

# Master Thesis Bark

Collaborative ranking for better decision making in teams.



MAS-HCID

(Master of Advanced Studies in Human Computer Interaction Design)

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- that I conducted this master thesis by myself and without any external help, except with those, which are explicitly mentioned,
- that all used sources are academically correct cited, and
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Date, location: \_\_\_\_\_

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# Abstract

Success comes with great collaboration. Every project brings challenges, where decisions have to be made. Every person involved in the decision process may have a different opinion on how things should be. This often results in time consuming meetings and conference calls before a consensus decision can be made.

Bark helps a group of people prioritize a list of items (e.g. tasks, features, company benefits, etc.). Each person contributes their opinion, and Bark calculates a recommendation based on the overall result of the participants votes (wisdom of the crowd). A report helps to make faster and better decisions.

The project was conducted at ZURB in Campbell, California, using their proprietary ZURB Design Process<sup>1</sup>. Prior to the ZURB on-site stay, the team held several interviews in Switzerland and researched the field of collaborative ranking. During the on-site stay, the team spent most of the time on the interaction design. Over the course of 12 iterations, a solid interaction concept was designed and validated. Within a 48 hours Rails Hackathon<sup>2</sup>, the concept was implemented by ZURB engineers and later released under barkapp.com.

## About ZURB

ZURB is a product design agency located in Campbell, California. Besides client projects, the company also develops and provides web applications<sup>3</sup> which support Interaction Designers in their daily work. The app suite contains paid premium apps and a set of free apps<sup>4</sup>.

## About the Master Thesis

Bark is the topic of the master thesis for the Human Computer Interaction Design program from the Fachhochschule Rapperswil<sup>5</sup>. The project itself was conducted during a 7 week on-site stay at ZURB in Campbell, California. This paper was written after the on-site stay.

## Acknowledgements

We would like to express our gratitude to everyone who shared their knowledge and experience with us during the master thesis project. In particular, we want to thank:

- **Bryan, Chief Instigator at ZURB:** for giving us a super exciting project opportunity and environment to build it.
- **Thomas Bircher, CoFounder Claudiabasel (Coach):** for his positive guidance and helping us stay focused.
- **Test Users:** from ZURB employees, random Starbucks customers, to all the Craigslist people, thanks for the great and valuable feedback.

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1 [zurb.com/word/design-process](http://zurb.com/word/design-process)

2 [railsrumble.com](http://railsrumble.com)

3 [zurb.com/apps](http://zurb.com/apps)

4 [www.zurb.com/apps/free-apps](http://www.zurb.com/apps/free-apps)

5 [hcid.ch](http://hcid.ch)

# Project definition

## Mission

A web application named “Bark” shall simplify and virtualize the prioritization and decision process in a team, by using collaborative ranking. Per initial discussions with ZURB, the following feature set shall be provided:

- Create a list of items, such as todos, a roadmap, features, etc.
- Share a list via tokenized URL (no login required) with e.g. customers, product team, etc.
- A person who receives a „Bark-List“, shall see a randomized order of list items and is requested to sort / prioritize per personal preferences.
- Reports shall help to analyze the results and support in making the final decisions.

## Goals

The main goal of the master thesis is to design and build the Bark app. The master students shall focus on interaction design disciplines and only spend a minimal amount on programming tasks. A developer from ZURB will be available during implementation. The experiences and methods applied at ZURB shall be compared and combined with the methods learnt in the master classes (MAS HCID).

## Scope

The initial feature set shall be validated, extended and prioritized using Requirements Engineering methods. Based on a requirements list, an interaction design shall be created and validated. The focus on visual design will be kept minimal. A ZURB Engineer and Visual Designer will develop the application in collaboration with the master students.

## Rough project plan

- Setup project plan & milestones (Zurich)
- Project execution (ZURB Campbell, Sept. - Oct. 2012)
- Write master thesis paper, final presentation (Zurich, Nov. - Feb. 2013)

## Methods to apply

- Interviews
- Personas / Scenarios
- Design- and Interaction concepts
- Mockups / Prototyping
- Evaluation of prototypes with user testing

Please find the full project definition in the appendix [\[projectdefinition\]](#).



# Collaborative Ranking

## The theory

“Collaborative Ranking” defines the process of a group of people, ranking a list of items, by a defined criteria. A list of items could be new product features, a bug list, company benefits, etc. Examples for defined criterias are preference, importance, cost, etc. The process starts by collecting individual opinions, discussing them, and find a consensus on the final rank order.

In the context of Bark, the process is distributed and virtualized. Collecting individual opinions happens virtual and independent of each other. Based on the collected opinions, an overall result is computed by the system. Then the group meets and decides on the priorities based on the calculated rank order.

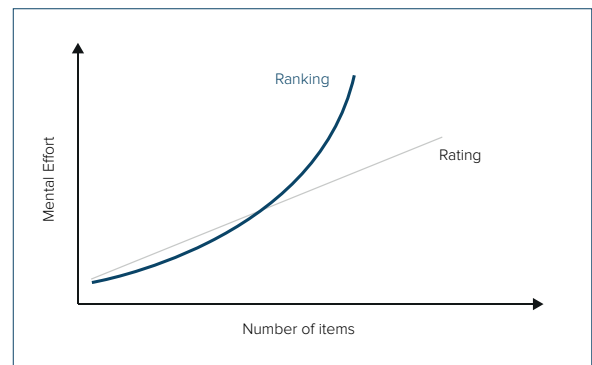


Figure 1: Mental effort Ranking vs Rating

## Ranking vs Rating

Ranking and rating are different concepts for different purposes. The difference is best described by a blog post of vovici:

*“A rating question asks you to compare different items using a common scale (e.g., „Please rate each of the following items on a scale of 1-10, where 1 is ‘not at all important’ and 10 is ‘very important’“) while a ranking question asks you to compare different items directly to one another (e.g., „Please rank each of the following items in order of importance, from the #1 most important item through the #10 least important item“).”* <sup>6</sup>

The same blog post further discusses the mental efforts on rating vs ranking questions:

*“The mental effort required to answer a rating question is linear: the same effort is involved per item. The mental effort for a rank-order question is almost exponential –  $N*(N-1)/2$  – since each item has to be compared to every other item. Because the effort grows rapidly as more items are added, it is commonly advised to only use ranking questions when there are seven or fewer items to compare.”* <sup>7</sup>

Following graph visualizes the mental effort between ranking and rating. With a growing number of items, the ranking effort grows almost exponentially, but the rating effort remains linear.

## Example usage

Rating is heavily used in many web and mobile apps. E.g. Amazon<sup>8</sup> uses stars to rate a product. Facebook<sup>9</sup> uses “I like” to increase the popularity of a post. Ranking is less popular. E.g. Netflix<sup>10</sup> lets a user fill a DVD pipeline according to their personal preference.

## Why Rating?

The master thesis title refers to ranking only. One may ask why rating comes into the picture? A typical rating system (5 stars) applied to a list of items also results in a semi-ranked list. The more people participate, the more the overall result turns into a distinct ranked list. See table below.

Feature	Person 1	Person 2	Person 3	Overall
Feature 1	★★★★★	★★★★★	★★★★★	★★★★★
Feature 2	★☆☆☆☆	★★★★★	★★★★★	★★★★★
Feature 3	☆☆☆☆☆	★★★★★	★★★★★	★★★★★
Feature 4	★★★★★	★★★★★	★★★★★	★★★★★

<sup>6,7</sup> [blog.vovici.com/blog/bid/18228/Ranking-Questions-vs-Rating-Questions](http://blog.vovici.com/blog/bid/18228/Ranking-Questions-vs-Rating-Questions)

<sup>8</sup> [amazon.com](http://amazon.com)

<sup>9</sup> [facebook.com](http://facebook.com)

<sup>10</sup> [netflix.com](http://netflix.com)

## Ranking vs Sorting

Both words have a similar meaning. We define ranking as the task to order a list of items by a defined criteria. Sorting is the actual action of moving items in order. E.g. a list of features for a next release needs to be ranked by importance. In order to rank the features, a person needs to sort it.

## Dot Voting

Dot voting<sup>11</sup> is a mix between rating and ranking. A dot voting question asks a person to distribute a number of points (dots) across a selection of items. Rating happens by giving an item a point (dot) and leave others blank. Ranking comes in place when points are unevenly distributed among the favored items. This method is often used during workshops, to consolidate and prioritize findings and data.



Figure 2: Dot voting during a conference

Source: flickr.com/photos/podnosh/5915434750

## Card sorting

Card sorting<sup>12</sup> is a method to help design information architecture, menu structure, or web site navigation paths. You ask people to sort cards into piles according to what's similar and describe the groups they make (this is called an open card sort). Or you can give people a set of cards plus a set of categories and ask them to sort the cards into the predetermined categories. In context of collaborative ranking, a closed card sorting could be used to categorize (Important, Not important, Nice to have) items.

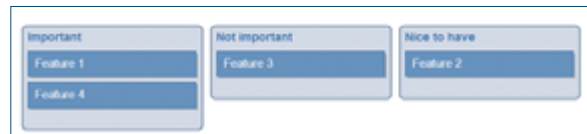


Figure 3: Closed card sorting example

Source: optimalworkshop.com/help/kb/optimalsort/open-vs-closed-sorts

## Hybrid ranking

Hybrid ranking is a two step ranking process. First bucket items by importance (closed card sorting) and apply ranking only on the top items. According to prior studies [study1] such a hybrid is the most efficient way for a human to rank a list of items.

*Remark: We didn't discover this method until the Interaction Design phase.*

11 Game storming (Gray, Brown, and Macanuso), Page 63

12 en.wikipedia.org/wiki/Card\_sorting

# Process overview

## Process phases

The project was conducted in 3 phases:

### 1. Project setup (Switzerland)

An initial project plan, risk list, stakeholder list and first interviews were conducted. The initial project plan was based on the Goal Directed Design process, as described in „About face 3“ (Cooper, Reimann, and Cronin).

### 2. Project execution (ZURB, Campbell, CA)

After an initial discussion with Bryan, we decided to change and fully adopt ZURB's Design Process. ZURB's process is based on the design thinking<sup>13</sup> methodology executed in a time boxed<sup>14</sup> manner.

### 3. Paper & Presentation (Switzerland)

The master thesis paper and presentation were created after the on-site stay at ZURB.

## ZURB Design Process

1. **Design Strategy**, interviews and research of the problem domain was conducted. Artefacts like Personas and Scenarios were created.
2. **Interaction Design**, 12 iterations of interaction prototypes (LoFi to HiFi) were created and validated. Personas and scenarios were refined with each iteration.
3. **Interface Design**, mood boards and a detailed interaction design specification was created and handed over to the visual designer and engineers.

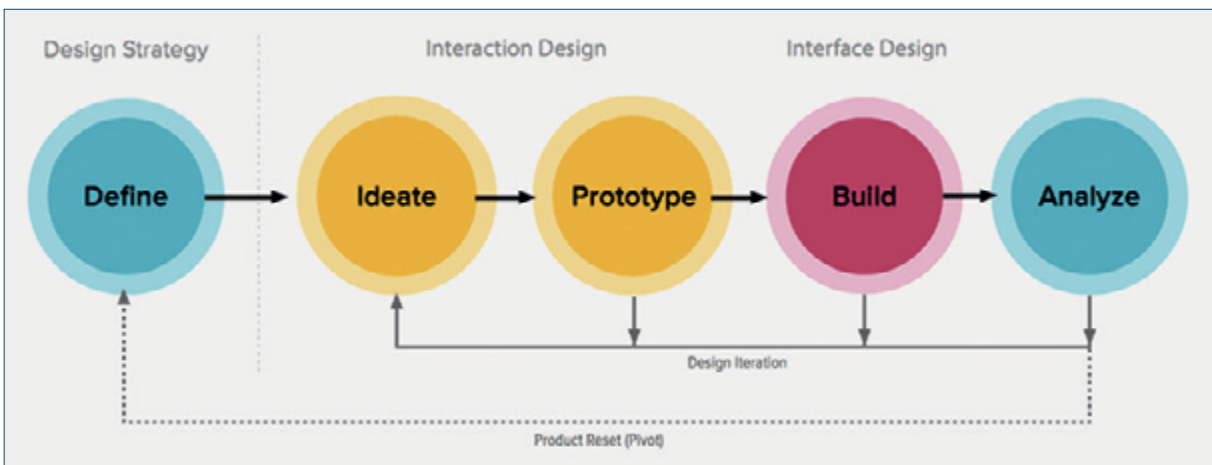


Figure 4: ZURB's Design Process

Source: [zurb.com/word/design-process](http://zurb.com/word/design-process)

<sup>13</sup> [en.wikipedia.org/wiki/Design\\_thinking](http://en.wikipedia.org/wiki/Design_thinking)

<sup>14</sup> [en.wikipedia.org/wiki/Timeboxing](http://en.wikipedia.org/wiki/Timeboxing)

## Design Thinking Methodology

ZURB's Design Process is influenced by the design thinking methodology. The process encourages to prototype early, without trying to answer every question through requirements engineering disciplines. ZURB's practices a lot of ideation, rapid prototyping and user testing.

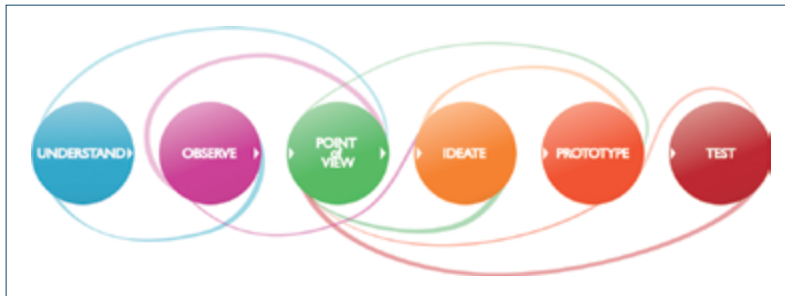


Figure 5: Design Thinking Process Steps

Source: [dschool.stanford.edu/groups/k12/wiki/17cff/Design\\_Process\\_Steps.html](https://dschool.stanford.edu/groups/k12/wiki/17cff/Design_Process_Steps.html)

## Post on-site stay

After the 7 weeks on-site stay at ZURB, the collected material was consolidated into this master thesis paper. We heavily documented our procedure during the on-site stay, which tremendously helped us to write the paper in an efficient manner.

# Design Strategy

The Design Strategy phase in ZURB's Design Process correlates to the traditional requirements engineering (RE) phase. We created a project plan, a competitive analysis, a risk list and a stakeholder list. Based on the stakeholder list, we held several interviews including an observation of a real client meeting. All the results were consolidated into an affinity diagram, which resulted in a clearer understanding of the problem domain and requirements.

## Project plan

The initial project plan [projectplan1] was based on the Goal Directed Design process. After an initial interview with Bryan, we decided to fully adopt the ZURB Design Process, and follow a time boxing<sup>15 16</sup> approach for the execution of the project.

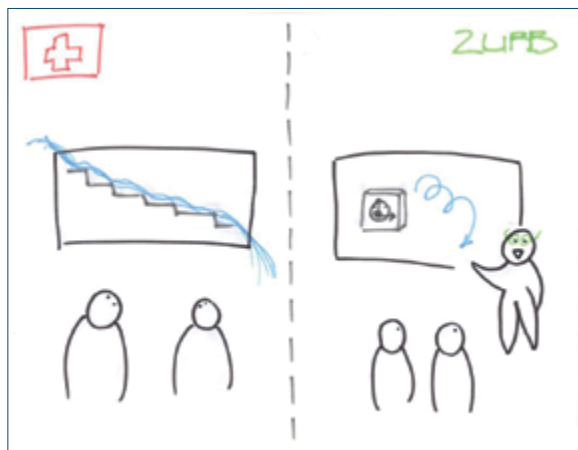


Figure 6: Project planning, Goal Directed Design vs ZURB Design Process

Bryan believes, that a project like Bark requires a lot of ideation. It seemed wrong to him, to plan all required tasks until the very end. „This seems like waterfall“, he mentioned.

## What is Time Boxing

Time boxing is a very simple technique often used in software development. From a planning perspective, time boxing is useful, especially when things appear complex initially, and it's difficult to outline the project until the very end. ZURB practices time boxing with 5 days rolling. 5 days rolling always looks one week ahead and only thinks of the next most important things to do, to make the project succeed. If planned todos don't make it into the current time box, they will be reconsidered for the week after.

