mentioned audiences of Organization, Individual and Education.

In this project I will focus on their biggest client and the focal point of their theory, which are managers inside organizations.

### *Transfer effect*

As mentioned in the introduction of this report, this project follows the Cookbook Method as composed by Siriaray et al. (2018). It preaches that the objective of any persuasive game is to deliver the transfer effect. Each transfer effect is based on four different elements; the effect type, the change type, the point of impact and the domain. Within the newly defined design scope, the desired transfer effect should be ***to teach managers how to work with other nationalities in the business context by eliciting their personal cultural differences per nationality***; allowing him or her to adapt. In this case, the effect type would be to improve performance of working with other nationalities, the type of change would therefore be to alter managers' cognitive behaviour by teaching them about working with different cultures specific to the business domain. The point of impact of this effect should take place during gameplay. Besides the four usual elements I have included the target group and the design scope in the transfer effect, as these are crucial points to take into account.



# The market

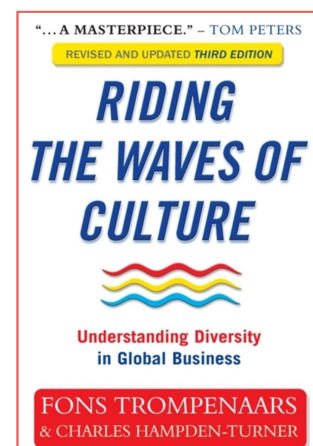
This chapter will explore the current collection of tools in the market that could compete with the design. They are categorised into books, an ebook, webtools and personalised tools. The insights are used to find out how the design could differentiate itself.

## 2. The market

The current market provides many ways to deliver the transfer effect. These solutions are based on different studies; as multiple theories have been developed about culture over the years. The most relevant publications to the stated problem and most similar to the work of THT Consulting are those by Geert Hofstede and Erin Meyer. Besides that, some other popular tools will also be discussed. The goal of this section is not to compare the validity of each theory, but to assess the previously mentioned accessibility through which they are presented and can be used by the managers in the business context. This section will thus go through the culture clash solutions as they are proposed by THT Consulting and its competitors; dwelling on the significant positives and negatives of each. Only standalone and/or supportive tools will be covered; no trainings, consulting or keynotes as these are considered to be in a different market. For that same reason, scientific papers will be neglected. They will be seen as indigestible tools in the business context; considering them inaccessible to the target group. Only the most pronounced examples will be covered as these will be the prominent alternatives to the game.

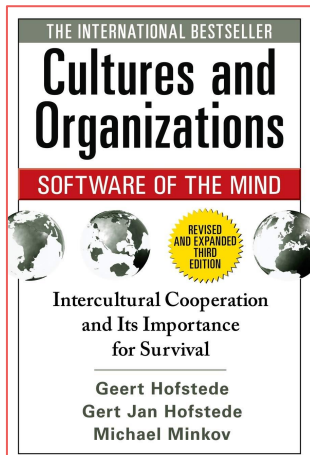
## Books

The first tool that can be used to understand cultural differences is a book written on the subject. The most relevant books to this project are “Riding the Waves of Culture” by Fons Trompenaars and Charles Hampden-Turner (1993), “Cultures and organizations: software of the mind” by Geert Hofstede (1992) and “The Culture Map” by Erin Meyer (2014). These books have sold hundreds of thousands of copies worldwide. As for the first two, they have been revised and updated over the years, so there will be referred to their more recent publications in the years 2015 and 2017, respectively. Each of the three books maps culture in multiple cultural dimensions and averages cultural differences on nationalities.

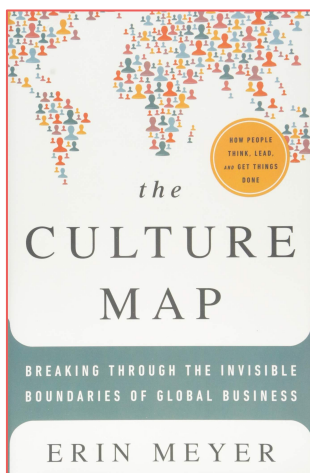


“Riding the Waves of Culture” provides the reader with detailed explanations of the cultural dimensions based on the business context. Each cultural dimension is explained in its dedicated chapter. Each chapter is illustrated with real-life case examples of business dilemmas based on the dimension, an overview of how most countries score on the dimension, a guideline for reconciling dilemmas based on the dimension, a test-yourself section based on an example scenario related to the dimension and finally a list of tips based on the dimension; explaining what readers can expect of each extreme in general, while doing business, and while managing or being managed.





“Cultures and organizations: software of the mind” poses Hofstede’s cultural dimensions and explains the effect of culture in different contexts (at school, work, home, etc.). Each context is illustrated with real-life examples. The book is written to explain culture in a more universal sense and eliciting its importance. After covering the cultural dimensions, the book dives into cultures in organizations.



“The Culture Map” is the most recently published book. As culture has become more of a known topic, the book is written on the assumption that people are aware of different cultures. Meyer provides her cultural dimensions as a tool of categorizing them. The book is focused on global business and working with cultures, which makes it relevant and accessible to the target group. The cultural dimensions are cleverly adapted to business words (egalitarian vs hierarchical, top-down vs bottom-up, etc.) to make it more understandable for her audience.

### Main insights

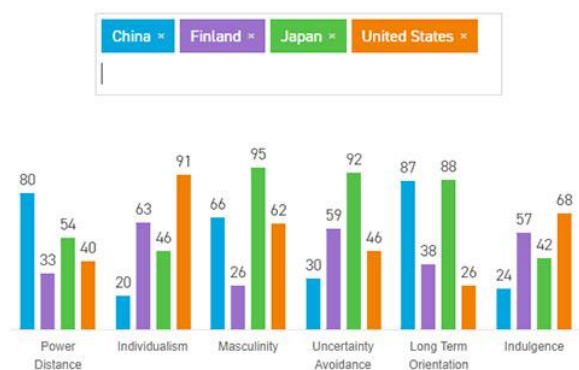
The overall advantage of these books against other tools is that they will provide managers with a complete and detailed explanation of the culture theories. The disadvantage is that they are hard to apply as they cover the theory on a more abstract level. The business practicality parts discussed by Trompenaars et al and Meyer will be more appreciated, but the book will be less likely to be used on a day to day basis for each small cultural encounter.

### Interactive ebook

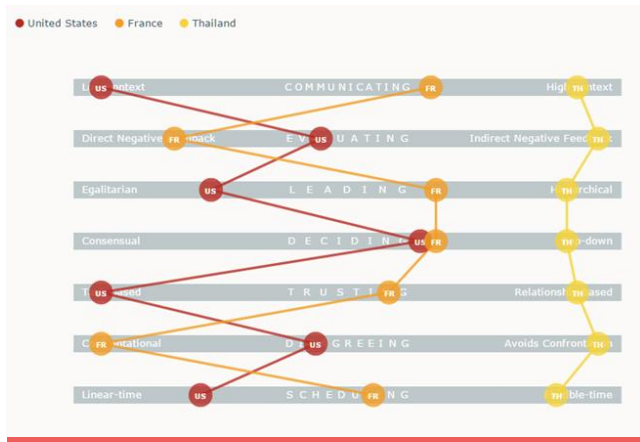
THT Consulting has released an interactive e-book on the web, which includes videos and taps that open up to more detailed explanation when clicked on. This e-book contains the same information as the paper book but will give the manager more control over selecting which content he or she is interested in.

### Mapping tools

Besides that, there are web applications that map countries on cultural dimensions.

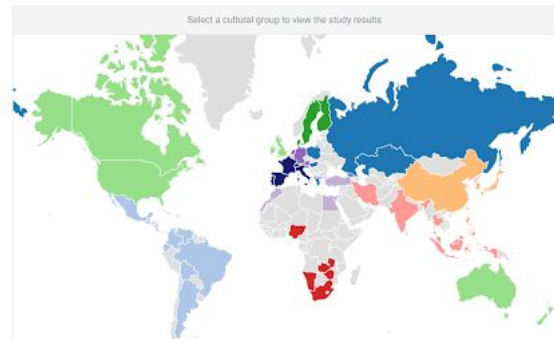


Hofstede’s country comparison allows you to compare up to four countries and provides users with a visual representation of each country per dimension. Beneath the graph, the cultural dimensions are theoretically explained as they are in his book.



Erin Meyer's country mapping tool allows users to compare three countries. Because the dimensions are phrased to business terms, they could be useful to managers if they want to easily compare which countries are more top-down etcetera. The tool itself does not provide more depth on what each dimension means. Additionally, this tool can only be accessed through payment and with a time limit; per day week, month, three months or year.

These terms are not explained in the tool, and each dimension is explained in one sentence. Without going into detail on what the GLOBE score means, this webtool is thus hard to decipher.



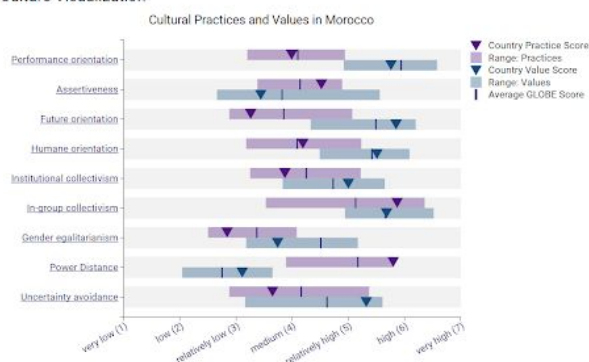
Latin Europe

Another service that the tool provides is being able to select culture groups (Eastern Europe, Latin America, etc.). When a region is selected, an additional written summary will explain whether they score significantly high or low for each dimension and with a brief explanation of what this means.

#### Morocco

Below are visualizations showing culture and leadership data collected for Morocco.

#### Culture Visualization

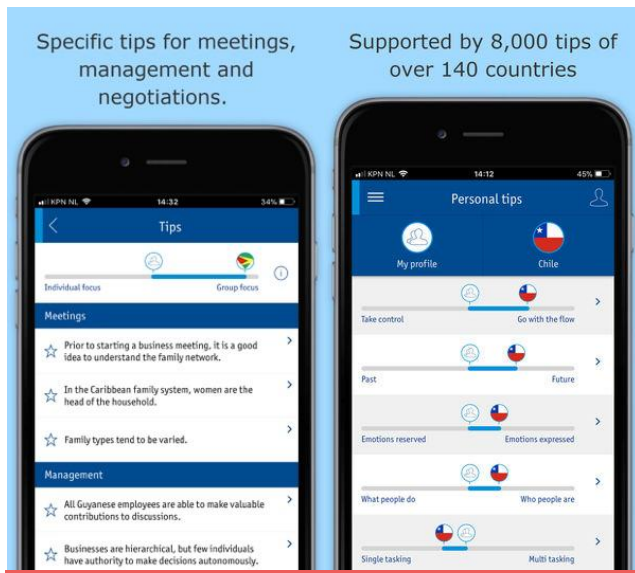


The not previously discussed GLOBE project also has a web tool based on their own cultural dimensions (GLOBE Project, 2019). Allowing users to choose one country at a time, out of a pool of 62 countries. The chosen country will be visualized similarly as the previous tools. Based on their research however, each dimension shows the average GLOBE score, the average country score and the range; once for values and once for practices.

#### Main insights

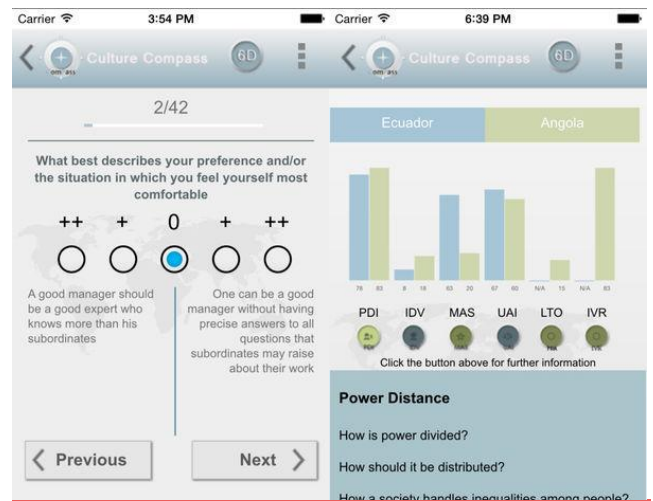
These mapping tools will provide a quick and shallow scan of the cultural differences compared to the books, but without direct pragmatic help. I would say that they are most helpful after already having some knowledge on the cultural dimensions, by for example reading one of the books. Besides that, they can only be accessed on a computer.

## Personalised applications



The most relevant application is the mobile “Culture for business” app by THT Consulting as it was the initial inspiration for this project. When users first open the application they will have to fill in a 14 question survey. This will create their personal cultural profile (similar to the IAP). Afterwards, they can choose one country out of 144 countries to which they can compare themselves. The cultural differences are displayed through the cultural dimensions by Fons Trompenaars. The dimensions are translated to attract more to the business world however, thereby making it more accessible to managers. Per dimension, an overview of tips is shown through three separate categories: meetings, negotiations and management; besides a more general explanation of the dimension. The users can also choose to compare two countries. They will have to choose from which country they will take the perspective of by placing it in the left slot. The tips will then be specifically based on the target country that is placed on the right; by even explaining common phraseology of the Japanese for example.

THT Consulting has 22 applications, but besides the “Culture for Business” app are only apps that are based on specific topics; one for mergers and acquisitions, one for management change, one for globalization, etc. The goal for each of these application is therefore very specific and shall not be discussed in depth.



Another mobile application is the “Culture Compass” app by Hofstede. This application is of course based on the cultural dimensions by Hofstede. Similarly to the “Culture for Business” app, users first set up their cultural profile. In this case however, the setup consists of 42 questions and choosing whether you are a subordinate, superior, negotiator, knowledge transfer, or visitor/student. Afterwards, the user receives guidance based on their profile in relation to one of 100+ countries. This guidance is not specific to the country, but to the cultural difference. Besides that, two countries can be compared which will provide the same information as his country comparison webtool, but this time with only two countries simultaneously.

Besides her Culture Map, Meyer also has a personal bundle version. This webtool uses her same payment method with a time limit as the normal Culture Map, but is a little more expensive. The tool is basically the same as the previously mentioned Culture Map, but you can add yourself to the comparison.

### *Main insights*

The personalised applications are useful as they are targeted specifically to the user's cultural differences with other countries. Additionally, the "Culture for Business" app provides tips specified per country instead of only basing it on the cultural differences. This application also provides practical tips based on meetings, negotiations and management which is relatable to managers. In the case of Hofstede, guidance is provided to managers if they have chosen the superior, negotiator or knowledge transfer role. Because the role is chosen at the beginning however, a manager that is both a superior and negotiator will have to go through the application twice.

### *Discussion*

Fons Trompenaars, Geert Hofstede and Erin Meyer are clearly competing for the same market, and each have their own competitive strengths in accessibility to managers. I shall briefly go through them.

The unique selling points that I can deduce for THT Consulting are the culture tips specific for each country. It makes it easier for non-academics to relate to national differences if there is context provided for each country besides seeing a short or long line on each cultural dimension. Besides that, the 4-R Approach is a strong suit. Geert Hofstede and Erin Meyer stop their theory at the cultural difference recognition and explanation. In THT Consulting's book the managers are provided with a way to use cultural differences and overcome them.

The final positive is the clear translation to business. Their application provides tips based on meetings, negotiations and management. These topics are relatable to managers and can be easily used to their advantage.

Meyer's strength are her dimensions. What I have noticed in all the discussed tools is that the cultural dimensions are pushed to the foreground. On an interaction level, this means that the managers will have to face the academic model before getting pragmatic tips and guidance. Meyer solves this by translating the dimensions to the managers' jargon, which makes it easier to comprehend and apply the cultural differences. This makes her visually represented Culture Map more accessible to managers.

Hofstede's strength is his selective range. He includes different roles in his application, making the application focus on the user. If a manager identifies with the superior role, he will choose the superior in his profile and always receive the needed guidance for this. This does sacrifice the accessibility of managers that have multiple roles.

### *Conclusion*

The final design should provide the user with personalised cultural tips. It should make use of the strong cultural tips of THT Consulting and their vision of preventing problems to surge from cultural differences. It should realise the same pragmatic translation from theory to the business context, by making use of relatable topics to managers, as Erin Meyer does.



# The user

In this chapter the user's world will be explored. It is explored through end-user interviews, an online survey and context research. Eventually the insights are used to create user personas, user scenarios and a timeline for the game that capture the determined desirability and preferences for the design.



### 3. The user

To understand the user more according to its needs and game preferences, I have conducted exploratory interviews with the target group.

#### Research questions

##### Transfer effect

What do participants think of the transfer effect including the design scope?

##### Game preferences

What are the participants' game preferences?

#### Materials

During the interviews, I will make use of PLEX-cards as proposed as one of the tools by the Cookbook Method to find out the game preferences. Each card consists of one of the 22 playful experiences (PLEX) developed by Korhonen et al (2009).

#### Method

I started every interview with a brief introduction of myself and the project. Afterwards, I lead with the question: "Can you explain who you are, what you do and give an overview of your career?", followed by: "Have you noticed any cultural differences in your work?". The rest of the interview was based on follow-up questions. At the end, I made sure that all topics had been covered. This interview took 30 minutes on average.

After the interview on the transfer effect had been completed, I asked them whether they play any games, and if so which ones. Then I explored their game preferences through a small exercise with the PLEX-cards. The exercise started by showing two cards next to each other and asking the participant which of the cards they would prefer as an experience for this game; think aloud while choosing. The one that is not preferred is taken away and replaced by the next card and the same questions is asked. If done correctly, the participant should end up with the most preferred PLEX-card. This card will then be taken out of the deck, and the exercise is repeated three times; forming a top three. The final step is to put all the cards on the table and ask whether they are happy with their choice or if they would like to change, and why. This exercise took about 15 minutes.

#### Participants

I have interviewed managers between 30 and 60 years old ( $N = 9$ ). All of them work with other nationalities and have encountered cultural problems. Eight out of the nine managers had between ten and thirty years of experience working as a manager in an international context. These will be referred to as the experienced managers.

The participants all worked in Dutch companies, but were of different nationalities, including American (LA), Argentinian, British, Dutch, Finnish, German, Indian.



Fig. 3: Four examples of the PLEX-cards as they were presented during the interviews

### *Current situation*

I was surprised by how educated the experienced managers already were on culture. They effortlessly gave detailed explanations of each nationality that they have worked with based on their cultural differences. All of them have stated that they have figured this information out over the years through trial and error. These experienced managers had no trouble giving examples of culture clashes that they have had with other nationalities (see user scenarios on page 23/24).

Half of them have said that because they are aware of the differences, they consult colleagues that have worked with a nationality beforehand. Two of them sometimes inform themselves through literature before they work with a new nationality. This knowledge has helped to avoid most of the surprises. None of them have ever actively looked for a digital tool that could help them however.

I saw two clear trends within the work of the managers; internal and external. The internal work is more about team building and having small regular meetings. This work is most prominently shared in the IT, HR and marketing departments. Externally, there are big important meetings or negotiations that are commonly prepared in conjunction. These are most noticed in procurement, sales and risk management.

None of the managers take culture into account when they have a small meeting, as they know in the back of their head how they should behave. For the bigger meetings, they do consult with their team on how they should approach the encounter. This could differ per nationality that is present in the meeting.

Three of them even pointed out that Skype meetings should be prepared better than face-to-face meetings, because you miss the layer of body language. That gives you less information to steer the conversation with.

### *Attitudes towards the transfer effect*

After having explained the game as a tool that teaches managers how to work with other nationalities in the business context by eliciting their personal cultural differences per nationality, they all told me that it would definitely help them. It would have helped the experienced managers in the beginning of their career to prevent their first cultural mishaps.

Two goals that the game should achieve for them have been mentioned during the interviews. Firstly, to avoid surprises from culturally different nationalities and secondly to prevent unwanted responses from happening. The managers want a tool that will help them do their job better. All nine managers have stressed that the thinking should preferably be done for you, so the tool should offer very pragmatic knowledge on what to do when cultural differences are present; “I do not want to become a cultural expert”.

After I asked them what they thought the best scale is to measure culture by, they all primarily grouped culture per nationality. The experienced managers did put an emphasis on different types of cultures as most of them have experienced situations where their stereotypes did not fit the individual. For example, one manager noticed that two Indian subordinates were not acting as he expected from a “typical Indian”, later he found out that they went to catholic school.

### *Context*

The managers are extremely busy during work hours. Even during the interviews, some of the managers had to leave because they had a call or drop by a colleague to discuss something. After rounding up the interviews, most managers left to other meetings.

I have visited various private and public, and profit and non-profit companies. They all had at least multiple floors in their office building with a reception at the entrance.

There were four main work environments; big open flex workplaces, small private flex workplaces, meeting rooms and private offices. Some managers told me that the amount of flex workplaces had become increasingly more popular in organisations. Team members occasionally even choose to work from home nowadays. This means that the managers can end up working with different people each day.

### *Desired situation*

On the one hand, they have expressed interest in having a list of clear tips that can be used immediately and can be taken through fairly quickly and individually for regular meetings.

On the other hand, they would like to have a test environment in which the player can practice with other cultures through role-playing. The cultural knowledge is absorbed through practice instead of words, it can be played in a longer lasting session as they are all willing to spend at least thirty minutes on a test.

*Fig. 4: One of the workplaces that I visited*





### *Game preferences*

The game exercise was harder to do than expected. First of all, going through all 22 PLEX-cards for the first time took longer than anticipated, as the first participant actively thought about every choice. So, I changed my method immediately during the first interview. Instead of going through all the cards three times, I went through them once. During which, the participants thought aloud thereby eliciting their decision making process. After ending up with their final PLEX-card, I asked them if they were happy with their choice and explain why or why not. Then I put all the cards on the table and asked them to create their top three themselves. Because they had gone through the cards once already while explaining their thought process, I could highlight cards that they had trouble choosing between and ask them why this was. The managers eventually explained how their top three was connected through a short explanation of possible gameplay. The exercise had an overall positive response, and participants liked the PLEX-cards. Two of the participants however that had said to never play games noticeably struggled with grasping the concept of the PLEX-cards.

Eventually, ten PLEX-cards were mentioned more than once: Challenge, Control, Discovery, Exploration, Expression, Fantasy, Humor, Nurture, Relaxation, Sensation. Their personal explanation of how they were connected was the most interesting, which will be explored in the next paragraph.

### *Limitations*

The validity of these results are questionable in some cases, as the first and fourth participant had claimed to never have played games. This forced them to choose PLEX-cards on speculation, whilst others could just recollect which features sparked their interest in their favourite games.

### *Conclusion*

Accessibility through pragmatism is what they mainly want. They do not need to become an expert on culture, they just want to know what to expect and what to pay attention to when working with other nationalities. In this way, without even introducing reconciliation, the tool will already help them through prevention of cultural clashes and/or the avoidance of surprising responses.

Besides the lack of interest from the participants, the context does not incentivise face-to-face teamwork for this application. The flexible workplaces mean that managers cannot rely on colleagues' presence without making appointments with them.

### *Limitations*

I have only conducted interviews in the Netherlands and in Germany. This means that the context observations can only be held accountable for those countries, more specifically the exact companies that I visited (which will be kept anonymous).

Additionally, design is notorious for its many trends. While interior design of office buildings might currently be in support of flexible working spaces, this might change in the future.

Most of the participants were experienced managers, which were clearly aware of the importance of cultural differences. The one "inexperienced" manager had noticeably less to say and found it harder to recollect examples of cultural differences, but did notice friction between the American and Dutch team. During my interview, I felt like she started noticing that it could indeed be because of cultural differences between nationality. It is hard to generalize this observation, because there was only one participant like this, but I am willing to believe that experienced managers are more aware of the importance of culture in the business context.

Fig. 5: The summarized user personas



### About

Marcus is a senior IT manager of a large team of more than one hundred employees, these are mainly foreign external parties. He especially has digital meetings to manage the employees from various countries; it has to be based on trust. He is responsible for building and managing an IT service. As a specialist, he contributes to it himself in addition to managing the team and ensuring that it runs smoothly, the support is done through the 24/7 customer support part of his team.

### Goals

**Managing:** Good coordination between the team members.

**Meetings:** Ensuring that he is meeting the deadlines for the IT products and/or services.

### Game preferences

It does not matter what a game looks like, it is more about the experience. He would preferably be challenged during the exploration of a new discovery, as a result of which he should think creatively about a solution. Surprisingly, finishing a task leaves him with an overwhelmingly empty feeling; he prefers to stay in an activity. Thereby, he likes to have a social responsibility and hear others' opinions, as different perspectives help in finding the solution.



### About

Piet is a procurement manager of a Fortune 500 company. He manages a team of mainly Dutch internal employees who work in the same office building, and occasionally some international external freelancers. He spends 60% of his time talking with his team members and employees of other teams during meetings or drops by colleagues for small check-ups. He spends the other 40% of the time doing research and setting up tenders; he does this in coordination with his team of course.

### Goals

**Negotiations:** Ensuring that his company will get a good price-quality.

**Meetings:** Making sure that bought products and services fulfill the needs of his company.

### Game preferences

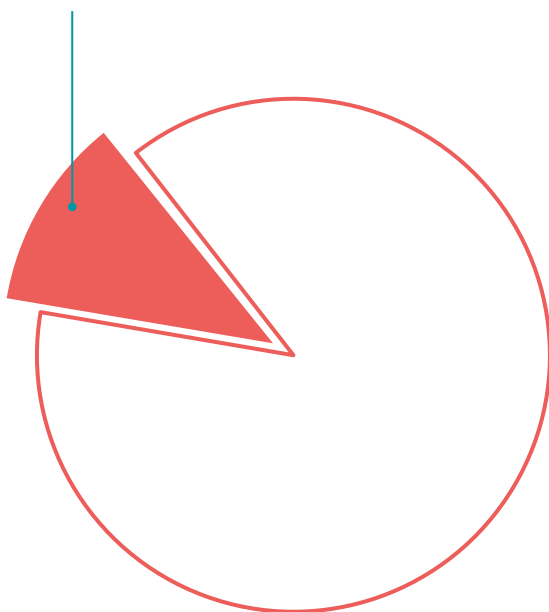
His favorite game experiences are Control, Relaxation and Sensation. He likes to feel in control of situations and likes the concept of growing stronger. The most important points for the game are that it should be relaxing and pleasing to the senses. He thinks Fantasy is important to create the space for developing oneself, but nothing strange. The game can also contain Humor to create a pleasant atmosphere by not taking itself too seriously.

### 3.1. User personas

I noticed that there was a lot of duality in the answers between the internal vs external focused disciplines, the “inexperienced” vs experienced managers, occasional gamers vs non-gamers and two different descriptions of favourite playful experiences. I have therefore shaped the main insights that were gained through the interviews into two complementing user personas. The user personas have a brief explanation of their life as a manager in the context. They also illustrate the ten most frequently chosen playful experiences. As PLEX-cards can be interpreted in multiple ways, I have guided these with a paragraph underneath inspired by the explanations of the interviewed managers; Appendices A1-2, see figure 5 for the summarised versions.

These user personas will be used to personalise the target group and thereby guide the idea generation.

**During** the moment that I face them



*The relatively few answers that showed an interest to learn about cultural differences during a cultural encounter*

### 3.2. User scenarios

For each user persona, I have created a fictional but realistic user scenario. These user scenarios illustrate the current situation, and are inspired by the stories that managers told me during the interviews. Each scenario impedes the managers from completing their goals due to cultural misunderstandings.

As also shown in the user scenarios, there are currently two ways that the managers acquire information about different cultures: through trial-and-error during the meeting or by consultation prior to the meeting. Notably, each approach has a different timestamp of the collections of the cultural information; it is currently being learned **during** the meeting or **before** the meeting.

Each timestamp will support a different desired situation and will therefore result in a different game. The “during”-timestamp would emphasize the desired situation of having a smooth international meeting. For the “before”-timestamp, the desired situation would be that the manager is well-prepared for an upcoming international meeting.

In both of these situations the defined transfer effect still holds, but the design would be different.

Because the game should be minimally invasive due to their tight working schedule and the transfer effect is about transferring knowledge to managers individually, the game will be played **before** the meeting.

#### Questionnaire

This choice has been backed up by an online questionnaire that was answered by 75 people. 43 of the respondents matched the characteristics of our target group, from which only seven answered “During the moment that I faced them” when asked: “When would you prefer to learn about cultural differences? (Multiple answers are possible)”; Appendix B.

### Marcus' scenario

Within one week Marcus needs to deliver a software application that creates a circle. Marcus wants to make use of a Spanish development team for this. He has never worked with Spanish people before however. As he is an experienced manager, he knows that cultural differences are a big deal and it might be wise to ask his colleague how to work with Spanish people.

After hearing that the Spanish are less likely to meet their deadlines, he calls the Spanish developers over Skype to emphasize that the circle program needs be finished on Thursday.

When Thursday comes however, they show that they have in fact not finished the circle program. So, Marcus confirms the assumption of his colleague that Spanish people are less likely to meet their deadlines.

### The problems

The first mishap happens right at the beginning. Marcus hears the popular Spanish stereotype of being late from his colleague. Contrastingly, Spanish people actually value punctuality.

The real cultural difference arises when Marcus decides to have a Skype-call. It is hard to know when Spanish people understand you, because they do not want to lose face by admitting that they do not understand you. Without seeing their bodily language, it is hard to decipher if your message is coming across.

This situation could have been avoided if Marcus understood the two following cultural tips about Spain (Appendix C):

***Don't be misled by the Spanish stereotype mañana (tomorrow)***

***Pay close attention to bodily language and non-verbal communication***





### *Piet's scenario*

Piet has been hired in Ghana as a procurement manager. As this is his first time working in an international company, he would like to leave a good impression. So after he sees that the office has outdated printers, he starts mentioning to the Ghanaian employees that he would like to buy new printers for them.

The Ghanaian employees seem to like the idea, so he signs a contract with a Taiwanese distributor for new printers. After signing, the Taiwanese negotiator unexpectedly wants to change the agreement however. Taken by surprise, an eight-hour negotiation continues.

After the lengthy negotiation, he shares with a Dutch colleague that he successfully bought new printers; just to hear that his efforts were futile, as printers are never used because they are not needed.

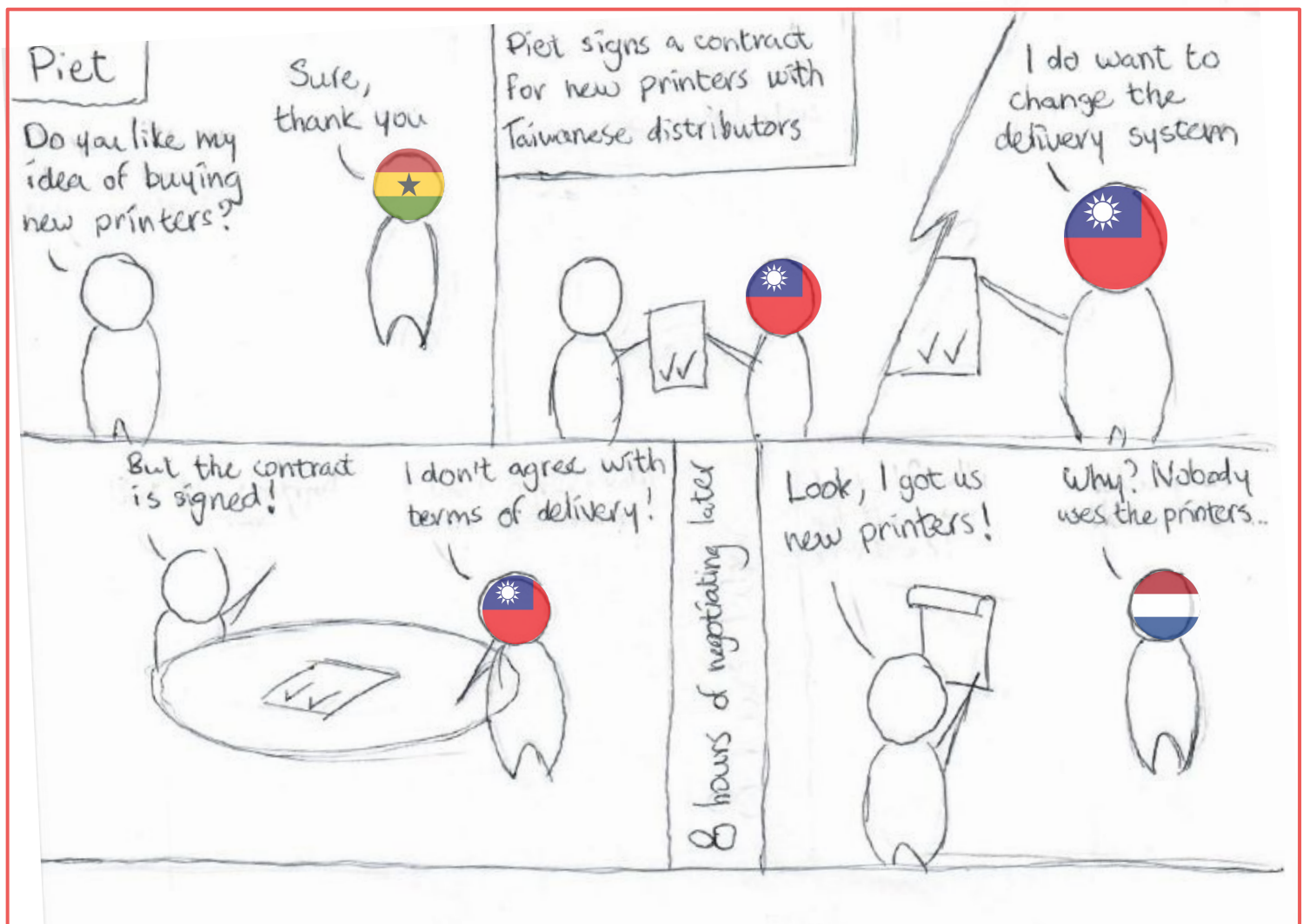
### *The problems*

The first cultural difference is displayed at the start. Piet assumes that the Ghanaian employee says exactly what he thinks. Ghanaians tend to avoid confrontation however, saying "thank you" can be seen as a polite way of saying "no". The next culture clash happens when Piet signs a contract with the Taiwanese distributor. What he does not know from Taiwan is that they tend to believe that everything is (re)negotiable. Even after the contract has been signed, new negotiations can start, in this case about the delivery conditions.