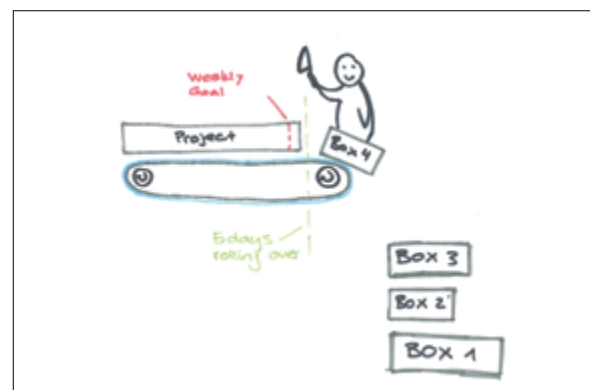


Figure 7: Illustration about 5 days rolling

## Why time boxing helped us succeed

Based on our original project plan, we planned a more extensive requirements engineering (RE) phase and only two interaction design (ID) iterations. We realized early on, that a more elaborate ID phase (> 2 iterations) would help us better succeed with this project. Reasons were the difficulties to hire interview partners in the U.S., and a design which requires a lot of discovery using prototyping. The project turned out to be successful and we finished one week earlier than originally planned.

An overview of the project plan, including the 7 time boxes, can be found in the appendix [projectplan2].

We tracked the time using a tool called mite<sup>17</sup>. Please find a detailed report for each team member in the appendix. [reportkarin], [reportreto]

<sup>15</sup> zurb.com/word/timeboxing

<sup>16</sup> en.wikipedia.org/wiki/Timeboxing

<sup>17</sup> mite.yo.k

## Competitive products and space

There is no direct competitor which supports collaborative ranking, but we found 4 web applications, which are similar in nature. We tested and compared each application by applying the same test scenario, “ran-

king a list of features”. The closest to solving the ranking problem was Closed Card Sorting. The detailed analysis can be found in the appendix [\[competitive\]](#).

Competitor	Concept	Pros	Cons
<b>tricider.com</b>  Test example: <a href="http://bit.ly/StQ8ya">http://bit.ly/StQ8ya</a>	Rating	<ul style="list-style-type: none"> <li>● Easy to get started, no login required.</li> <li>● One click voting.</li> <li>● Easy to share / invite people.</li> <li>● Pro / Cons arguments addable.</li> </ul>	<ul style="list-style-type: none"> <li>● Only open polls possible. People influence each other.</li> <li>● Can't vote with more than one star.</li> <li>● No dedicated report.</li> <li>● 2 concepts: Pro / Cons arguments &amp; Voting is confusing.</li> </ul>
<b>doodle.com</b>  Test example: <a href="http://bit.ly/X5GaP6">http://bit.ly/X5GaP6</a>	Voting	<ul style="list-style-type: none"> <li>● Easy to get started, no login required.</li> <li>● Supports open vs closed polls.</li> <li>● Easy to share / invite people.</li> </ul>	<ul style="list-style-type: none"> <li>● Comments are per poll and not related to a particular vote.</li> <li>● Limited rating possibility (yes / no / ifneedbe).</li> <li>● No dedicated report.</li> </ul>
<b>choosle.ch</b>  Test example: <a href="http://bit.ly/TTCwdU">http://bit.ly/TTCwdU</a>	Ranking & Rating	<ul style="list-style-type: none"> <li>● Each option can be rated by arguments.</li> <li>● Transparency through arguments.</li> <li>● Easy to share.</li> </ul>	<ul style="list-style-type: none"> <li>● No multi-user support</li> <li>● Cumbersome if done complete.</li> <li>● No dedicated report.</li> </ul>
<b>optimalworkshop.com</b>  Test example: <a href="http://bit.ly/VUyuCK">http://bit.ly/VUyuCK</a>	Closed Card Sorting	<ul style="list-style-type: none"> <li>● Easy to share / invite people.</li> <li>● Good multi-user support.</li> <li>● Dedicated reporting.</li> </ul>	<ul style="list-style-type: none"> <li>● Concept was made for a different purpose (misuse!).</li> <li>● No ranking, just bucketing.</li> </ul>
<b>dotvoting.org</b>  Test example: <a href="http://www.dotvoting.org">#vote2105002i2hunmshhuo7</a>  <a href="http://www.dotvoting.org">#result21090021nopvkfhj32xi</a>	Dot voting	<ul style="list-style-type: none"> <li>● Easy to vote.</li> <li>● Simple and clear voting report.</li> <li>● Good multi-user support</li> <li>● Dedicated reporting</li> </ul>	<ul style="list-style-type: none"> <li>● Unfriendly user interface to setup a dot voting poll.</li> </ul>

Table 1: Competitive analysis

The competitive analysis inspired us by certain concepts (or the lack of it), which we wanted to consider in the design of Bark. E.g. a login-free app, users shouldn't influence each other with their opinion, and it should be fun to use.

## ZURB app suite

ZURB develops and provides web applications<sup>18</sup> which support Interaction Designers in their daily work. The app suite contains paid premium apps and a set of free apps. The free apps are lightweight apps, which are marketing tools, to help ZURB create awareness and attract new users to their website. We analyzed the different free apps to understand the style and complexity. Also we wanted to understand the common patterns across the different apps, like tokenized URL's, sharing, etc.

## Literature

Most of the literature was found online. The findings are covered in the chapter "Theory about Collaborative Ranking". For more information, please visit the chapter Books at the end of this document.

## Risk list

The risk list **[risklist]** was setup at the beginning of the project in Switzerland. It was maintained throughout the stay at ZURB. We differentiated between product and project risks. Since we applied all of the mitigations, none of the risks became a show stopper.

## Project

The biggest risk was: "Interview and observation possibilities with ZURB clients come in too late in the project (ID 1)". In spite of applying the planned mitigation it was hard to get enough quality interviews. We decided to work more with hypothesis in order to move forward.

## Product

We couldn't identify any high risks for the product itself. We identified a risk of product adoption in the market, which is still open. ZURB hasn't officially released and marketed the app yet.

## Stakeholder list

The stakeholder list **[stakeholder]** was setup at the beginning of the project in Switzerland. It helped us communicate and plan interviews with the important people. The weekly Skype call with the coach (Thomas Bircher) helped us to stay focused and move the project forward.

## Stakeholders

- Bryan Zmijewski, ZURB Inc., Client & Mentor
- Reto Lämmli, Student / Project Team Member
- Karin Christen, Student / Project Team Member
- ZURB Product Customers, Customers
- ZURB Employees
- ZURB Clients, Client Side Project Manager
- Thomas Bircher, Coach
- Potential users

## Customer Interviews

Before our on-site stay at ZURB, we interviewed two agencies located in Zurich, Switzerland. The initial customer interviews helped us to familiarize with the domain and get ready for the on-site stay at ZURB.

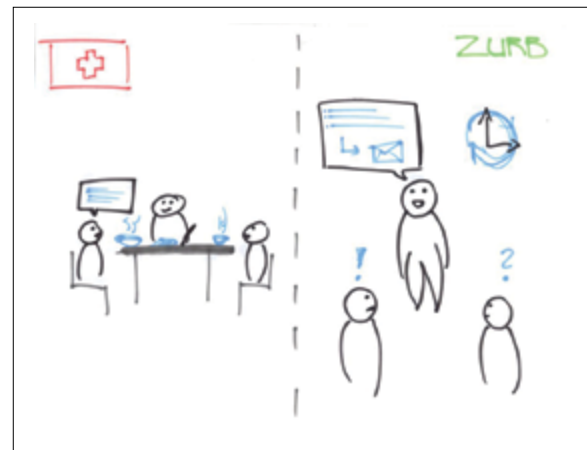


Figure 8: Interview process Switzerland vs Silicon Valley

The interviews in Switzerland were generally very structured and in depth. Interviews during the on-site stay were difficult to conduct, because of the agile and very happening environment at ZURB. In preparation for the interviews, we consulted the book *Understanding Your Users* (Courage and Baxter).

<sup>18</sup> [zurb.com/apps](http://zurb.com/apps)

## Marc Blume

Marc is a consultant at Stimmt AG<sup>19</sup> in Zurich and his background is in psychology and HCI. He has many years of experience working with clients on big projects. In every project there are decisions and prioritizations to be made. Marc as the external consultant is most of the times part of it. His role is to conduct and lead workshops, where he guides the team along the process. He explained to us, that he isn't the person who's usually in charge to make the decision, but he is the person who tries the best to lead the team into the right direction. In some cases tools are really helpful, but generally it is more efficient to have in-person conversations. [\[interview1\]](#)

## Lukas Benninger

Lukas is a consultant at The Ergonomen Usability AG<sup>20</sup> in Zurich and his background is a Ph.D in Psychology. Lukas does influence the actual prioritization more directly than Marc does. Lukas usually creates an Excel sheet upfront, in which he collects and sorts all the items before he presents the list to the stakeholders. He uses no other tools than Excel and E-Mail. [\[interview2\]](#)

## Stakeholder Interviews

### Bryan Zmijewski - ZURB

The most important stakeholder was Bryan, whom we interviewed on the very first day of the on-site stay. We updated him on the current project status. We further presented him with our project plan and interviewed him regarding expectations. We further asked Bryan to provide us with interview possibilities with some of their clients. He provided us great feedback and recommended to adopt ZURB's time-boxing approach, instead of our current project plan. [\[interview3\]](#).

### Jonathan Smiley - ZURB

In order to gain further insights in the ZURB team, we also interviewed Jonathan, a design lead at ZURB. He explained how a typical client project works. We focused our questions on how he manages priority negotiations with the clients. He offered to take us along for a client meeting at Intuit<sup>21</sup>, where we can observe a real prioritization meeting, and also interview one of Intuits product manager. Jonathan further showed us how he manages pending todos with Intuit. He always keeps the top 10 todos above the fold. The rest is less important. [\[interview4\]](#).

## Client observation and interviews

Jonathan took us along to a meeting with Intuit, to prioritize work for a next release. Arriving at Intuit, we realized that this meeting is not going to turn into a prioritization meeting. It was more of a Q&A meeting between engineers and Jonathan. The product manager had neither time to run through the prioritization nor had she time for an interview. Still the observation helped us to better understand how ZURB works with clients.

Things happen very spontaneous and fast at ZURB. We got a chance to talk to John, a Product Manager at Coupons<sup>22</sup>. Due to a time constraint, we could only ask a minimal set of questions. The interview didn't bring up any big insights. [\[interview5\]](#)

We tried to get further customer interviews. We kept trying to schedule an interview with Intuit's product manager and a follow up interview with John, from Coupons. Things didn't work out as expected. We realized that we are going to lose a lot of time finding and scheduling potential client interviews. Since our on-site stay was time constraint, we decided to move forward with a more hypothetical approach, and consolidate the current insights with an affinity diagram.

## Affinity Diagram

We printed all the interview transcripts and wrote each finding on a post-it. Each post-it was sequentially stuck on the whiteboard and then clustered<sup>23</sup>.

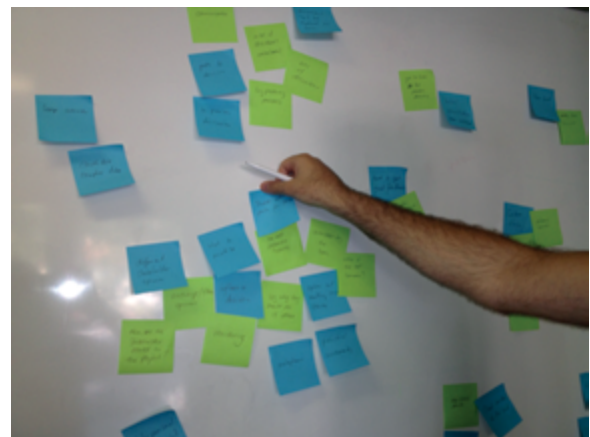


Figure 9: Snapshot Affinity Diagram

<sup>19</sup> stimmt.ch

<sup>20</sup> ergonomen.ch

<sup>21</sup> intuit.com

<sup>22</sup> coupons.com

<sup>23</sup> Understanding Your Users, C. Courage & K. Baxter, Chapter 7, Data Analysis and Interpretation



## Findings and requirements

Key Finding	Key Finding explained	Resulting Requirement
Discussions are important in order to make good decisions.	The ranking process cannot be automated. To make good ranking decisions, in-person discussions are necessary.	Bark shall support teams to hold meaningful discussions by visualizing ranking opinions with a report.
Decisions are made by either: <ul style="list-style-type: none"> <li>● Gut feeling</li> <li>● Facts</li> <li>● Power play</li> </ul>	<p><b>Gut feeling:</b> a person can't rationally describe why a decision feels right. The decision is based on a feeling rather than facts.</p> <p><b>Facts:</b> This is the opposite of a decision based on gut feeling. It's based on facts like price, effort, etc.</p> <p><b>Power play:</b> A person who is hierarchically above the other team players (e.g. Manager) decides based on his/her own opinion, regardless what the facts and gut feelings of the others are.</p>	Bark shall make the facts transparent and help to make profound decisions.
A tool can't solve decision making but support it.	N/A	<p>Bark shall focus on gathering ranking opinions and their visualization.</p> <p>Bark shall not automate the ranking decision itself.</p>
A tool must support internal & external decision making.	Depending on the project, decisions may include people across different companies.	A Bark ranking poll shall be easy to set up and shareable across company boundaries. No login shall be required.

Table 2: Key findings and requirements

## Design decisions

Following design decisions were made prior to starting the interaction design phase:

1. Bark shall help to rank a list of max. 15 items. This number is an assumption based on interview feedbacks and the requirement to design a lightweight free app.
2. Bark shall use the same tokenized URL concept as other free ZURB apps. This concept helps to share and use Bark without a user account.
3. The ranking report shall only be shown to a participant, after providing the ranking opinion. This way a participant doesn't get influenced by other opinions.
4. The focus shall be set on an interaction concept for the desktop browser. The ZURB Foundation framework provides implicit responsiveness, but the concept will not be optimized for tablet or mobile in the scope of this master thesis.

# Interaction Design

We broke down the product into 3 parts and decided where to put our focus on:

## 1. Create list

This is very similar to what the existing ZURB todo app Strike App<sup>24</sup> already does. Therefore we decided to only spend minimal time on this part.

## 2. Ranking

Iteration 1 - 8

## 3. Report & Integration of overall prototype

Iteration 9 - 12

Each of the following iterations is documented in four steps:

## 1. Personas and Scenario

## 2. Prototype

## 3. User Test

## 4. Results

Following diagram shows an overview of the iterations. Each iteration concentrates on a specific interaction concept with a specific prototype fidelity (LoFi -> HiFi). A miniature version of this diagram will be shown in each iteration, to help you stay oriented while reading.

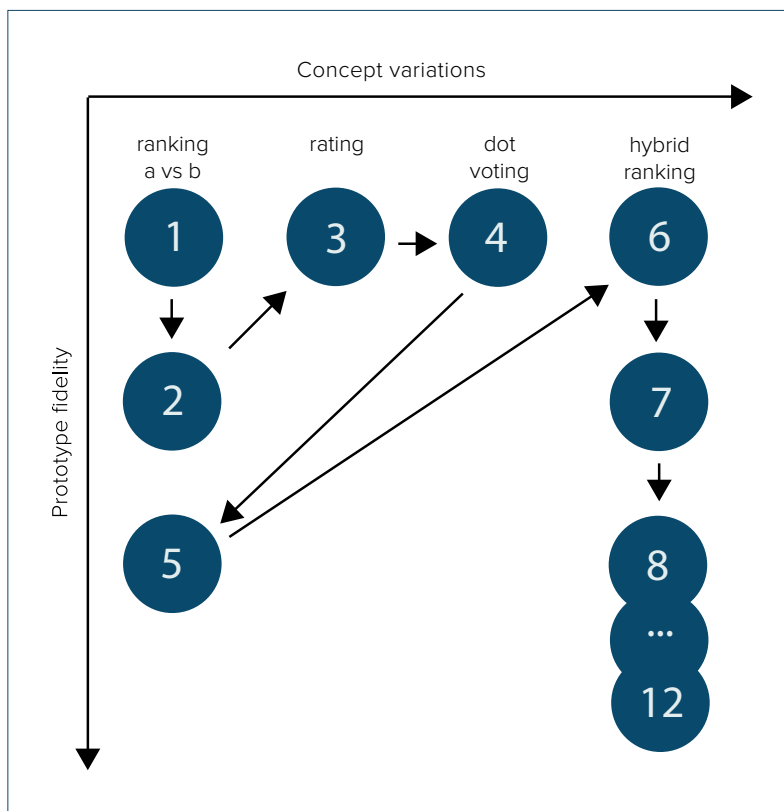
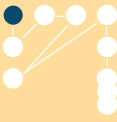


Figure 10: Overview interaction design iterations

<sup>24</sup> strikeapp.com



## Iteration 1 (ranking a vs b)

The goal of the first iteration was to get a concrete feel for the problem domain. We worked with provisional personas according to „About face 3“ (Cooper, Reimann, and Cronin)<sup>25</sup>, created a paper prototype and validated it using “hallway-testing”.

### Personas and Scenario

Due to the difficulties to organize client interviews, we created hypothetical personas [provisional] based on Coopers provisional personas. We picked two types of personas: Julia who is the initiator and Parker the contributor. Julia initiates and leads the decision making process. Parker participates in the decision making, but doesn't initiate and lead it.