This situation could have been avoided if Piet understood the three following cultural tips about Ghana and Taiwan (Appendix C):

***Ghanaians use an indirect communication style - Thank you is polite way to say no***

***Everything is negotiable and renegotiable***



### 3.3. Timeline

I have established that the game will be played before cultural encounters happen to prevent clashes. This means that the game will take place in some other time during work. As the users have stressed to have a busy work environment, a timeline is created. It keeps track of an acceptable amount of time in which they are able to spend time on each section of the game. A timeframe of two weeks is used, as this is the least amount of time in advance an important meeting is scheduled according to all managers.

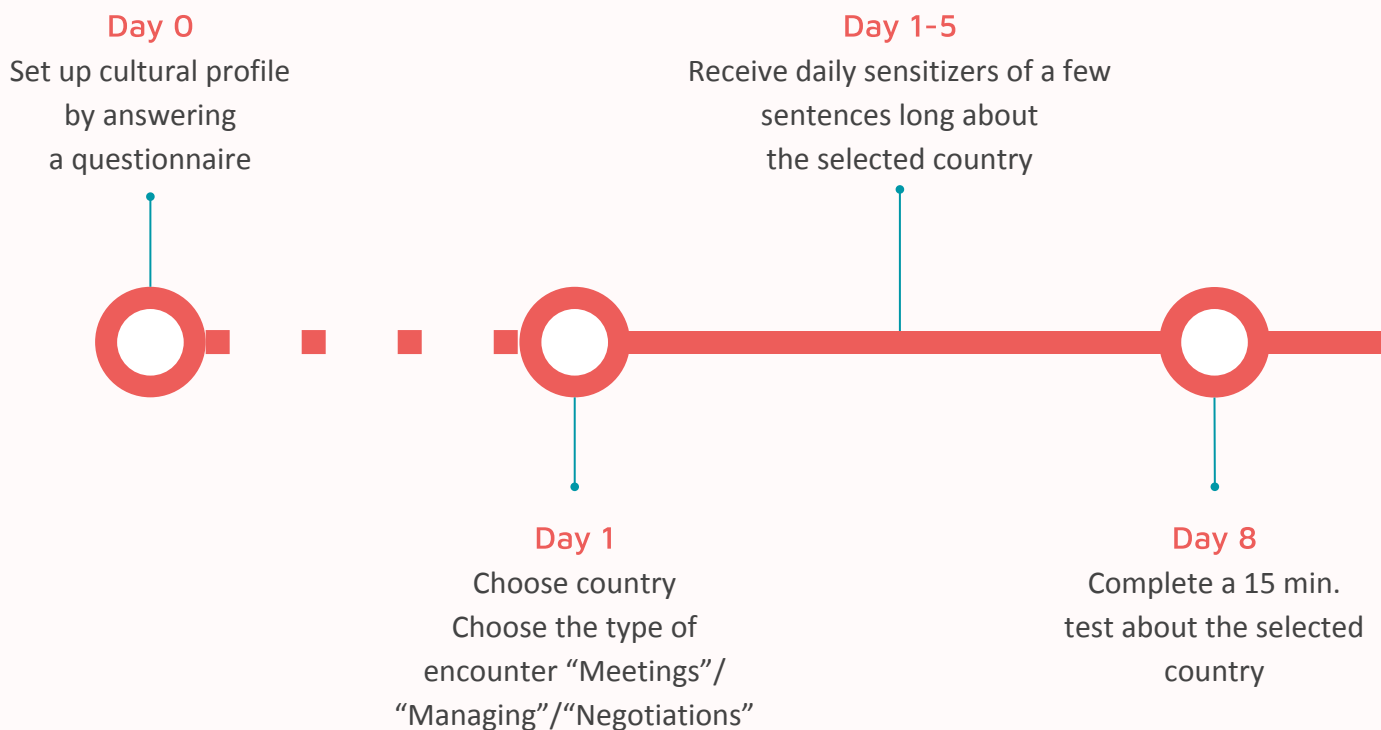
The timeline includes four main interactions between the user and the game.

The first one is setting up the cultural profile and choosing the variables to make sure that the cultural tips will be fitting between the user and the country of choice.

The second interaction will be the daily cultural tips. These have to be short as the managers do not have much time to spend on reading about culture everyday.

Third, the user will be tested on his/her cultural knowledge of the selected country and in the chosen type of encounter.

Lastly, a reflection of the actual meeting is in place if the user wants to make additional comments and reflect on which cultural differences were observed during the meeting.

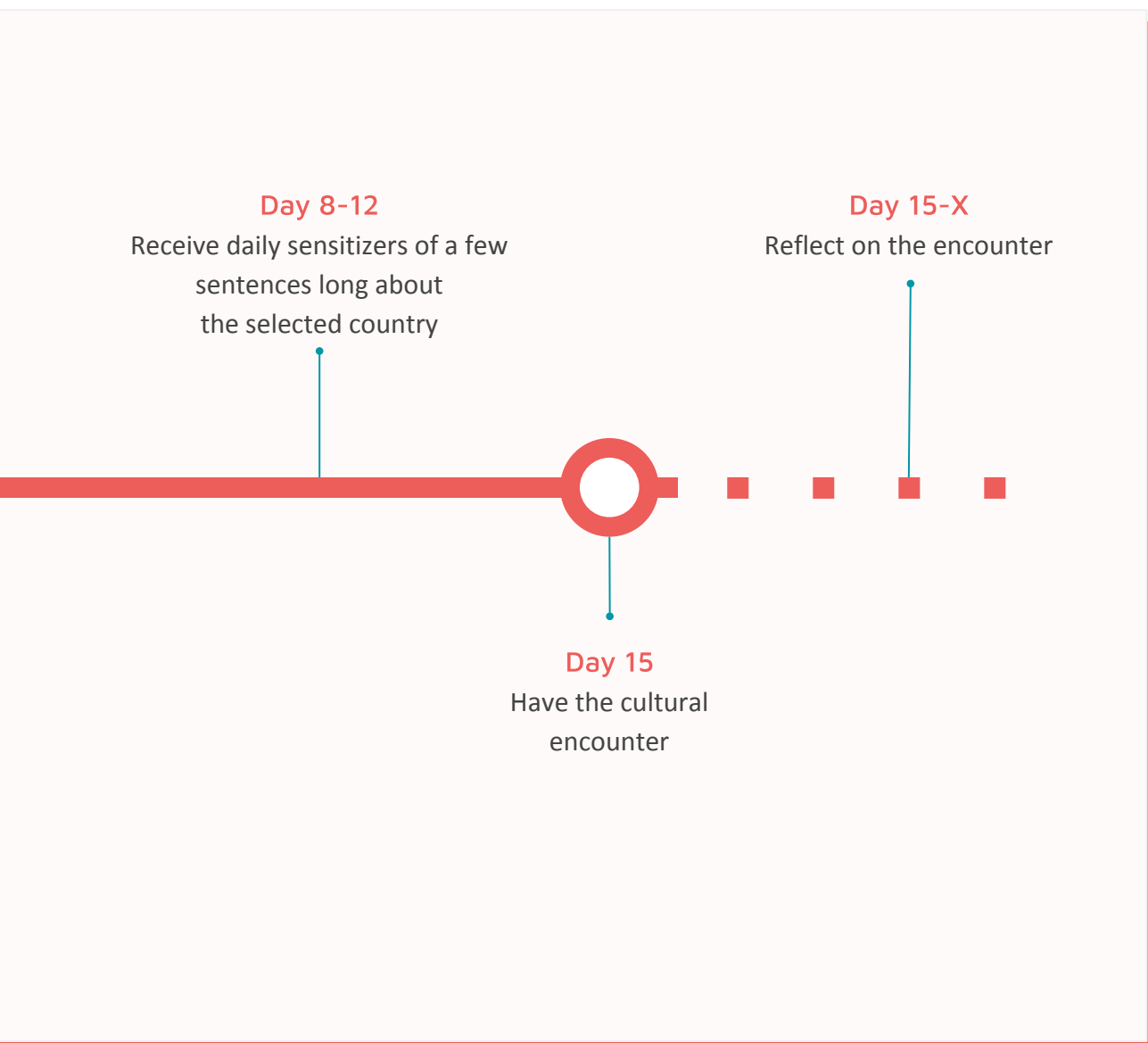


The retention of newly acquired cultural knowledge is in this case supported through the spacing and testing effects as discussed in depth by Delaney, Verkoeijen & Spigel (2010). Their literature explains that spacing out information will lead to a more thoughtful learning process which increases processing of the information. For the testing effect, the more specific retrieval effort hypothesis has been used (Pyc and Rawson, 2009). They showed that "difficult but successful retrievals are better for memory than easier successful retrievals" and that longer intervals increase knowledge retention.

This literature supports that the tips should be spaced, while the tests should be challenging and have longer intervals between them.

### *Evaluation*

First of all, the timeline is created based on the responses during the interviews. It has arguably therefore implicitly been accepted by the target group already. To confirm this however and making sure the details are agreed upon, I have shown the timeline to five more experienced managers. Their remarks have been digested into the timeline.





# GAME WORLD

This phase will focus on designing the game. Using the insights from the previous phase, ideas are generated. These are evaluated through interviews to create three concepts. These concepts are then evaluated through end-user tests. One final concept is created, which is turned into a digital prototype that embodies the minimum viable game. This is used for the final evaluation in the next and last phase.





# The game

This chapter will kickoff the phase with a brainstorm session to generate the first ideas based on the insights gathered from the previous phase. After evaluation, one game world environment is chosen and developed further into a player scenario. This scenario is explored through various visual styles and developed into three concepts, which are explored in the next chapter.

## 4.1. Brainstorm

The bones of the idea are the timeline, which includes a complete picture of what the game should provide to meet the design goal within the context. The main gameplay loop can be seen as the muscles, and the skin are the details that will be defined in the concept phase. The brainstorm is therefore used to give the idea muscles. As mentioned previously, the playful experiences will be the focal point. The target group did not have one preferred playful experience, so each idea will include multiple. I have divided the brainstorm into two parts through which the first part sets up the second part.

### The brain

The first part of the brainstorm is focused on each of the PLEX-cards individually. A PLEX-card is placed in the center of a piece of paper to create room for a surrounding mindmap. The PLEX-card should be read as 'How-can-you increase the amount of "PLEX" in a game', e.g. 'How can you increase the amount of Challenge in a game'; and the mindmap can be created. By doing this I eventually ended up with ten mindmaps filled with game elements and approaches.

### The storm

During the next step I blindly chose three of the ten PLEX-cards. I grabbed a mind map for each of the chosen cards to draw inspiration from. Afterwards, I wrote down the first idea that came to mind based on the chosen PLEX cards. Pushing my imagination, I did this about thirty times.

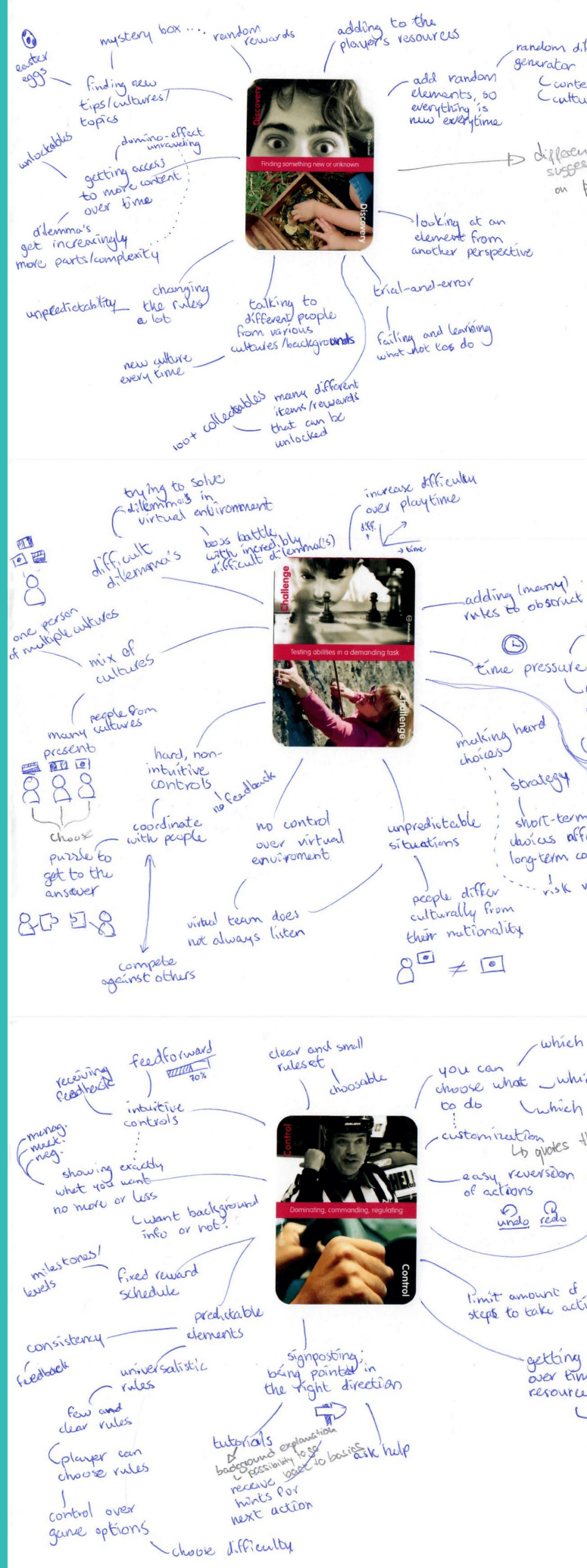


Fig. 6: Some examples of the mindmaps from the How-can-you brain exercise

As was shown in a pilot study (van Dooren et. al, 2014), creating ideas based on PLEX-cards does not guarantee that the used playful experiences will emerge for the users. This could be explained because PLEX-cards can be interpreted in different ways. So, different interviewees could have had a misaligned understanding of the cards, and I could have interpreted the PLEX-cards different than the participants.



## 4.2. A game for non-gamers

The main struggle is the amount of fantasy and game elements that managers accept. Normally when I design games the target group are already into playing games. The managers that were interviewed however, are no typical gamers. Some of which claimed to have never even touched a digital game. This makes it hard to determine which type of narrative and game elements would work for them.

To help me out, I have interviewed five more experienced managers.

### Research questions

#### Fantasy level

What fantasy level do managers accept in a narrative?

#### Game elements

What game elements do managers like?

### Materials

To each interview I brought all the sketches.

### Method

I first explained them the premise of the game. Then I showed them all my pages of ideas, and highlighted three different ideas. I explained these ideas verbally to them (as the sketches are hard to understand without my explanation). As the goal of these interviews is to find out the manager's preferences, I chose three ideas that I thought differed from each other in terms of narrative and game elements to give me the edge in which I had to stay. I shall summarise each idea.

The first idea is called the "Tamagotchi"-idea. The player has to catch a Tamagotchi that represents a nationality by performing a cultural test. After successfully catching it, the player has to keep it alive by giving it food/attention and through reading its tips each day.

The second idea is the "Monster"-idea, in which you have to beat a monster each day to stay alive by answering tips about its culture. After having beaten enough monster a boss is spawned, which has to be defeated. The health bar signifies the cultural distance between the player and the monster, and questions has to be answered. In this case the tips would be rewritten to fit the monster narrative.

Lastly, I pitched them the "Boat"-idea. In this game, the player is a captain of a boat. The crew of the boat produces products and has to sell it to different islands. The crew and islands can be of different nationalities. If the crew is managers correctly by answering cultural questions, the production rate increases. If the negotiation with the islands goes well, the product can be sold for more points. The goal of the game is to accumulate as many points as possible.

Fig. 8: The initial "Tamagotchi" idea sketch



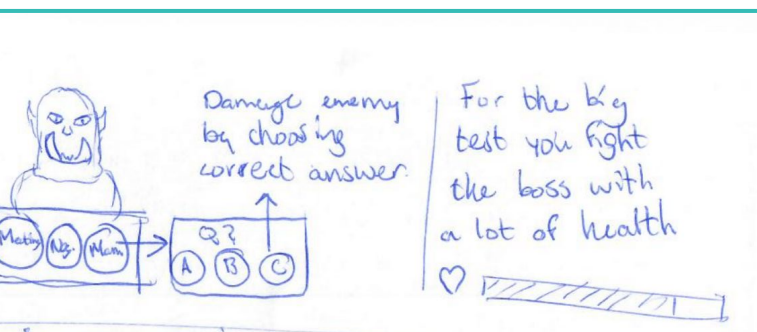


Fig. 9: The initial "Monster" idea sketch

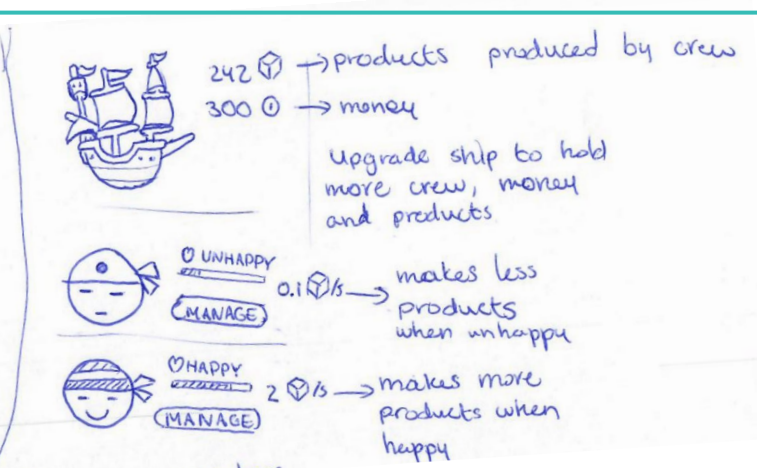


Fig. 10: The initial "Boat" idea sketch

### Fantasy level

I mainly wanted to find out what the most likely narrative is that they are willing to accept in terms of fantasy. The managers thought that the "Monster"-idea was too high fantasy, they would not play a game like that.

Two out of the five managers did like the "Tamagotchi"-idea, but wanted it more relatable. They agreed that the Tamagotchi itself should not be a creature, but maybe a person or animal.

The third idea was the best received. This is because the notion of travelling is relatable and fits logically with exploring national cultures. Three out of the five managers reacted positively towards the idea of playing this game.

### Game elements

In terms of game elements, two managers explicitly said that they would not be motivated by winning points within the game. One manager did say that it would motivate him if he could use the points to unlock new nationalities which he would normally have to buy with money.

One of the managers did not show any enthusiasm for game elements, he simply wanted to get the information that he needs as clearly as possible.

### Conclusion

The "Boat"-idea was the best received out of the three in terms of the narrative. As for the game elements, they did not show much excitement.

### Limitations

A point system never has a meaning by itself, but represents what a player has achieved in the game or how much time they have spent playing. The manager can therefore only really understand if he/she likes points after having earned them through playing.

### 4.3. Persuasive game construction

I have noticed that (almost) all of my ideas made use of existing game elements, such as point systems, health bars, etcetera. The target group is not necessarily excited about games however. So, I would like to take a more holistic approach to the generation of a persuasive game. Instead of basing the game around existing game elements, I want to see if I can strip the game down to its core and add more elements from there; starting from a minimum viable game. This might mean that in the end I would still use existing game elements, but at least the way of getting there would support the use of them and make clear why they are needed.

First of all, it is important to know the base of a persuasive game. As supported by the Cookbook Method, a persuasive game is rooted in the transfer effect it delivers.

The next step is what a game is composed of, with the focus on designable components. I have determined these by reflecting on the design elements that emerged during the idea brainstorm sessions and clustering them. The categories that surfaced from this reflection will give me an overview of the game and help me more structurally design.

I have determined three design components for the persuasive game. The first one represents the game (Gameworld), the second represents the interactions between the player and the game (Interactions) and the third one represents the player (Motivations).

I will further in the report occasionally refer back to this collection of components as the game construction framework.

#### *Gameworld*

The first described element of the game is the gameworld. It describes what story the game tells (narrative), how much fantasy is involved (theme), what the game should look like (visuals), and what the game should sound like (audio).

In some cases the environment of the gameworld could include more elements, such as what the game feels like (haptics) if hardware is involved, or even what the game smells like (scent). I will however focus on the elements that are relevant to this project.

#### *Interactions*

The next element is interactions. This dictates the type of input that is generated by the user (actions), how the input is processed (process), and the resulted output of the game from the processed input (reactions).

#### *Motivations*

The last element is specifically focused on the motivations of the player. It includes what motivates the player from within (intrinsic) and from the outside (extrinsic).

#### *Interconnected elements*

The gameworld and the motivations are connected by the interactions.

For example, reactions can be described as how the gameworld changes according to the user's actions. That change can then affect motivations.

## Evaluation

There has been one interesting framework derived from seven definitions of potential components of games as described by seven different game design authors (Eck, 2010). The framework describes four core components. I will go through each of them to see how they compare to the game construction framework that I have created.

The first component is meaningful challenge. Meaningful challenge is described as: *“An achievable goal of endogenous value that entails conflict constrained by operational rules and limited resources”*. This component compares to my “Motivations”. In the case of my framework however, the description is taken outside the context of the game so that it can be used to design the game.

Self-consistent setting is defined as: *“A coconstructed alternate reality defined by constitutive rules represented thematically”*. This compares to the “Gameworld” component in my game construction framework.

Core performance is: *“The action or narrow set of integrated actions central to achieve the goal transmitted through elegant controls and made manifest through authentic consequences”*. This is represented by the “Interactions” in the game construction framework.

There is a fourth component called embedded helps. This component was based on only one author’s potential component and is described as a way to guide players towards their goal. This component does not compare to anything in the game construction framework. Apart from that, I would like to dismiss the component since I believe that it is not necessary to have in a game.

## Conclusion

The game construction framework seems to somewhat mirror the core components that have been described in the mentioned book. Contrastingly to the seven authors, the game construction framework is specifically tailored to the design process. I therefore use an outsider's perspective to look at how a game exists in the real world and players interacts with it. The framework from the book is focused on components within games; it explains the elements within the context of the gameworld.

Based on this. I do believe that the game construction framework can be used as a guideline to steer the design process. So, I will use it for this project.

| Crawford                                | Costikyan          | Rollings & Adams | Salen & Zimmerman       | Huizinga         | Avedon & Sutton-Smith  | Junli                          |
|---|--------------------|------------------|-------------------------|------------------|------------------------|--------------------------------|
| <b>Meaningful Challenge</b>             |                    |                  |                         |                  |                        |                                |
|   | Goals              |                  |                         |                  | Goals                  |                                |
|   | Endogenous Meaning |                  |                         |                  |                        | Valorization of Outcome        |
| Inter-player Conflict                   | Struggle           | Challenge        | Conflict                | Test of Prow-ess | Opposition             | Player Effort                  |
| Rules                                   | Rules              | Rules            | Operational rules       | Rules            | Rules                  | Rules                          |
|   | Resources          |                  |                         |                  | Equipment              |                                |
| <b>Implicit in Meaningful challenge</b> |                    |                  |                         |                  |                        |                                |
|   |                    |                  | Quantifiable Outcome    |                  | Disequilibrium Outcome | Variable, Quantifiable Outcome |
|   |                    | Dramatic Tension | Uncertainty             | Tension          |                        |                                |
|   |                    |                  | Rewards and Punishments |                  | Pay-off                |                                |
| <b>Self-consistent setting</b>          |                    |                  |                         |                  |                        |                                |
| Focused Fantasy                         | Representation     | Game World       | Artificial Reality      | Temporary World  | Setting                |                                |
| (Inherent Rules)                        |                    |                  | Constitutive rules      |                  |                        |                                |
|   |                    | Storytelling     | Narrative de-scriptors  |                  |                        |                                |
| <b>Core performance</b>                 |                    |                  |                         |                  |                        |                                |
| Key element                             |                    | Player's Role    | Core Mechanic           |                  | Procedure              |                                |
|   |                    |                  |                         |                  | Role                   |                                |
| Elegant controls                        | Interactivity      | User Interface   | Narrow Input            |                  |                        |                                |
| Organic Re-sponse                       |                    | Presentation     | Immediate Feedback      |                  |                        |                                |
| <b>Embedded helps</b>                   |                    |                  |                         |                  |                        |                                |
| Safety                                  |                    |                  |                         |                  |                        |                                |

**Fig. 11: The core components framework compared to the components per author as presented in the book**

### List of requirements and wishes

To make use of the game construction framework, I have filled in the categories with the wishes that had been concluded from the previously done client, market and user research. As the client is keen on using the project for the entire theory on culture and possibly appealing to all target groups, the list also entails future additions (see figure 13).

Besides the wishes, the design also has to adhere to restrictions based on the client needs, and feasibility and viability of the design. The requirements are arranged based on the Process Tree (Boeijen, Daalhuizen, Zijlstra & Schoor, 2014), but slightly adapted to fit the concept of a mobile application (see figure 12)

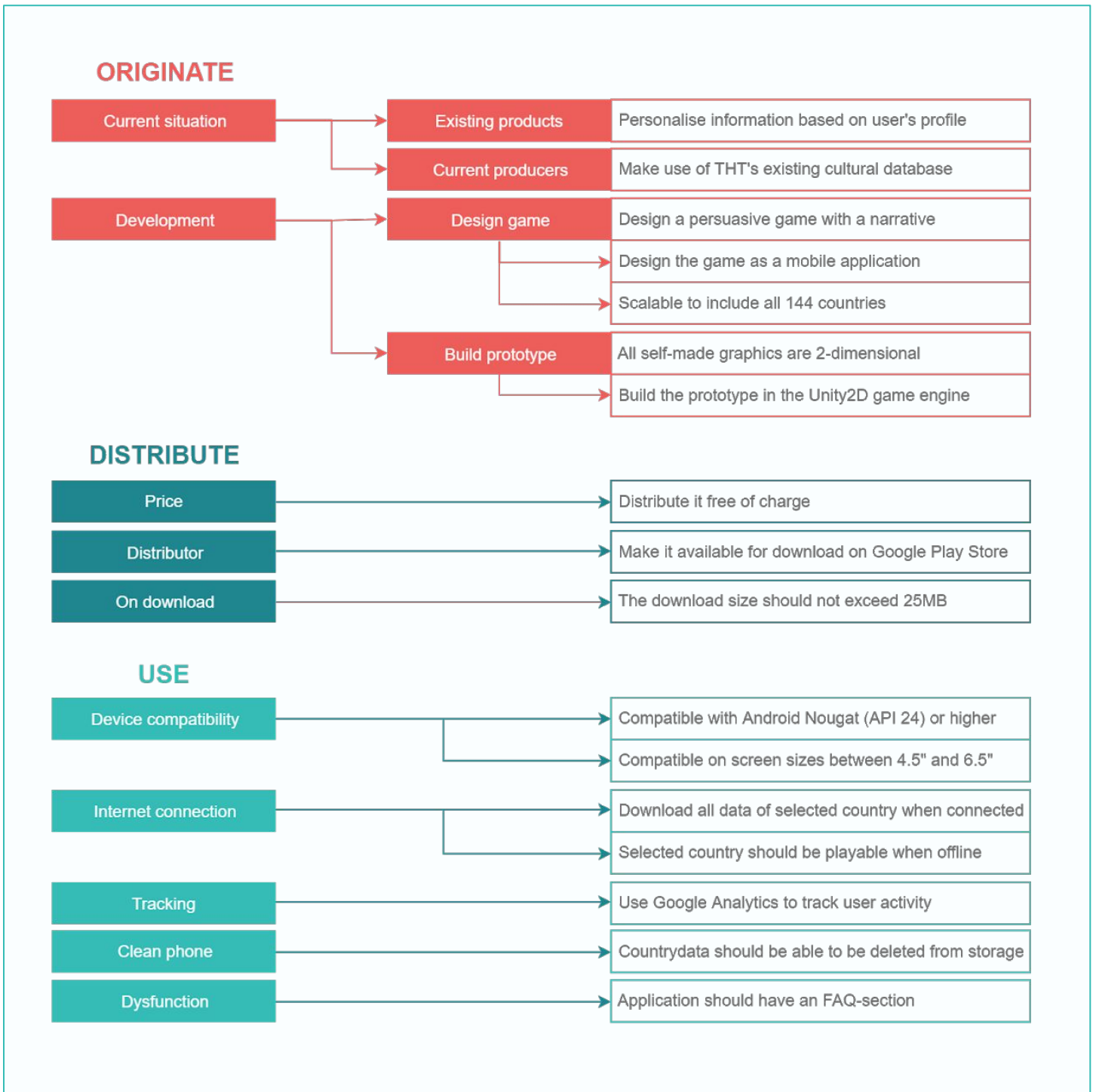


Fig. 12: The list of requirements

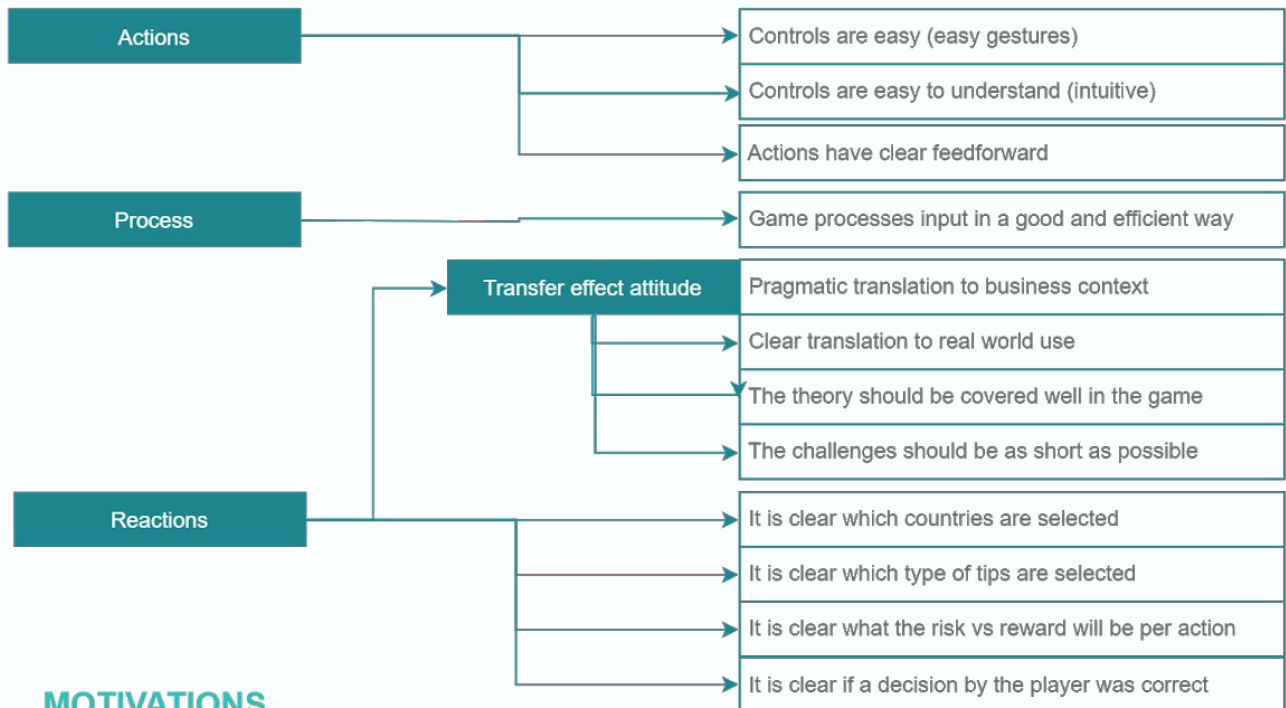
Fig. 13: The list of wishes



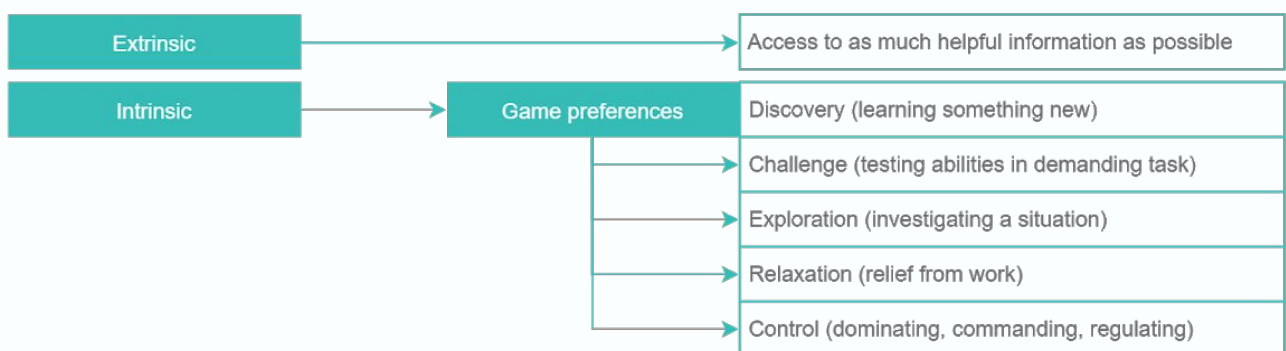
## GAMEWORLD



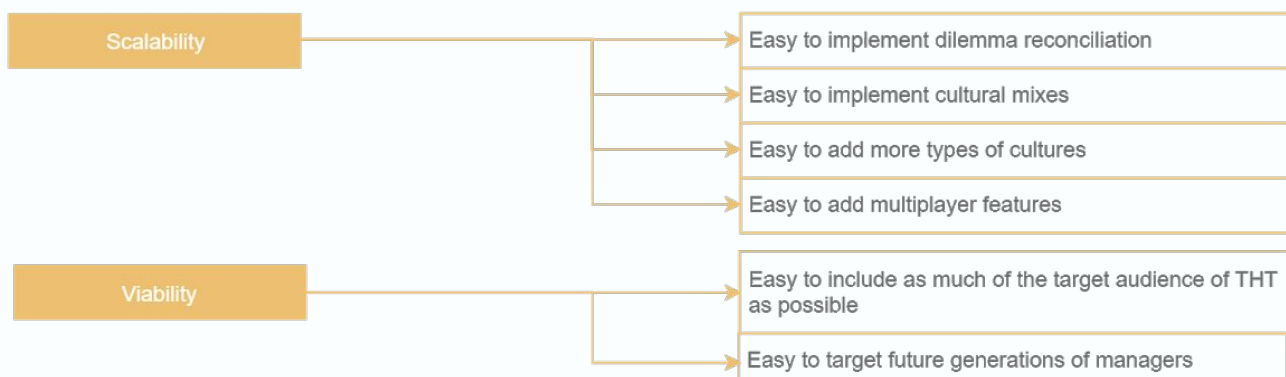
## INTERACTIONS



## MOTIVATIONS



## FUTURE ADDITIONS



## 4.4. The game

The next step is to create a game that fits all the mentioned requirements and the wishes. So, in the next sections I will work through the list of wishes.

### *Transfer effect*

As mentioned before, in the case of a persuasive game the transfer effect is the goal and therefore the core element. The placement of the transfer effect in the game construction framework will be the focal point of the design. As the transfer effect always describes the connection between the gameworld and the real world, it makes sense to put it under interactions. In this case, cultural knowledge has to be transferred to the user, so the transfer effect has been placed under reactions.

## 4.5. The narrative

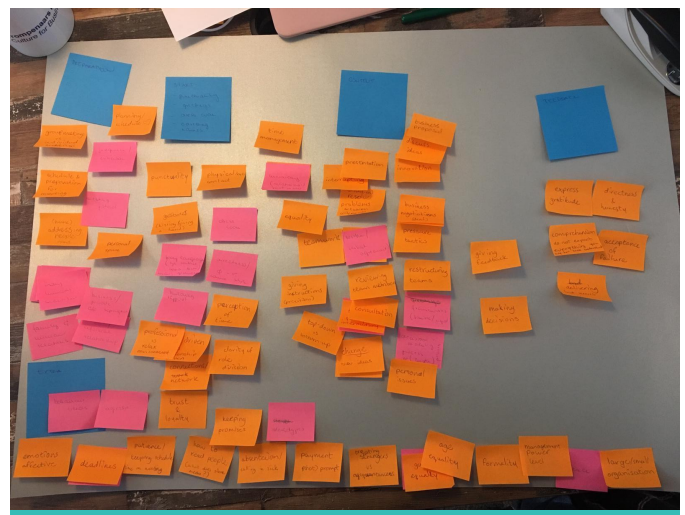
For the theme, there has been established that a boat travelling to different islands is acceptable for the target group. The transfer effect should fit within that game narrative as well. Instead of showing tips or asking questions, I would like to let the user go through a narrative that fits within the game.

Managers seem to like the content of the tips in the “Culture for Business”-app and information conveyed through Fons’ talks. When I spoke to them however, all managers that had heard of the application thought it was a great tool, but none of them used it. They could not clearly explain why.

Based on the market research, I believe that part of the reason is because the content is hard to digest. The tips are currently categorised per cultural dimension and inside each dimension per category (Meeting, Managing or Negotiations). This hierarchy is not inviting to the non-academic target group. So, first I want to create a new way in which the information is structured.

Currently, there are around fifteen pages of tips per nationality stored in the previously mentioned hierarchy. While reading the tips I noticed that the tip categories are not trichotomous. The ones about meetings are applicable for every manager, because it is about communication with a different culture in general. The managing and negotiating tips are focused on managers who respectively have a team composed of various cultures or negotiate with other cultures. I also saw that some tips covered clear topics that are relatable to business settings, such as signing contracts with other cultures, how strict people are on deadlines and how to read feedback (as also depicted in the user scenarios).

With these things in mind, I created the categories. First I started reading all the tips per country; and wrote down each business topic that was discussed per tip.



*Fig. 14: All the different topics that I encountered in the cultural tips*

After having read the tips of fifteen different countries I did not encounter any new topics, so I started clustering them. Finally, I organised the categories into a chronological timeline of a meeting.

## Preparation

**Formality, Hierarchy**  
*Who are you going to invite?*

**Setting / Context**  
*Where are you going to have the meeting?*

**Meeting schedule**  
*How are you going to structure the meeting?*

**Individual / Group meeting**  
*Who do you bring?*

## Arrival

**Punctuality**  
*What time do you arrive?*

**Dresscode**  
*What should you wear?*

**Role division**  
*Who do you address?*

**Formality, Names**  
*How do you address people?*

**Physical contact, Eye contact**  
*Which gestures do you use?*

**Networking**  
*How do you network?*

## Content

**Time management, Deadlines**  
*How do you keep track of time?*

**Decision making**  
*How are decisions made?*

**Hierarchy**  
*What hierarchy applies?*

**Relationships**  
*How (in)formal is the meeting?*

**Sensitive topics**  
*What are and how to handle sensitive topics?*

**Emotions**  
*How should you express your emotions?*

**Promises, Rules**  
*How flexible are processes?*

**Active participation**  
*How do you involve people?*

## Feedback

**Criticism, Honesty and Directness**  
*How honest/direct should you be?*

**Gratitude**  
*How should you express gratitude?*

**Expressions, Comprehension**  
*How should you read people's feedback?*

### Narrative template

The result are 25 business topics. 21 topics that are always covered during meetings and are sensitive to cultural differences; with the addition of four topics that are not discussed in every meeting. The topics are categorised into four major sections: preparation, arrival, content and feedback; which represent how business meetings can be placed on a chronological timescale.

## Optional content

**Teamwork**  
*How strong is the bond of a team?  
Is it important to have a strong team bond?  
How can you achieve this?*

**Negotiations**  
*Which pressure tactics do you use?*

**Agreements**  
*What type of agreements are made?  
How flexible are agreements?*

**Innovation**  
*How should change be addressed?*

Fig. 15: The narrative template

## 4.6. Riding the waves of culture

The narrative template has been used to create a narrative based on an Italian meeting. First, the cultural tips about Italy were put into their corresponding spot in the template; Appendix D1. The template helps by showing a sub-question under each topic, if a tip can answer the question the tip can be placed inside the topic. I have deliberately put this element in, so that future countries could be easily converted to game narratives by other employees of THT Consulting besides myself. After placing the tips inside the template, questions and answers have been created; Appendix D1.

### Stereotypes

During the creation of the narrative, I noticed two major considerations. The first one is how to deal with stereotypes.

Next, the narrative is about answering questions from a first person perspective. Almost all questions have multiple possible answers though due to different settings. For example, urban Italians tend to have a different opinion on punctuality than rural Italians.

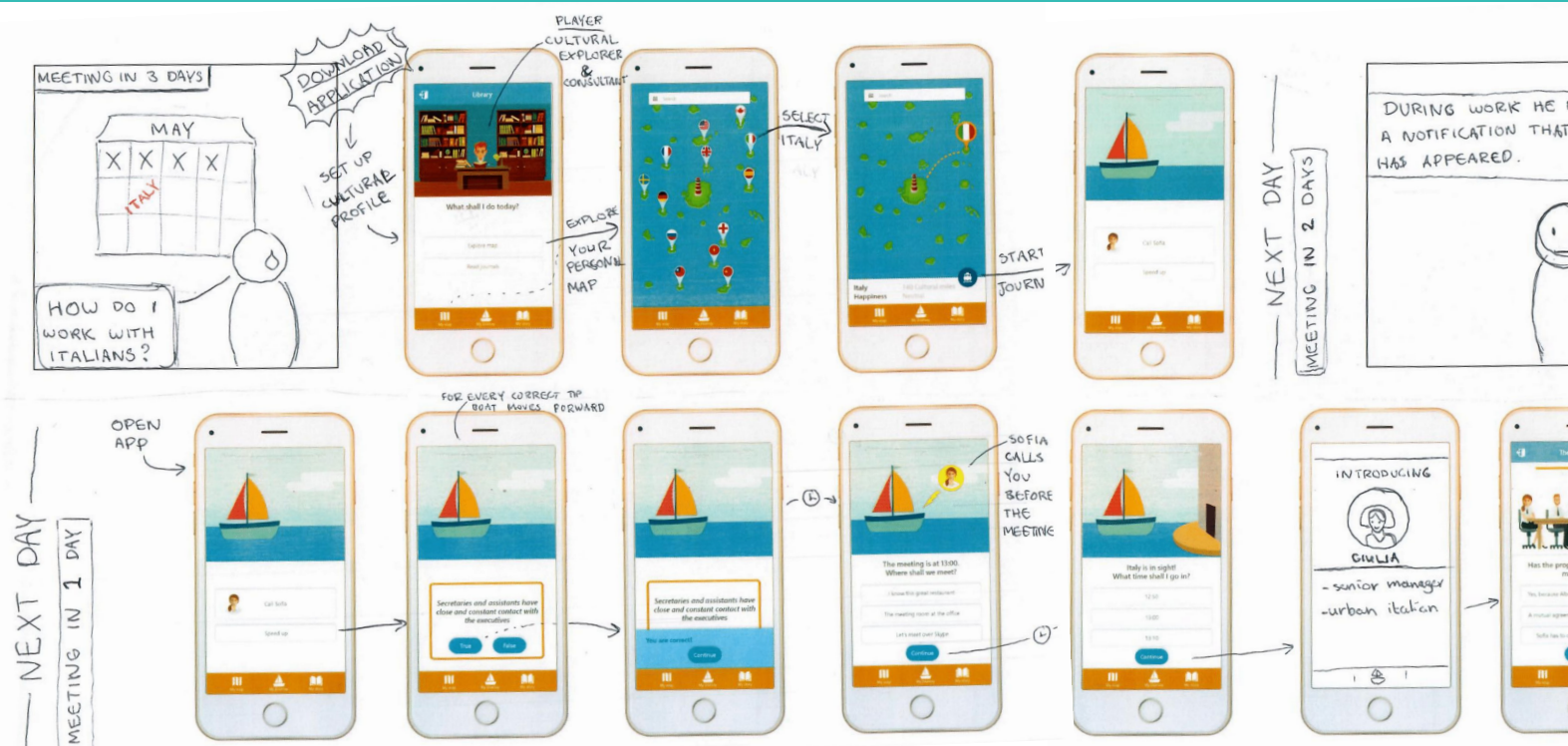
Both of these considerations can be dealt with by instead of putting managers in a meeting with the average Italians, they will be meeting specific characters in the game. Each character will have their own name and personal details that are relevant to the questions.

### Representation

When the socio-cultural dimensions for designers were created by van Boeijen (2015), she raised some relevant points, such as naming and representation of dimensions.

She mentions that instead of representing cultural dimensions as opposite ends of a line, putting them in a circle invites reconciliation of dilemmas. The representation is therefore tied to the message that has to be sent across. In the case of this design, after managers set up their cultural profile I would like them to see their current cultural differences with the country of choice and how they are culturally improving over time.

I have therefore created the concept of cultural miles within the game. Cultural miles are the summation of the cultural differences between the player and a nationality on all dimensions. They are represented by the distance between his/her island and that of another nationality.





When the player sets up his cultural profile by answering the same 14 questions that THT Consulting now uses for the "Culture for Business" app, his/her cultural ocean is created granting one overview of the cultural distance between him/her and all countries in the game. The player can choose a country to travel to and during the journey the player will receive tips and encounter other boats through which he/she will learn about the other culture. This progress is represented by getting closer to the island of a nationality. This cultural ocean therefore invites players to **ride the waves of culture**.

### The journal

In the game, the player will portray the role of a cultural explorer. The tips that he/she accumulates along the way can therefore be stored in a journal that is created at the start of each trip. This log can always be accessed during the game. This gives the player an overview of all tips per nationality that he was interested in.

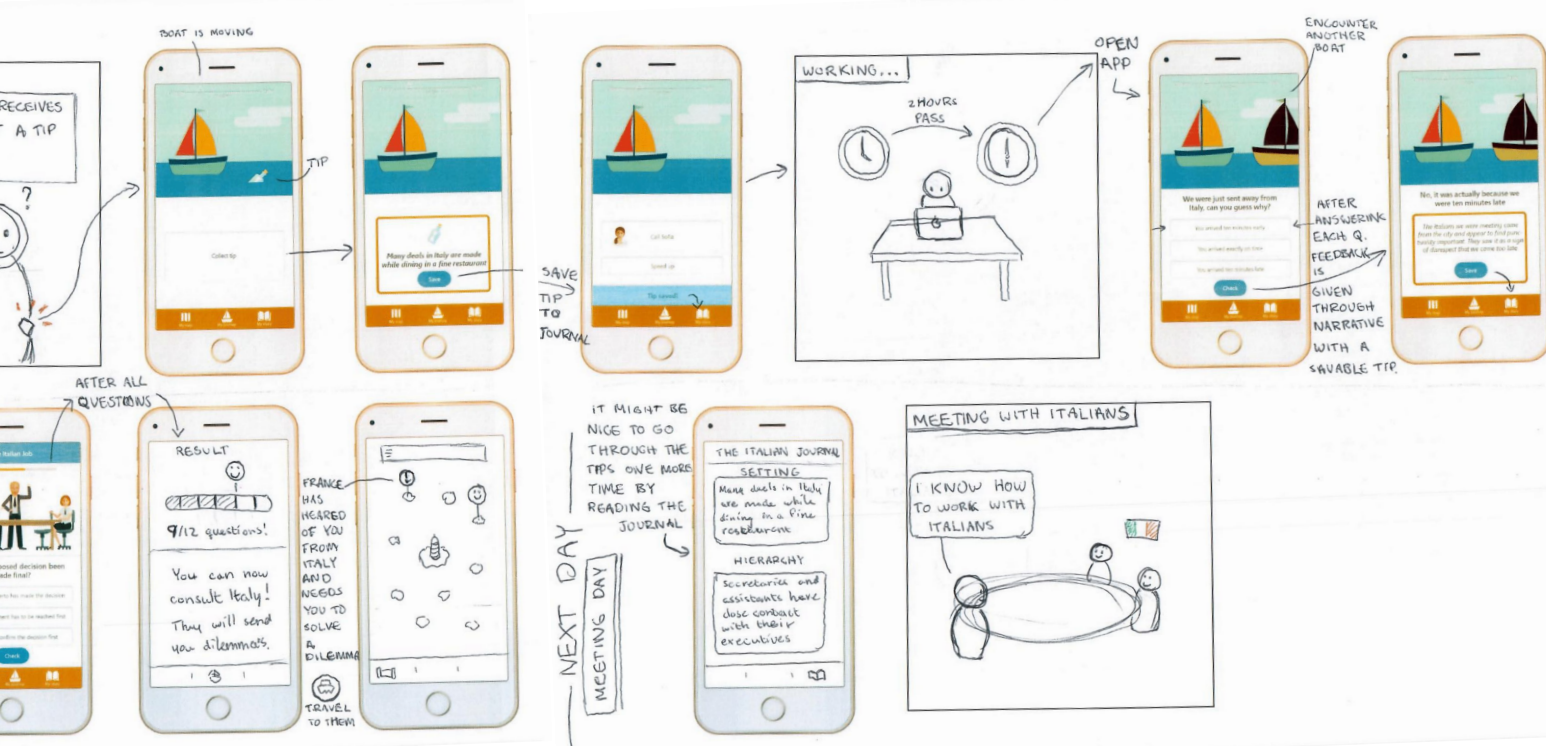
### The island

When the player almost arrives at the chosen island, he/she will get a call from the contact person and the player will need to answer questions according to the preparation section of the narrative. Once the player arrives at the island, the narrative goes through the questions that are relevant in the arrival section of the narrative. When the meeting starts, the questions will be about the content section, and after the meeting about the feedback section.

### Progress

The idea is that during the journey, the player receives easy tips touching the first step of the 4-R Approach. On the island the player has to show that he/she is able to adapt through challenging questions, which is the next step in the 4-R Approach. In the future, the third step of reconciling dilemma could possibly be added as the next level challenge.

Fig. 16: A possible player scenario that explores all game elements



## 4.7. Visual style

In terms of visual style, there are three environments that should be explored; the real environment, the virtual environment and the game environment. Each environment is explored as seen through the eyes of the target group.

### *Real environment - Context*

The real environment is described here as the office that managers work in.

### *Target group*

During the user research I have visited various office buildings belonging to private, public, profit and non-profit companies. As the target group can be found in any of these types of organisations I will describe the overall feel of the environment; Appendix F1.

### *Main observations*

The offices that I have visited looked very modern, by which I mean that the interior design showed a lot of simplicity through geometric shapes. It displayed heavy use of white and black, with wood for some furniture, and occasionally one color was highlighted.

These office designs support an open plan with many flexible workstations. Most rooms were spacious and had many windows for natural light.

These characteristics were notably more exaggerated in the private and for-profit organisations, resulting in a more modern and clean look.



*Fig. 17: Images that represent the visual style of the real environment*

### Virtual environment

As the final design will be a mobile application, the virtual environment will be characterised as the mobile applications that the target group already uses on a regular basis.

### Target group

I have currently spoken to more than twenty managers that fit the description of the target group, all of which owned smartphones. I can therefore deduce that all of them are at least familiar with the Android and/or Apple OS.



Fig. 18: Current versions of Android OS on the left and Apple OS on the right

Furthermore, I have been working in an office for some time now. Besides the interviewed managers I have been observing and casually questioning clients of THT Consulting that come into the office. I have created a collage of the applications that are being used by the target group; Appendix F2.

The collage consists of the applications for various newspapers (AD, Volkskrant, Telegraaf), banks (ABN AMRO, ING, Rabobank), types of navigation (Google Maps, Uber), networking (LinkedIn, Skype), and communication (Gmail, Email, Whatsapp).

### Main observations - UI design

The first thing that can immediately be observed is that all apps are displayed in portrait mode.

With the exception of Google Calendar, the apps use a minimal amount of colors; most even have a monochromatic interface. This gives a similar feel to the actual office environment. For the visuals they use either real life pictures (newspapers and LinkedIn) or simple icons for buttons.

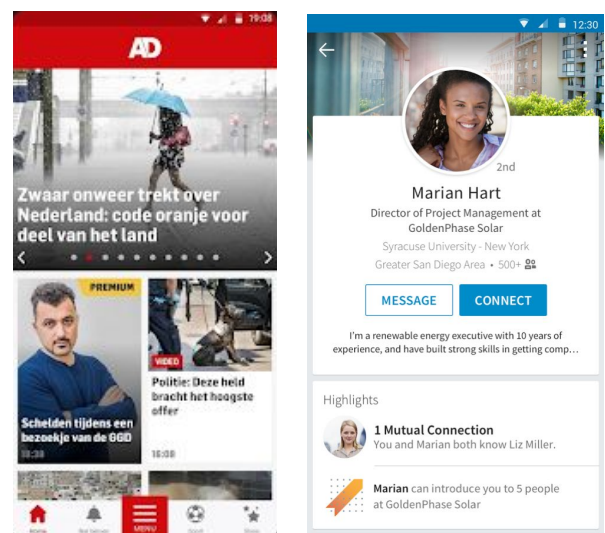


Fig. 19: Examples of UI designs that are being used; AD (left) and LinkedIn (right)

### Main observations - UX design

The user can navigate through all applications by using the top or bottom navigation bar or, in the case of the emails, the menu-button that is provided.

Notably, the only three interactions that are needed to use all functionalities of the applications are tapping, typing (which is done by tapping on letters) and scrolling. Even in Google Maps and Uber, it is not necessary to move the map by sliding as typing a destination will automatically move the screen.

The applications all use static visuals, meaning that there is no visible motion unless the user interacts with the screen.



## Trends

From surfing the web for various application designs and through my own experience as a smartphone user, I have noticed that applications currently look different than a couple of years ago. The current trend amongst mobile UI design languages seems to be minimalistic design; more specifically flat design, which was introduced by Windows in 2010 as “Metro” to compete with the iconic skeuomorphic design of Apple in the late 2000s, and material design, which was introduced by Google around 2015.

I will briefly explain these trends to create an understanding of the current mobile UI/UX design landscape; allowing to create the distinction between what works and what does not work.



*Fig. 20: The three design trends as represented by the companies that popularized them; from left to right: Apple, Windows, Google*



### Skeuomorphic design

Skeuomorphism has been used in the past to introduce people to the digital world by relating its elements to real world notions.

#### Pros

Many gradients, heavy shadows and complex textures help the user translate the physical world to the abstract digital world and easily guides first time users to understand an interface.

#### Cons

The amount of detail can be performance heavy on the device and distracting the user from the actual content.



### Flat design

Flat design has been introduced as a way to explore the digital world in itself without a necessary connection to the physical world.

#### Pros

The lack of gradients, shadows, textures increases performance and creates a modern, clean, non-distracting look. Every element on the screen has a function.

#### Cons

The lack of details can lead to confusing navigation as there are no use cues. It also limits branding possibilities.



From an interaction perspective there are noticeable differences between the three visual styles, see figure 21. There has even been a comparative study conducted between skeuomorphic design and flat design on usability and aesthetics (Spiliotopoulos, Rigou & Sirmakessis, 2018). The results depict no clear preference between the two styles. Before testing the designs, flat design seemed to be more usable and skeuomorphic design more aesthetically pleasing among participants. After use however, the study stressed that older people preferred skeuomorphism as they have not grown up with technology and it was more intuitive for them in terms of visual use cues. Experienced younger people were hindered in usability by the overload of skeuomorphic visual details, some of which irrelevant to use.



*Fig. 21: Example of two designs that were used in the comparative study*



## Material design

Material design builds on the concept of stacking pieces of paper and could be placed between skeuomorphism and flat design.

### Pros

The subtle gradients, light shadows, and simple textures combine simplicity and realism. Introducing a subtle Z-axis allows for a clear hierarchical design and guides the user without distractions.

### Cons

The amount of shadows and gradients in combination with heavy use of animations can result in unpleasant and jerky visuals.

The visuals that were used for the test tried to follow flat design or skeuomorphic design in their purest form. There should be noted that these tests only hold for the specific designs that were used. As has been mentioned in the discussion section of the study, more tests are required to allow for generalization.

That statement is key for this project as it supports the idea of conducting my own test.

This study does not cover material design that has been discussed. Even besides the three mentioned design languages that have been most prominent in the UI/UX design landscape there are more movements, such as Ant Design which is created by Alibaba, Lightning design by Salesforce, Polaris by Shopify, IBM's design language and AirBnB's design language.

Most design languages have been created by big companies to establish brand identity amongst a range of products. These languages are copied and/or taken as an inspiration by smaller companies for creating their own digital products.

### Game environment

Lastly, it would be helpful to look at the current visual styles of mobile games.

The assumption that the target group are no heavy gamers was confirmed by the interviews. Nevertheless, there were four managers that did share that they play mobile games; three managers played Candy Crush, or other casual games which they did not want to specify, and one enjoyed playing Minecraft. I have created a collage with the games of the target group and games that are either popular and/or look good to me; Appendix F3. I have played all games that are shown.

### Main observations - UI design

The orientation of games tends to be in landscape mode, with the exception of casual games and serious games. The game worlds however can be 2-dimensional, 3-dimensional or other, e.g. using parallax or isometric visuals.

What immediately can be noticed is the visual loudness of the games. Mobile games are dynamic, every action results in multiple reactions from the app (rewards popping up, sound effects, beams of light, etc.). Even when a player is not acting, the game continuously shakes and jiggles elements to tease the player to play with them.

Besides UI design, games also make use of more artistic visuals. These visuals are creatively explored and spent more attention on, ranging from photorealism to pixel art to cel shading. In most cases the UI design is in coherence with these visuals.

### Main observations - UX design

Instead of having a navigation bar, most games make use of menu- and pause-buttons.

There is also more types of interactions; making the player slide, move, press and hold, etc.



Fig. 22: Some example images of the game environment collage

## Conclusion

The current real and virtual environments that the target group encounters are visually simple, while mobile game environments tend to be visually loud. The simplicity of the virtual environment could be due to the current trend of minimalism in UI design. This simplicity translates to interactions as well, meaning that the target group cannot be assumed to be especially agile in touchscreen interactions.

There are many different design languages made by companies, which can be used as visual style guides. Each of them have their general pros and cons in terms of hedonic and pragmatic quality. These qualities can only be assured to have come to fruition through the evaluation of specific designs, as designs based on the same visual style can still differ from each other. I will therefore create three concepts based on the three contemporary trends that have been discussed.

As all interfaces that have been observed to be used by the managers are displayed in portrait mode, I will make sure that the concepts are also displayed in portrait mode.

## Limitations

The applications that have been studied are based on the clients that came in, which ends up being Dutch newspapers and banks. These styles are different than in for example more Eastern parts of the world, where complex layouts are generally more accepted. You can observe this in the most popular website of Japan, see figure 23. As the application will first be targeted to the clients of THT Consulting however, I will ignore those for this project.



*Fig. 23: A screenshot of what the UI of the most visited website of Japan looks like*

There are many more aspects to visuals that I have glanced at but purposefully not covered in depth here, think of typography, color theory, composition of elements, etc.



## 4.8. Visual game concepts

Based on the visual style research, I have create three visual game concepts. Each concept will be described in terms of visuals and its interactions.

For the visuals, I will keep it limited to the design of the boat, tips and the people. As these have the most important functions inside the game.

For the interactions, I will keep it limited to the way users can switch between sections (map, journey, journal), how the user interacts with tips, other boats and selects his/her answer.

I have created a visual style collage for each game concept with elements that inspired me; Appendices G1-3. The three game concepts are respectively based on flat, skeuomorphic and material design. Instead of tightly following the guidelines of these currently trending styles, I have taken them more as a source of inspiration.

### *First impressions of potential users*

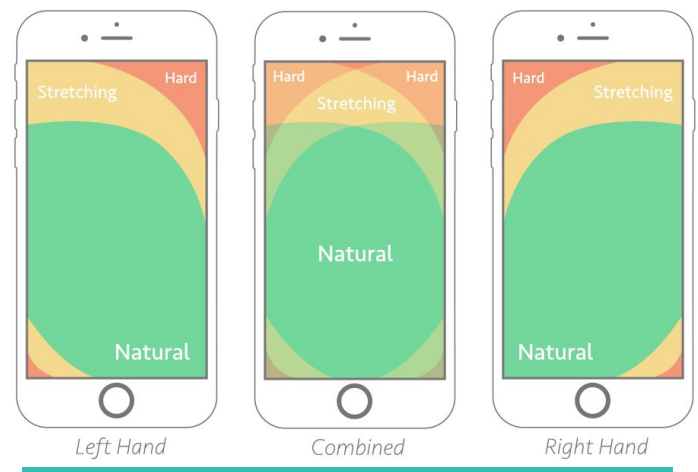
When clients come into the office of THT Consulting, I always open the door for them and invite them to coffee. Normally, we have some chit chat while they are waiting for their meeting. As all clients fit the target group, this gives me the great opportunity to show them what I am working on as well. Before doing a formal evaluation, I have therefore shown various managers the concepts and asked for their first impressions.

Besides that, I have also shown them to my friends and the interns that I work with. These are all between 20 and 30 years old, which makes them part of the generation that feels comfortable using applications. Not to mention, they are the new wave of managers.

After they had given their opinion, I asked them to choose which concept they would preferably use based on their impressions.

### *Rule of thumbs*

As a side note, I have also taken notice of touchscreen ergonomics. During the creation of concepts, I will only place the elements at the top of the screen that serve as visual information. These do not have to be interacted with, as they are not in an easily reachable place when the phone is in portrait mode.



*Fig. 24: The best reachable and therefore most ergonomic places for mobile users*



# The three concepts

This chapter describes three concepts by their visual and interaction style. Furthermore, possible development and design elements are discussed. One is chosen based on the list of wishes, and is further developed into a paper prototype. Finally, a test followed by an exploratory interview is conducted to determine which concept is preferred in terms of visuals and interactions. The insights are used to improve the final concept.

### Game concept #1 - "The flat one"

The first concept is based on minimalistic flat design and uses many colors. It heavily contrasts the work context and promotes a playful look.

#### Visuals

The visuals are created using 2D minimalistic flat design. These visualisations come through in both the user interface and art, creating one coherent visual design.

#### Interactions

Similarly to the target group's virtual environment, the user can navigate through the application using navigation bar at the bottom of the screen and the only necessary user actions with the screen are tapping and typing.