We decided to focus on an internal scenario which was familiar to ZURB employees. We chose to rank a list of favorite lunch restaurants. Julia, the office admin, sets up a list of lunch restaurants. She shares it with contributors like Parker, who then prioritize the restaurants according to their personal preference. All the opinions will be consolidated in an overall result, which then helps to pick a favorite restaurant, according to the overall opinion.

### Prototype

Based on the personas and scenario (rank a list of favorite lunch restaurants) we started to create a first paper prototype [prototype1]. We both independently created sketches. Both sketches were presented to each other and consolidated into a LoFi paper prototype. The initial concept is based on ranking a list by comparing two items at a time. We got the inspiration from sorting algorithms<sup>26</sup>.

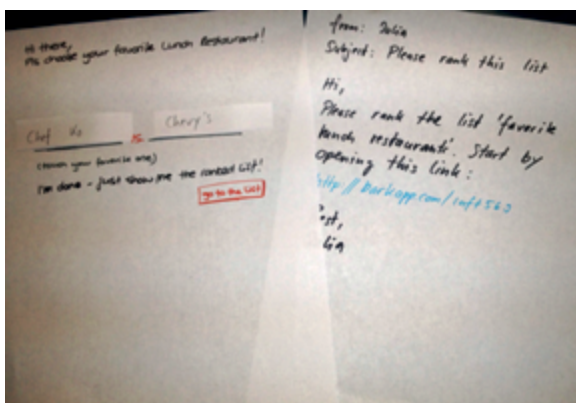


Figure 11: Paper prototype a vs b, Iteration 1

For each comparison step, a user had to choose the more favorite restaurant, until all items were compared and ranked.

### User test

The paper prototype was hallway tested<sup>27</sup> with Shawna (Admin at ZURB, Persona Julia) and Roeland (Sales at ZURB, Persona Parker). We couldn't find any major interaction flaws. Comparing two items at a time was well received because it shows only little complexity and has game character.

For us, the paper prototype was quite difficult to handle. Paper pieces had to be moved around to simulate the interaction. Therefore we had to limit the number of comparisons.

### Results

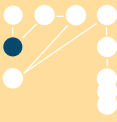
Comparing two items at a time works well with a few items, but the concept does not scale for large lists (see theory). Based on our design decision of max. 15 items, it requires 105 comparisons (see theory - mental effort ranking).

We further discovered new requirements: Shawna would like to see individual votes, in order to lookup a person's favorite restaurant on their birthday. We registered this requirement, but we knew that the report design will not happen until later.

<sup>25</sup> About Face 3, Chapter 5, Provisional / Ad-hoc Personas

<sup>26</sup> en.wikipedia.org/wiki/Sorting\_algorithm

<sup>27</sup> en.wikipedia.org/wiki/Usability\_testing#Hallway\_testing



## Iteration 2 (ranking a vs b)

We decided to go one step further, to find out whether it makes a difference when the comparison step is automated (compared to moving paper clips around manually).



Figure 12: Persona Alice, Product Manager

Source: [flickr.com/photos/kgsglobal/6762759449](https://www.flickr.com/photos/kgsglobal/6762759449)



Figure 13: Persona Patrick, Developer

Source: [flickr.com/photos/toolmantim/2079685562](https://www.flickr.com/photos/toolmantim/2079685562)



Figure 14: Persona Ryan, VP Product

Source: [flickr.com/photos/76029035@N02/6829378917](https://www.flickr.com/photos/76029035@N02/6829378917)

### Personas and Scenario

Besides the initiator and the contributor, we also discovered a 3rd persona, which is the decider who makes the final call on a decision.

#### Alice - Product Manager (the coordinator)

Alice is a 32 years old Product Manager (PM). Her background is Visual Design. She moved into her new PM role a year ago. She is a strong and reliable coordinator, but not the toughest decision maker. Alice likes to hear everyone's opinion before making project or product decisions. This is a way to show respect, and she further believes this produces better end results.

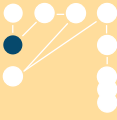
#### Patrick - Developer (the contributor)

Patrick is a 28 years old Ruby on Rails developer. He works in a scrum team, but would prefer a less structured development process. He is strongly opinionated about technology. He has a good sense for simple user interfaces but usually doesn't stand up for it. He tends to do what he is told.

#### Ryan - VP Product (the decider)

Ryan is a 37 years old manager with a background in Business. He is good at getting things done. People like and respect him as a manager. He never makes quick decisions and likes to listen to other opinions.

The full description of the personas **[persona2]** and scenario **[scenario2]** can be found in the appendix. The topic of the scenario wasn't a "feature roadmap" but "favorite restaurants" again. The flow of the scenario is exactly the same.



## Prototype

We redrew the paper prototype and imported the sketches into ZURB's Prototyping App Solidify<sup>28</sup>. We used Solidify to make an interactive prototype by linking imported screens with each other.

The prototype [prototype2] and the test report [prototype2R] are available online on Solidify.

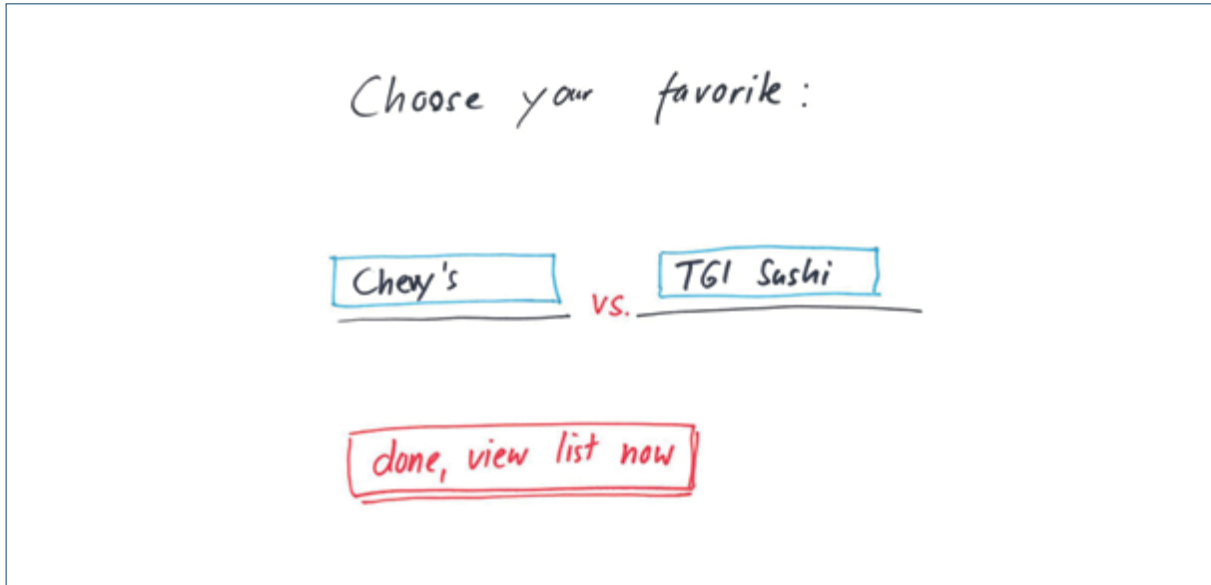


Figure 15: Paper prototype a vs b, Iteration 2

## User test

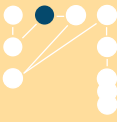
For iteration 2 we decided to do an expert review with Bryan. We had a meeting where we presented our personas and scenario. We further walked through the solidify prototype to gather his feedback.

## Results

Bryan discovered many detail issues, but still no major flaws in the interaction concept. He criticized, that we needed more variations to find the best possible interaction concept. With iteration 1 & 2 we only tested 1 interaction concept (a vs b ranking).

Thanks to our hypothetical personas we discovered, that Bryan wants to position Bark for a different type of user. We targeted the tool towards a classic Project Manager / Leader, but Bryan wants to position it for "Doers", people who don't manage and just want to get things done. He said: "Bark must be a tool to give the non-PM's a voice. A classic PM wouldn't use this tool because they have already a working process." He further mentioned, that the other free apps are targeted for this type of users as well.

<sup>28</sup> solidifyapp.com



## Iteration 3 (rating)

In order to test a different approach, we chose rating as the interaction concept. Besides testing the interaction concept, we also wanted to find out whether it produces meaningful results. We created a prototype for a real case scenario, a feature list for one of the ZURB products “Notable”<sup>29</sup>.

### Personas and Scenario

We rewrote the personas according to Bryan’s vision from iteration 2. The “coordinator” from iteration 2 became a non-persona. Please find the detailed scenario in the description below.

#### Patrick - Lead Developer (doer)

Patrick is a 28 years old Ruby on Rails lead developer. He works in a scrum team but would prefer sometimes a less structured development process. He has a good sense for simple user interfaces and often disagrees with the specifications he gets from the designers.

Creates ‘feature roadmap’ list and invites the team to rate:

1. Opens Bark app in the browser.
2. Creates a new list called “feature roadmap”.
3. Enters 8 features and completes the process.
4. Selects “Ask people for their opinion”.
5. Copies a tokenized URL to share.
6. Copy/pastes the tokenized URL into an email.
7. Sends email to the team along with a quick introduction.

#### Alice - Design Lead (contributor)

Alice is a 32 years old Design Lead. She likes to juggle different projects at the same time. She is not the toughest decision maker. Alice likes to double check with other people before committing to anything. She believes this produces better end results, but also compensates for her insecurity.

Rates list items:

1. Receives email from Patrick with invitation to rate “feature roadmap”.
2. Opens tokenized link and sees a quick introduction about rating.
3. Begins the rating.
4. Votes **[+]** for the first feature in the list. Feature disappears.
5. Votes **[-]** for the next feature in the list. Feature disappears.
6. Repeat previous step until all items are rated.
7. Rating is automatically submitted and overall result is presented.

#### Ryan - VP Product (decider)

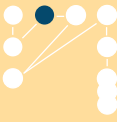
Ryan is a 37 years old manager with a background in Business. He is efficient at getting things done. People like and respect him as a manager. He never makes quick decisions and likes to listen to other opinions.

Makes a decision:

1. Receives email from Patrick.
2. Opens link and sees report.
3. Checks the different rating opinions.
4. Rearranges the consolidated result according to his opinion.
5. Replies email to Patrick about his opinion.

The full description of the personas **[persona3]** and scenarios **[scenario3]** can be found in the appendix.

<sup>29</sup> notableapp.com



## Prototype

We built a prototype using Photoshop and imported the different screens and states into ZURB's Prototyping Tool Solidify<sup>30</sup>. We linked the screens together to make the interactions real. Solidify tracks every

user click in a heat map. A list of Notable features is presented. Only one feature can be rated at a time. The user can click on a **[+]** or **[-]** icon to indicate their preference.

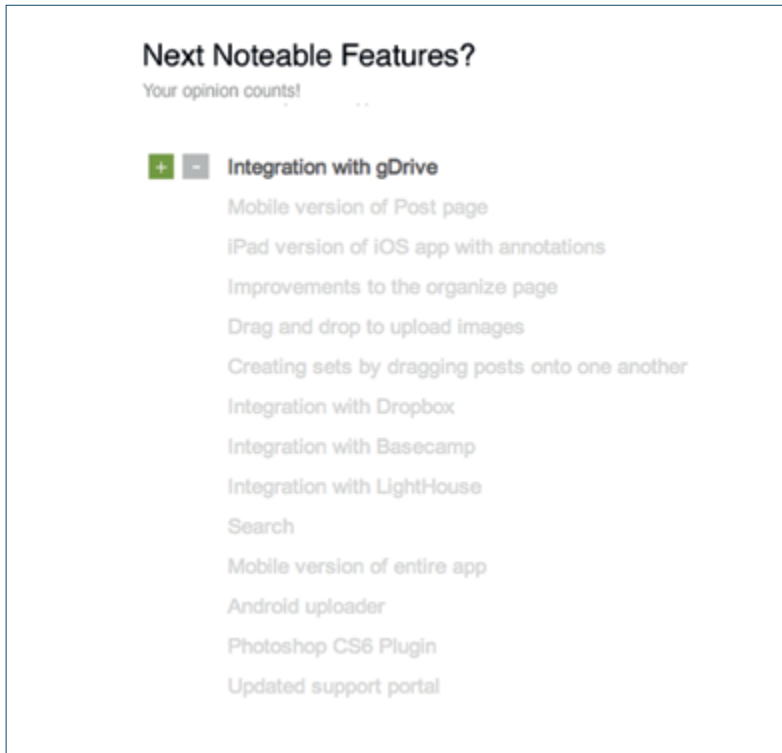


Figure 16: Paper prototype rating, Iteration 3

The entire solidify prototype is available here: [\[prototype3\]](#), [\[prototype3R\]](#)

## User test

The prototype was sent to 5 different test candidates (inside ZURB) and they participated remotely. We didn't observe the test since Solidify captures the interactions. This test design also helped to understand the nature of remote participation. This iteration simulated a real case scenario for the Bark concept.

## Results

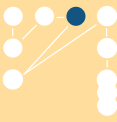
Interaction-wise, the concept didn't bring up any problems. People were more confused on the concept itself. A person could only **[+]** / **[-]** rate an item without the possibility to rank order the list. It felt too limiting for the test users.



Figure 17: Paper prototype rating results, Iteration 3

<sup>30</sup> [solidifyapp.com/p/1565](http://solidifyapp.com/p/1565)





## Iteration 4 (dot voting)

This iteration tested a new concept, which is a mix between ranking and rating, called dot voting. A voter can distribute a number of points across the items in the list. This concept was inspired by a comment from the interview with Marc Blume (Stimmt AG).

### Personas and Scenario

Same as iteration 3. We only adjusted the scenario according to the dot voting concept. We didn't refine the personas.

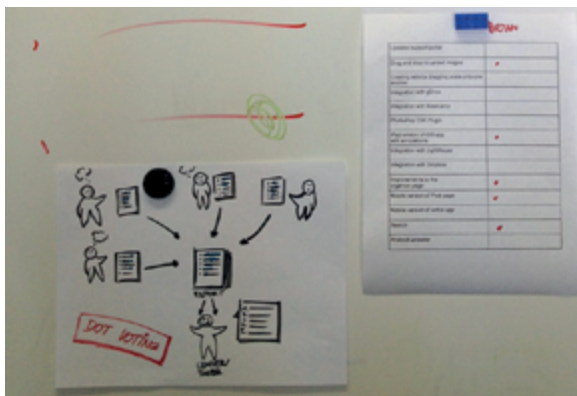


Figure 18: Paper Prototype, dot voting, Iteration 4



Figure 19: User test with dot voting prototype, Iteration 4

### Prototype

Since this is a very interactive prototype, we decided to use a paper prototype [prototype4] again. We prepared two printable sheets. Sheet 1 showed a brief instruction and sheet 2 showed a printed list of „New Notable feature list“. Each test user had 5 dots to distribute among the feature list.

### User test

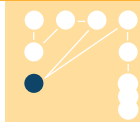
We tested with the same people from iteration 3, in order to compare the results. After two tests, we realized that drawing a point on the paper restricts from changes, when having second guesses. Therefore, for candidates 3-5, we made a small change using sticker dots, which they could place and drag around afterwards.

### Results

We didn't discover any major interaction flaws. Most people didn't seem to be very emotional about the interaction. Jackie was confused regarding the weight of a dot, and how much influence placing a dot will have on the final result. Bryan didn't like to place the dots, because he didn't want to get rid of any feature. He didn't feel good about it.

Based on the learnings from Iteration 3 and 4, we decided to not further proceed with the rating or dot voting approach. It was Bryan's wish, to make the interaction concept simple and fun. The rating approach didn't fulfill these requirements.





## Iteration 5 (ranking a vs b)

Considering the simplicity and fun aspects, we decided to go back to the a vs b ranking approach from iteration 1 & 2. Based on the user test results, we knew that users liked this interaction concept. We were aware of the scalability problems for larger lists, but we still believed that the comparisons could be optimized with an intelligent algorithm. In order to come close to a real user experience, we decided to develop an interactive prototype using HTML, CSS and Javascript.