*"This looks very childish, it reminds me of a children's book"*

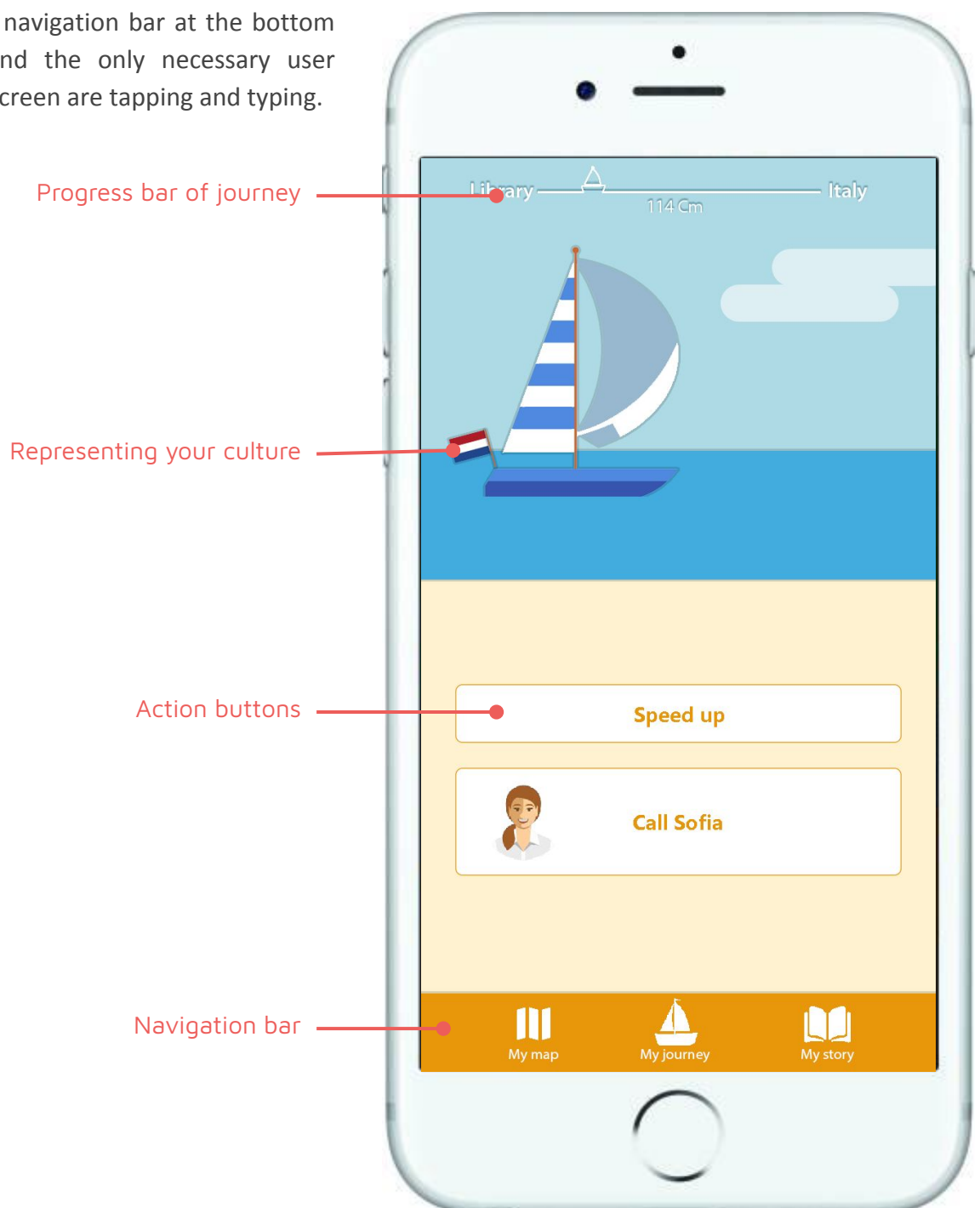
*61-year-old male procurement manager*

*"I like that art style and the colors!"*

*27-year-old female economy student*

*"I would like to use this application the most, as it reminds me the most of other mobile applications I know"*

*21-year-old male economy student*



## Development

This design relies on self-made graphics. I have contacts from Mediacollege Amsterdam that would be able to create these. From experience, I can guesstimate that it would take around twenty weeks for one person to work out all visuals for this concept, including one country.

From a programming perspective, there are no big challenges. The interactions of the user with the touchscreen are all quite conservative. The visuals will probably be made dynamic through spritesheets, which is feasible.

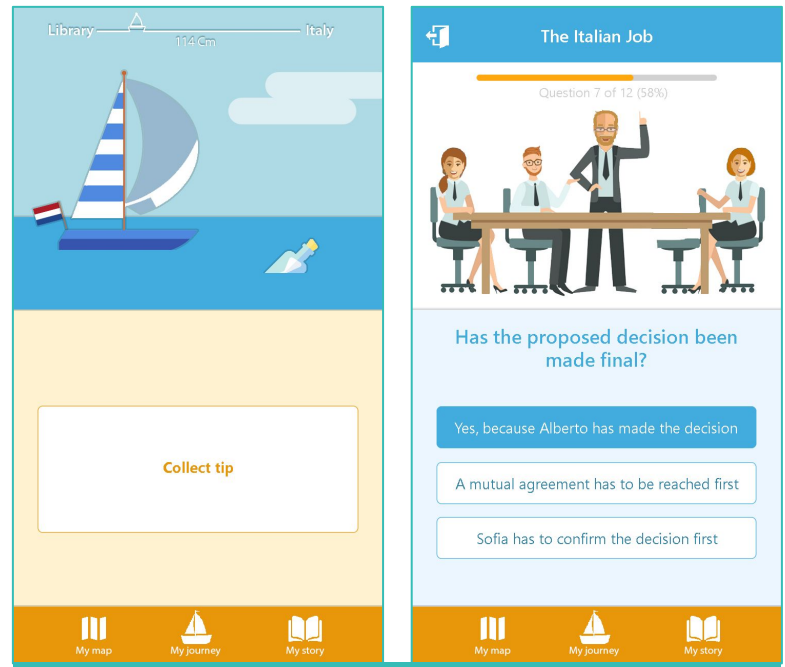


Fig. 26: What a tip (left) and selected button (right) look like

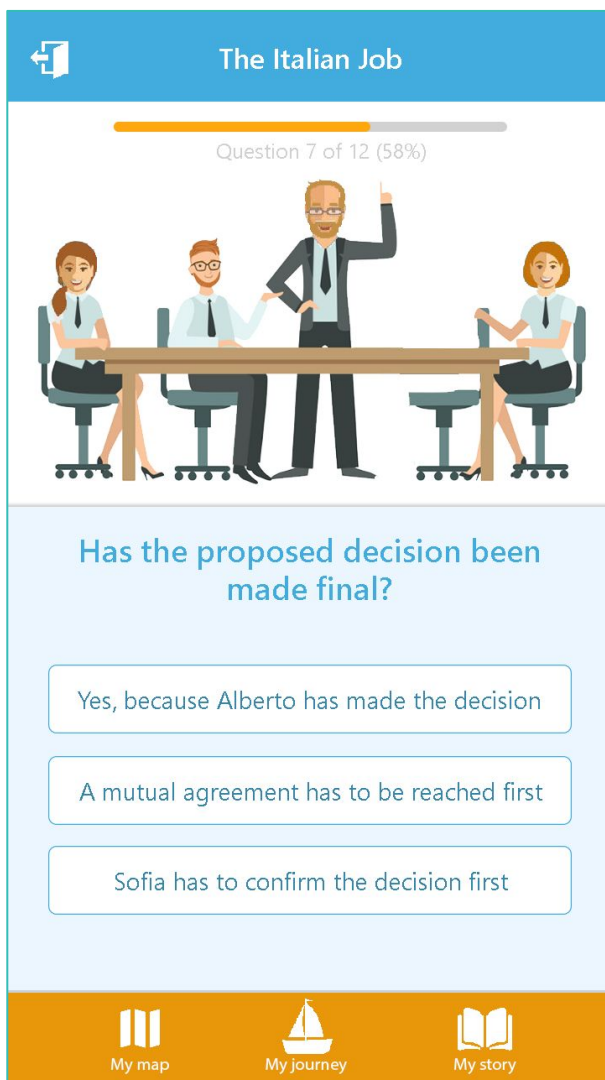


Fig. 25: An example meeting

## Design

### Cultures

Cultural different people are conveyed through the visuals designed in the 2D flat style. Each person has its own appearance with cultural characteristics, such as skin color and clothes. Feedback on the user's answers on questions are communicated through the facial expressions of these characters.

### Use cues

All user actions are done through buttons, either in the navigation bar or the action buttons. The action buttons are all created in the same style to communicate which elements can be interacted with.

Tips are collected by pressing the "Collect tip"-button, when a message in a bottle can be seen floating in the sea; see figure 26 (left).

## Game concept #2 - "The real one"

The second design makes use of the user friendliness of skeuomorphic design. It thereby focuses more on making sure that the user feels familiar with the design.

### Visuals

The translation between the real world and game world is kept to a minimum by using real world videos and a skeuomorphic interface. Traditionally skeuomorphism is about mimicking real products, but I found it easier to draw inspiration from existing skeuomorphic interface designs. That is why the collage only contains digital images.

### Interactions

Navigation is handled here through buttons under the virtual screen. Instead of separating the application in multiple sections, there is only one interface as if it were a real product. By pressing one of the buttons, the screen "changes channels" and the bottom section flips around its vertical axis to show options corresponding to the new "channel".

*"Very clear, looks good. Could you make the buttons bigger?"*

*55-year-old male sales manager*

*"I like this, because I can see who I am talking to"*

*56-year-old female L&D manager*

*"Looks old fashioned"*

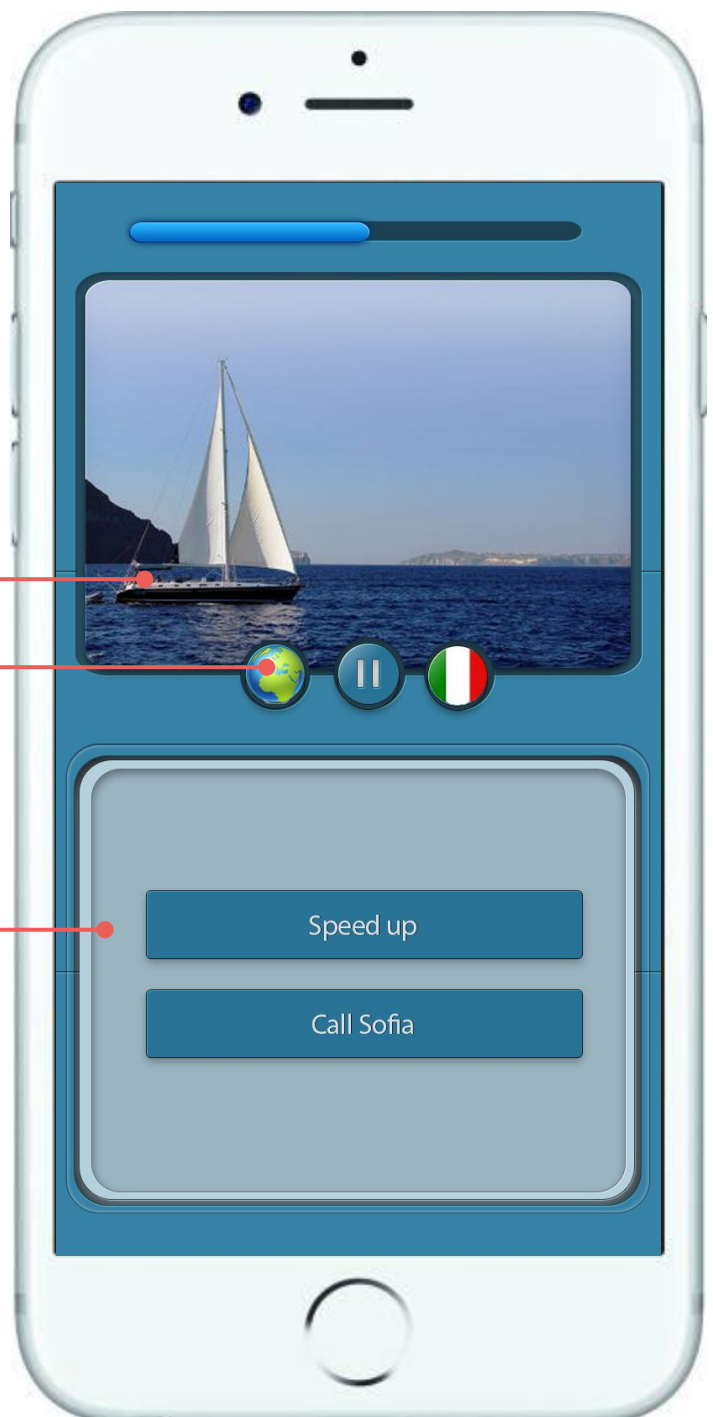
*27-year-old economy student*

Video playing on non-interactive screen

Navigation buttons



Section that flips

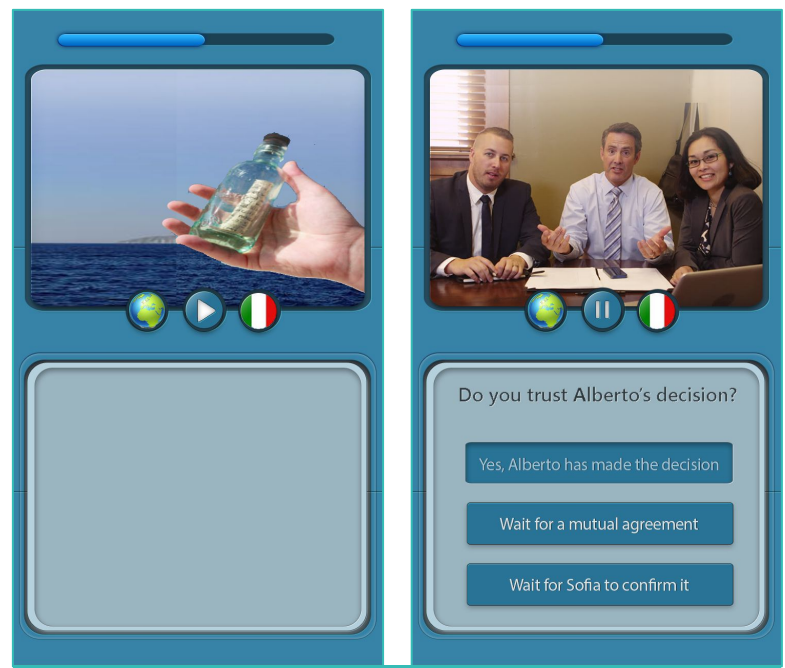




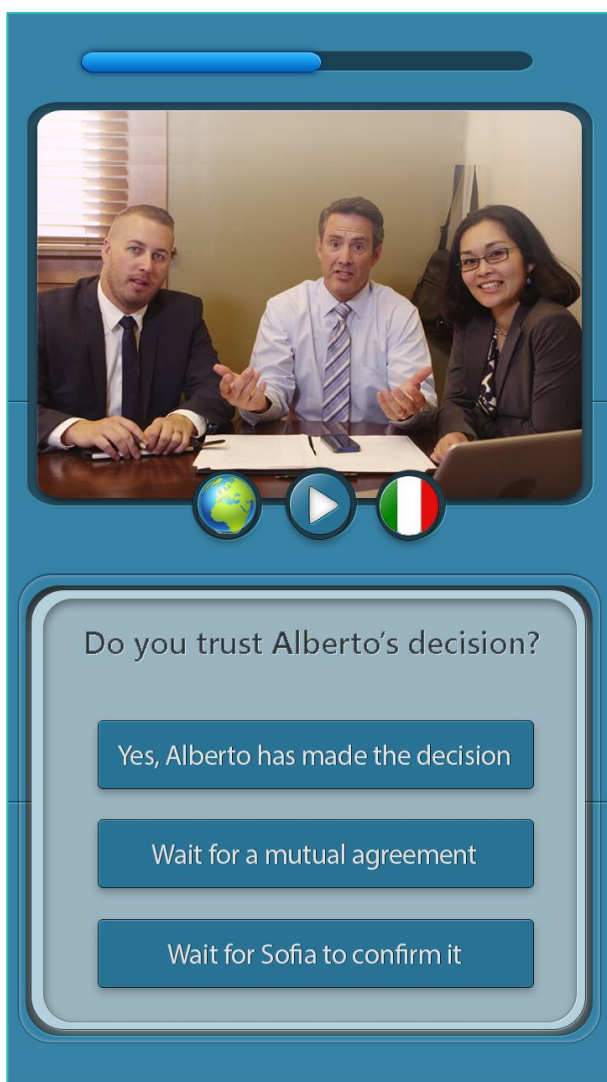
### Development

This design will need a video to be created for each situation. The client has mentioned that this would be easy for them to do with their contacts (based on the quality). Some boats were even mentioned that could be arranged.

As the design basically makes use of a series of videos, there is not more programming necessary than in the first design. The only thing that should be taken into account is how to optimize these videos to avoid jitter.



*Fig. 28: What a tip (left) and selected button (right) look like*



*Fig. 27: An example meeting*

### Design

#### Cultures

Different cultures are represented in the same way as in the real world, which is shown by the people in the videos.

Feedback on user's decisions is given through reactions in the videos, which can be complemented by audio.

#### Use cues

Buttons try to be made clearly interactive through their familiar virtual textures, shadows and color gradients.

Tips are collected by pressing play when the screen shows a message in a bottle; see figure 28 (left).

### Game concept #3 - "The isometric one"

The third design stays true to and reflects the work context of managers more, by only using colors as accents. Contrasting to the virtual environment however, the interactions are more diverse and it heavily relies on motion through animations for feedback.

#### Visuals

In this concept, the additional function of colors is used to draw attention. The visuals are represented through an isometric perspective, and the user interface is based on material design to complement the introduction of a nuanced z-axis.

#### Interactions

Navigation through the app is handled more creatively, by making use of a menu-button. In terms of interaction, this asks users to swipe and handle the concept of hidden elements.

*"Looks good, elegant. Could you make the visuals of people less abstract?"*

*61-year-old male manager*

*"I like this one, as the perspective makes me feel integrated in the room and involved in the meeting"*

*58-year-old female manager*

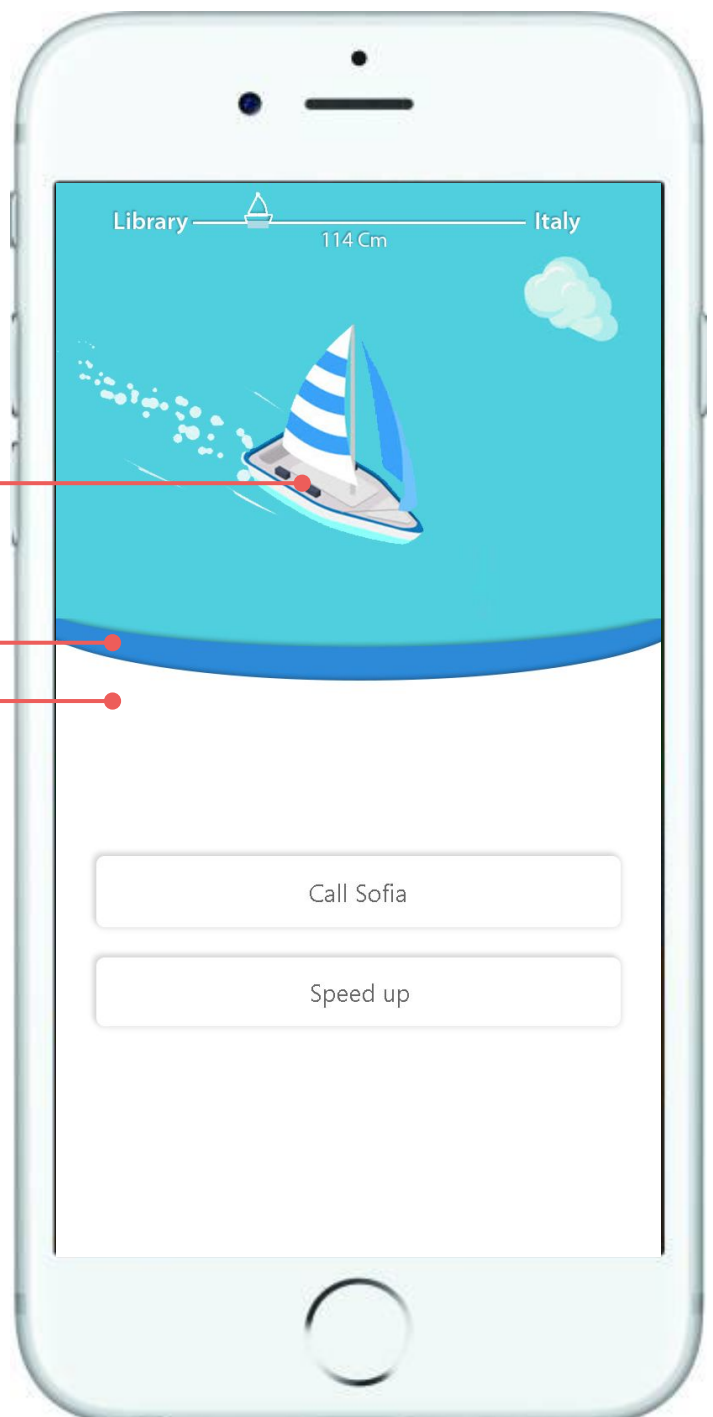
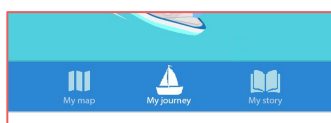
*"Looks very nice, but I like the first one because it is cuter"*

*26-year-old female economy student*

Tap on boat to reveal user actions

Tap to reveal navigation

Slidable section



## Development

This design consists of isometric visuals. These can be created from scratch or taken from pre-made online libraries. The graphic elements are separately placed in the environment, which means that they can each be used for an unlimited amount of situations.

The software behind this application does ask for some more attention, especially in the beginning. As the separate elements need to be placed into the virtual environment and there are more types of interactions, like swiping.

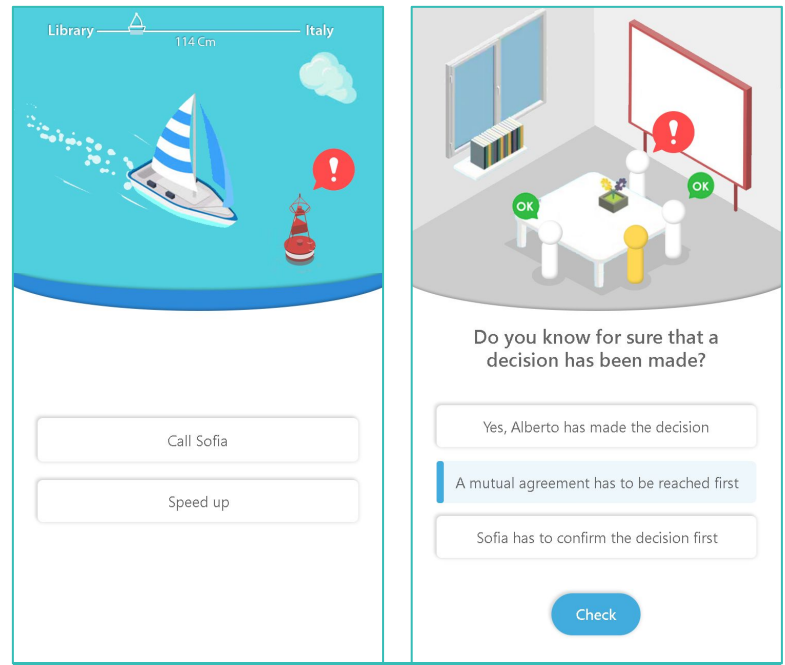


Fig. 30: What a tip (left) and selected button (right) look like

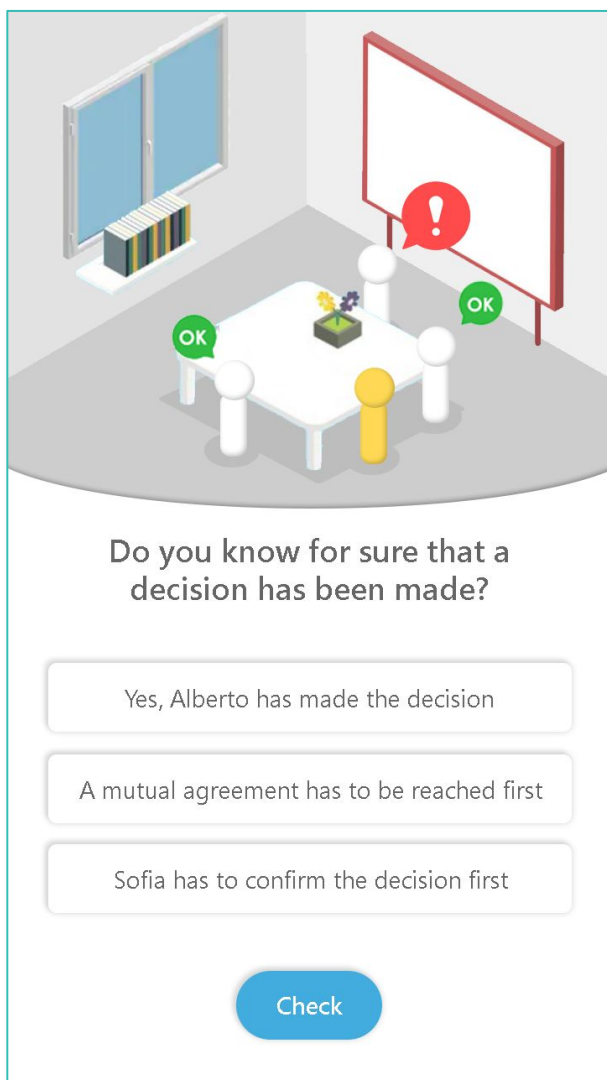


Fig. 29: An example meeting

## Design

### Cultures

Cultures are represented in a more abstract manner. The cultural characteristics will be communicated by pressing on the person and reading the popup. Feedback is given through colorful popups, which can include emojis, small amounts of text or text symbols.

### Use cues

The isometric style allows for more room for animations as it makes more sense for elements to grow, bounce, etc. than in flat or skeuomorphic design. This gives a lively feel to the application as with other games and supports feedforward. All elements can be interacted with except the background.

Tips are represented by buoys and can be collected by tapping them or their accompanying popup; see figure 30 (left).

### Conclusion

Based on the first impressions, the target group consisting of managers between 30-year-olds and 65-year-olds preferred the second, skeuomorphic concept. The students between 20 and 30 years old preferred the first, flat concept. This is not surprising as this generational difference between skeuomorphic and flat design was also found in the visual style research. These are only first impressions though. To evaluate which design is truly preferred in terms of hedonic and pragmatic quality, a more elaborate evaluation should be conducted.

The third concept was overall the best-received, but more rarely preferred. It could be described as falling between the generations.

### Limitations

The first impressions of eight people have been taken into account, three of which were not part of the target group. Their opinions have been based on the pictographic concepts with a short explanation. This data cannot be generalised.

The third concept was heavily based on one animation that I had found on the internet. Since the concept makes use of many animations and I only worked out the concepts pictographically, I believe that this concept fell short.

Working out all animations for the concepts would be too much work. Instead, I will evaluate the pictographic concepts in combination with one premade open source animation from the internet for each. This animation will be selected on its resemblance to the final appearance of each concept.



*Fig. 31: A still image of the animation that inspired the third concept*

## 5.1. Weighted objectives

For the pragmatic reason that I currently lack managers to test with but I do want to choose a design to progress, I will evaluate the concepts on some of the predefined design wishes. I will only use the wishes that are differently met between the designs and those that can be evaluated without the user tests.

The Weighted Objectives Method would be the best method in this case, as some criteria differ in importance while others do not; this can be regulated by assigning them corresponding weights. Afterwards, each criteria is scored based on the three concepts.

I have discussed the listed objectives with the client to back up the decisions on the weights and scores of the criteria. As the client is keen on working this game out further into a fully functional representation of the theory, there are noticeably a lot of points on scalability that cover this viability. For that same reason, the weight of the first impressions of the target group is equal to that of the first impressions of the “future target group”.

### Evaluation

I shall quickly elaborate some of the consideration for the scores of each concept.

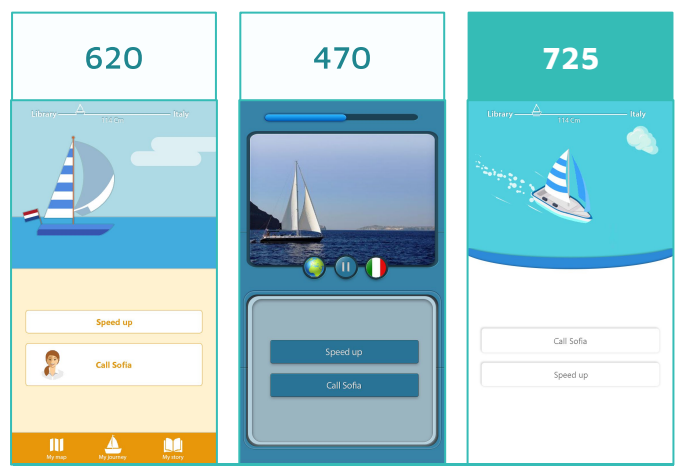
For the first concept graphical images have to be separately made for each situation, making its feasibility and scalability low. The playful approach and graphics do support the addition of many game elements, such as point systems.

As for feasibility, the client said that the videos would be easy to create. However, the videos will take a lot of time to work out. For each different situation a video has to be created, making the scalability low. The design does allow for some game elements to be added, but they are harder to introduce because of the fixed design.

Similarly to the first concept, the third design asks for graphical images to be created. Once they have been created however, they do not have to be altered to be used in different situations. This makes the concept highly scalable. The interactive layout also allows for adding more game elements.

### Results

According to this method, the third concept is the best; see figure 32 and Appendix H.



*Fig. 32: The total weighted scores for each concept for the criteria*

### Conclusion

The third concept wins because of its high scalability. This concept should be worked out further. Results from the first impressions and other research should be taken into account for the development.

### Limitations

The evaluation has been done through the perspective of me and the client and was therefore based on our knowledge. Even though I do have experience in application development, there are countless tools on the internet. I assume that there are relevant tools and considerations that I have overlooked. These might have changed the results.



## 5.2. Paper prototypes

As mentioned, I will conduct a more elaborate evaluation of the hedonic and pragmatic quality of the concepts. The focus of the evaluation will be on the chosen concept; “The isometric one”. To test the usability, I will work this concept out into a “functional” paper prototype.

### Research questions

There are two main research questions for this study, supported by subquestions.

#### User interface

What do the managers think of the visuals?  
→ Is it clear what the visuals represent?

#### User experience

What do the managers think of the usability?  
→ Is the feedforward clear?  
→ Is the feedback clear?

#### Content

What do the managers think of the meeting categories?

### Two tests

The chosen concept has been worked out further than the other two, so the three cannot be treated and evaluated as equals. Instead the lesser two will be used as valuable tools to create input for suggestions, which could be added to the chosen concept.

I have therefore split the evaluation into two parts: one for the chosen concept and one for the two other concepts. Both tests are conducted right after each other with one participant at a time.

### The isometric test

The usability was tested through a detailed paper prototype of “The isometric one”.

### Materials

The paper prototype has been worked out far enough to include the main interactions with the journey, map and journal; Appendix I.

### Method

The paper prototype of “The isometric one” was placed on a table, showing the screen of the map first. I asked them what they would do if they had a meeting with Italians in two weeks. After they had started their journey towards Italy, I asked them to analyse the screen. I would then skip ahead in game and introduced a buoy, asking what they would do. After they had saved the cultural tip, I asked them to now open the tip; which they could have to access by finding and going to their Italian journal. Finally, I showed them what the meeting looks like and asked them if they understood what everything meant, which options they had and what they would do.

After the test, an interview will be conducted. The interview will be explorative to understand which elements they liked and which they did not. To make sure the interview covers the hedonic and pragmatic quality of the covers, I will ask the participant to fill in the AttrakDiff questionnaire and elaborate their scores.

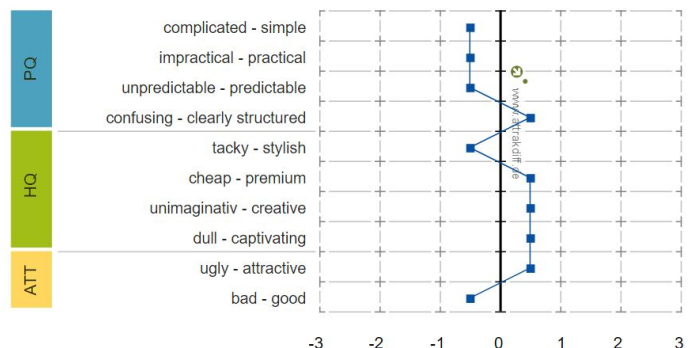


Fig. 33: An example of a filled in AttrakDiff questionnaire

### *The Flat and Skeuomorphic test*

This test is purposefully conducted after the one with the paper prototype to make sure that the participants will be familiarized with the concept of having a map and journal, as these concepts do not have worked out visualisations of those elements.

### *Materials*

The visuals were evaluated through the pictographical concepts that had been created (Appendices J1-2), just to make sure that the presentation has enough detail to convey the feel of each concept.

### *Method*

First, the journey screen of “The flat one” was placed on the table. I asked the participant how they would access their map and journal.

Afterwards, I showed them a tip.

Finally, I showed what a meeting would look like, and I asked how they would act.

During the entire test, the participants will be incentivised to think aloud again.

The exact same process is gone through for “The skeuomorphic one”.

Similar to the first test, an interview will be conducted to understand which elements they liked and which they did not. This interview will be guided by the AttrakDiff questionnaire in the same way as the first one.

### *Participants*

I have interviewed four participants in total. Two of which were experienced managers of  $\pm 50$  years old; one male and one female. The two other managers were  $\pm 30$  years old; both female. Additionally, the younger managers were both managing the design teams of a software application; referred to here as design manager.

As mentioned before managers are all busy at work, the younger two participants left before filling in all three questionnaires. They did give helpful comments before leaving however.



*Fig. 34: The paper prototype (bottom), the two concepts (top) and questionnaire (right) after one of the tests*

## The isometric test - Main insights

### The map

All participants understood that the island in the middle was their island and that the flags represented the nationalities. They also knew that pressing the flag icon meant that they were selecting the country.



### The journey

It was unclear to them what the word “Library” meant. Three of them thought that “Cm” meant centimeter instead of Cultural miles.

Two of them asked if they could tap on the boat to see their own cultural profile.

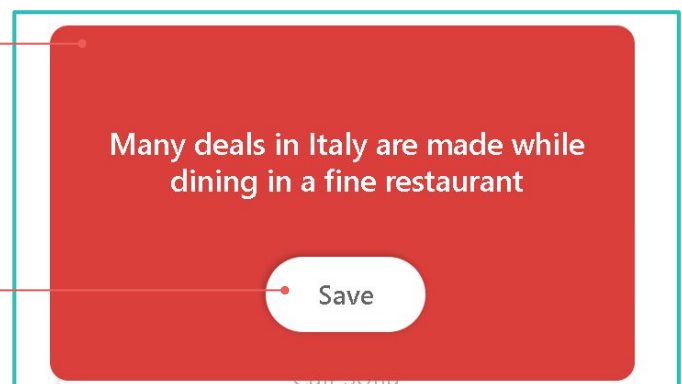
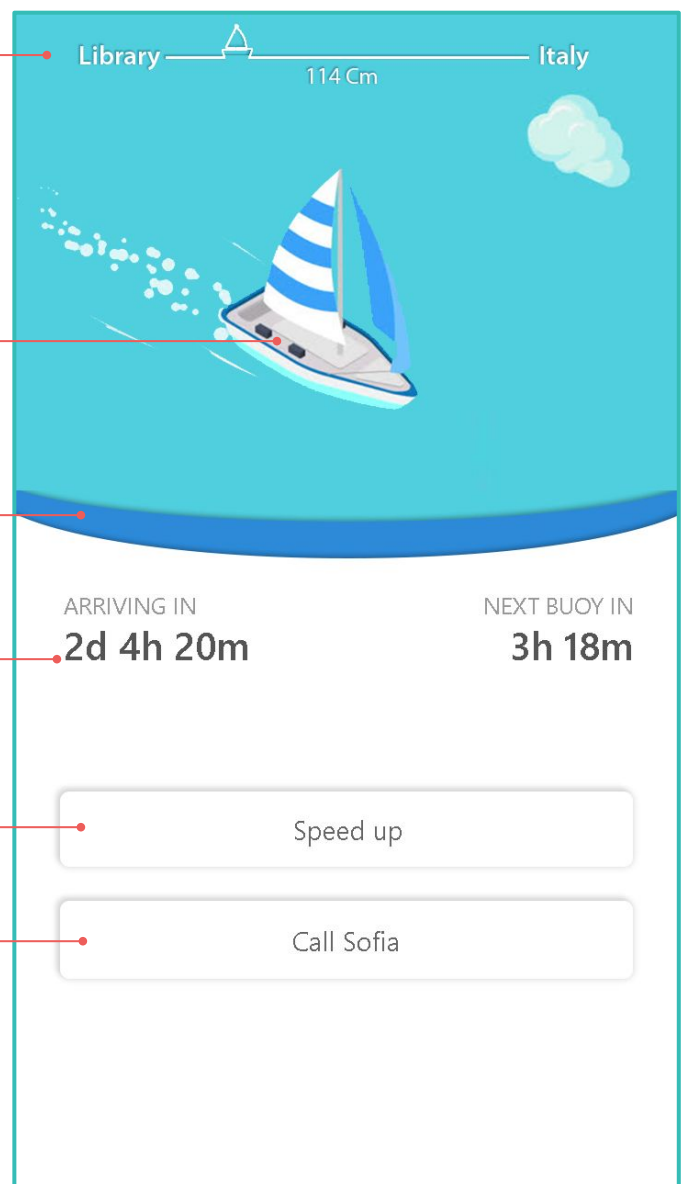
Nobody knew that this part was an interactive hidden navigation bar.

Three of them asked if they had to wait two days in real life, or if it was just a gimmick to give a sense of realism to the travel concept.

It was clear that both buttons were pressable, but two of them did not understand what the speed up button would do. Nobody knew who Sofia was nor guessed it could be a contact person.

It was unclear in which category the tip would be stored, despite the matching color to the “Preparation” category.

All of them understood that this was a cultural tip. Two participants did say that they would like the option of not saving the tip, as they felt saving should only be done with important information.

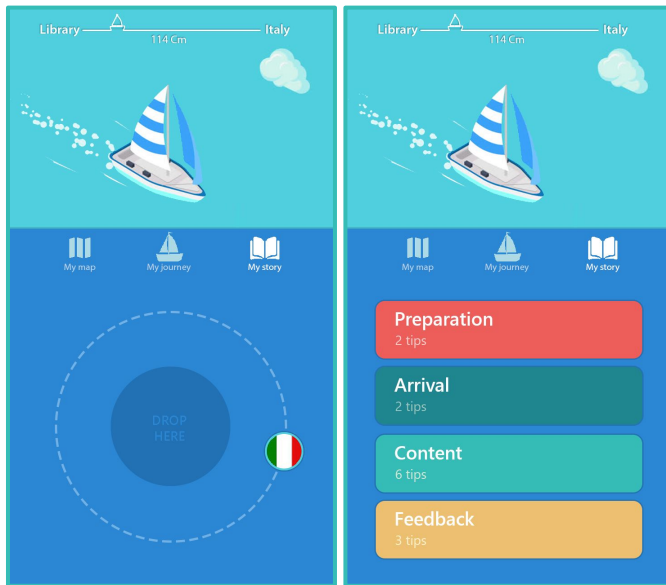




### The journal

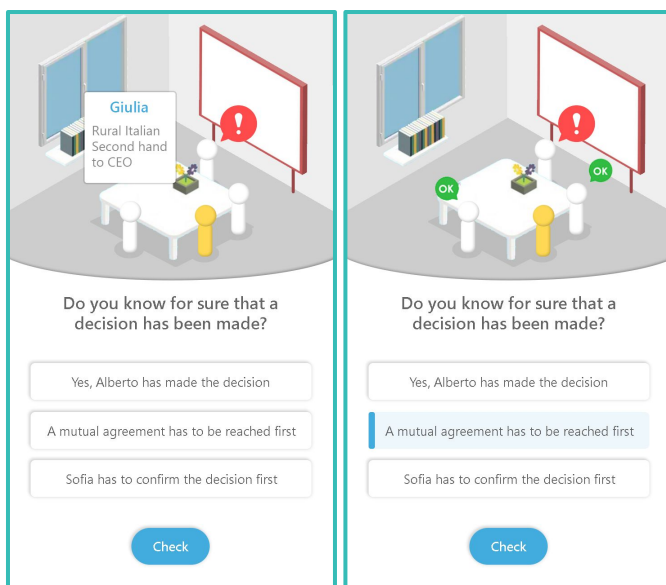
The participants all pressed the flag icon, instead of dragging it into the center.

Every participant understood that the categories of the tips represented the stages of the meeting and that the tips are categorised as such.



### The meeting

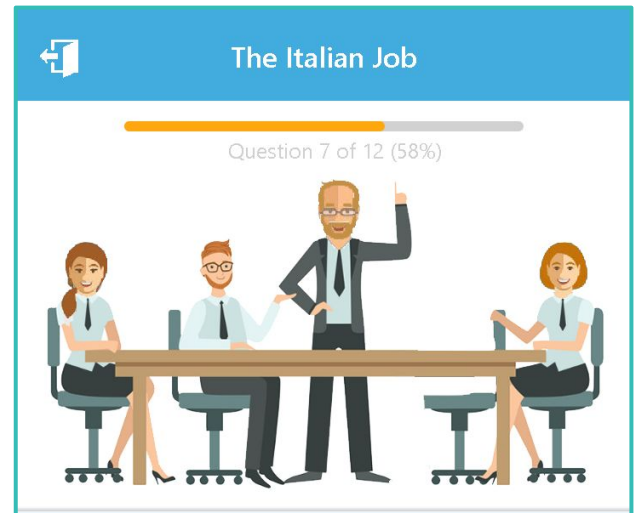
Even though, there was a posed question on the screen with answers, one participant explicitly wanted to press the popup first to see if it hold more information.



### The Flat test - Main insights

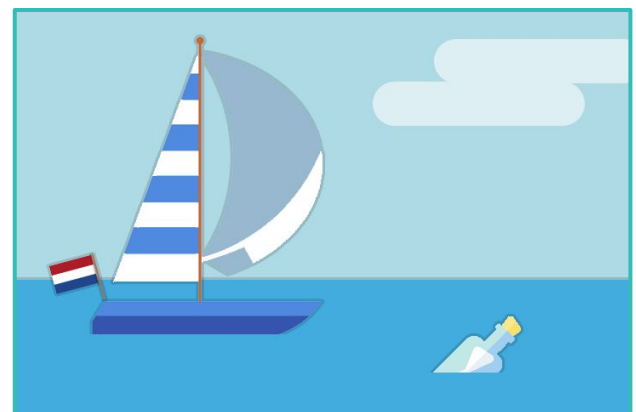
*“The visuals of this design are too flat”*

±30-year-old female design manager



This design was perceived to be more simple because of its flat visuals and clear navigation bar. This made them score the design as more predictable and more dull.

They did think that the character visuals were more captivating as these are clear people with faces.

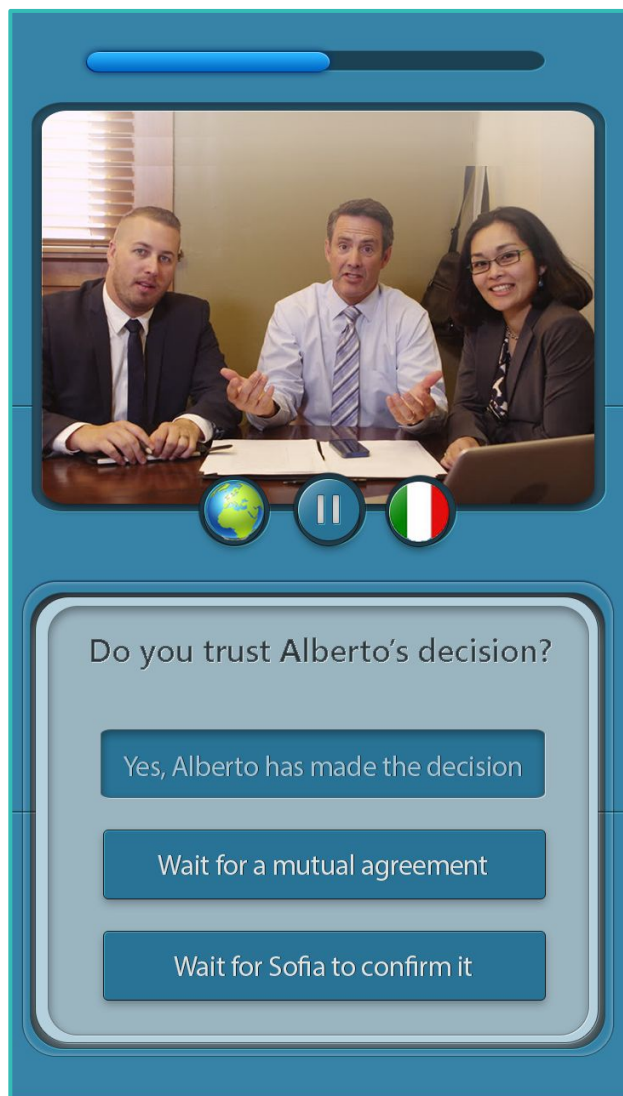


Two of them said that the message in a bottle was a clearer metaphor for receiving a tip. One of them did add that the buoy made more sense, as laying out buoys to the Italian island serve as guidance to the player.

## The Skeuomorphic test - Main insights

*"I like the videos, but the interface looks less attractive and old-fashioned"*

±30-year-old *female design manager*



The meeting-visuals of this design were best-received, because it had they were the most recognizable to the real context and therefore most relatable, namely real people. As similarly seen during the first impressions, the two experienced managers thought that this interface was more attractive than the younger design managers did.

## Conclusion

In terms of visuals, they seemed to like the simplicity and colors of "The isometric one". Their shared opinion was that the characters in the meeting were too abstract however. They liked the more recognizable characters from the other two concepts. Furthermore, there was a lack of context. The game world was not explained well enough through its visuals, as they could not easily grasp the concept of time, cultural miles, the library, etc. More contextual guidance should be in order.

As for usability, the interactions that were unclear were the ones that had no familiar use cues; especially the navigation, the boat and the characters of the meeting. Popups did apparently increase the feedforward, as everyone understood that the buoy could be tapped even though it was located next to the boat. The participants used different ways to perform actions, most of which made sense. I think these should be taken into account and multiple options should be made available for some actions.

The way in which participants interpreted the visuals and expected the interactions to react gave me new ideas.

As the test displayed the concepts through static images, the hard to understand use cues can be improved by using movement in the digital version.

## Limitations

Paper prototypes are limited in testing usability experience, besides the just mentioned lack of movement to steer the player into performing the right actions or providing feedback. Another prime example is that ergonomics are different. On a phone, the top left corner is normally the worst reachable place and the bottom right corner the best. For a paper prototype there is no difference between those two. These limitations have been taken into consideration during the test.

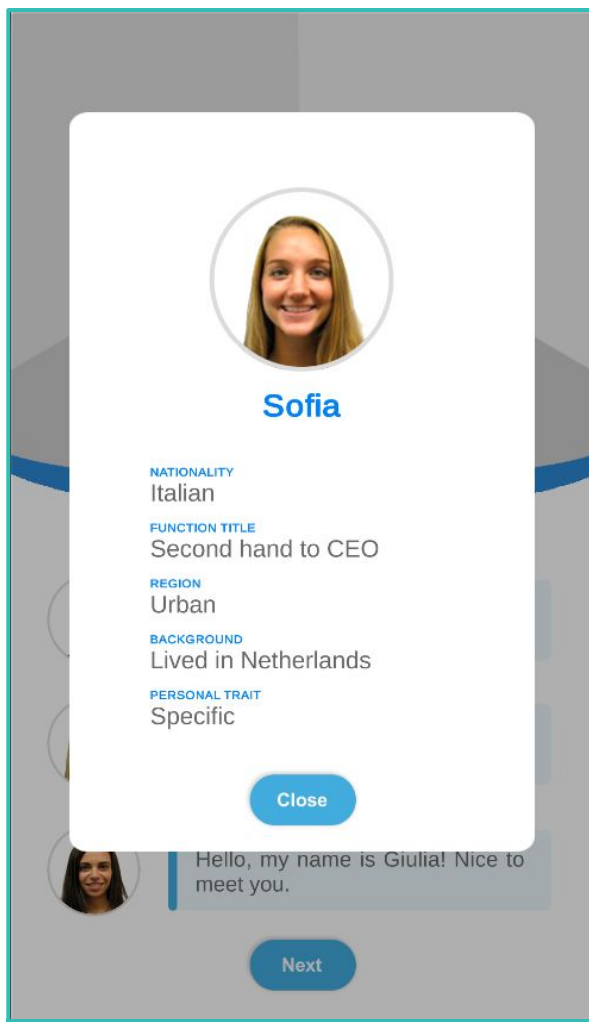


# The final concept

This chapter uses the insights from the previous evaluations to describe the final concept. Besides the visuals and interactions, it tries to capture the user experience by explaining what the gameplay flow and interaction visions of the game should be. This will lay down the guidelines which the final game should preferably adhere to. The minimum viable game is then described and presented in the form of a digital prototype, which will be tested in the next phase.

## 6. The final concept

I shall first describe the final concept by going through the changes that are made based on the insights from the test of the previous chapter. The two biggest observed issues in terms of the game experience were the abstract figures in the meeting and the missing context. Both of these are fixed by giving the figures a human identity. Each figure is now a true character with a name, profile picture, individual personality profile and dialogue.



*Fig. 35: Sofia's in-game profile that shows her culture besides nationality*

### Profile picture

The strength of these profile pictures is having the human connection that was experienced in "The skeuomorphic one", while still keeping the game scalable. Each character only has two pictures, one smiling face and one neutral face.

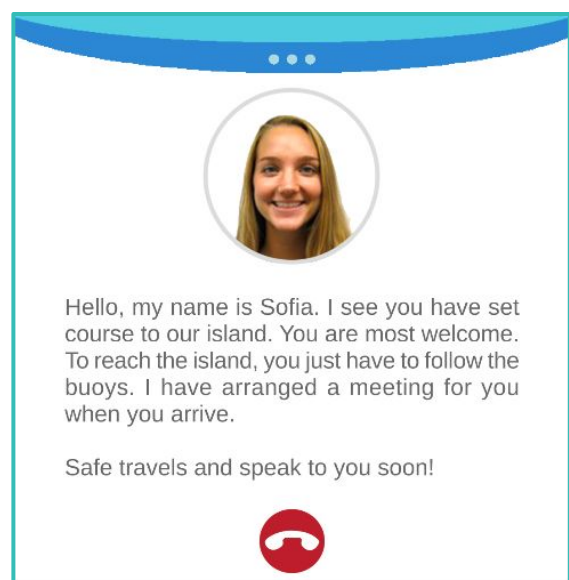
### Individual personality profile

As mentioned on page 39 of this report, to avoid the creation of stereotypes based on nationalities and for the sake of realism, each character has an individual personality profile; see figure 35. This further strengthens the fact that national culture is just one of the many different types of culture.

### Dialogue

The other mentioned reason for having specified individuals is because many questions have multiple correct answers for different reasons. I have toyed with ways of implementing a system that conveys this thought. Eventually I chose the most realistic approach, which is to have each character react individually in the meeting based on their own cultural background. This reaction is presented in the form of a popup and quick line of dialogue.

Besides reacting on player's answers, dialogue is also helpful to explain the context in the meeting. By letting the characters speak between questions, the narrative can smoothly and realistically transition between the questions. Outside of the meeting, dialogue is used to explain the context of the game.



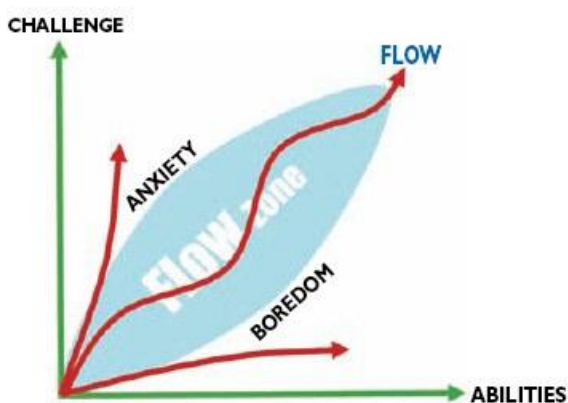
*Fig. 36: Sofia is telling the player what is going on while staying in character*

## 6.1. Gameplay Flow

At the beginning of this phase (on page 33), I had surgically dissected what a game is and structured the elements to create a framework for constructing games. Despite its helpfulness, the framework does not capture the warmth and immersive experiences that video games can generate well enough for me. The magical thing that drives me towards games and hooks me is the compelling experience and feeling of flow. When managed just right, a game allows me to lose myself into its game world for hours.

### Flow - "The zone"

That phenomenon has first been described by Csikszentmihalyi (1990) as flow. A person reaches flow when the perfect balance between perceived challenge and skills is met during an activity. When reached, pleasure will be experienced from performing the activity itself. This concept has been linked to game design by Chen (2007) as the Flow Zone.

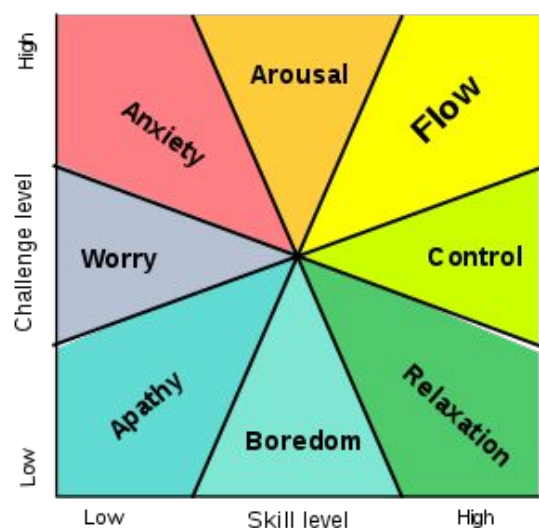


*Fig. 37: The Flow Zone in games as presented by Chen (2007)*

One thing to look out for when connecting flow to game design is that flow is based on performing an activity, while games include a series of interactions; as described in the game construction framework. I have played plenty of games which occasionally included activities that were not especially challenging or way too challenging for me, but kept me entertained due to the context of the game in that moment.

### Gameplay flow - Exploring other zones

I would therefore like to separate the flow of an activity from the flow of gameplay, and introduce what I will call gameplay flow. Gameplay flow is all about keeping the player entertained. That is also what I meant when I said compelling experience. The flow model actually describes the zones besides the Flow Zone (Csikszentmihalyi, 1997); see figure 38. Gameplay flow will be described here as aptly switching between different zones to support a compelling experience.



*Fig. 38: The zones of the flow model (Csikszentmihalyi, 1997)*

### Supporting the gameplay

As another section in the game construction framework describes, games are not just interactions through gameplay but also a gateway to another world; the gameworld. The gameworld should convincingly be constructed to support the gameplay. Nowadays, teams with dozens of people are used to create wonderful stories and environments that support gameplay. Creating a convincing and fitting gameworld protects the compelling experience. When done incorrectly, it can take players out of the game. *It can be as distractsing as a snetence with spelling erro.*

### The gameplay arc

One of the oldest activities that is built on creating a compelling experience for people by making good use of pacing and world creation to switch between different states is storytelling. I therefore think that a storytelling arc technique can be applied here to explain how the game should be structured. A story arc is used to transform a character or situation to a different state; which Aristotle similarly defined as *peripeteia*. In the case of this game, the character is the player, the starting point is 'not knowing how to work with another nationality' and the ending point is 'having gained knowledge about working with another nationality'. So, the gameplay arc basically describes the delivery of the transfer effect.

One of the most famous storytelling techniques is Freytag's Pyramid (1863), which describes the iconic 5-act story arc. In the same way that writers use it to organize story structures, I will use it here to structure the game sections. Ideally, a compelling experience is created through gameplay flow by making use of the correct flow model zones at each section.

The exposition in the game is when the player sees the cultural differences in the map and is choosing an island to travel to. The journey starts and the player receives an introduction of the island from his/her contact person.

The zone at this step should be:

**Control**

The story arc is structured like this:

1. **Exposition**
2. **Rising Action**
3. **Climax**
4. **Falling Action**
5. **Resolution**

By each step, I describe the state of the game and elicit which of the flow model zones should be reached according to me.

The rising action is the journey to the island. During this journey the player receives tips through the buoys about the island that he/she is travelling to. Right before arriving on the island, the player gets called by the contact person, who asks the first question from the 'Preparation'-section of the narrative template. The rising action reaches its peak when the player arrives at the island and the question of the 'Arrival'-section is asked.

**Relaxation**

1

2





3

The climax comes at the moment that the player sets foot on the island. It will start with the reaction on the question that the player had just answered about the 'Arrival'-section. The actual 'Content'-section of the meeting starts and the player is asked to answer a series of questions with continuous immediate feedback through the reactions.

### Flow

4

The falling action is when the meeting comes to a close and the player is asked questions from the 'Feedback'-section. While these should be equally informative as any other question, the amount of challenge can be decreased to give the player a break from the intenser gameplay.

### Relaxation

The resolution is when the player receives his/her score, which is a visualisation of how close the player came to the other culture. At that moment, the player also receives a report of how each character perceived the meeting. After that, the player returns back to its island.

### Control

5

Even though the goal of this game is not to keep players in the gameworld for hours on end, I do believe it is important to create a compelling experience which keeps the player entertained and interested in the game. The gameplay arc for me is an understandable way to layout the gameplay, get an overview of missing elements and how future additions could be made without obstructing the current gameplay (see page 77 for an example).

While creating this gameplay arc I actually realised that the game still missed a clear resolution. So the resolution described here is new. It will be elaborated in the next sections.

### Limitations

I have given my own interpretation of how Freytag's Pyramid translates to gameplay, which I have derived from my experience of playing video games. The story arc is actually more at home inside the meeting itself, where an actual story will be gone through. My goal here however, was to find a way to describe the experience of the game.

I have also decided which flow model zones should be used for which sections in the game from my personal video game experience.

## 6.2. Interaction visions

As an interaction designer, I normally create an interaction vision based on the design goal. At the beginning of this project, I tried to do the same for the game. I noticed however that the user experiences need to be different for each of the varying scenes in the game. So instead, I will now apply a similar technique to convey the feeling of each significantly different setting using the previously discussed PLEX-cards.

Using the gameplay flow philosophy, the true potential of PLEX-cards is arguably uncovered when they are seen as the interconnected parts of one greater experience and are synergistically used to transcend the gameplay into a compelling experience. I will choose two playful experiences for each section from the game preferences of the interviewed managers. These PLEX-card combinations will then be translated to interaction attributes (Lenz, Diefenbach & Hassenzahl, 2013) to create the fitting interaction design guidelines for each section. Finally, a suitable description is written for each section to relate the attributes to the gameworld and gameplay.

The gameplay arc describes how the sections of the game are connected as a whole. The interaction attributes from this paragraph zoom in on the individual settings to explain how each of their gameplay should be handled and what the gameworld should feel like at that moment.

Interestingly, the 'Control' and 'Relaxation' zones of the flow model share the same name as PLEX-cards that were chosen by participants. I also see a fitting translation between the 'Flow' zone and the description of the PLEX-card called 'Challenge'. I have deliberately chosen to keep these theories apart for now however, as the former theory describes mental states while the latter is about playful experiences. I am therefore not sure if these can be directly interchanged that easily.

### Limitations

Normally, interaction attributes are derived from an interaction vision that depicts an analogy of the desired situation and is based on the design goal. In this case, I have treated two PLEX-cards as the desired situation and directly linked interaction attributes to those.

**PLEX-cards**

*Interactions attributes*

**Control • Discovery**

*Apparent • Uniform • Targeted*

**Map:** The map should provide one overview of how the player is culturally placed between all other nationalities.

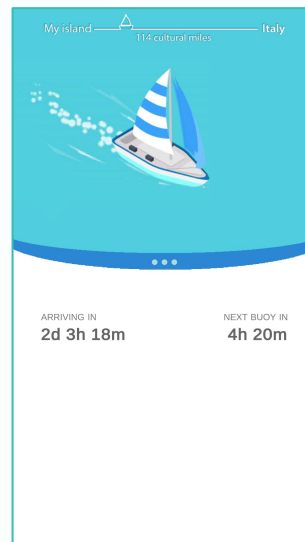
The player is granted full control over the map by being able to zoom out, slide across the map, zoom in again and search for specific island via a search bar. When an island has been chosen, the player can tap on it to start the journey, with the ability to opt out by pressing on the map again.

## Relaxation • Discovery

*Gentle • Fluent • Covered*

**Journey:** The boat calmly rides across the silent ocean in a slowly moving, almost hypnotizing, animation. Moving slow enough to be pushed up and down by the current, occasionally being greeted by a buoy that passess by. The interface supports this feeling by holding the ocean on its arc-shaped shoulders and being minimalistic in its elements and colors.

The main interaction of the player is swiping, which is a movement in which the hand can loosely stroke the screen without much precision needed. All of this could be accompanied by a calm soundtrack.

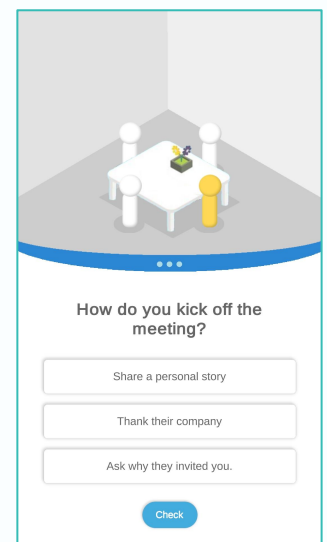
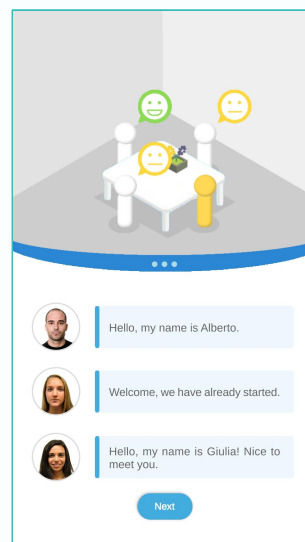


## Challenge • Explorative

*Spatial proximity • Precise • Inconstant*

**Meeting:** The isometric perspective makes the player feel involved in the meeting room and invites for participation. The player will receive questions in a first person perspective, and based on his/her answer the player will get personalised reactions from each person attending the meeting.

The questions are created to cognitively challenge the user. The fact that the user is given the choice how to react and the many reactions in the shape of popups that result from the user's actions have to be popped to collect, also make him/her feel included.

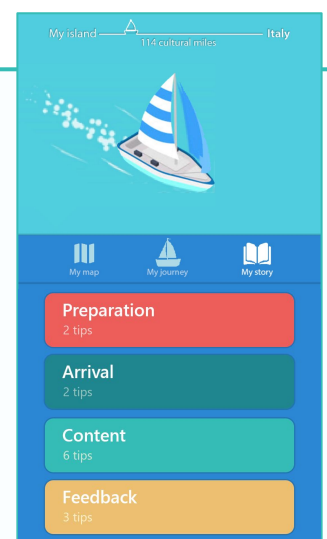
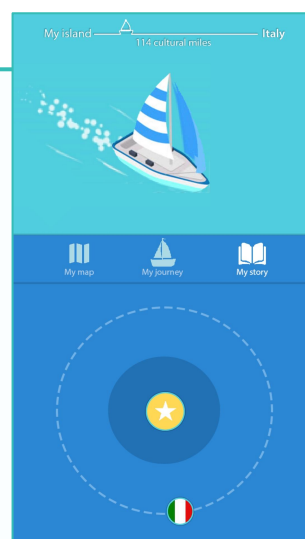


## Control • Explorative

*Fluent • Instant • Precise*

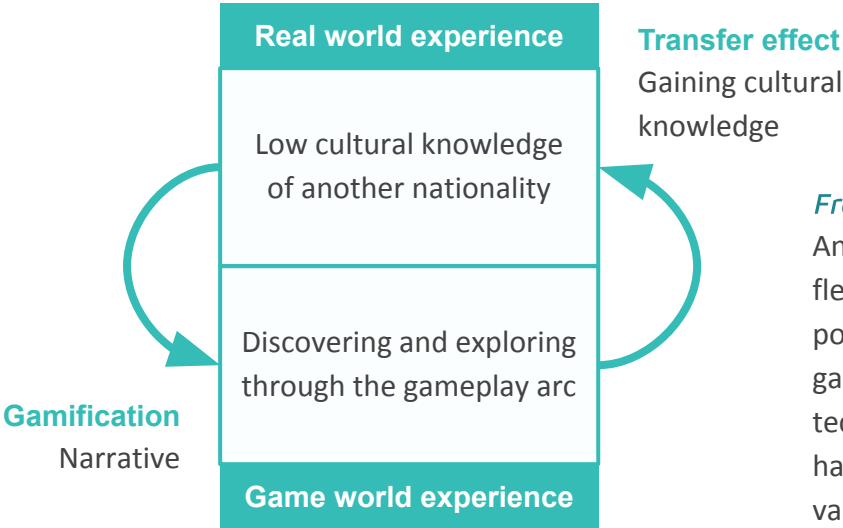
**Journal:** The journal presents an overview of the countries that the player had travelled to by their flags. The player can select a country, to see the different meeting categories organised by their colors. By choosing a meeting category, the tips are shown.