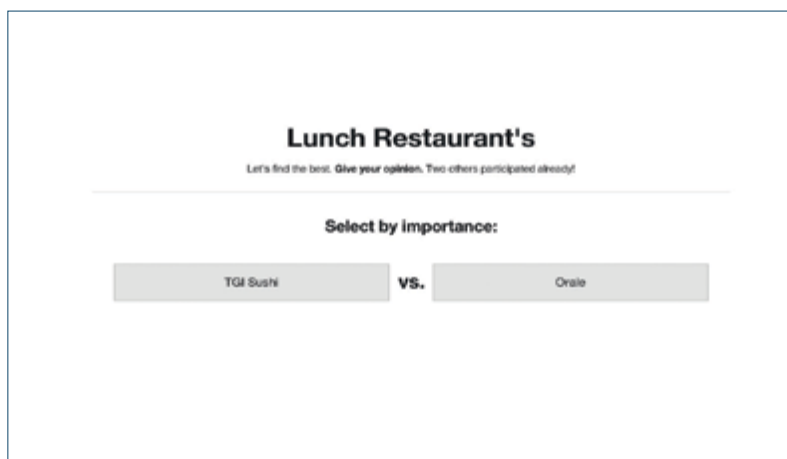


Figure 20: HTML prototype a vs b, Iteration 5

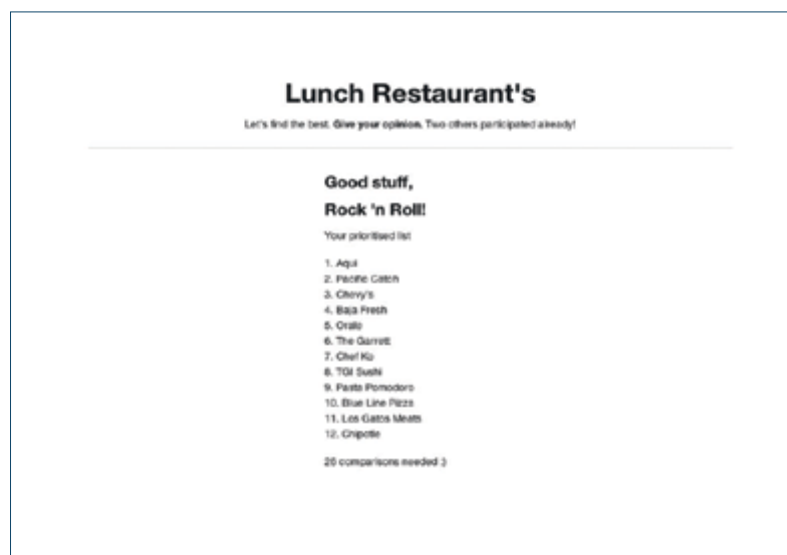


Figure 21: HTML prototype a vs b results, Iteration 5

## Personas and Scenario

The personas and scenario remained the same as in the previous iteration.

## Prototype

ZURB provides an HTML based prototype framework called Foundation <sup>31</sup>. This includes dozens of styles and elements (multiple button sizes, tabs, custom forms, modal dialogs, image sliders and a lot more), which helped us to quickly prototype our concept. [prototype5]

We also discovered a human driven sort algorithm called Monkey Sort <sup>32</sup>. It's based on the quicksort algorithm <sup>33</sup>. We used some of their Javascript code and merged it with our foundation prototype.

## User test

Testing ourselves uncovered following problems:

To rank a list of 12 elements takes approx. 35 - 40 comparisons. This could be improved by ranking top elements only. Bottom ones get skipped because they don't matter as much. The quicksort algorithm is monotonous because it keeps searching for the next better element and compares the same item against the entire list. Merge sort <sup>34</sup> alternates more on the comparisons.

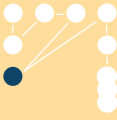
We still went ahead and tested iteration 5 with a friend outside ZURB (Chanda Verma) and Bryan from ZURB. The test with Chanda was an informal test.

31 foundation.zurb.com

32 leonid.shevtsov.me/en/a-human-driven-sort-algorithm-monkeysort

33 en.wikipedia.org/wiki/Quicksort

34 en.wikipedia.org/wiki/Merge\_sort



## Results

Chanda experienced a vs b ranking as very cumbersome. She likes to rearrange a list by important, undecided and unimportant. Thanks to this test, we discovered a new natural way of ranking.

Bryan mentioned the inefficiency but still liked the a vs b approach. He envisions to have a solution like this, but more efficient.

The main interaction flaw on the a vs b ranking concept is the missing feedback on the progress. A progress bar would not solve the problem because it technically cannot be predicted how many comparisons are required.

## Optimizations on a vs b ranking

We investigated optimization possibilities by displaying a real time feedback on the sorted list. The prototype can be found here: [\[prototype6\]](#)

Just by testing ourselves, we knew that this didn't feel right. We then tried to enhance the prototype with a „don't show this item again" functionality. This helps a user to dislike and remove an item from the comparisons. The prototype can be found here: [\[prototype7\]](#)

Just by testing ourselves, we realized that it makes the interaction concept more complicated.

## MAYA (Most advanced, yet acceptable)

The a vs b ranking concept shows little complexity per single step, but results in many steps to achieve the overall task of ranking. Looking at the MAYA graph, we realized that this ranking concept lays between boring and neutral. The goal is to move into the „interesting" zone.

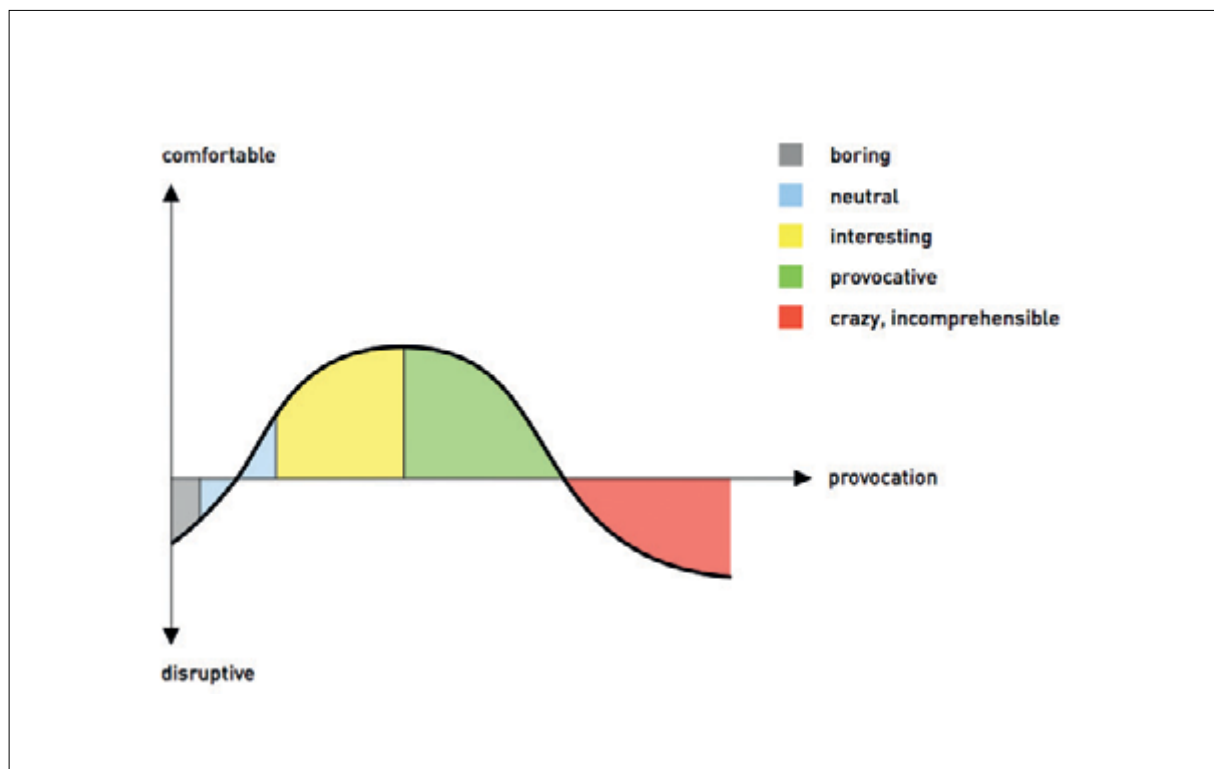
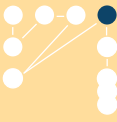


Figure 22: MAYA Graphic  
Source: systematic design



## Iteration 6 (hybrid ranking)

At this point we knew that a vs b ranking only works in theory, but would not efficiently work in a real case scenario. Inspired by Chanda's feedback from iteration 5, we wanted to explore a new concept of free/natural ranking (hybrid ranking).

### Personas and Scenario

The personas and scenario remained the same as in iteration 3. We adjusted the scenario according to the hybrid ranking concept.

### Prototype

We developed a new paper based interaction screen **[prototype8]** where a user can freely sort items. The undecided items were listed on the left and could be dragged into the sorting area.

### User Test

We did another internal user test with 3 different ZURB employees.

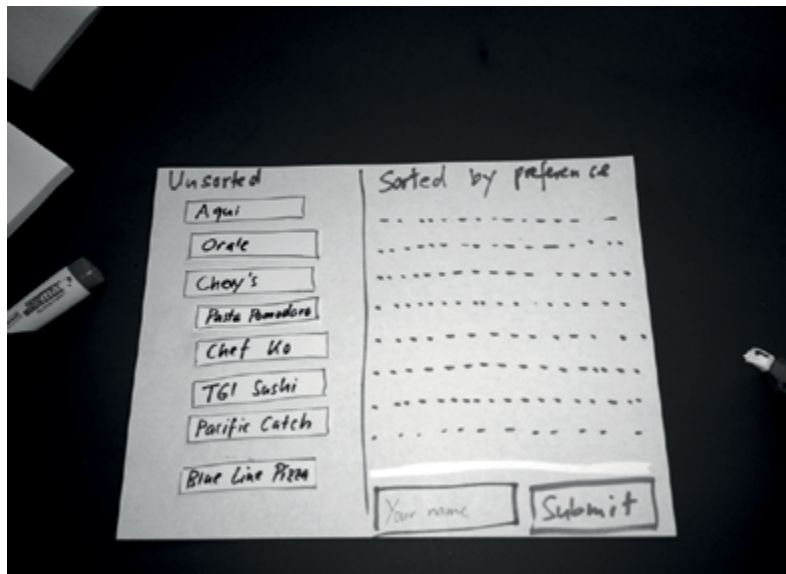


Figure 23: Paper prototype hybrid ranking, Iteration 6

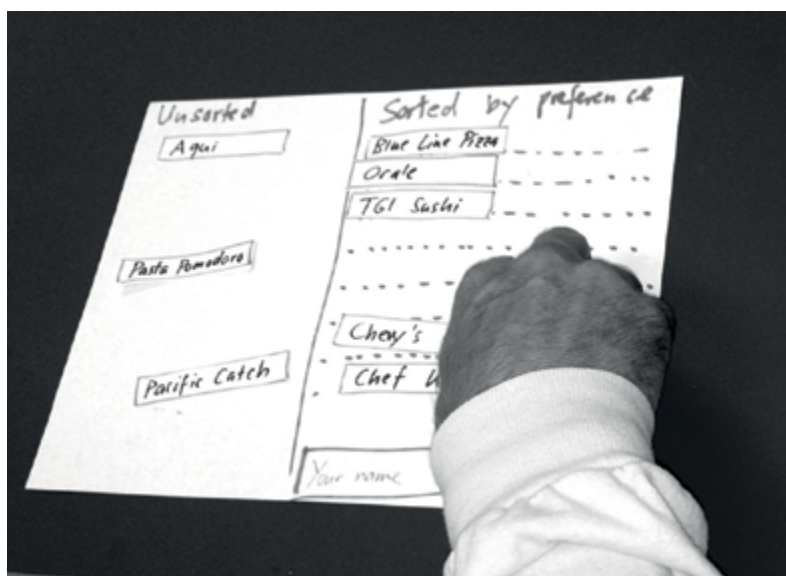


Figure 24: Paper prototype hybrid ranking, Iteration 6

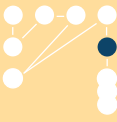
**Test person 1** (Roeland from ZURB) put his “dislikes” to the bottom first, followed by his favorites on top. He left the undecided ones on the left side because he didn't care. It's enough for him to express what he likes and what he doesn't.

**Test person 2** (Tony from ZURB) Tony sorted the items on the left side only. It didn't occur to him to move the items to the right side. He further thinks that the concept from iteration 5 was more strict and may produce a more accurate result of his opinion.

**Test person 3** (Ryan from ZURB) he only dragged the top 5 items onto the right side. The ones he didn't like or care about he left on the left side.

### Results

None disliked the free ranking approach and the interaction concept seemed to be clear. We discovered two types of users. The “tidy” user (Test person 2), who wants to get the entire list prioritized. The “fast replier” (Test person 1 & 3) who only ranks the important items and leaves the rest out.



## Iteration 7 (hybrid ranking)

After a review session with Bryan, we decided to give up on the a vs b ranking and do a 2 step process. It's a mix of bucketing (TOP vs UNDECIDED vs CHOP) and ranking (Sort within the TOP section). Based on further online research, we found an existing study [study1] which is exactly in line with our hybrid approach. Based on the findings from iteration 5 & 6, we made a new paper prototype.

### Personas and Scenario

We chose a different scenario because we planned to test with external test users, which don't understand ZURBs internal topics. The scenario was about ranking a list of "smartphone features". The personas remained the same as in iteration 3.

### Prototype

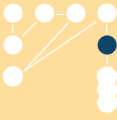
For our next prototype [prototype9] we planned to design a concept which suits both types discovered in iteration 6 (tidy and fast replier). One of the questions was whether UNDECIDED should be on a left side column or not. Because horizontal dragging may be more natural and with long lists users still could see the CHOP box from the beginning. Here the pros and cons for both variations:

### Vertical Alignment

TOP
UNDECIDED
CHOP

Argument	Pros	Cons
<b>Sort order</b>	It always shows a list starting with all undecided.	With a long list, a user wouldn't see the CHOP box at the bottom right away.  It takes some time to learn.
<b>Dragging</b>	Vertical dragging is in line with the mental model of sorting a list.	Vertical dragging may feel more cumbersome than horizontal dragging.
<b>Getting things done</b>	In any situation it looks organized. The "tidy" user may not feel forced to move all items into TOP or CHOP.	none

Table 3: Vertical alignment



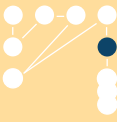
## Horizontal Alignment

This is the same layout we already used in iteration 6. Since we already tested the horizontal alignment with the previous prototype, we decided to test a full vertical aligned prototype.

UNDECIDED	TOP
	CHOP

Argument	Pros	Cons
<b>Sort order</b>	The meaning of UNDECIDED is better communicated, although it breaks the sort order mental model.	It breaks the sort order mental model.  It may force the “tidy” user to move every item into either TOP or CHOP because he is uncomfortable to leave UNDECIDED items in the left. This could become frustrating and forces to abort the participation.
<b>Dragging</b>	Dragging feels more natural and is more efficient.  Always sees all items above the fold.	none
<b>Getting things done</b>	The “fast replier” can get things done very quickly in leaving many items in UNDECIDED	The “tidy” user feels frustrated because he/she feels the need to move everything.

Table 4: Horizontal alignment



## User test

We decided to go outside (Starbucks) and test the concept with 3 random people and 1 control person inside ZURB. We wanted to test our concept with people which are more out of context and not experts like the ZURB employees.

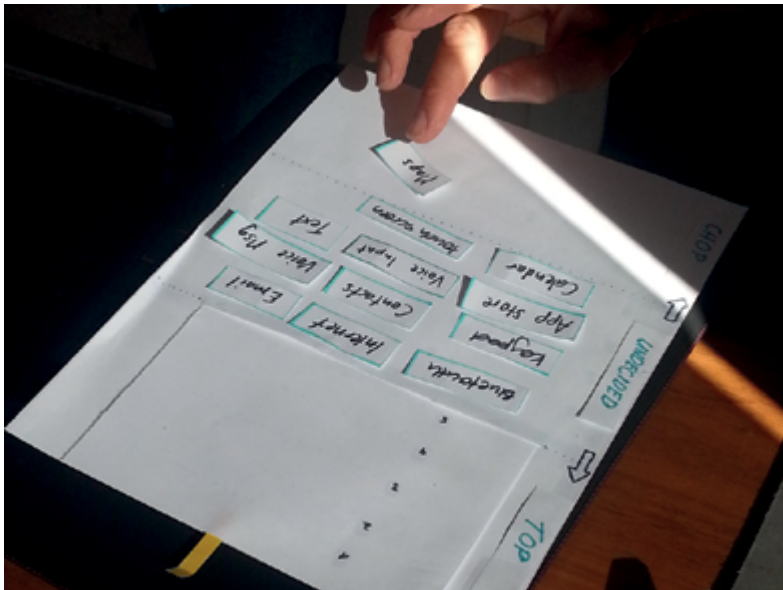


Figure 25: Paper prototype hybrid ranking, Iteration 7

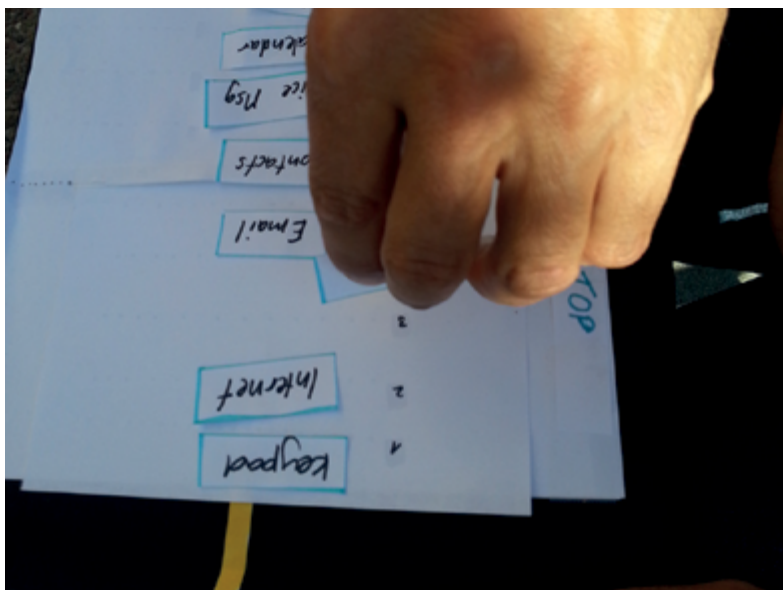


Figure 26: User Test with paper prototype, Iteration 7

## Results

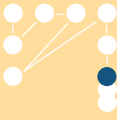
The test scenario (Smartphone features) was not an optimal topic because:

- Most people wanted to have every feature nowadays.
- One test person was confused about the way we arranged the undecided items in 3 columns, instead of a one column list.
- One test person sorted from bottom up, one top down and one back and forth.