The player selects the country and categories by tapping on them, which triggers a fluent animation that opens the next section.



### 6.3. Minimum viable game

To concretise the previously discussed concept descriptions, a minimum viable game (MVG) has been created. The goal of the MVG within this project is to be tested on its effectiveness in delivering the transfer effect. As we have established, the transfer effect is delivered when the player goes through the gameplay arc. When applying the Persuasive Game Design model, with a manager working in an international context as the user of the game, it can be described as follows:



For the MVG to be functional, at least one narrative has to be filled in based on a nationality. For this, I will build upon the narrative that was created on page 39 of the report. Additionally to the already created questions with the possible answers from the player's perspective, each character should have a fitting response in the form of a popup, face change (neutral or smiling) and line of dialogue. To make sure that the narrative is smooth, realistic and follows an understandable story, the characters provide more dialogue between the questions.

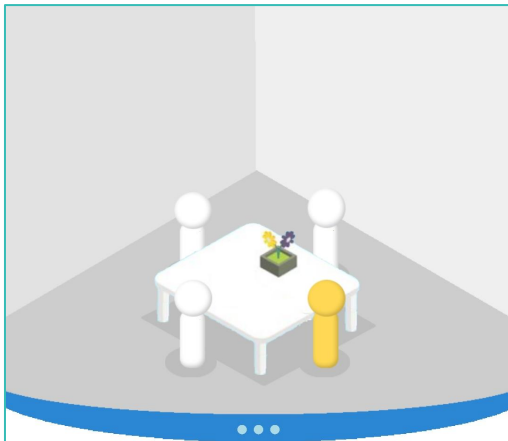
#### Gameplay arc in the MVG


After every answer given by the player, there can be three types of feedback: the reactions of the characters, the background information on why they each reacted differently and the national cultural tip that explains the reactions on the given answer. I believed that giving all three feedback types after each answer could get the player out of the pace of the meeting. So, I have therefore chosen to only show the reactions right after the answer. A summarised report for the reasoning of each individual is given at the end of the meeting. The cultural tips are kept in the journal.

With this in mind, I will briefly zoom in on a section of the playthrough of the MVG, see page 70.

#### From MVG to G

Another thing I wanted the MVG to have was flexible scalability. I have therefore used an popularly used software program (Unity) for games with specific plugins. Without going into technical details, the setup of the MVG that I have created allows me to keep all the objects variable. The text of the questions, answers, reactions, personality profiles and final resolution can all be changed without touching anymore code. The same goes for all the visuals, such as the faces, popups and all the colors. This means that people without a technical background can already create entirely new narrative scenarios and add them to the game. Currently the data is stored locally, but it could easily be connected to an external database and draw data from there. So, an important part of the game development on the mobile client side has already been done and this MVG is already the actual game. It now has to be polished and connected to a database. This connection should be supported by an API (application programming interface) through which the database can easily be filled with more cultural narratives.

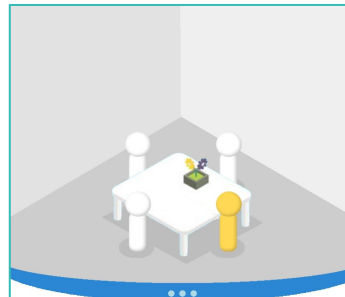




First of all, thank you for travelling to us. Sofia has told me that you are exploring different cultures. We will gladly show you our culture.

I want to ask if you could help us too. We are currently dealing with a Japanese client. Could you help us by exploring their culture?

Next



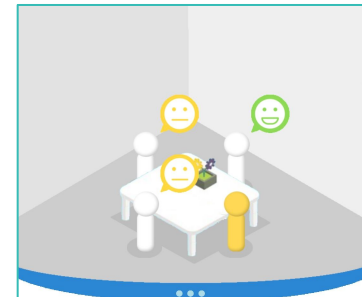
What is your response to his proposal?


Say to Alberto that it is a great idea

Let's hear what Sofia and Giulia think


Confirm the proposal with Sofia

Check






Thank you, that would be great



Alberto, you should discuss this first

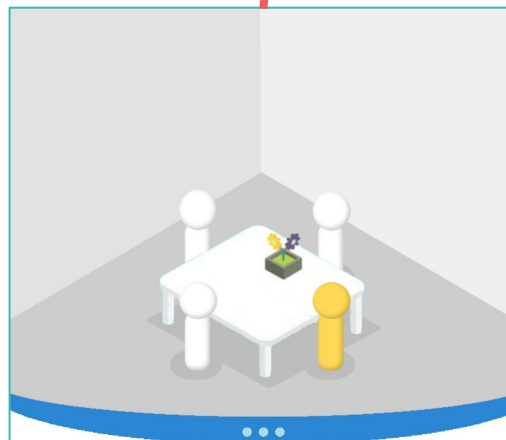



Uhm...

Next

Sofia, Alberto and Giulia are at the meeting. At some point during the meeting Alberto decides to ask the player if he/she is interested in helping them explore the Japanese culture. After the player answers, Sofia and Giulia show that they clearly do not like that Alberto has proposed something without their consultation. Due to her culture, Giulia starts reacting emotionally.

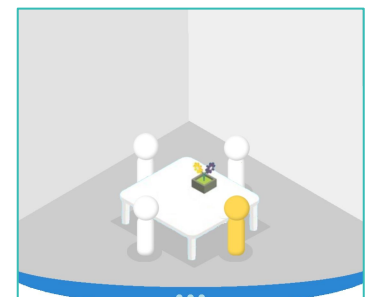
A playthrough of the MVG is gone through in full detail in Appendix K.





You cannot just make decisions like that without consultation, Alberto. Why did you not discuss this with us before. Why are Sofia and myself even at the meeting. If you are just going to propose things without us. This is like last week all over again!

Next



Giulia starts raising her voice. How do you react?

Finish the meeting, because it is not going well

Wait for them to finish the argument

Try to calm Giulia down

Check



# FINAL EVALUATION

In this phase the previously described minimum viable game will be evaluated. The results of this evaluation will be absorbed into the recommendations for future game development. Finally, a reflection on the game and project is presented.





## The final test

Using the minimum viable game a test is performed to see if the design goal has been met. Afterwards, future recommendations are provided for the development of the game and a reflection on the project is given.

## 7.1. Evaluation

Now that there is an MVG, one final test will be performed to find out its effectiveness and desirability.

### Research questions

#### Overall feel

What do they think of the MVG?

→ And would they use it?

#### Transfer effect

Does the MVG deliver the transfer effect?

→ Without spreading misinformation?

### Materials

The MVG will be used as a digital prototype. Besides that, the tips that are not present in the MVG but are relevant to the scenario are presented on paper (see Appendix L). In the final game, these are the tips that will be collected during the journey towards the island.

### Method

I first explained that this is a game to teach managers how to work with cultural differences in an international context. After that, I explained the personal cultural profile and that the MVG starts right after the participant's profile has supposedly been set up.

The participant first read all the tips from the paper and then played the MVG while thinking aloud.

Afterwards, the participant was asked for his/her first impressions and what he/she had learned about culture.

I asked the participants to go through the same meeting again using their experience from the first time; stressing again that the participant should think aloud.

### Participants

Due to the circumstances at the office, there were two types of participants. The first group was personally invited to come to the office for the evaluation and therefore went through the entire test. I will refer to these as the dedicated participants.

The second group were people that came into the office for reasons besides my project. I kindly asked them to evaluate the game. The participants of this group only read one tip beforehand (the one inside the MVG) and after having played the MVG once they did not go through the meeting again, as they were at the office for another reason. I will refer to these as the casual participants.

From the first type there were two experienced managers, both male, one Dutch and one English (both between 50 and 65 years old). The Dutch participant had experience working with Italians; the English manager did not. The second group included one female and one male experienced Dutch manager (both around 45 years old), and one Dutch female who was working on her culturally related PhD (27-year-old). None of these had ever worked with Italians.

### *The overall feel of the MVG*

All the participants were positive about the visuals. The female manager of the casual participants had been interviewed for my project before and mentioned that adding faces improved the concept enormously. Everyone also understood what was contextually going on at all times due to the regular dialogue from the in-game characters.

They all liked the format of how the information was spread, having instantaneous reactions and background information at the end. They also liked that they had to actively tap on the popups to reveal each reaction. Despite all being white stick figures, they knew which character was which in the meeting due to the reactions.

One dedicated participant did mention that he would have liked to have had the option to read background information for one particular question that he had trouble choosing an answer for during the meeting.

### *Meeting Italians for the first time*

The casual participants received one tip, about how arriving on time is appreciated by urban Italians. Despite this, every one of them answered to arrive too late on the first question. They all gave as an explanation that this is based on their view of Italians. The PhD-student specifically said:

*"I am playing this to check if my view on the Italian stereotype is correct"*

After seeing the reaction from the urban Italians, the female manager said:

*"Oh, they already started. Oops"*

After having played through the MVG, the first thing that the casual male manager said was:

*"That was interesting, I did now know that Italians were group focused"*

The two dedicated participants did use the tips they had read beforehand. Surprisingly, they both gave different interpretations when answering questions. One of them said that because of the emotional communication style that Italians tend to have, you should let them finish arguing. While another one tried to meddle and calm a character down based on the same tip.

All participants aimed to get the characters to react positively. The female manager:

*"Finally, three green smileys!"*

### *Meeting Italians for the second time*

The two dedicated participants then went through the meeting again. This time, both managers gave the same interpretations of the cultural knowledge, which they had based on the reactions of the previous meeting and background information displayed at the end. They still gave different answers however. The English manager said that he knew the right answer would probably be to share a personal story when kicking off the meeting, but that it was not something that he would realistically do during a meeting.

Similarly, the Dutch manager at the beginning deliberately chose to come too late, explaining:

*"I know that coming on time is the better answer here, but I might be late for a meeting in the future and I would like to know what would happen"*

Both of their goals had shifted. Now that they perceived to be familiar with the Italian culture in the MVG, they wanted to explore what would happen in realistic situations.

They both recognised the cultural differences between them and Italians, and wanted to explore what they could get away with without culturally adapting (unwilling to share a personal story) or due to unfortunate situational circumstances (being too late).

The dedicated participants said that they would like to play the MVG. They think it would help to prevent surprises from cultural differences, which is exactly what was mentioned during the first interviews, see page 18 of this report.

Another observation was that all participants became familiar with the characters. They comfortably referred to characters by their name and explaining their traits.

The dedicated manager that had experience of working with Italians at one point mentioned:

*“Alberto would realistically not react like that. Being as ascriptive as he is and a senior manager, he would have told Sofia and Giulia to take a walk.”*

He said that the reactions should be more extreme. In real meetings, things do not blow over so quickly. Sometimes people storm out the door. If someone comes in too late the mood of the meeting should change, which also makes the game more exciting.

## Conclusion

It was great to see how involved the participants got with the scenario and characters. It did not feel like they were trying to please any Italians, but specifically Sofia, Alberto and Giulia. Especially after reading the background info at the end, it looked like they understood the characters that I created. So, in addition to learning about the Italian culture they saw how Italians can differ from each other as well. I would therefore like to say that the overall feel of the game aligns with the target group desires.

The misalignment of the cultural information through the ambiguously interpreted cultural tips was also corrected after the participants had gone through the concrete scenario. This means that the transfer effect is arguably not achieved when just the tips are shown, but only after the tips have been put to practice in the meeting and players have gone through an entire gameplay arc. The MVG therefore seems to have delivered the transfer effect.

## Limitations

This evaluation was fairly limited. While the format of the MVG seemed to be desirable, there was not much content. The MVG only has one scenario and described a selected amount of cultural knowledge about Italy.

A better way to at least know that the transfer effect for the Italian culture has been delivered, is by placing the participant in two different scenarios with Italians. Going through the same scenario twice has the danger of participants remembering which answers were wrong and choosing others based on that. Even though that did not seem to be the case here, because the goal in the second meeting had shifted.

Besides that, all the tips were shown simultaneously so the retention of the tips has not been tested.

## 7.2. Future recommendations

I will go through the most relevant insights that I have obtained for future development.

### Testing

As there has been an overall positive response to the MVG, the game structure shows potential. The next step would therefore be to fill it with more scenarios. This MVG can be taken into multiple directions, so the testing should be targeted to minimise efforts.

First, the game could be targeted B2C. In this case the first cultures that should be worked out into scenarios could be the most commonly used countries for doing business, such as the G20 countries (responsible for 80% of world trade). The scenarios could still be as general as the Italian scenario of the MVG.

The game could also be targeted B2B. In this case, the game is specifically made for one company. The cultures should then be chosen based on relevance of the client company. In this case specific scenarios can be worked out that fit the company context, possibly even including cultures besides nationality. For example, the map could show islands of different disciplines of the company. A playing sales manager can then travel to the software development island to learn more about communication with them. More externally focused, the islands could represent the different types of customers that the company deals with (based on nationality or other).

### Reconciliation

At the end of the meeting, currently a line is presented to show how close the player came to understanding the other culture. This line could be 'cracked' to an L-shape to allow another culture to be on the vertical axis. In this case, two cultures besides the player are present at the meeting. The player would have to reconcile dilemmas that emerge from the conflicting cultures.

### Scenarios

The feedback that I have gotten on the scenario is that it was good to have tension, like arriving too late or Alberto making a decision without consulting the group. The scenarios itself should be interesting to keep the players interested in playing more. If multiple scenarios are implemented for one culture, the scenarios could also become increasingly harder; e.g. by including reconciliation.

For the development of the scenarios, I have already hired a PhD-student as an intern in the name of THT Consulting. I have talked her through what it is she would be doing.

The scenario that I currently have developed from the 60 tips of Italy to having the scenario inside the MVG with the correct reactions, pop ups, personality profiles, etc. took me about 4,5 hours to create. Fitting 60 national tips into one narrative template took 60 minutes. Creating the questions with answers per section took 90 minutes. Creating a narrative and putting it in the application took me 120 min.

As this was my first scenario, the next one might go quicker. On the other hand, Italy might have been an easy culture to create a scenario for, so I think realistically one workday should suffice for one person to create a scenario from scratch.

On page 3, I introduced the onion model, which illustrates culture. Currently, the scenario is only based on questions about the two inner layers. There are also tips about the products and artefacts layer; on how to dress, giving gifts, which colors to use, etc. These are coincidentally not covered in this scenario but could be included in future scenarios. There could even be extra visuals used for them at the meeting.

### *Speed up*

One element that has not been described in the final concept is the ability to speed up the journey. I would like to describe here how it could fit in the gameplay arc and describe its interaction attributes.

So, the rising action in the gameplay arc is now described as the journey with the buoys, but in the final game the player will have the option to speed up the travel replacing the type of rising action. In this case, I believe the appropriate flow model zone would actually be 'Arousal'. The reason I do not choose 'Flow', is because of the gameplay flow. I believe the 'Flow' zone during the meeting will be more profoundly experienced if the player has just switched from another zone. Besides that, active participation is needed from the player with a high challenge level to make up for the lack of retention from the buoys as was described on page 26 of this report.

In the game speed up tips will be represented by message bottles that were left by others in the ocean. These can be either true or false. When the boat speeds up, it smashes through them. The player will categorise each one as true or false until every tip has been correctly categorised.

#### **Challenge • Discovery**

#### *Powerful • Instant • Direct*

**Speed up:** So, the animation should start making the boat move incredibly fast. The boat breaks through all tips in the ocean. All these tips fly towards the screen. Right before the entire screen is covered, they start moving in slow-motion.

The user quickly has to save the tips by swiping them to the right or reject them by swiping them left.

### *Design elements*

During every step of the way, ideas have been put aside in the interest of keeping the game minimally viable. After the MVG will have been firmly tested, it would be interesting to look back at these ideas and see if they could still be implemented.

More elements could be added as long as they are evaluated, e.g. through A/B testing.

### *Multiplayer*

One example is multiplayer. As the stick figures are separate entities or 'game objects', as Unity would refer to them, there is an option of inviting more players into one meeting.

There could be a neutral multiplayer ocean, besides the personal ocean that is created based on a cultural profile. In this neutral ocean, multiple boats could be seen travelling together.

### *Profile*

The game could be made more obviously personalised; besides the cultural ocean. By really embracing being a cultural explorer, a profile could be created for the player with an overview of the tips that have been collected, visited countries, cultural miles travelled. Souvenirs from islands could be collected and a chronological travel log could be recorded.

### *Game elements*

One idea proposed by the client was to have a point system implemented. By playing the player earns points which can be spend on buying more boats or accessories in game.

Before implementing such a system I would advise to first find the added value to the game for having this element.

### *Development*

As mentioned before, the client side of the mobile application is structured and just has to be refined. The next step is to create a database with API that connects to the local device to be able to easily scale up the amount of content.



### *The journal*

Because there is no prominent placement in the gameplay arc for the journal, it is not something that players will immediately know exists. Currently they would only find it by seeing it in the navigation bar. It was therefore difficult to understand that tips were being saved. I tried to solve by introducing an animation that shows how the tip is clearly moving to the journal icon. Because the MVG just has a few sections, it would take about 30 seconds to find the journal by just pressing all the buttons. As more elements might be added, this should be taken into account.

### *Connection to “Culture for Business”-app*

This game is very related to the “Culture for Business”-application. It offers a way to learn the cultural tips from the “Culture for Business”-app through a pragmatic simulation game. Which means that the game targets people that are looking for more directly practical knowledge. The game could however, be a gateway to the “Culture for Business”-app by referring to it if the player would like to know the theory behind the game. Vice versa, the “Culture for Business”-app could refer to the game if people would like to test their cultural knowhow in a practical setting.

### *Marketing*

I was pitching my game to a manager that came into the office one day. She said that she would not like to go through a narrative like this as she does not play games in general. I asked her: “What if the current “Culture for Business”-app had a ‘Test yourself’-button and you went through the narrative like that.” She responded: “In that case, I would go through it.”

Apparently games are so stigmatized for some managers that even though a game might be useful and enjoyable, they will not play it because it has been labeled as a game. For this reason, it might be interesting to look at how this game should be marketed to appeal to these managers.

### *Target group expansion*

Over the course of all interviews, I have noticed that the experienced managers liked the narrative as they can relate to it. Through their years of experience they have encountered similar or even exactly those described cultural clashes. They know how important it is to learn about culture to efficiently do business for their own sake.

On the other hand, younger managers have had less experience in intercultural settings and had showed less attachments to learning about culture. They mainly think it is generally important to show respect and to avoid insulting other cultures. The link to the business efficiency and their own benefit that comes with it is not as strong. Their point of view therefore comes from an empathic outsiders perspective instead of their own motivation.

If inexperienced managers should be targeted for a future version of the game, they might need an extra motivation to play the game.

Furthermore, the research during this project has predominantly been conducted on males. This was not done on purpose, but the available demographic of the target group happened to make it so. In the spirit of cultural differences, the design might therefore be slightly biased towards males. It could be considered to test with more females and see if there are conflicting ideas.



### 7.3. Reflection

This project has helped me to understand game design more. Designing a game for people who have shown no beginning interest in games has asked me to truly try to understand what the extra benefit of gameful elements is and how to spark interest and motivate the target group. I tried to think out of my box and come up with new ways of looking at games.

This changed the project into a fairly experimental one. I have tinkered with and combined multiple methods along the way to make them fit the context of this project and design process. Besides helping me along the way, they also provide a structure for future developments. I will probably reuse some of those methods in future game design projects as they were helpful.

Reflecting back on the project I also notice how comfortable I have grown in being stuck. For me, I have accepted it as a part of my creative process. What I do have to improve however, is to allow others in when it happens. I am now aware that I am uncomfortable with sharing a mental block. I want to figure everything out for myself first, and then I can explain what I had been going through.

One thing I seem to relearn every design project is focus. The beginning of this project was left fairly open, which limited my progress tremendously. I made true steps forward when I started defining specifics, like the target group and the type of culture. I took this with me in the design phase as creating a game world is entirely free. There is a vast sea of ideas that can be implemented. To avoid myself from drowning in ideas, I was very strict in which elements I was adding to the game. For every new element, I thought what the value would be in the game. If there was no direct motivation for the element to be implemented in the game, I would park it as a possibility for the future.

I am pleased with what I have delivered in terms of game design. I would have preferred a more fitting final evaluation however. I have actually been in contact with the HR management team of a big holding company through the client of this project. They were enthusiastic about helping with the development of the game. Unfortunately, they were not available for an evaluation before my graduation date. So, the test in the real environment with actual meetings could not be included in this report; it is still on the table for the near future though.

Finally, I would like to say that I am glad to have had the opportunity to have this as my graduation project. I have learned a lot about topics that I am passionate about and gained wonderful insights through conversations which I have had with many interesting people.



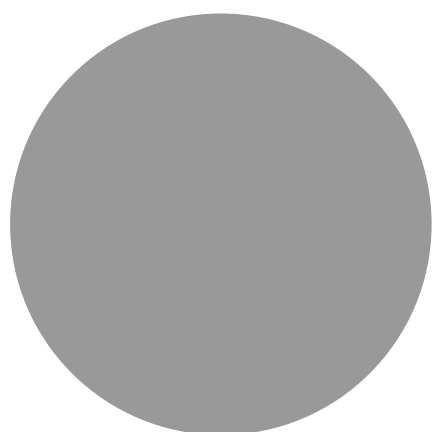
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# APPENDICES





# PIET KOOPMAN

## PROCUREMENT MANAGER

EDUC. MA Economics  
AGE 35  
NAT. DUTCH

*"I want to be able to work with anyone, without becoming a culture academic."*

### ABOUT

Procurement manager of a Fortune 500 company. He manages a team of mainly Dutch internal employees who work in the same office building, and occasionally some international external freelancers. He spends 60% of his time talking with his team members and employees of other teams during meetings or drops by colleagues for small check-ups. He spends the other 40% of the time doing research and setting up tenders; he does this in coordination with his team of course.

### GAME PREFERENCES



**CONTROL**



**RELAXATION**



**SENSATION**



**FANTASY**



**HUMOR**

His favorite game experiences are Control, Relaxation and Sensation. He likes to feel in control of situations and likes the concept of growing stronger. The most important points for the game are that it should be relaxing and pleasing to the senses. He thinks Fantasy is important to create the space for developing oneself, but nothing strange. The game can also contain Humor to create a pleasant atmosphere by not taking itself too seriously.

### GOALS

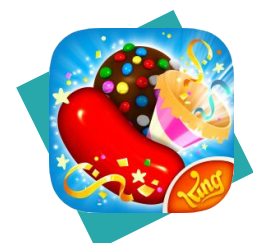
#### Negotiations

Ensuring that his company will get a good price-quality.

#### Meetings

Making sure that the bought products and services fulfill the needs of his company.

### FAVOURITE GAMES



# MARCUS ITTER

SENIOR IT MANAGER

EDUC. MSc Software Eng.  
AGE 50  
NAT. DUTCH

*"You have to fail  
many times before  
finding the solution;  
or you can consult  
others."*

## ABOUT

Senior IT manager of a large team of more than one hundred employees, these are mainly foreign external parties. He especially has digital meetings to manage the employees from various countries; it has to be based on trust. He is responsible for building and managing an IT service. As a specialist, he contributes to it himself in addition to managing the team and ensuring that it runs smoothly, the support is done through the 24/7 customer support part of his team.

## GAME PREFERENCES



DISCOVERY



CHALLENGE



EXPRESSION



EXPLORATION



NURTURE

It does not matter what a game looks like, it is more about the experience. He would preferably be challenged during the exploration of a new discovery, as a result of which he should think creatively about a solution. Surprisingly, finishing a task leaves him with an overwhelmingly empty feeling; he prefers to stay in an activity. Thereby, he likes to have a social responsibility and hear others' opinions, as different perspectives help in finding the solution.

## GOALS

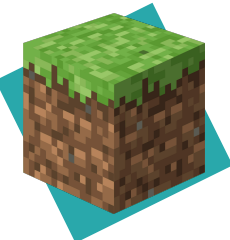
### Managing

Good coordination between the team members.

### Meetings

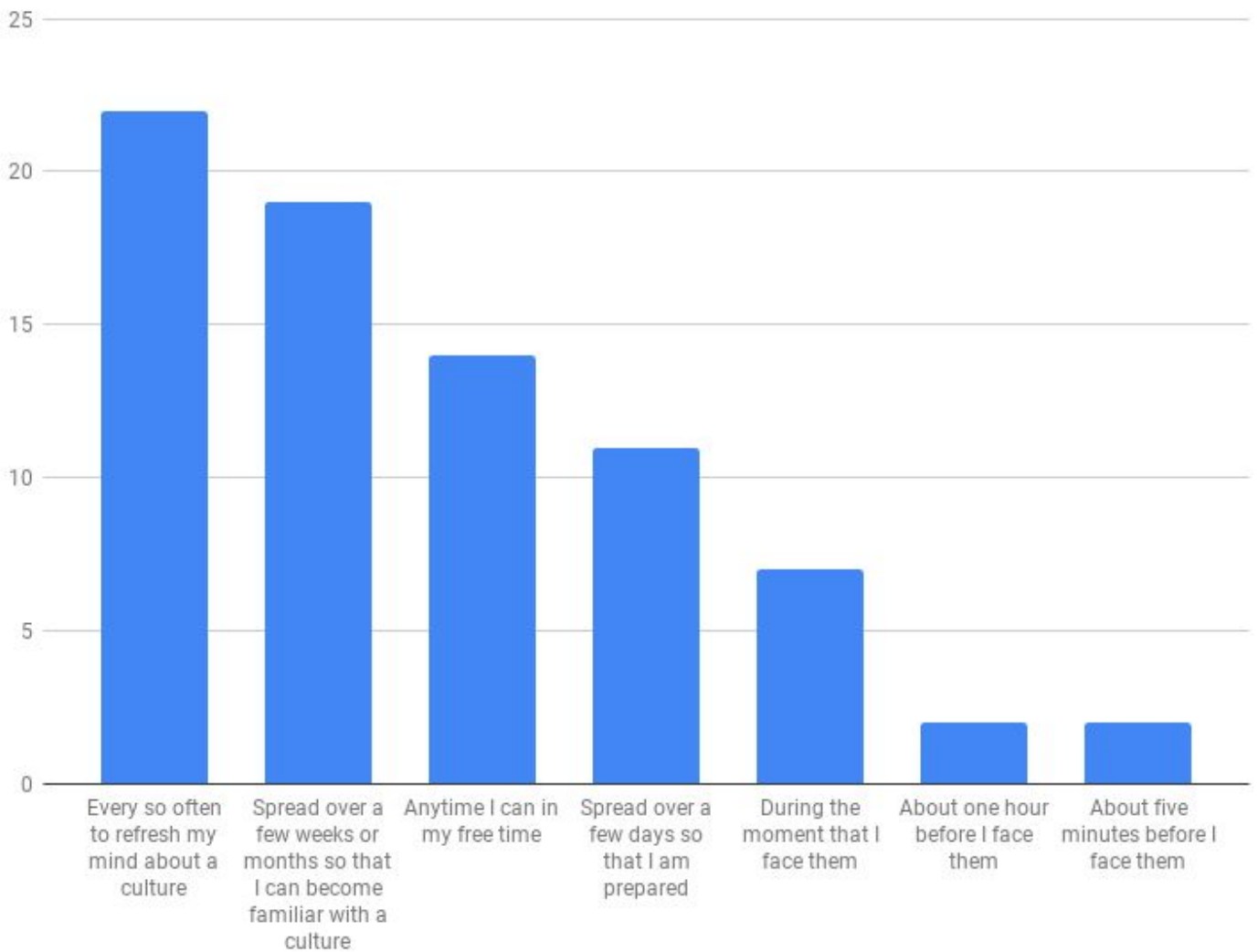
Ensuring that he is meeting the deadlines for the IT products and/or services.

## FAVOURITE GAMES



## B. Answers from 43 participants of questionnaire

**“When would you prefer to learn about cultural differences?”**



## C. Cultural tips user scenarios

### Spain

**Pay close attention to bodily language and non-verbal communication.**

Because saving face is so important in Spain, it is very likely that your Spanish counterparts will not tell you if they don't understand you. This is especially the case if you are not speaking in Spanish. Therefore it is very important to pay close attention to body language and other non-verbal signs that may indicate if your message is coming across clearly or not.

**Don't be misled by the Spanish stereotype mañana (tomorrow)**

Stick to deadlines and make sure that you arrive on time for meetings - punctuality is valued and considered a sign of respect.

### Taiwan

**Everything is negotiable and renegotiable**

It can be said that Taiwan has "a culture of negotiation". Everything is negotiable and renegotiable. This starts with bargaining in small shops. The rules are not that different from larger deals, like buying a car, renting a house or even business-to-business deals. The seller will have respect for your negotiation skills and your knowledge about the product or service. Building a good relationship will help to get a better price. The negotiation does not stop after the price has been set; new negotiations may start about service, delivery conditions, and accessories. Taiwan has a history and culture of small entrepreneurs, and purchasing or sales managers in bigger companies often behave like small entrepreneurs too.

### Ghana

**Thank you is polite way to say no.**

Saying "thank you" is the same as saying "no thank you" and is generally effective and considered courteous.

**Ghanaians use an indirect communication style.**

You should avoid giving bad news or turning something down as this could cause loss of face. Generally, Ghanaians have difficulty saying "no" and confrontation or embarrassment will be avoided whenever possible. It is difficult for a superior to know what subordinates think because Ghanaians do not communicate directly.



## Preparation

### Setting / Context

*Where are you going to have the meeting?*

(SP/DIFF) Italians have more confidence in information verbally given face-to-face by someone with whom they have a trusted relationship, than in written information received from a distance

(SP/DIFF) Many deals in Italy are made while dining in a fine restaurant. They tend to ask personal questions. Only after they have an understanding of you, they are willing to enter into a business relationship.

### Meeting schedule

*How are you going to structure the meeting?*

(SP/DIFF) Decisions are frequently made in small meetings prior to the large meeting. It is necessary to participate in these small pre-meetings, as the large meeting is only to confirm the decision.

(ST/MT) Meetings tend to have flexible agendas, as there tend to be many interruptions, side conversations and phone calls during the meeting

## Arrival

### Punctuality

*What time do you arrive?*

(ST/MT) The view of time can vary between regions, with rural Italians tending to be more relaxed about time than urban Italians

(PA/FU) Punctuality is especially important for those who are lower in the hierarchy, and is seen as a sign of respect

### Networking

*How do you network?*

(ACH/ASCR) Managers in Italy spend time maintaining their relationships with senior-managers. The stronger your relationship with senior management, the more likely that one's subordinates will follow your decisions

(UN/PA) It is difficult for a non-Italian company to develop a business relationship with Italians. Once a business connection is established, Italian organization tend to have very strong ties.

## Content

### Time management, Deadlines

*How do you keep track of time?*

(ST/MT) Meetings tend to have flexible agendas, as there tend to be many interruptions, side conversations and phone calls during the meeting

(UN/PA) In the north of Italy, people are often direct and see time as money. In the south, Italians tend to be more leisurely. The pace should be set by the Italian colleague whom you are doing business with.

(PA/FU) Traditionally deadlines tended to be met with some flexibility, but global expansion have caused them to adhere to a tighter schedule

### Decision making

*How are decisions made?*

(ACH/ASCR) Decisions tend to be made by the most senior-managers

(PA/FU) Spending time on developing a relationship can be very profitable, to find out the real decision making process of the company and avoiding to waste time reaching to an agreement, only to find out later that no final decision can be made at this level

### Hierarchy

*What hierarchy applies?*

(SP/DIFF) Secretaries and assistants have close and constant contact with the executives

(IND/GR) Having the right connections may be more important having the right job title

(ACH/ASCR) Besides having a strict hierarchy, Italians tend to assign status to a leader's accomplishments

### Relationships

*How (in)formal is the meeting?*

(NEU/AFF) Italians tend to argue loudly even with close friends and colleagues

### Sensitive topics

*What are and how to handle sensitive topics?*

(SP/DIFF) Bureaucratic challenges may be solved creatively by knowing the right people.

(IND/GR) Italians feel that the state cannot be relied upon, but feel a strong sense of responsibility to take care for family

### Emotions

*How should you express your emotions?*

(NEU/AFF) Italians have a very emotional or affective communication style

(NEU/AFF) Italians tend to argue loudly even with close friends and colleagues

### Promises, Rules

*How flexible are processes?*

(UN/PA) Italians are notorious for making exceptions and adjustments to every rule as they feel that rules do not apply in particular situations.

### Active participation

*How do you involve people?*

(NEU/AFF) Italians tend to actively interrupt each other as a sign of showing interest



## D1. Italian narrative template

### Optional content

#### Teamwork

*How strong is the bond of a team?  
Is it important to have a strong team bond?  
How can you achieve this?*

(IND/GR) Teams and departments tend to be highly integrated and coordinated. They tend to share information to ensure that all team members are well informed

(IND/GR) Ideas are made in groups with feedback thrown back and forth, as an idea from an individual without consultation of the group would be seen as arrogant and self-serving

(ACH/ASCR) Family backgrounds and social contacts are critical determinants of the status of an Italian individual. In family businesses, most members of the family are closely involved in the daily operations of the company.

#### Negotiations

*Which pressure tactics do you use?*

(NEU/AFF) High pressure sales tactics should be avoided

#### Agreements

*What type of agreements are made?  
How flexible are agreements?*

(NEU/AFF) Adherence to verbal agreements is very important

(UN/PA) Italian businesses tend to put family and the good of the group as paramount importance, rules may be more flexible

#### Innovation

*How should change be addressed?*

(UN/PA) New standards and procedures are often met with resistance in Italy

### Feedback

#### Gratitude

*How should you express gratitude?*

(NEU/AFF) Being reserved or detached with an Italian person can be misinterpreted as a sign of disinterest

#### Expressions, Comprehension

*How should you read people's feedback?*

(SP/DIFF) Italians tend to avoid embarrassing others and giving negative comments in public. As having a good reputation is important for power and authority.

## Preparation

### Setting / Context

*Where are you going to have the meeting?*

(ACH/ASCR) Japanese society is very hierarchical. It is important to recognize and understand the hierarchy. This can be used in seating arrangements, or even size of desks.

### Meeting schedule

*How are you going to structure the meeting?*

(ST/MT) In Japanese meetings, different values and viewpoints are highlighted in parallel, with each expert knowing exactly at which time and place it would be most appropriate to show their expertise. In the end, different viewpoints should merge into a seamless whole.

## Arrival

### Role division

*Who do you address?*

(ACH/ASCR) It is recommended to address the most senior person first. Status comes from being male and from attending the right schools; but most importantly, status comes with age.

### Networking

*How do you network?*

(SP/DIFF) Non-Japanese employees often miss essential information as they are excluded from after work informal networking, which are important opportunities for building relationships and gathering information

(SP/DIFF) The act of gift-giving is an important Japanese custom. A gift should be received and handled as a business card, with care and respect. The gift should be received with both hands and with a bow of thanks.

## Content

### Time management, Deadlines

*How do you keep track of time?*

(ST/MT) The Japanese have perfected the "just in time" approach and finely synchronize connections between production processes.

(PA/FU) Giving time is considered a sign of respect in Japan.

### Decision making

*How are decisions made?*

(IND/GR) Consensus is not required in decision making in a Japanese company. Consulting as many factions as possible tend to be the style of decision making.

(PA/FU) Long-term views tend to take precedence over the short-term. As a result the Japanese often sacrifice short-term gain so as to build long-term relationship.

### Hierarchy

*What hierarchy applies?*

(ACH/ASCR) In Japan, it is a widely held belief that ability improves with time. As seniority increases, both salary and status also are expected to increase with time.

(ACH/ASCR) Female employees are traditionally expected to take clerical or assistant positions, whether or not they have college or secondary qualifications.

(ASCR/ACHI) Superiors are expected to take care of their subordinates like a younger sibling. There is a specific term that refers to this bond, "sempai-kohai", freely translated to "mentor-protégé".

### Relationships

*How (in)formal is the meeting?*

(UN/PA) Meetings with managers tend to feel formal. Harmony and relationships tend to be important to the Japanese, so discussions and arguments take place before the meeting.

### Emotions

*How should you express your emotions?*

(NEU/AFF) Japanese people rarely display any emotion, except in very serious situations.

### Promises, Rules

*How flexible are processes?*

(INT/EXT) Major Japanese companies make plans ten to fifteen years in advance and rarely deviate from these plans. This long-term focus can seem rigid, but commitment tends to be seen as taking time.

(UN/PA) The development of relationships is of great importance to the Japanese. Contracts may be broken, and sometimes even the law, by Japanese who are willing to do so for a close friend.

### Active participation

*How do you involve people?*

(SP/DIFF) It is considered rude to be abrupt, direct or negative

(INT/EXT) Stating things "up front" may be considered inconsiderate, demanding and confrontational

(INT/EXT) Harmony or "Wa" is important in Japanese culture and they tend to be externally-directed. For this reason, the Japanese can be viewed by internally-driven cultures as lacking in ambition or initiative.

(NEU/AFF) Japanese people often pause before replying. They use a pause to emphasize an important statement. Interrupting a Japanese person before they answer is considered very discourteous

## D2. Japanese narrative template

### Optional content

#### Teamwork

*How strong is the bond of a team?  
Is it important to have a strong team bond?  
How can you achieve this?*

(IND/GR) Japanese corporations take good care of those who accept responsibility care of others. In Japan, marriage and raising a family usually result in pay raises for an employee.

(IND/GR) Japanese supports a collective focus that is expressed through "single-status" uniforms, lunch halls and car parks.

(IND/GR) Japanese tend to see individual responsibility as egocentric and irresponsible. To them, group responsibility means that everybody takes a bit of everyone's responsibility, so nothing will be left undone.

(ACH/ASCR) In Japan, part-time employment is rarely acceptable, being considered as showing disloyalty to a company.

#### Negotiations

*Which pressure tactics do you use?*

(UN/PA) Japanese managers expect that those who work for them will not only fulfill the terms of their contract but will go well beyond these terms. They expect favors, improvements and innovations.

#### Agreements

*What type of agreements are made?  
How flexible are agreements?*

(SP/DIFF) The relationship between supplier and customer is much more intricate than in Western societies. In Japan, the two tend to work together long-term to improve quality and reduce costs. It is a co-operative relationship, with a sharing of knowledge and innovations

(SP/DIFF) For the Japanese, agreements tend to be tentative until they have created harmony among the stakeholders. Hence they will keep returning to earlier undertakings and try to qualify these so that the whole will better fit together.

(UN/PA) The development of relationships is of great importance to the Japanese. Contracts may be broken, and sometimes even the law, by Japanese who are willing to do so for a close friend.

(UN/PA) Japanese managers expect that those who work for them will not only fulfill the terms of their contract but will go well beyond these terms. They expect favors, improvements and innovations.

#### Innovation

*How should change be addressed?*

(ST/MT) In Japan, the focus is on long-term strategies. Japanese prefer to take time making decisions, learning from their mistakes, and slowly building trusted relationships.

### Feedback

#### Criticism, Honesty and Directness

*How honest/direct should you be?*

(SP/DIFF) Negative feedback tends to be given via the informal network to avoid confrontation and losing face

(NEU/AFF) Critical feedback will be given while you are having drinks. You are not supposed to refer back to it the next day.

#### Gratitude

*How should you express gratitude?*

(PA/FU) Giving time is considered a sign of respect in Japan. This can be expressed by accompanying someone to the door. An especially valued client may even be accompanied all the way back to reception.

#### Expressions, Comprehension

*How should you read people's feedback?*

(SP/DIFF) The Japanese often reply with "yes", whether or not they agree with what is being said. They are saying "yes" to the diffuse relationship, not the specific thing in question.

(NEU/AFF) Japanese people often pause before replying. They use a pause to emphasize an important statement. Silence is used as a means of thoughtful consideration.

(NEU/AFF) Respect can be demonstrated by rephrasing and reflecting on what has been said. However, this does not necessarily mean that they agree with what has been said.

**Sofia:**  
So, the meeting is at 13:00

## Preparation

### Setting / Context

*Where are you going to have the meeting?*

Where shall we meet?

- A. I know this great restaurant
- B. The meeting room at the office
- C. Let's meet over Skype

### Meeting schedule

*How are you going to structure the meeting?*

What shall you do to prepare the meeting?

- A. Make a clear schedule with timestamps
- B. Note some topics to discuss
- C. Do not prepare at all

## Arrival

### Punctuality

*What time do you arrive?*

What time do you arrive?

- A. Ten minutes early
- B. Exactly on time
- C. Ten minutes late

### Networking

*How do you network?*

What do you do on arrival?

- A. Share a personal story
- B. Thank them for meeting with your company
- C. Start the meeting right away

## Content

### Time management, Deadlines

*How do you keep track of time?*

How do you keep track of time?

- A. Let the meeting develop organically
- B. Pace should be set by the senior manager
- C. Keep a schedule with room for interruptions

### Decision making

*How are decisions made?*

How do you know for sure that a decision has been made?

- A. Alberto has made the decision
- B. A mutual agreement has been reached
- C. Sofia tells you that the decision has been made

### Hierarchy

*What hierarchy applies?*

Who is wisest to keep the closest contact to?

- A. Alberto
- B. Sofia
- C. Giulia

### Relationships

*How (in)formal is the meeting?*

Giulia makes a comment and starts raising her voice. How do you react?

- A. Finish the meeting because it is not going well
- B. Listen to what she says and discuss the argument
- C. Try to calm her down

### Promises, Rules

*How flexible are processes?*

You thought of a good idea, but it does break a minor rule in the company. What do you do?

- A. Suggest it anyways
- B. Do not suggest it
- C. Suggest it, but emphasize that a rule is broken so it might not be a good option

### Active participation

*How do you involve people?*

Giulia and Alberto break into a discussion about a topic that is relevant to you. How do you participate in the discussion?

- A. Just interrupt them
- B. It is important to wait for them to finish
- C. Express that you have something to say



## E1. Italian narrative

### Optional content

#### Teamwork

*How strong is the bond of a team?  
Is it important to have a strong team bond?  
How can you achieve this?*

You have a suggestion, but you doubt its potency.  
What do you do?

- A. Personally address Sofia after the meeting
- B. Share the idea during the meeting
- C. Keep it to yourself

#### Agreements

*What type of agreements are made?  
How flexible are agreements?*

Alberto promises you to implement your proposal,  
how do you assure this to happen?

- A. Thank him
- B. Emphasize the importance of the proposal
- C. Email him afterwards about it

### Feedback

#### Gratitude

*How should you express gratitude?*

The discussion ended with a clear overview of the  
future steps. How do you show your gratitude?

- A. Thank them for the nice discussion
- B. Thank them enthusiastically for being there
- C. Agree with the future steps

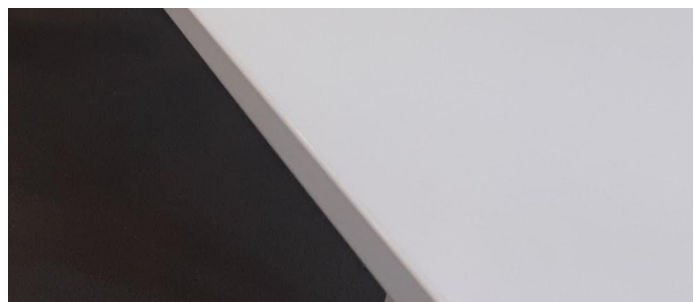
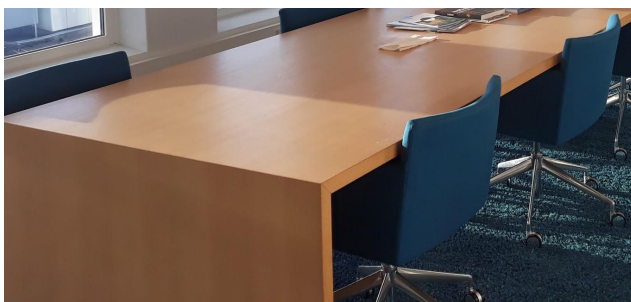
#### Expressions, Comprehension

*How should you read people's feedback?*

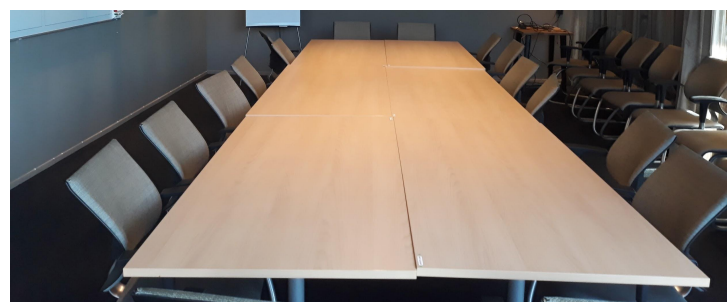
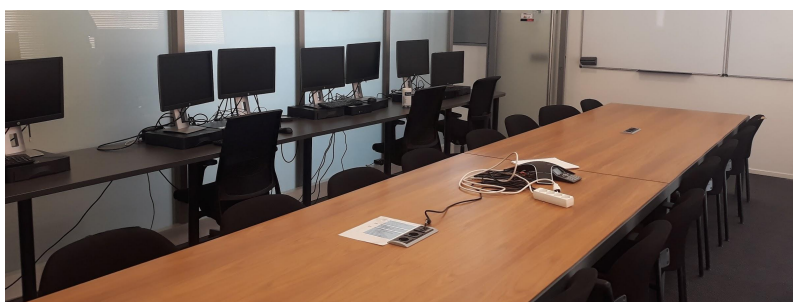
You would like to continue working with them and  
propose to meet again. They enthusiastically  
agree.

- A. Thank them once more and say "arrivederci"
- B. Set a date for the next meeting
- C. Thank them and speak to Sofia afterwards

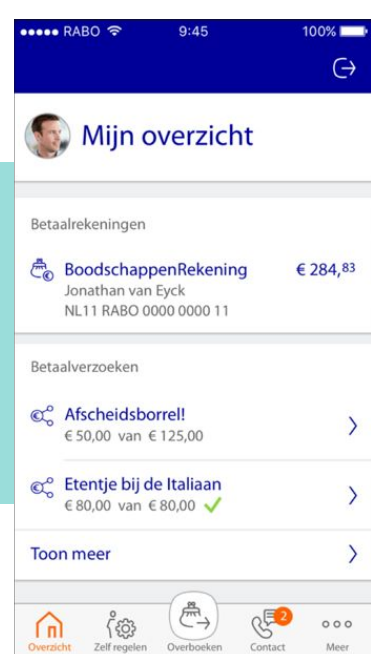
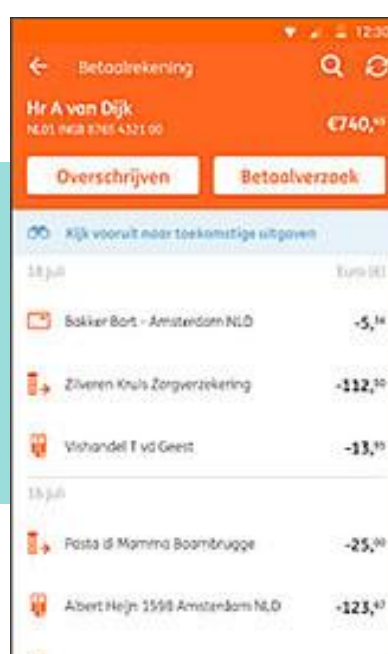
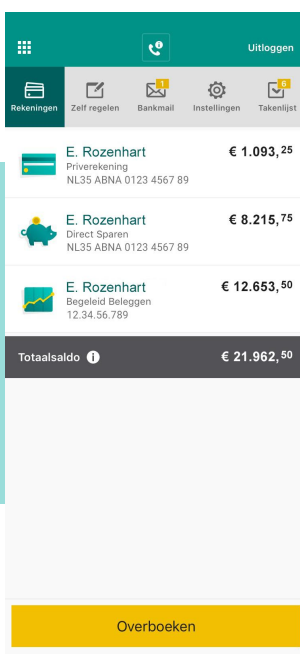
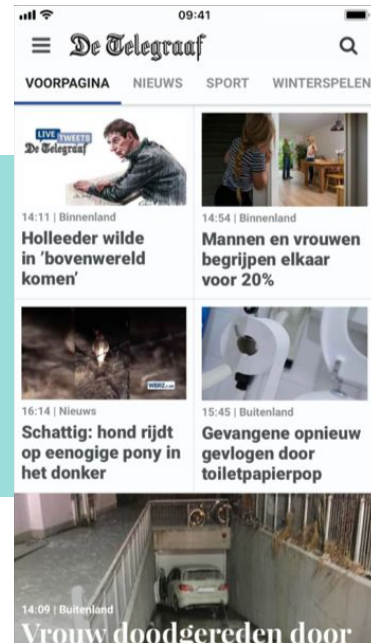
## F1. Real world environment



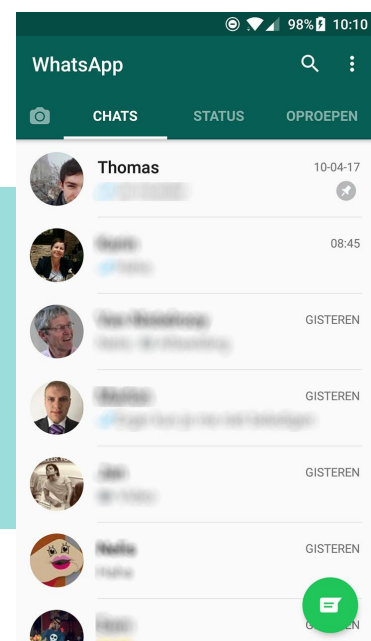
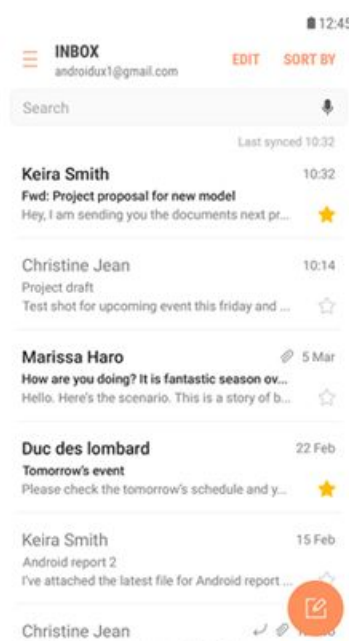
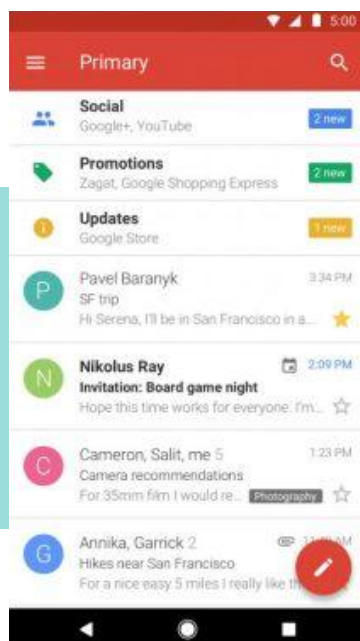
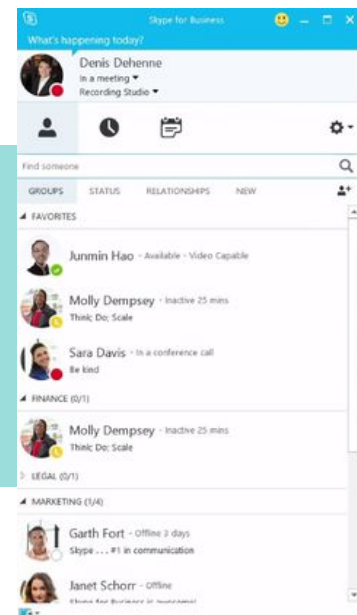
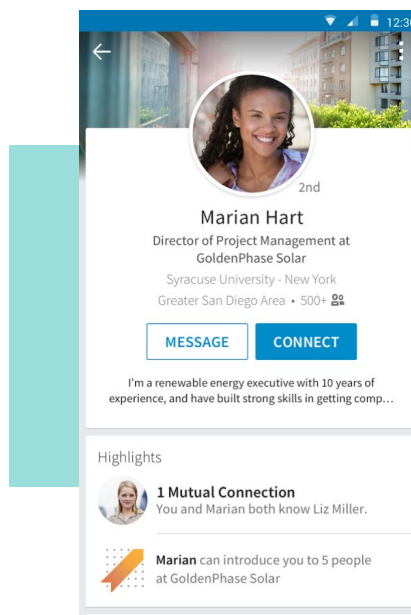
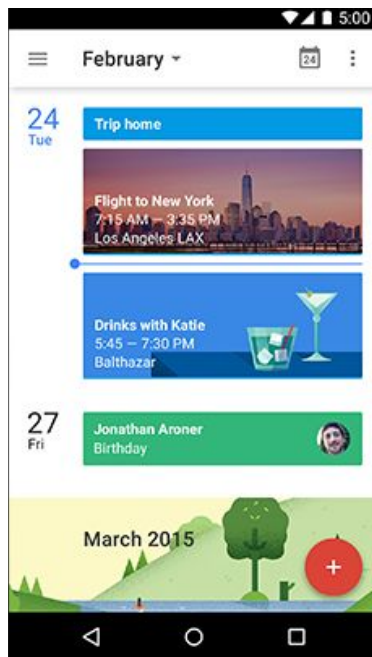
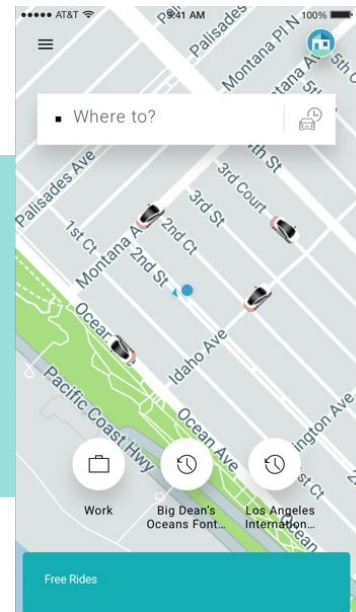
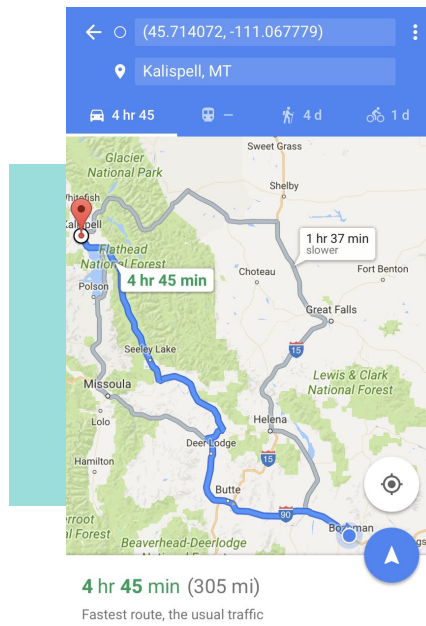




## F2. Virtual environment

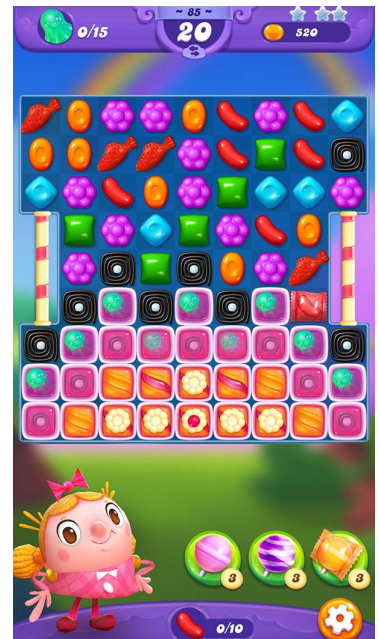
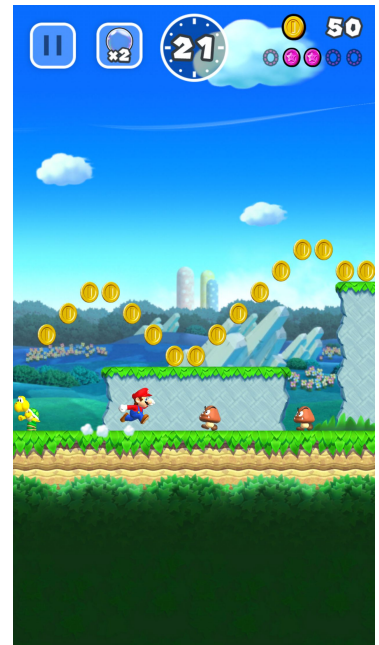
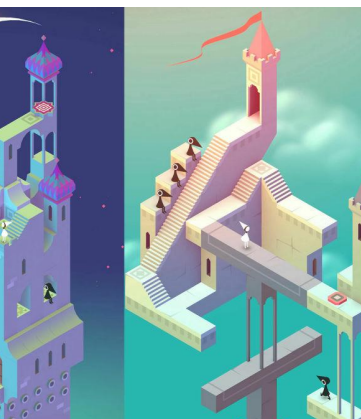
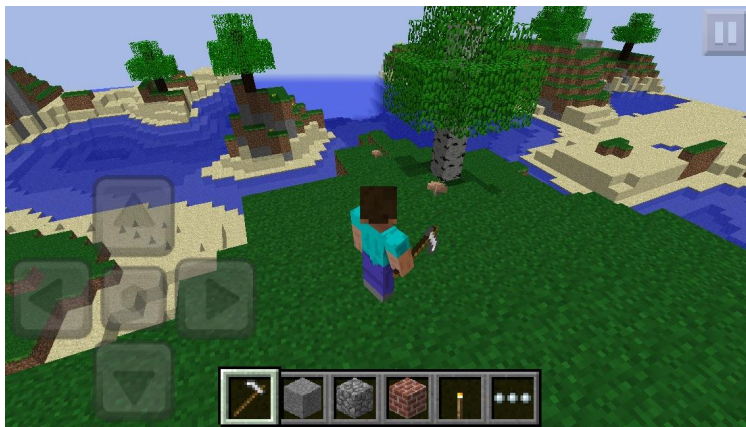






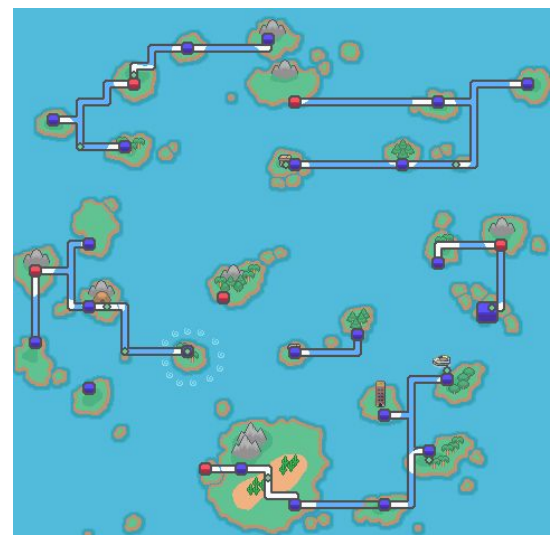
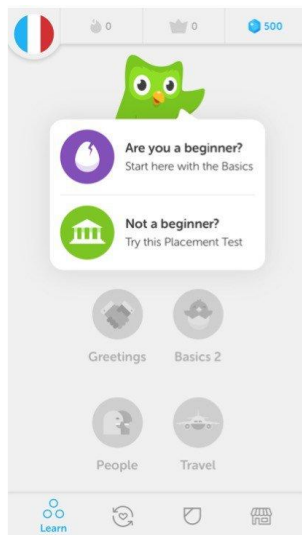
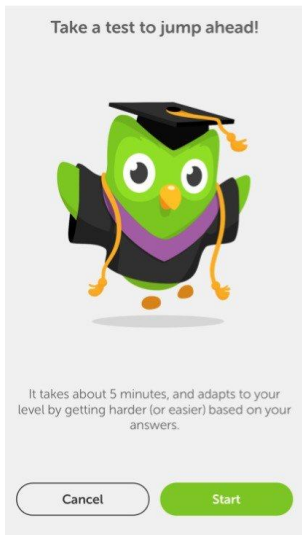


## F3. Game environment



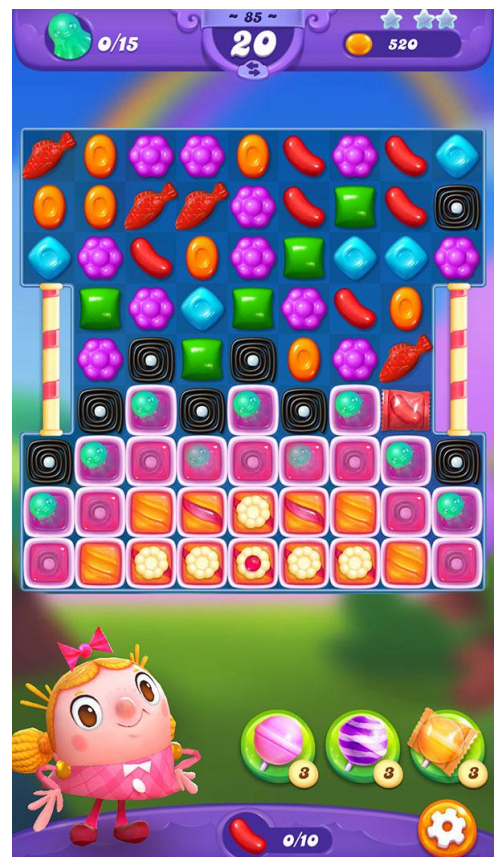
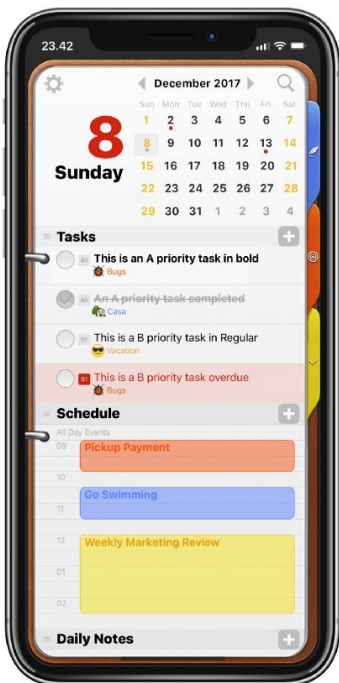
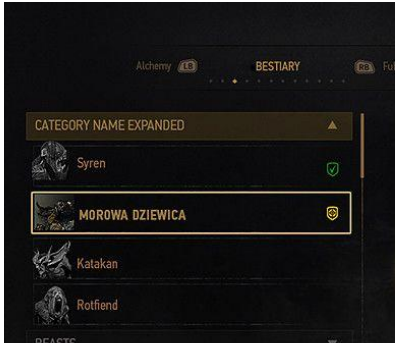