It was beneficial to go outside and get a reality check, but it was also misleading because these random people didn't fit our persona "contributor".

We went back to the ZURB office and tried to find a test person which fits our persona. ZURB had a new intern and she didn't know about our work and progress so far. She was the perfect test person. We did the exact same test scenario with her and she did use the prototype as expected. Therefore we knew this interaction concept works.





## Iteration 8 (hybrid ranking)

With iteration 8 we reached a point, where we had enough insights on the ranking concept, and wanted to build and test an integrated prototype. An integrated prototype helps to demonstrate the entire app workflow and is a good discussion base with all the stakeholders.

### Prototype

We worked out the detail screens and imported it into Solidify to link the interactions. We first defined the screen flow. Then we built a clickable Solidify prototype showing the entire work flow.

### Personas and Scenario

The personas and scenario remained the same as in the previous iteration.

### User test

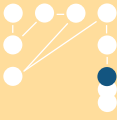
We didn't do any user tests for this iteration. This workflow prototype was created to demonstrate an integrated interaction concept including all screens. It was a good baseline to plan the next steps towards a HiFi prototype, which we discussed with Jonathan (Design Lead) and Matt (Product Lead).

### Results

Jon and Matt provided us good but mostly minor feedback. They liked the ranking concept. Both wanted to see the ability to leave an optional comment on each item to express the reasons for the ranking position. The most criticized screen was the reports screen. So far we haven't spent much time on the report screen. Therefore we decided to give more importance to the report screen during the next iterations.



Figure 27: Workflow of the overall concept, Iteration 8



## Prototype

The entire Solidify workflow is available here: [\[prototype10\]](#)

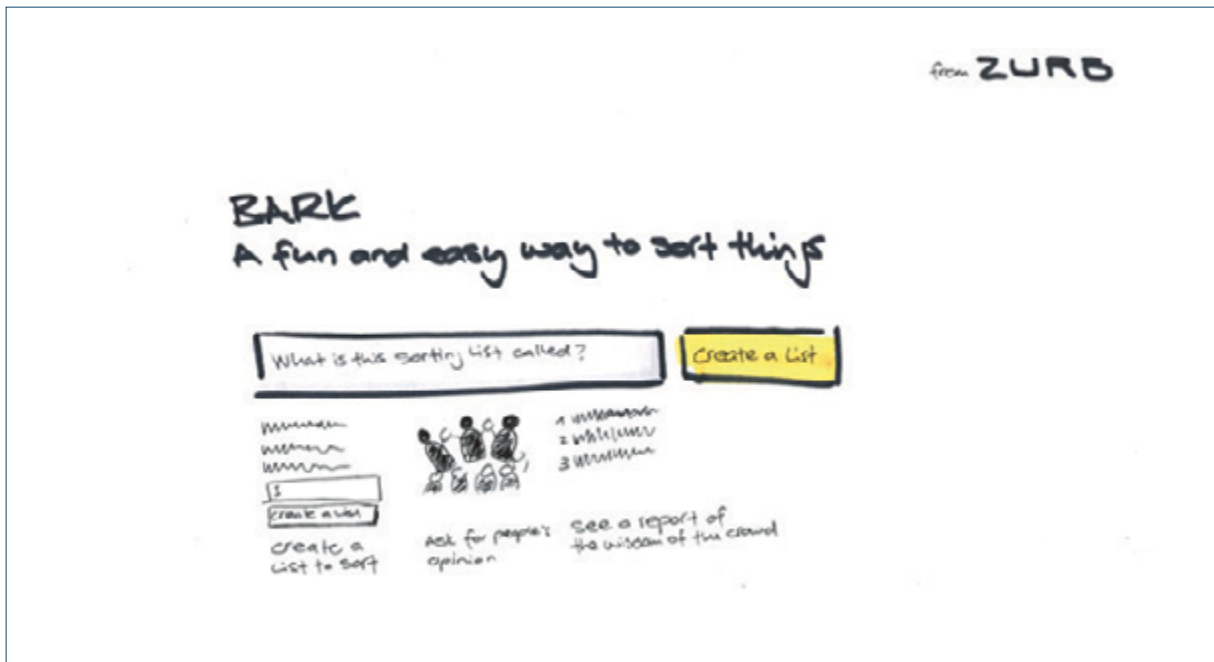


Figure 28: Workflow in Solidify, Iteration 8

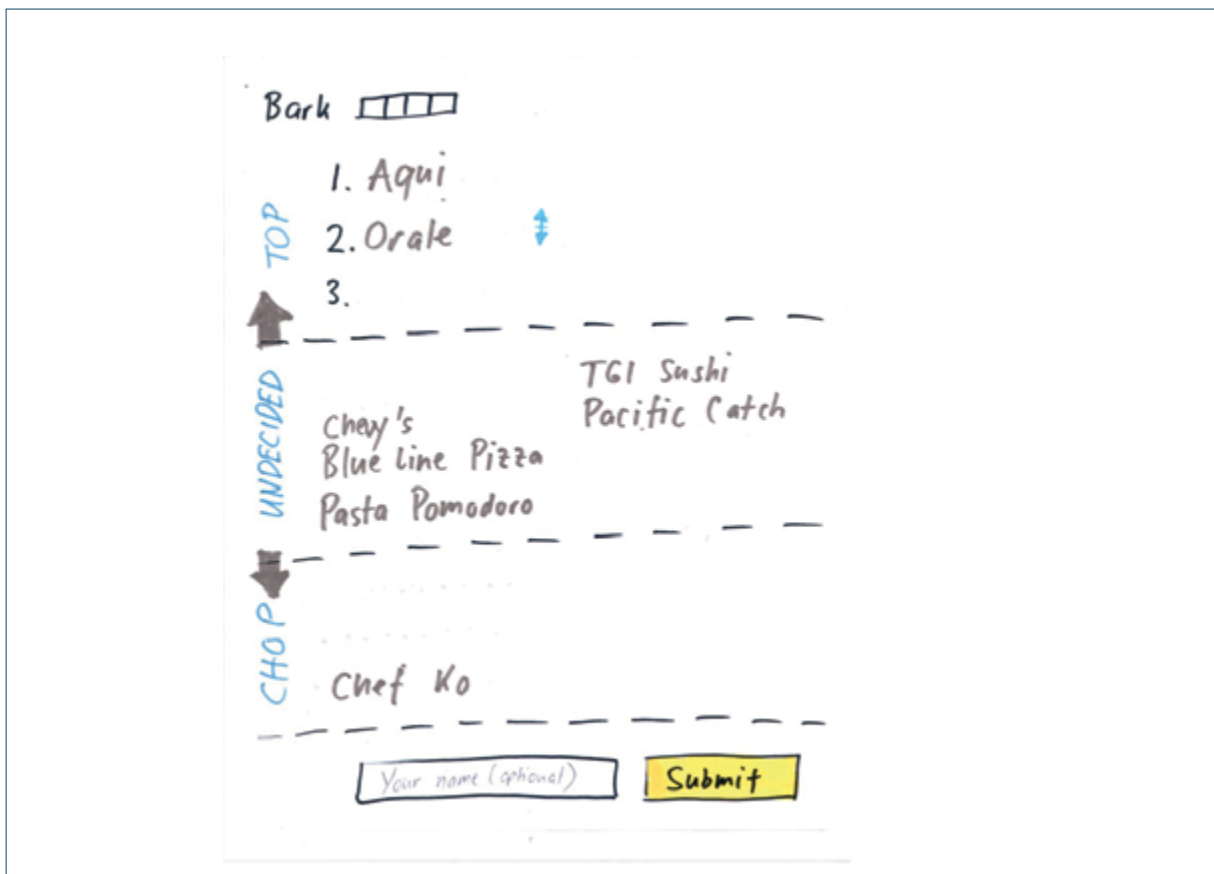
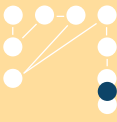


Figure 29: Workflow in Solidify, Iteration 8





## Iteration 9 (hybrid ranking)

We developed a HiFi prototype based on the feedback from iteration 8. The goal of this iteration was to bring the prototype to a level which can be formally user tested. We implemented a clickable HTML prototype based on ZURB's Foundation Framework. Especially the ranking behavior needed to be programmed with Javascript, since these were important interactions to test.

### Personas and Scenario

We chose a different scenario because we planned to invite external test users which wouldn't understand ZURB's internal topics. We picked a scenario about ranking a list of "company perks & benefits". The personas remained the same as in iteration 3.

### Prototype

We made two variations of the ranking screen:

#### Variation 1

We arranged the items in two columns. We added click buttons with green & red colored arrow icons, which would indicate the sort direction either going up to the TOP or down to CHOP (chop means not interested, get rid of). Within the top section the user could rearrange the ranking by using drag & drop. We also added the possibility to leave a comment on each top sorted item for further explanation. This was a finding from the previous expert review in iteration 8.

See the prototype here:

[\[prototype11\]](#)

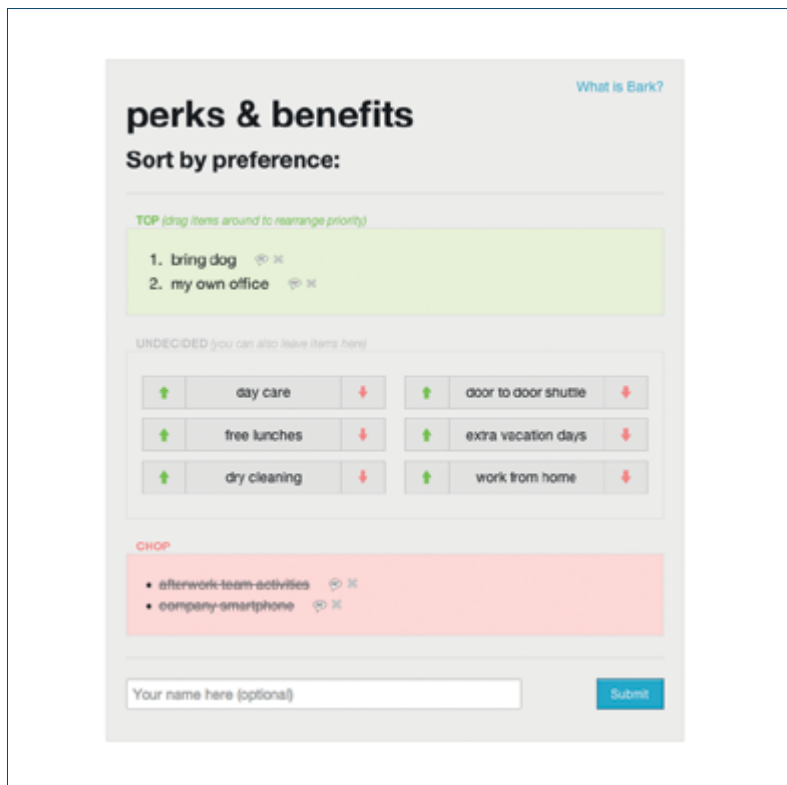
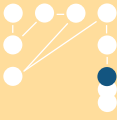


Figure 30: HTML Foundation prototype, Variation 1

We did an expert review with variation 1. We observed a bad affordance with the sortable items. Test subjects immediately wanted to drag the items because they looked like draggable buttons. After they realized that there is no dragging support, they eventually discovered the top/down buttons.

After summarizing the expert feedback, we found out, that there was an inconsistency on the interaction behavior between clicking in UNDECIDED section and drag & drop in the TOP section.



## Variation 2

We implemented drag & drop support everywhere and added more styling elements to improve the affordance. We also listed the UNDECIDED items above each other (instead of side by side) to convey the mental model of a list.

See the prototype here: [\[prototype12\]](#)

**perks & benefits**  
**Sort by preference:**

**TOP** (drag items around to rearrange priority)  
Drag here

1. door to door shuttle
2. bring dog
3. free lunches
4. my own office
5. day care

**UNDECIDED** (you can also leave items here)

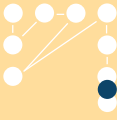
- extra vacation days
- afterwork team activities

**CHOP**  
Drag here

- work from home
- company smartphone
- dry cleaning

Your name here (optional)

Figure 31: HTML Foundation prototype, Variation 2



## Report screen

We also made two variations for the report screen. Both variations included an overall result and details.

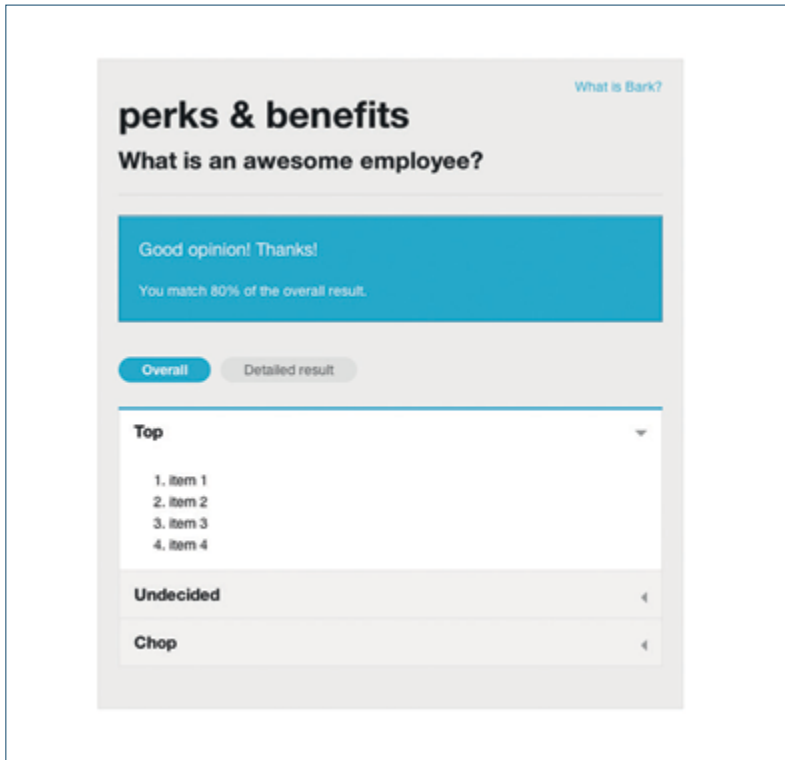


Figure 32: HTML Foundation prototype, Variation 1

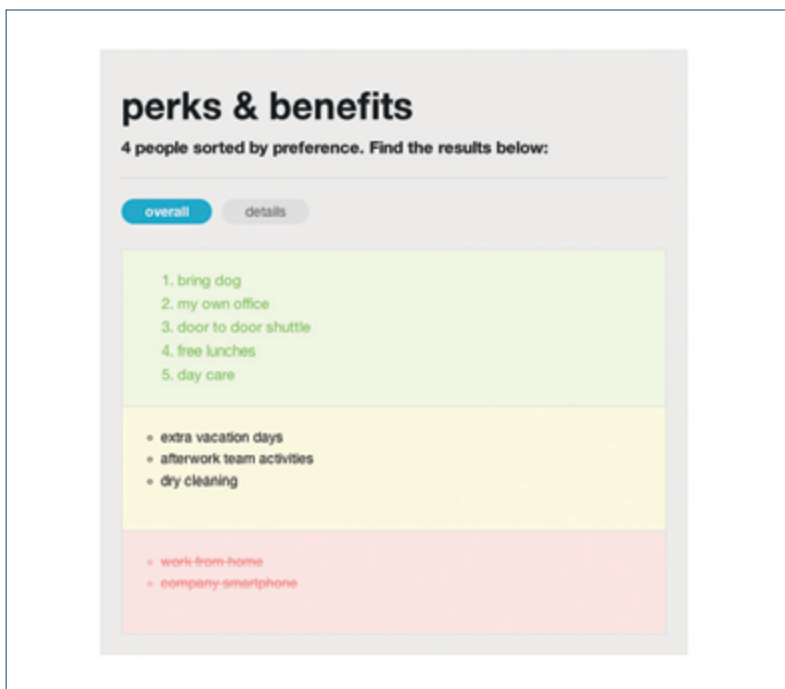


Figure 33: HTML Foundation prototype, Variation 2

### Variation 1

This variation shows the TOP items expanded and the UNDECIDED and CHOPPED items collapsed.