# G1. Game concept 1



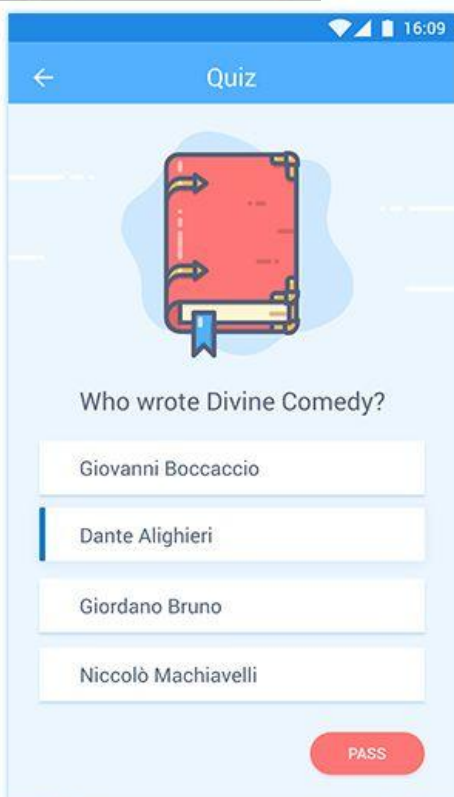
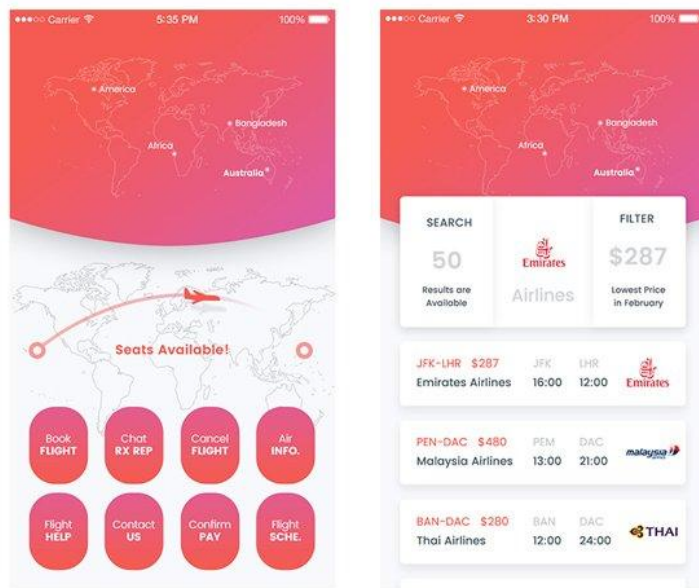
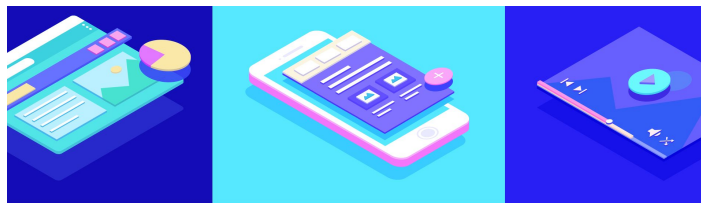


## G2. Game concept 2



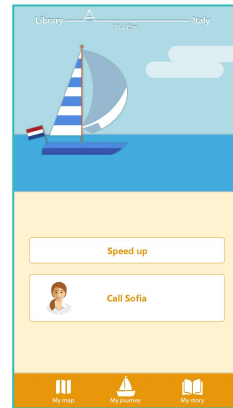


## G3. Game concept 3

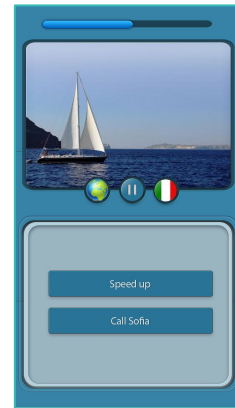


## H. Weighted Objectives Method

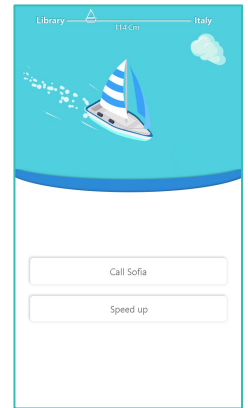
|  | Weight |
|--|--------|
| Feasibility                                | 25     |
| Easily scalable to 144 countries           | 20     |
| Easily scalable to dilemma reconciliation  | 15     |
| Easily scalable to more types of cultures  | 15     |
| Easily scalable to more game elements      | 15     |
| First impressions of target group          | 5      |
| First impressions of "future target group" | 5      |
|  | 100    |



| Score | Total |
|-------|-------|
| 4     | 100   |
| 6     | 120   |
| 6     | 90    |
| 7     | 105   |
| 10    | 150   |
| 2     | 10    |
| 9     | 45    |
|       | 620   |



| Score | Total |
|-------|-------|
| 8     | 200   |
| 3     | 60    |
| 4     | 60    |
| 2     | 30    |
| 4     | 60    |
| 9     | 45    |
| 3     | 15    |
|       | 470   |

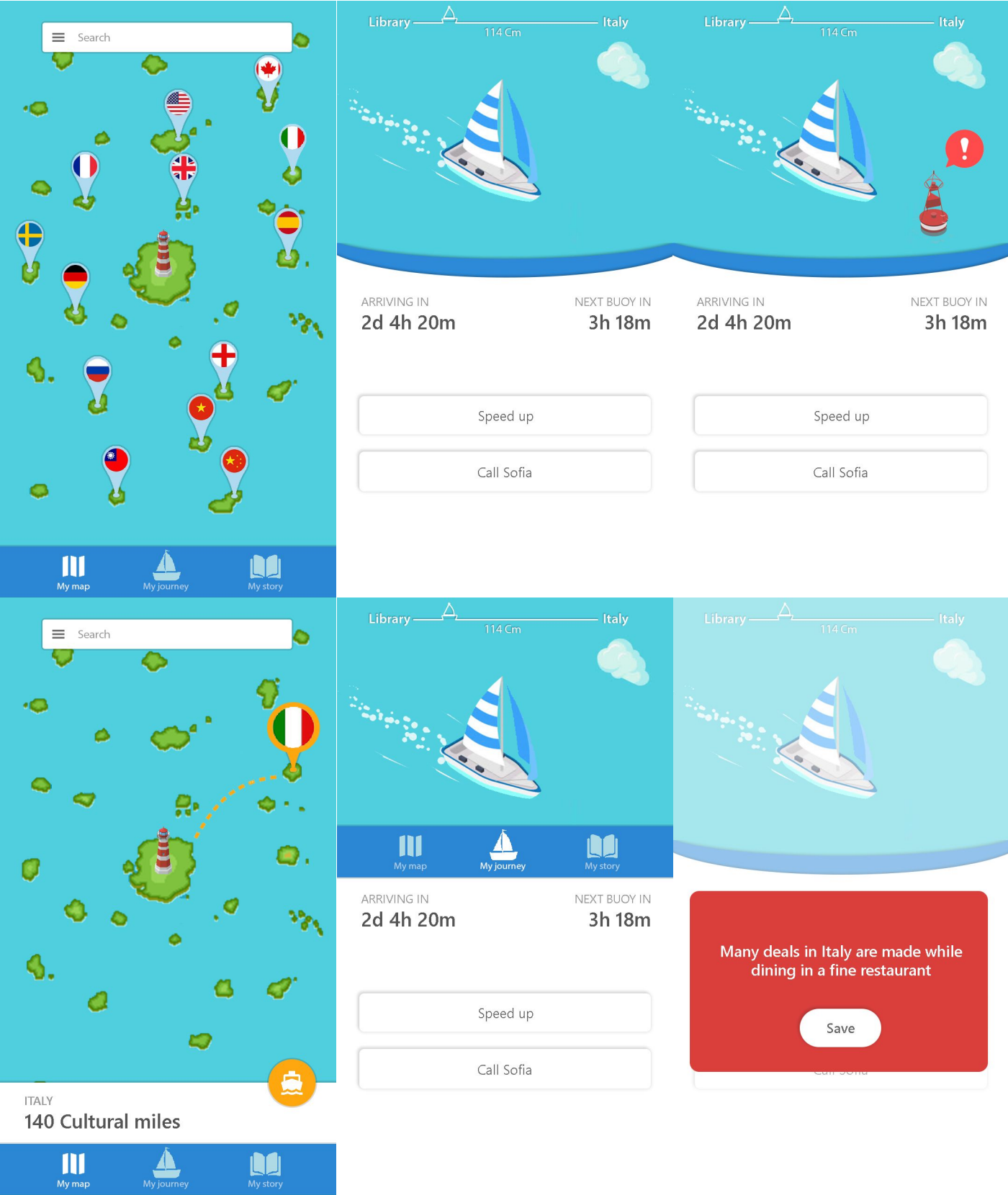


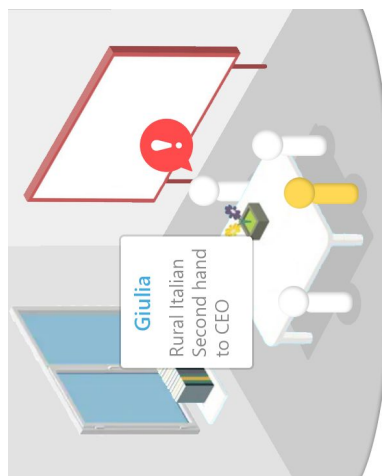
| Score | Total |
|-------|-------|
| 4     | 100   |
| 8     | 160   |
| 8     | 120   |
| 9     | 135   |
| 10    | 150   |
| 6     | 30    |
| 6     | 30    |
|       | 725   |

↑  
Best concept



# I. Paper prototype (75% zoom)





Do you know for sure that a decision has been made?

Yes, Alberto has made the decision

A mutual agreement has to be reached first

Sofia has to confirm the decision first

Check

Library
Italy
114 Cm

Library
Italy
114 Cm

My map
My journey
My story

My map
My journey
My story

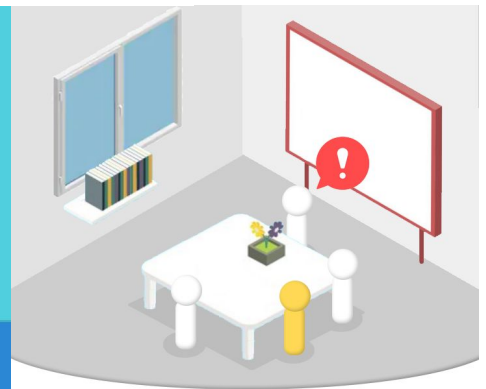
DROP HERE

**Preparation**  
2 tips

**Arrival**  
2 tips

**Content**  
6 tips

**Feedback**  
3 tips



Do you know for sure that a decision has been made?

Yes, Alberto has made the decision

A mutual agreement has to be reached first

Sofia has to confirm the decision first

Check

Library
Italy
114 Cm

Library
Italy
114 Cm

My map
My journey
My story

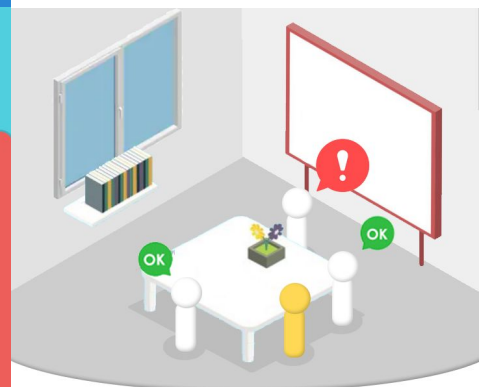
My map
My journey
My story

DROP HERE

**Preparation**  
2 tips

**Many deals in Italy are made while dining in a fine restaurant**  
They tend to ask personal questions. Only after they have an understanding of you, they are willing to enter into a business relationship.  
Dimension: Low vs High involvement

**Meetings tend to have flexible agendas**  
This is because there tend to be many interruptions, side conversations and phone calls during the meeting  
Dimension: Singletasking vs Multitasking



Do you know for sure that a decision has been made?

Yes, Alberto has made the decision

A mutual agreement has to be reached first


Sofia has to confirm the decision first

Check




## J1. "The flat one" (85% zoom)

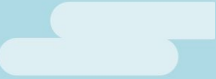
Library




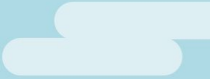
Italy


114 Cm















Speed up


 Call Sofia


Collect tip


 My map


 My journey


 My story

 My map


 My journey

 My story


 The Italian Job

 The Italian Job

Question 7 of 12 (58%)



Question 7 of 12 (58%)



Has the proposed decision been made final?

Yes, because Alberto has made the decision

A mutual agreement has to be reached first


Sofia has to confirm the decision first


Has the proposed decision been made final?


Yes, because Alberto has made the decision


A mutual agreement has to be reached first


Sofia has to confirm the decision first


 My map

 My journey

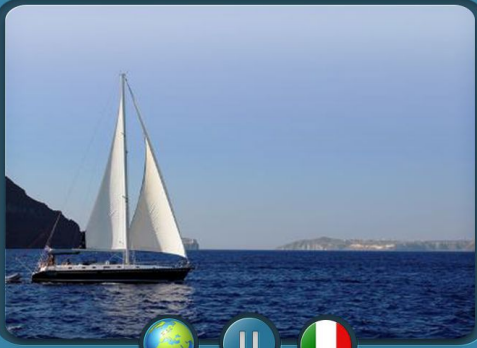
 My story




 My map

 My journey

 My story

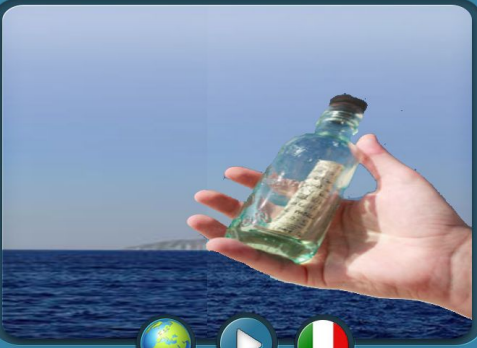
## J2. "The skeuomorphic one" (85% zoom)






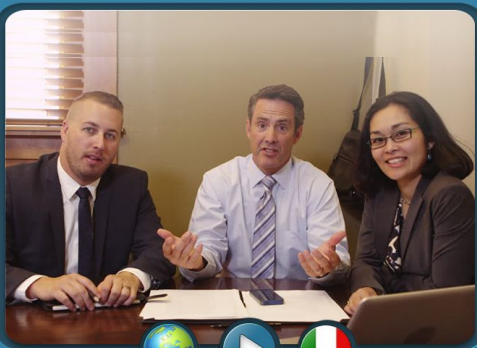





Speed up

Call Sofia







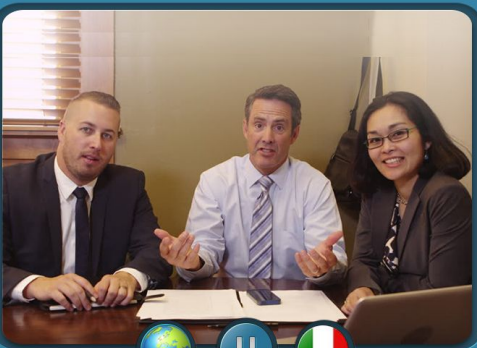





Do you trust Alberto's decision?

Yes, Alberto has made the decision

Wait for a mutual agreement

Wait for Sofia to confirm it





Do you trust Alberto's decision?

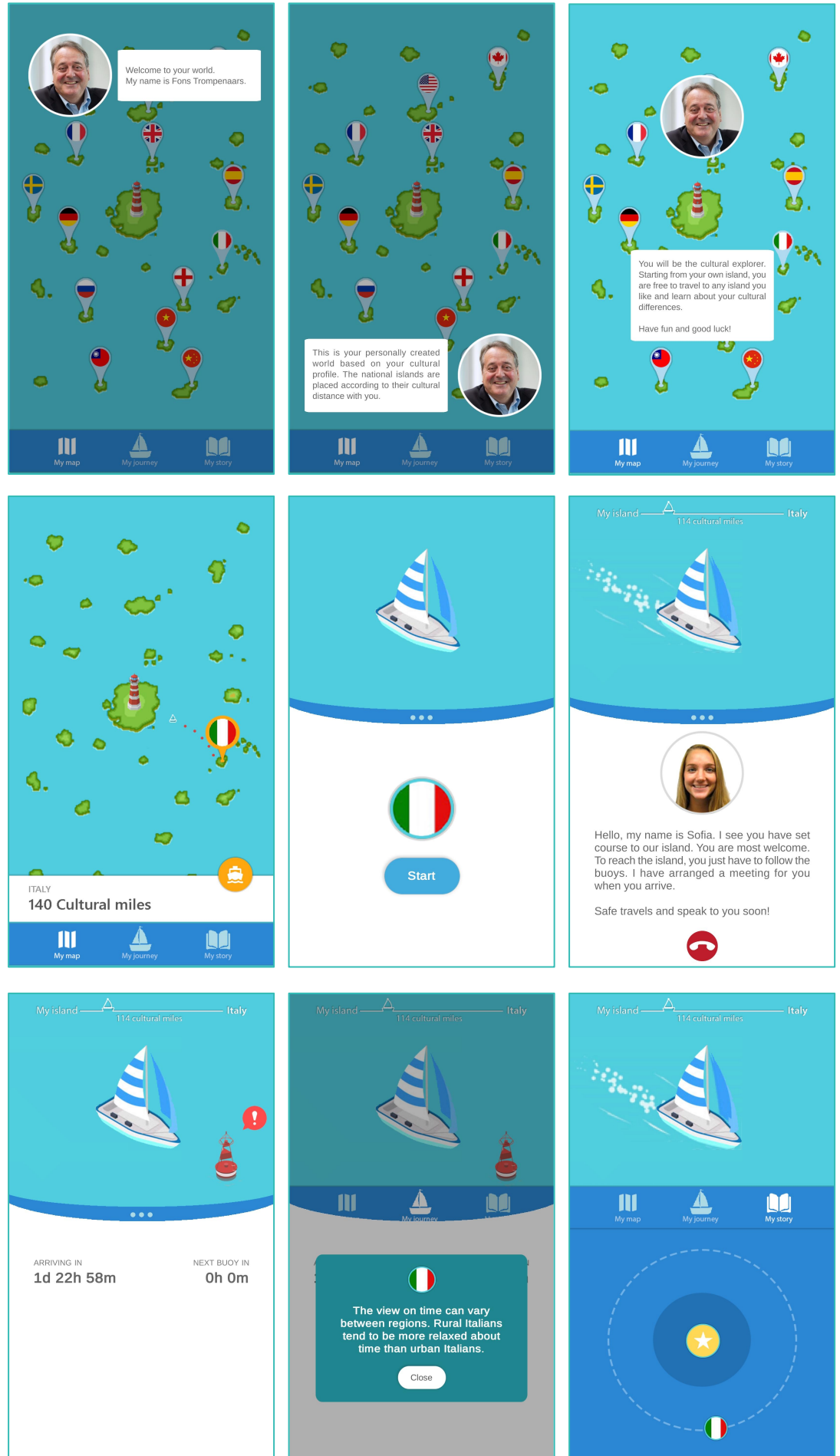
Yes, Alberto has made the decision

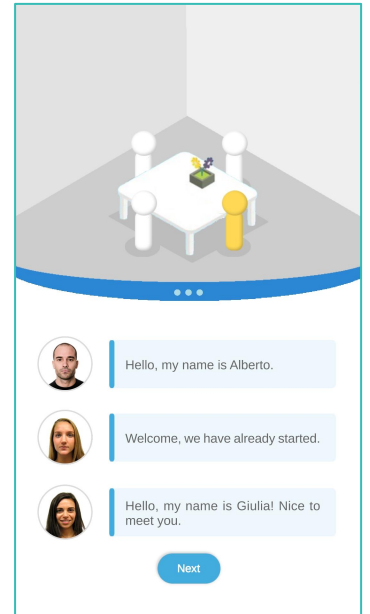
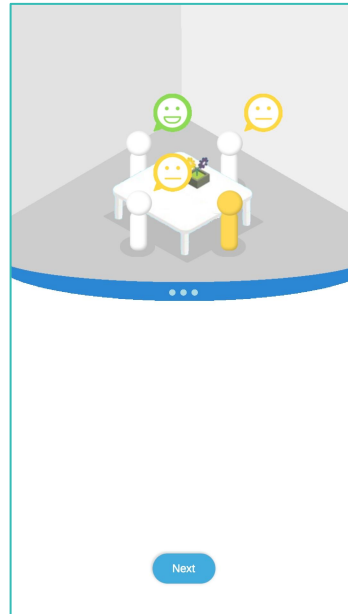
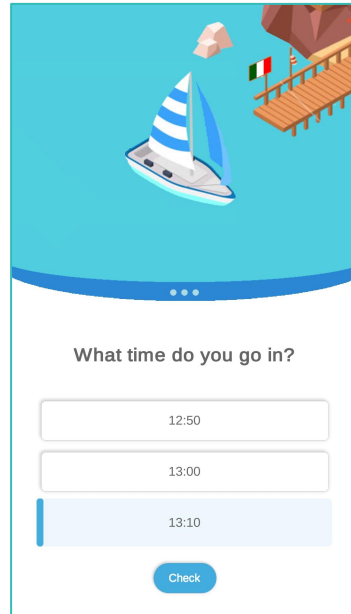
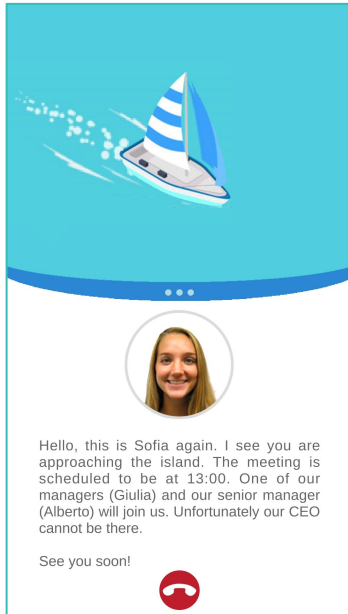
Wait for a mutual agreement

Wait for Sofia to confirm it

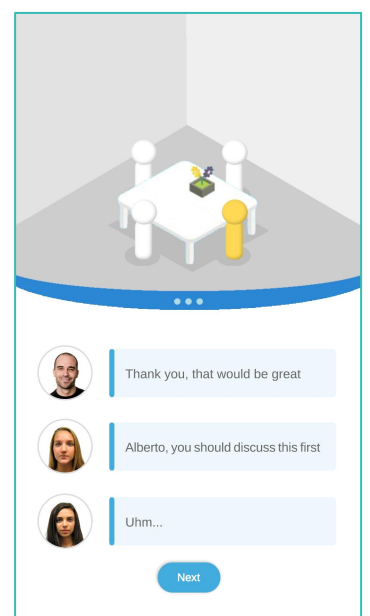
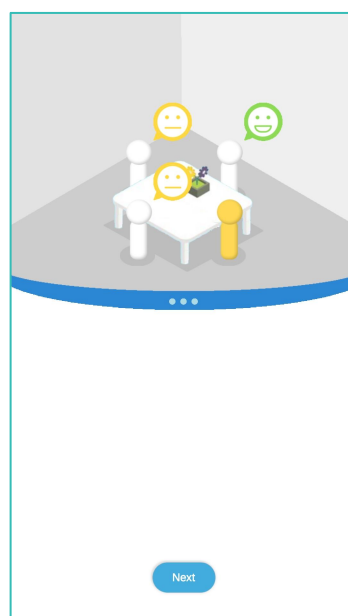
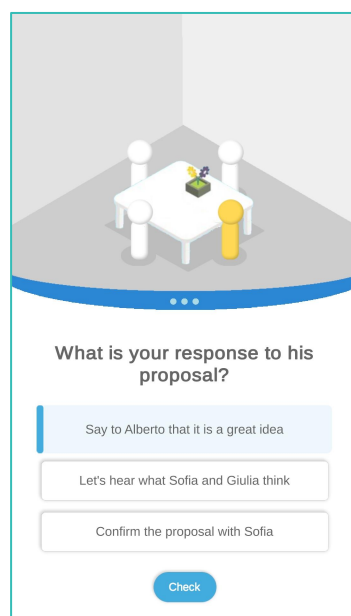
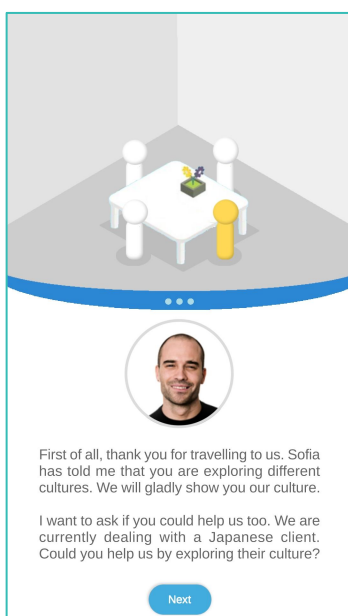
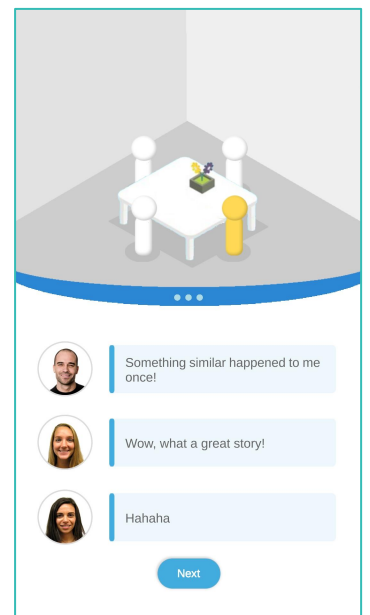
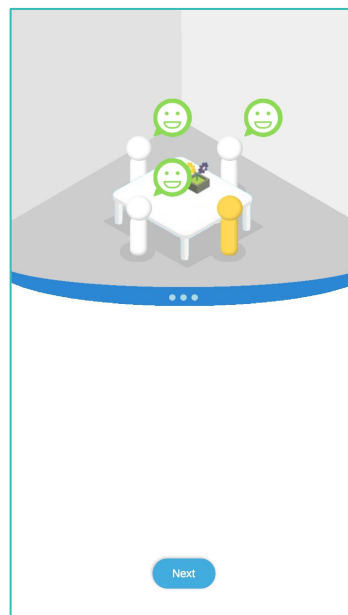
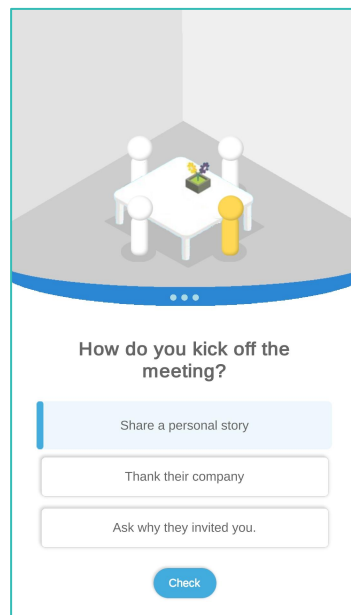
## K. Screenshots of a playthrough of the MVG (70% zoom)

The MVG starts with an introduction by Fons. Afterwards, the player chooses to travel to Italy. When the journey starts, a welcoming introduction is given by contact person Sofia. After 4 hours and 20 min, which are skipped by pressing on the time in this MVG, a tip is given through a buoy.





By pressing the arrival time in this MVG, the game skips ahead again. Sofia explains that the player is arriving at the island. On arrival, the player chooses to come in late. Because Sofia and Alberto are urban Italians, they are not pleased. The player then woos them with a personal story.



You cannot just make decisions like that without consultation, Alberto. Why did you not discuss this with us before. Why are Sofia and myself even at the meeting. If you are just going to propose things without us. This is like last week all over again!

Next

**Giulia starts raising her voice.  
How do you react?**

Finish the meeting, because it is not going well

Wait for them to finish the argument

Try to calm Giulia down

Check

Next

The idea is good, let's just do it

I like the idea

I actually like the idea. Just not how Alberto proposed it

Next

So, I think the next step should be for you to meet with the Japanese. Afterwards, we can meet again to discuss the results. In the meantime, you can always call me.

I am looking forward to seeing you again!

Next

**How do you express your gratitude?**

Thank them for the help

Thank them enthusiastically for being there

Agree with the next steps

Check

Next

No, thank YOU!

The pleasure was ours. Speak to you soon!

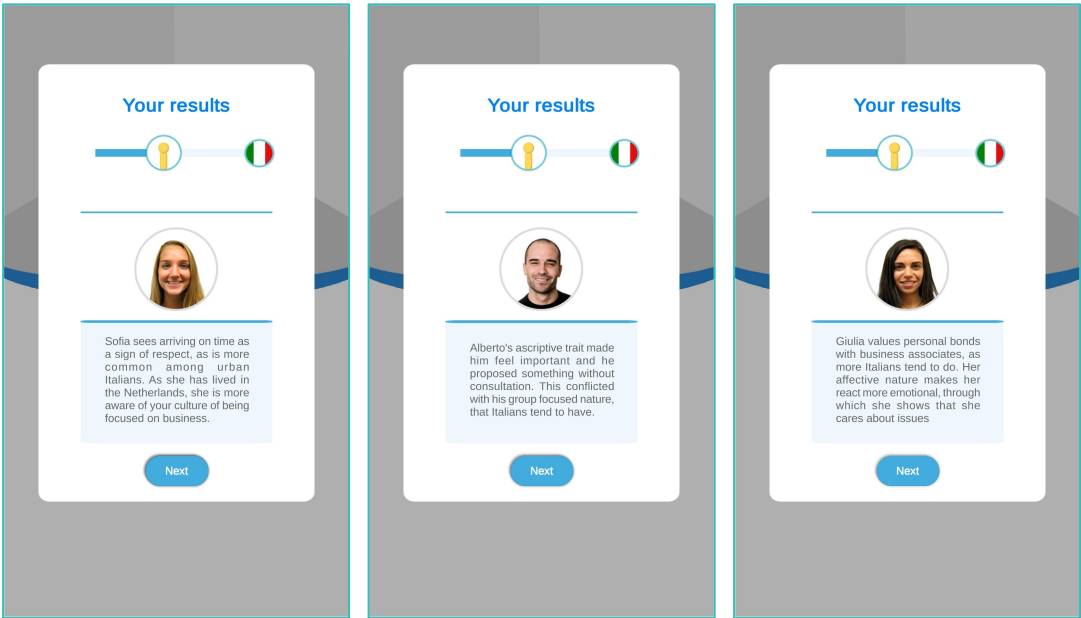
Thank you, ciao!

Next

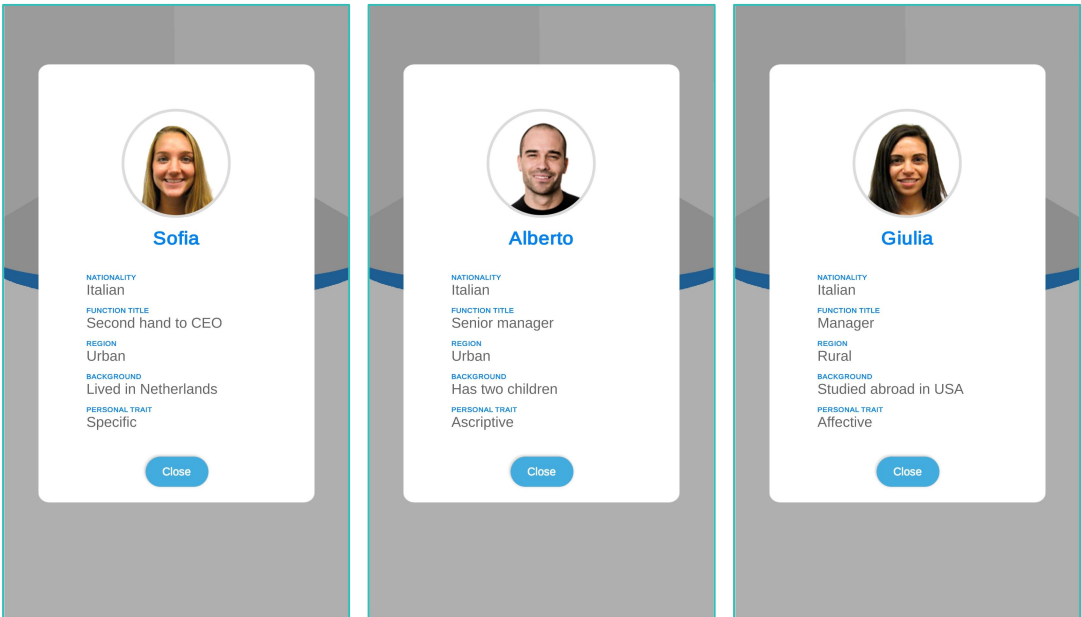
Even though Giulia was irritated with how Alberto proposed the idea, she still likes the idea. So, Sofia suggests what the next steps are. By thanking them enthusiastically for being there, the player showed that he/she appreciates the personal relationship.



After the meeting, the player is given a score on how close he/she came to understanding the Italian culture and an individual summary of how each person at the meeting had reasoned their choices differently due to their cultural background.



During the meeting, the player has the option to see the personality profiles of each person at the table by pressing on them.



## L. Italian tips for MVG playthrough

### Italian tips digital prototype

Ideas are made in groups with feedback thrown back and forth, as an idea from an individual without consultation of the group would be seen as arrogant and self-serving

Italians tend to actively interrupt each other as a sign of showing interest

Italians have a very emotional or affective communication style

Italians tend to argue loudly even with close friends and colleagues

Being reserved or detached with an Italian person can be misinterpreted as a sign of disinterest