See the full prototype here: [\[prototype13\]](#)

### Variation 2

After a quick review on variation 1 with Bryan, we made a second variation. This variation shows the result as a list and uses the same color scheme as the ranking screen. We also discussed that CHOPPED items can be equally important for a decision as the TOP items.

See the full prototype here: [\[prototype14\]](#)

## User test

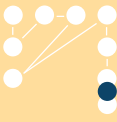
We didn't do any external user tests yet. We did 3 expert reviews to make sure our overall prototype was ready for a formal user test.

The 3 expert review results are documented in the appendix: [\[expertreview1\]](#), [\[expertreview2\]](#), [\[expertreview3\]](#)

## Results

We didn't discover any major problems with the ranking screen, but we discovered a variety of different expectations for the report screen. These were:

- see other opinions
- share my opinion with others
- want to know in detail how I compare to the overall result.



## Iteration 10 (hybrid ranking)

Since the ranking screen was ready for an external user test, we worked on improving the report screen.

### Personas and Scenario

The personas and scenario remained the same as in the previous iteration.

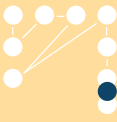
### Prototype

First, we analyzed a possible algorithm on how to calculate an overall result. The first thing we did is to introduce a point system:

What	Calculation	Example
<b>Total points (for entire list)</b>	$\text{SUM}(1.. \# \text{items})$	With a list of 10 items, the top item gets 10 points, the least favorite item 1 point (considering no items were left in UNDECIDED and CHOP)  The total points are 55.
<b>Max item points</b>	$\# \text{items} \times \# \text{participants}$	With e.g. 3 participants, the top item can reach max. 30 points (3x10), if every participant ranks this item as #1.
<b>Min item points</b>	$0 \times \# \text{participants}$	CHOP items will not get any points. If every participant chops the same item, it gets 0 points.
<b>Undecided item points</b>	$(\text{Total points} - \text{Total top item points}) / \# \text{undecided items}$	Items left in UNDECIDED equally split the remaining points.

Table 5: Report calculation rules

For an example calculation, please view the spreadsheet in the appendix [\[reportcalculation\]](#).



After defining a calculation algorithm, we held a brainstorming session with one of the ZURB designers (Ghaida) to get new ideas on possible visualizations. We were thinking of using more metaphors like traffic lights, temp gauge, etc. We further came up with the idea, that the top most items could directly be imported to the Strike todo app (“knock’em down now”). Based on all the inputs, we refined the report screen. This new report shows your own vote in comparison to the overall vote.

See the prototype of the report screen here: [\[prototype15\]](#)



Figure 34: HTML Foundation Prototype report screen, Iteration 10

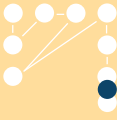
## User test

We prepared a formal usability walkthrough with 4-6 external users, which we video recorded using the Silverback application<sup>35</sup>.

This was our first formal user test. We wrote a test script, hired test users on Craigslist and conducted the user test.

The test script contained an intro section, which helped us to evaluate, whether a test person really fits our persona. The second part contained 2 test scenarios.

35 silverbackapp.com



### Test 1: Give your opinion on “Perks & benefits”

Your work colleague John thinks the company should offer more perks & benefits. He composed a list of perks and benefits and now wants everyone’s opinion. You also received an email invitation to give your opinion on “perks & benefits”. You click on the link and get started.

### Test 2: Create a list and get opinions

Imagine you changed the company. Now you want to take the same “perks & benefits” initiative as John did. Start “Bark” and create the same or a similar list.

## Test user recruitment

The test users were hired through craigslist.com. The first ad didn’t work and no one showed interest. Then we setup a second ad promising a \$15 gift certificate. This worked and attracted lots of interest. We prefiltered test candidates by our persona requirements.



Figure 35: Recruitment ad on Craigslist.com

## Test users

### Rosa

Is a doer, between 30-40 years old, an Admin Assistant and a heavy PC user.

#### Test summary:

- She fits the persona “Doer” or “Contributor”.
- She had few misunderstandings on what she was supposed to do. Concept works in general.
- Didn’t see TOP and CHOP. Rearranged only within UNDECIDED.
- Link sharing via email seems to be a complex concept.
- The term „wisdom of crowd“ is too complex.

The detailed test summary can be found here: [\[test1\]](#)

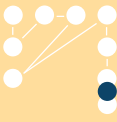
### Andrew

Is a doer, between 30 - 40 years old, works as a Customer Support, uses MAC & PC and is a heavy computer user.

#### Test summary:

- Totally fits the persona “Doer”
- He had no problems at all to use the app. Concept works!
- Found the report not intuitive, needs rework in his opinion
- Also misunderstood the field for list name with the first item

The detailed test summary can be found here: [\[test2\]](#)



### Rebecca

Is a doer, between 20-30 years old, works as an Office Administration and is a normal Mac user

Test summary:

- She totally fit the persona “Doer”
- She had no problems at all to use the app.  
Concept works!
- Had minor confusions on start screen of Bark
- “Name the list” instead “What would you like to call this...”
- Intro appeared clickable, which shouldn’t.

The detailed test summary can be found here: [\[test3\]](#)

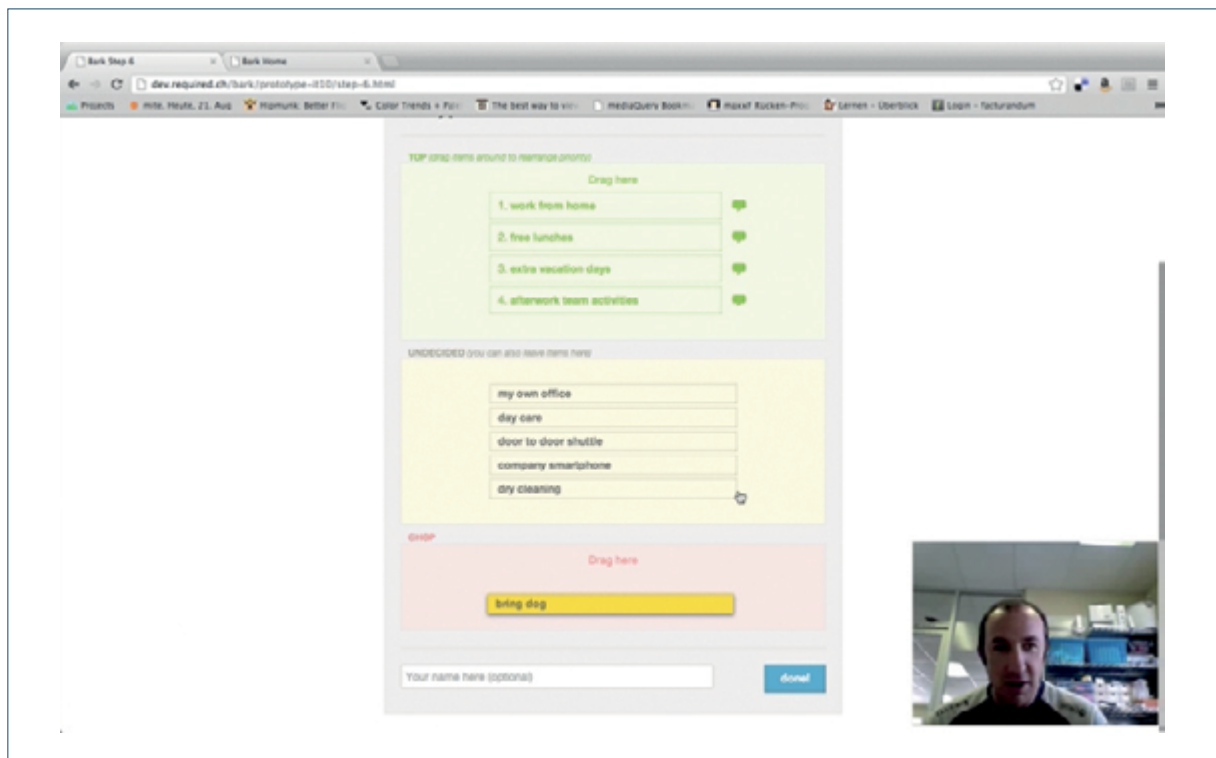


Figure 36: Screenshot user test video recording

### Marleen

Is not a doer, is a contributor, is 18 years old, is still in school, normal PC user

Test summary:

- She only fits the persona “contributor”. She is somewhat the Contributor but is too young.
- She was very shy, has never worked and therefore needed a lot of guidance.
- We aborted the test after Test scenario 1.

The detailed test summary can be found here: [\[test5\]](#)

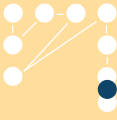
### Rick

Is a doer, between 40-50 years old, works as an Architectural Designer and is a heavy PC user

Test summary:

- Fits the persona “Doer or Contributor”
- Concept worked for him.
- Had some difficulties with the test gear (scrolling, mouse)
- Report wasn’t good enough for him.

The detailed test summary can be found here: [\[test4\]](#)



## Results

The user test was a success and the ranking interaction concept works. The report screen still needs some work. Here the test summary:

### Ranking

- Drag & drop seems to be the natural behavior to sort, and it was well understood.
- Seems to work up to 10 items. More than 10 may not be efficient. CHOP box may disappear under the fold (depending on screen resolution).
- Comments were most of the times discovered and well received.
- Submit (done!) never was a problem.
- The concept of undecided was always understood and test users left items there most of the times.

### Report

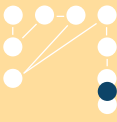
- It was not intuitive to everyone. It's more of a visual than an interaction design issue.
- Information is missing: how many people voted for this or how many points out of the max did every item get. Sort order alone is not sufficient.
- Strike button wasn't seen by everyone and those who clicked on it were confused by it.
- Intro images convey possible interaction but shouldn't.
- Name field for list title was misunderstood as the item field. Better naming!

### Sharing

- Get people's opinion including drop down was well understood.
- The concept of sharing via link was obvious to most of the test people.

The full report can be seen in the appendix [\[testsummary\]](#).





## Iteration 11 (hybrid ranking)

This iteration incorporates the findings from Iteration 10. We only expert reviewed this iteration since the previous findings weren't too critical.

### Personas and Scenario

The personas and scenario remained the same as in iteration 3.

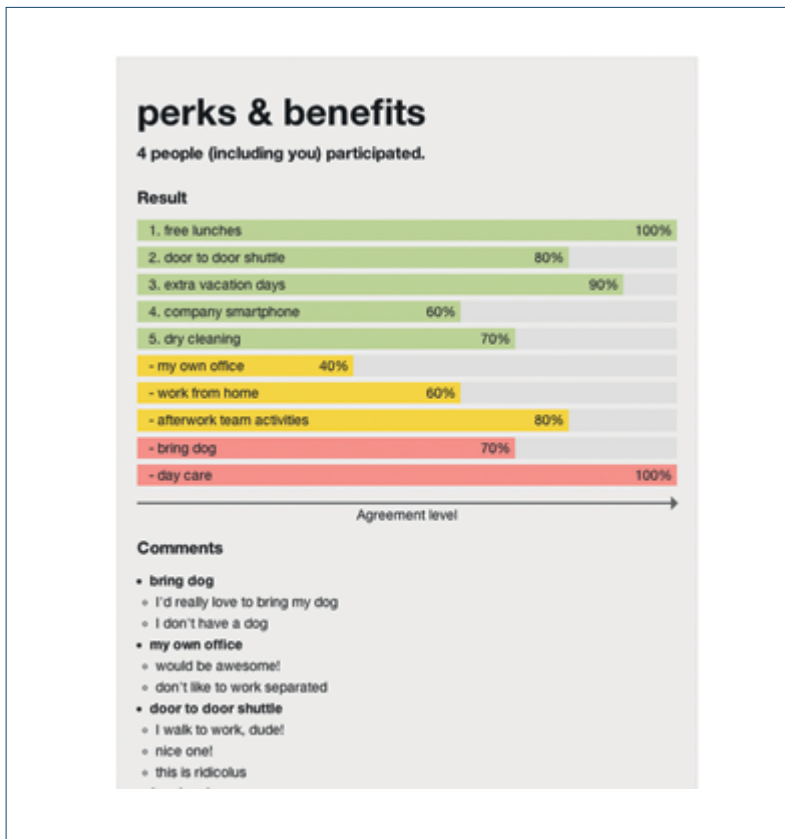


Figure 37: Report screen, Iteration 11

### Prototype

We completely reworked the report screen to show results in two axis. It shows the overall priority on sort order as well as on how much the participants agree (Agreement level). We didn't include the comparison of the participants own vote to the overall opinion.

The prototype can be found here: [\[prototype16\]](#)

### User test

We did an expert review with Jonathan (Design Lead) and Matt (Product Lead). We walked through each screen and captured their feedback.

### Results

Together we realized that the report screen shows too much importance because of the "Agreement level". The sorting itself gets lost due to the heavy visualization of the agreement level.



## Iteration 12 (hybrid ranking)

In this final iteration, we completely reworked the report screen again. We further fine tuned small findings from iteration 11.

### Personas and Scenario

The personas and scenario remained the same as in iteration 3.

### Prototype

From the expert review in iteration 11, we discovered a new way to visualize the agreement level. We wanted to use the metaphor of a cell phone signal. The stronger the signal, the better the agreement of the participants. Below you see the reworked report screen.

The prototype can be found here: [\[prototype17\]](#)



Figure 38: Report screen, Iteration 12

### User test and results

We didn't run any user tests with this final iteration. The report screen is now more of a visual design than an interaction design challenge. Therefore we decided to hand it over to production.

# Interface Design

Handover to production involved two parts. The developers and the visual designer.

For the developers we wrote a specification [specs] in Notable<sup>36</sup>, which documented the final interaction concept. With the specification in Notable, the project team could easily gather all the necessary informations for each screen and could leave questions or comments if necessary.

For the visual designer, we prepared mood boards for a better briefing of the visual design direction.



Figure 40: Illustration Handover

## Mood boards

The idea of a mood board [moodboards] is to give a visual designer the desired visual direction, which helps to choose the right layout, colors and fonts for the design. We met with Alina (Design Lead) and she gave us ZURB's mood board templates, a photoshop file which ZURB uses for their mood board work. As a first step, we browsed websites and image galleries to collect design elements for the Bark mood. Each of us made a mood board with a different style:

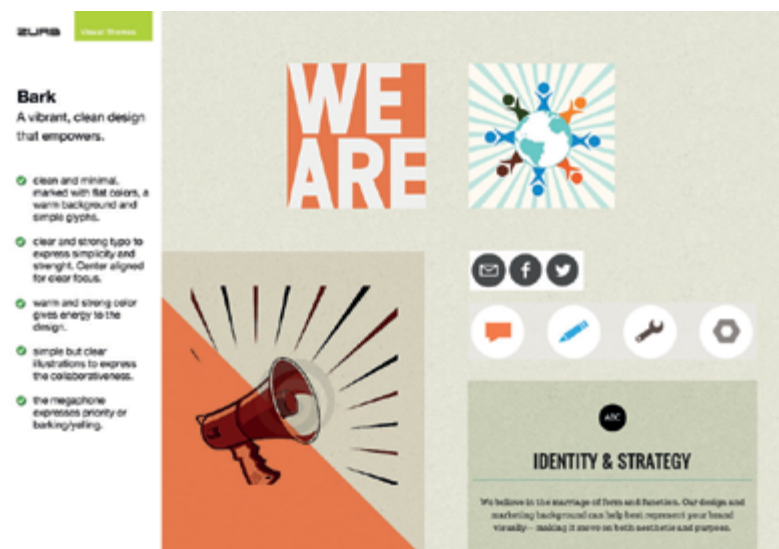


Figure 39: Mood board, Variation 1

### Mood Board 1

A vibrant, clean design that empowers

- clean and minimal, marked with flat colors and simple glyphs.
- warm and strong color gives energy to the design.
- a mix of bright & pale colors.
- use of a simple major illustration.
- no use of pixel based images

<sup>36</sup> notableapp.com



Figure 41: Mood board, Variation 2

## Mood Board 2

- A cartoonish design that animates to play
- Cartoon with dog theme (bark!)
- Flat in appearance
- Mellow colors
- Personal fonts

## Handover to production

The implementation of the first Bark version was planned to happen in a 48 hours RailsRumble contest. In order to prepare the team, we held in-person meetings to hand over the interaction concept and the mood boards.

### Briefing developers

Using the Notable specification, we went through every prototype screen to make sure, everyone had the same understanding of the concept. The personal handover meeting was especially helpful to explain the report algorithm.

### Briefing designer

We also had a briefing with the designer regarding the visual design. We showed the mood boards and briefed her on the ideas regarding different possible look & feels.

### RailsRumble

The first implementation of the visual design was accompanied by us. First, the designer showed us three variations of style tiles **[styletiles]**. Then the project team decided what style tile fits best for the application. With the style tile defined, the designer implemented the visual design in the frontend of the application. The backend implementation was developed based on the HTML prototype. The most difficult part was the algorithm to calculate the results page based on our report calculations **[reportcalculation]** (Sort order & agreement levels).

## Visual Design – Bark App

Although we didn't win the RailsRumble contest, we were still very impressed, by how much a development team can achieve within 48 hours. It was great to hear back from the team, that our interaction concept and specification was well done.

The implementation showed minor deviations from our specification. Most of the deviations were simplifications due to the 48 hour time constraint.

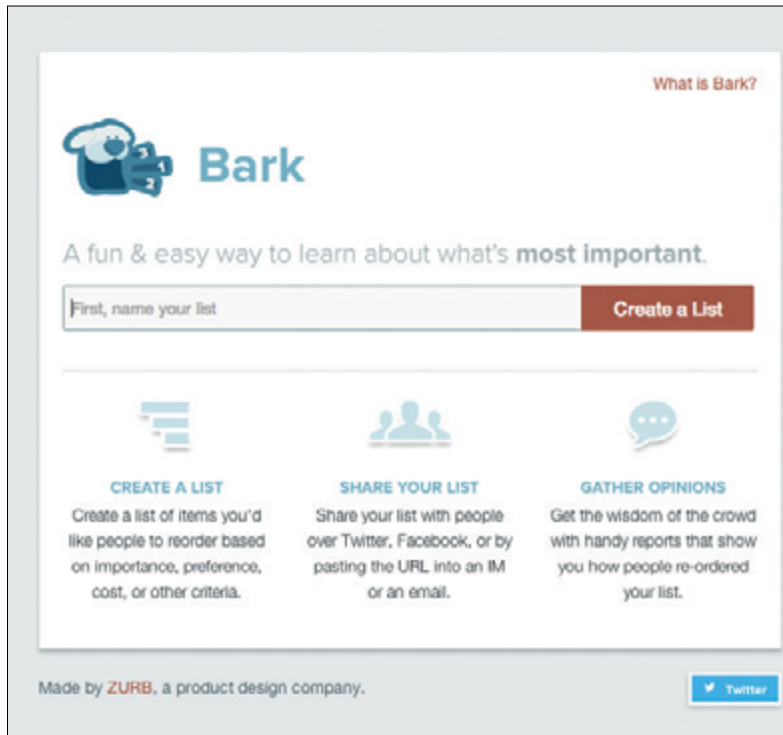


Figure 42: Screenshot Bark App from RailsRumble  
Source: barkapp.com

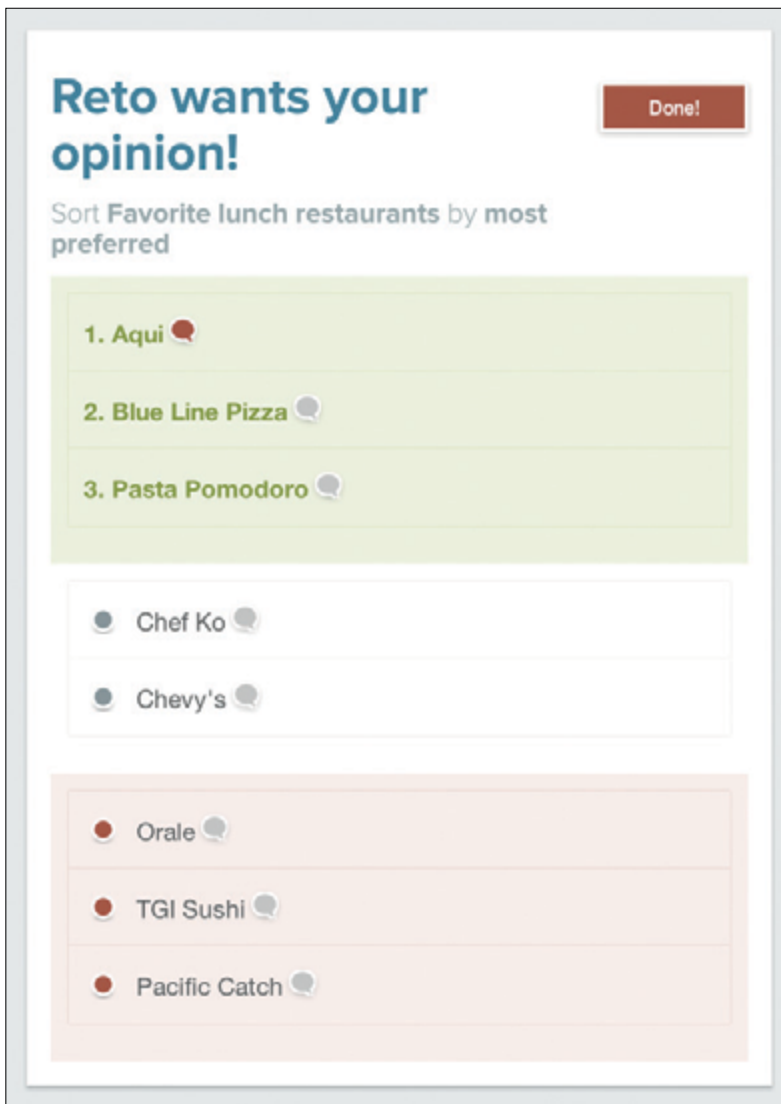


Figure 43: Screenshot Ranking Screen Bark App from RailsRumble

Source: [barkapp.com/50fd3fb55c58c77e0800000a](http://barkapp.com/50fd3fb55c58c77e0800000a)

### Debriefing

After the first implementation was done, we organized another review session. The review [review] was also captured in Notable. The tool provided a collaborative Q&A, but we also decided to do a debrief in person, where we again went through every application screen to clarify open questions.

### Next steps

The next iteration of the implementation will take place after our on-site stay. We highly recommend ZURB to incorporate our feedback from the debriefing session. We are aware that ZURB has at any time of the year a full plate of work. Since Bark is more of a side-project, we understand if it doesn't get immediate attention. Still, we recommend to release Bark into Beta as soon as possible, otherwise valuable momentum gets lost.

# Results & Review

After 12 prototyping iterations, we found a sound interaction concept which supports our personas in ranking a list of items and make prioritizations easier. The start screen shows a quick introduction about the Bark app. The 3-step process is visualized with illustrations. The main call for action is to enter a list name.

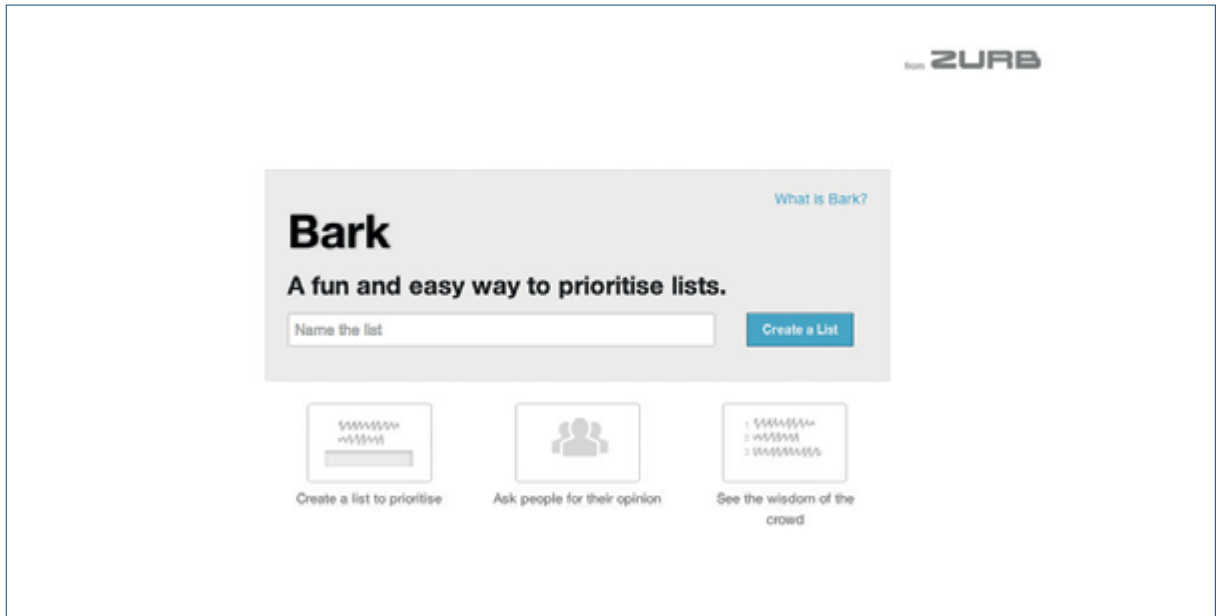


Figure 44: Screenshot Bark (create a list)

Source: <http://dev.required.ch/bark/prototype-it12>

A list of items can quickly be entered. Here we implemented a similar interaction concept as the ZURB Strike app.

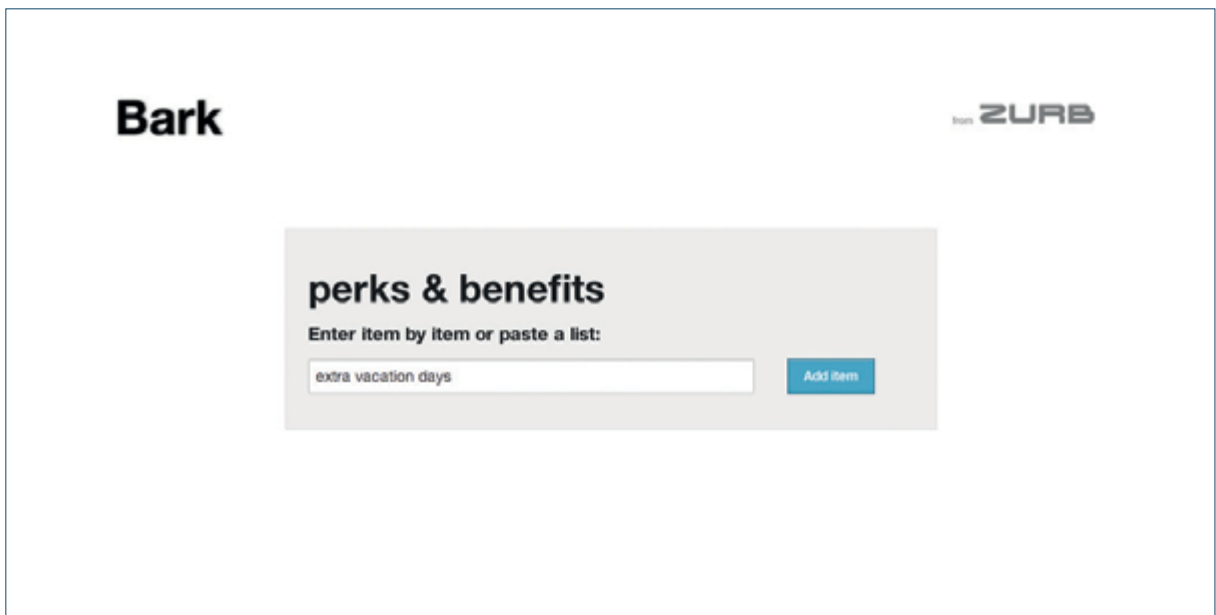


Figure 45: Screenshot Bark (add item)

Source: <http://dev.required.ch/bark/prototype-it12/step-2.html>

Once enough list items are added, a user can complete this step.

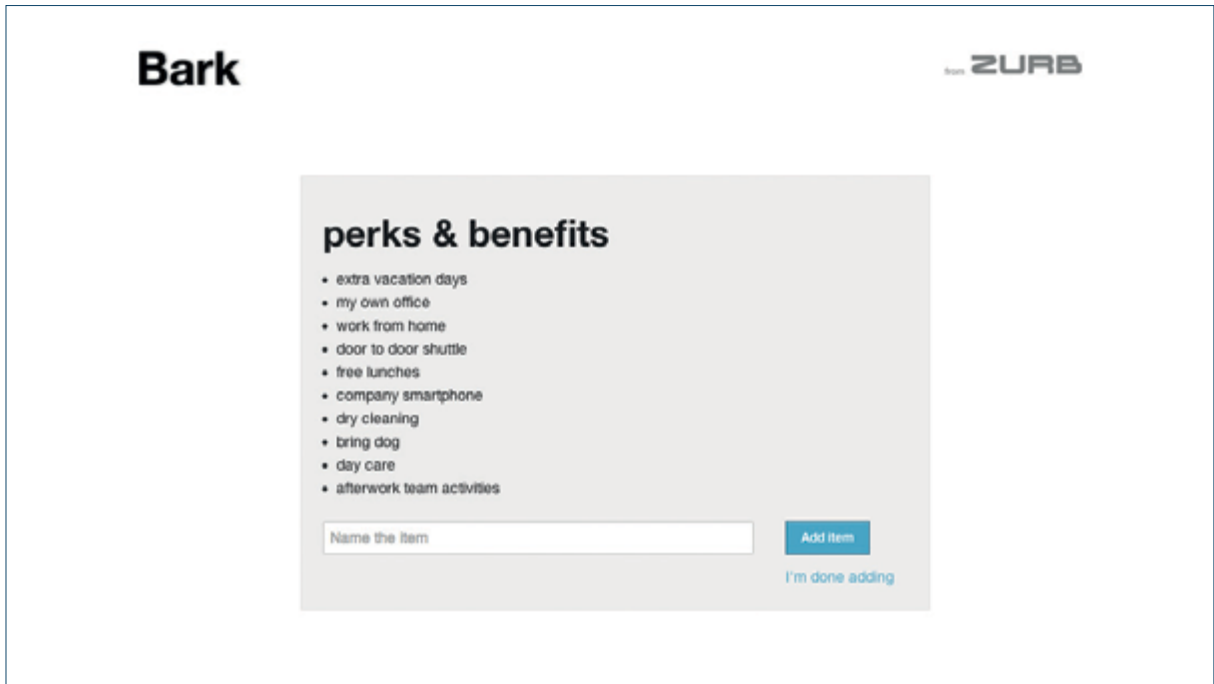


Figure 46: Screenshot Bark (add items)

Source: <http://dev.required.ch/bark/prototype-it12/step-4a.html>

A user is offered to invite participants to rank the list by a defined criteria. The list is shared via a tokenized URL. We differentiate between a ranking URL and a report URL.

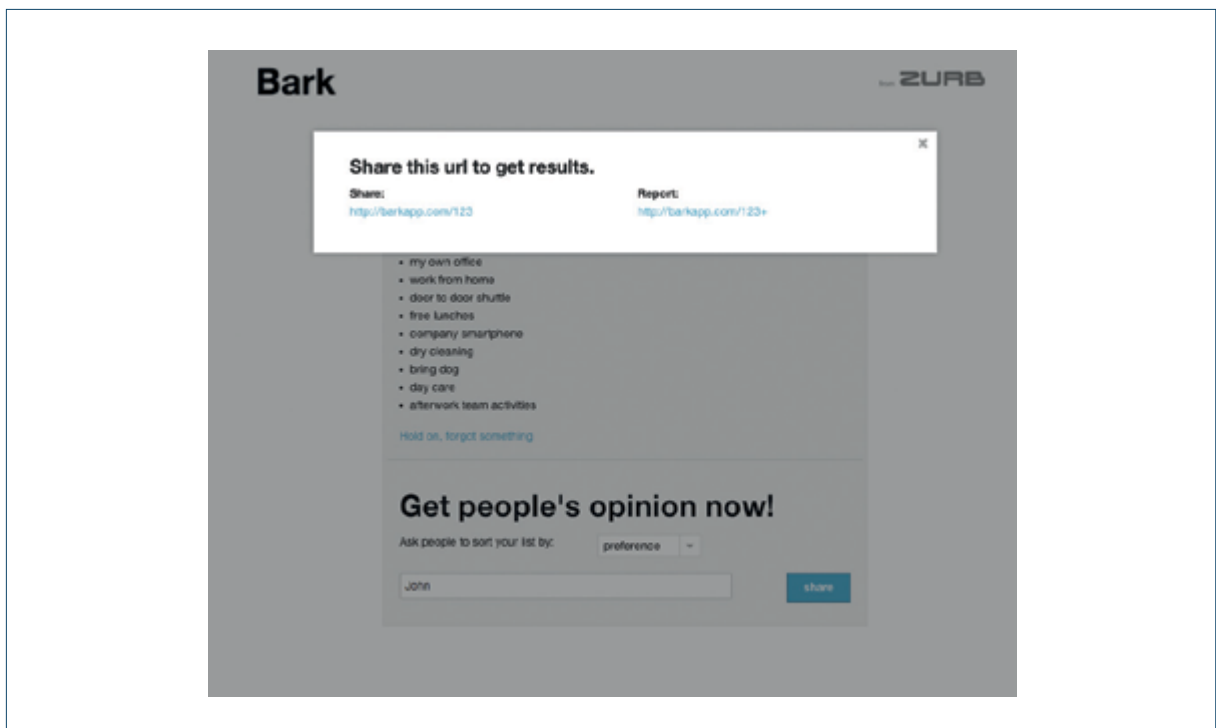


Figure 47: Screenshot Bark (share)

Source: <http://dev.required.ch/bark/prototype-it12/step-5.html>



A participant has a choice of either drag an item to the TOP, leave it in UN-DECIDED, or drag it to the bottom to CHOP. The top ranked items are most relevant for the collaborative ranking. A user can leave a comment on each ranked item, if further explanation is needed.

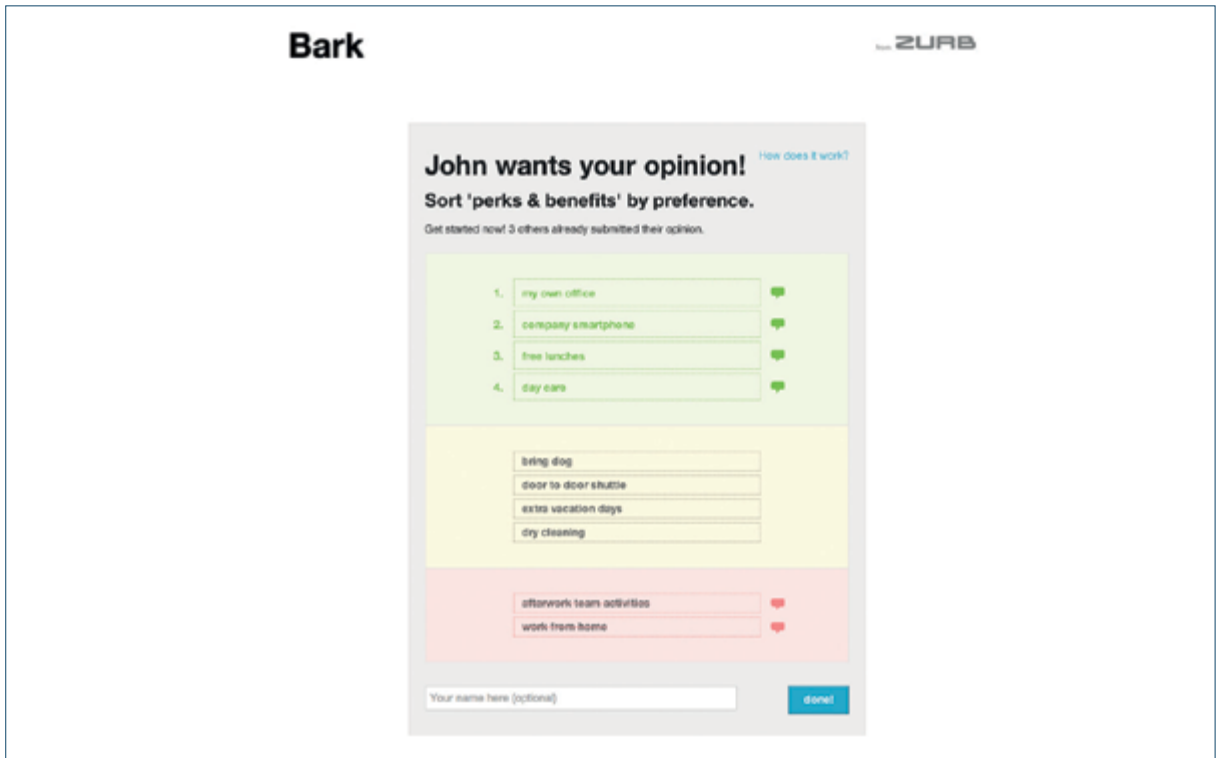


Figure 48: Screenshot Bark (Ranking Screen)

Source: <http://dev.required.ch/bark/prototype-it12/step-6.html>

A simple and clear report visualizes, whether a group agrees on the rank order or not. Each list item shows individual comments, but not single votes.

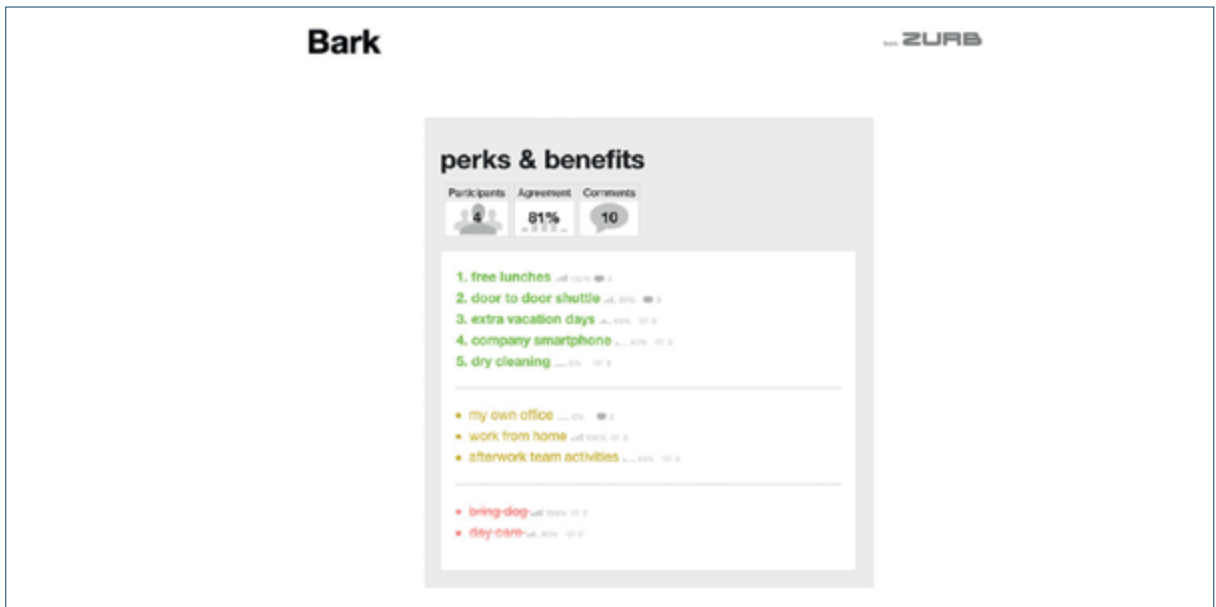


Figure 49: Screenshot Bark Report Screen

Source: <http://dev.required.ch/bark/prototype-it12/step-7.html>

## Reflection

After a 7 weeks on-site stay at ZURB, and several weeks of writing the master thesis paper, we finish our master project with our presentation on the 15th February 2013.

We tremendously benefited from the on-site stay, which helped us to accomplish a big part of the project without any distraction. We strongly believe this approach produced a better end result compared to a regular schedule, spread across a 9 months timeframe.

Our experience at ZURB was important to learn how a professional user centered design (UCD) company works. We could expand our existing methodologies from the masters program with the ones from ZURB. We got great expert feedback from ZURB. Bryan pushed us to go beyond the school book methodologies. We learnt a lot about design thinking and how important it is to visualize variations of ideas. Also how to prototype concepts until they feel good enough to test on users.

The intercultural differences between us and ZURB made it difficult in the beginning. But once we got used to the way people think and behave, everything went smooth. The daily standup meeting at 9:00 am definitely helped us to learn about everyone else and to tell people what we are working on.

With the project Bark, and the environment provided by ZURB, we had an ideal playground for our master thesis. The Silicon Valley groove made us very efficient. We finished the on-site project one week earlier as planned. By attending many tech talks we got inspired by startup driven people. We took a lot of know-how back to Switzerland and use it in our daily work.

## Highlights

Using the ZURB process and tools helped us to get good insights on how the company works. Our willingness to run the project the ZURB way helped us to gain respect and made it easier to discuss with everyone. We managed to excite people at ZURB with Bark, which resulted in a first implementation during the RailsRumble contest.

Paper prototyping was a very efficient tool in our project. It helped us to very quickly validate ideas with the people around us.

HTML prototypes helped us to get a feel for the real interactions. Without HTML prototypes, we couldn't have validated the final interaction concept equally well.

Working in small iterations helped us to stay on track and never get lost on a wrong path. Also not getting stuck in the requirements engineering phase was good for this type of project.

The team collaboration was very efficient and pleasant at the same time. Especially for complex problems, we could always complement each other well. Sometimes our discussions about ideas turned into wild „sketch battles“ on the whiteboard, which were very inspiring and fun.

## Lowlights

The biggest challenge we faced, was the difficulty to schedule interviews and contextual inquiries. People in the Silicon Valley are busy and hard to reach. That's why we decided to work with provisional personas in order to move forward.

We invested too much time on the a vs b ranking approach. The theory already showed that there is a scalability problem, but we didn't believe that this couldn't be solved. We had to invest in an interactive prototype until we had proof that this concept is not going to work.

Testing with random people at Starbucks wasn't very beneficial. It was not a waste of time, but the learnings were minimal. At least we could confirm, that the application is only meant for users fitting our personas.

We picked too many different test scenarios and most of them were business unrelated. We should have picked fewer, but more relevant test scenarios, which would have made user test results more comparable.

We focussed too much on the interaction concept. We never really verified whether this tool helps a team to make better prioritization decisions. We recommend ZURB to verify this once the product is launched.

Bryan checked in with us regularly, but mostly just for a few minutes. It was hard to find time with him to sit down and discuss in depth. Everything at ZURB always seems to happen very quick. We strongly believe that more dedicated time would make things smoother and produce better results.

## Achievements vs Original goal

According to the project definition and Design Strategy phase, we met the expectations in regards of the Bark product. Our focus was primarily set on the ranking and reporting screen. We do have shortcomings in the validation of the actual prioritization support. We never validated, whether Bark better supported teams regarding prioritization decisions.

The following table shows the detailed achievements:

Requirement	Source	Status
<b>Create a list of items such as todos, roadmap, features, etc.</b>	Project definition	Validated
<b>Share a list via tokenized URL (no login required) with e.g. customers, product team, etc.</b>	Project definition	Validated
<b>A person who receives a “Bark-list“ will see a randomized order of list items and is requested to sort / prioritize per personal preferences.</b>	Project definition	Validated
<b>Reports shall help to analyze the results and support in making the final decisions.</b>	Project definition, Affinity	Achieved, but not validated
<b>Bark shall make the facts transparent and help to make profound decisions.</b>	Affinity	Achieved, but not validated
<b>Bark shall focus on gathering ranking opinions and their visualization.</b>	Affinity	Validated
<b>Bark shall not automate the ranking decision itself.</b>	Affinity	Validated. Report shows recommendation.
<b>A Bark ranking poll shall be easy to set up and shareable across company boundaries. No login shall be required.</b>	Affinity	Validated

Table 6: Requirements validation

## Next Steps

We did a very structured hand-over and also a debrief using ZURB's Notable App. We strongly recommend ZURB to incorporate our feedback from the debrief meeting.

We further recommend to do another formal user test to clarify the refinements. After launching the application into beta, it is advised to gather online feedback (e.g. uservoice) and closely follow the usage on Google Analytics. ZURB should promote the tool for specific use cases and validate whether Bark truly helps a team to make better and easier prioritization decisions.

We didn't include a mobile interaction concept into the scope of this master thesis. Since ZURB's Foundation framework is responsive by nature, we believe the overall interaction concept stays the same. The ranking screen may require some optimizations, since drag & drop is not a very common interaction on mobile devices.

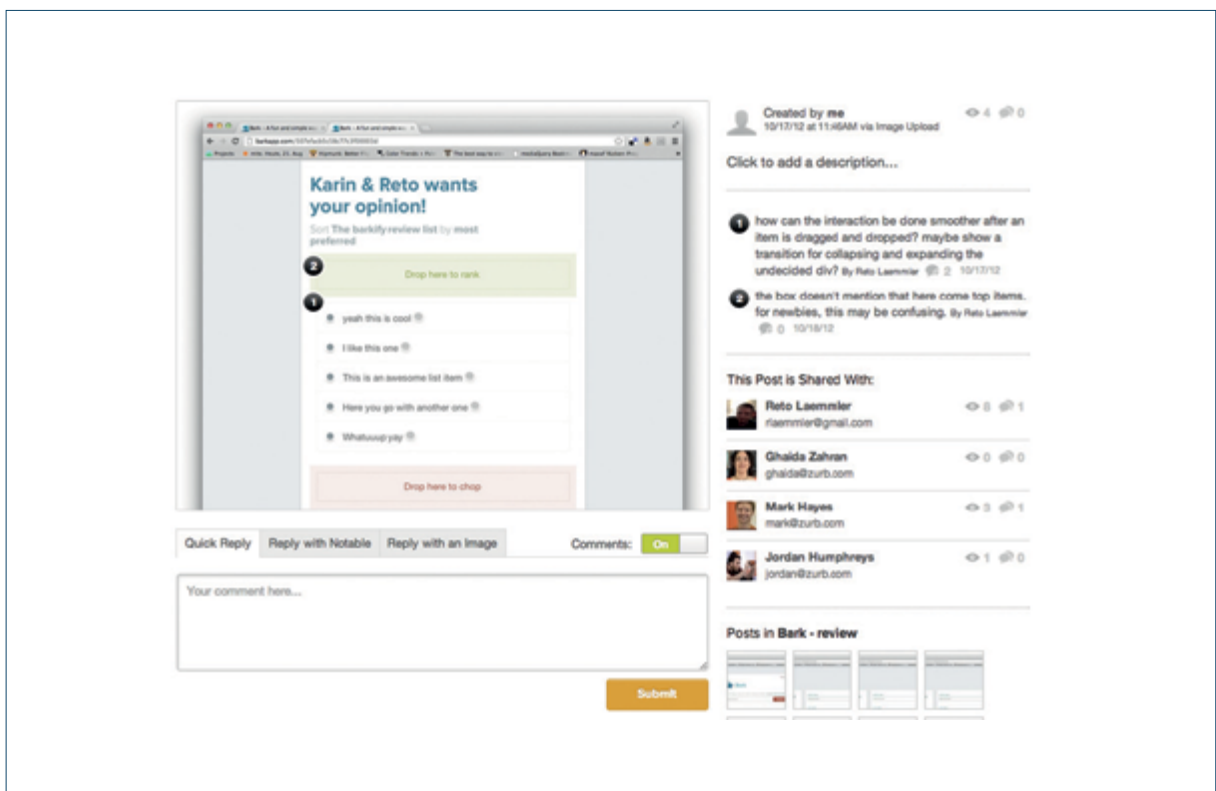


Figure 50: Screenshot Bark App from RailsRumble, Debriefing

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**ZURB Design Strategy Framework Diagramm**  
[www.zurb.com/word/design-strategy-framework](http://www.zurb.com/word/design-strategy-framework)

**The Design Strategy Framework**, Vol. 11, No. 3, Summer 2000, Debashish N. Mallick, Assistant Professor of Technology and Operations Management, Carlson School of Management, University of Minnesota [www.dmi.org/dmi/html/publications/journal/fullabstract\\_d.jsp?itemID=00113MAL66](http://www.dmi.org/dmi/html/publications/journal/fullabstract_d.jsp?itemID=00113MAL66)

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# Glossar

**ZURB:** A product design company, headquartered in Campbell, California. ZURB represents the customer for the Bark app.

**ZURB Design Process:** A template on how a project is conducted at ZURB. It consists of three phases: "Design Strategy", "Interaction Design" and "Interface Design".

**ZURB Free Apps:** Free apps are lightweight apps which are marketing tools to help ZURB create awareness and attract new users to their website.

**Design Thinking:** is a process of creative and critical thinking that allows information and ideas to be organized, decisions to be made, situations to be improved, and knowledge to be gained.

**Time Boxing:** Timeboxing is used as a project planning technique. The schedule is divided into a number of separate time periods (timeboxes), with each part having its own deliverables, deadline and budget

**Ranking:** A ranking question asks you to compare different items directly to one another (e.g., „Please rank each of the following items in order of importance, from the #1 most important item through the #10 least important item“)

**Rating:** A rating question asks you to compare different items using a common scale (e.g., „Please rate each of the following items on a scale of 1-10, where 1 is 'not at all important' and 10 is 'very important'“)

**Dot voting:** A dot voting question asks a person to distribute a number of points (dots) across a selection of items.

**Card sorting:** A method which helps to design information architecture, menu structure, or web site navigation paths.

**Hybrid ranking:** A two step ranking process. Bucket items by importance (card sorting) and apply ranking only on the top items.

**LoFi / HiFi Prototype:** Defines the quality of a prototype. LoFi (low fidelity) prototypes are mostly paper prototypes. HiFi (high fidelity) can be either functional or pixel perfect prototypes.

**Iteration:** The act of repeating a process with the aim of approaching a desired goal, target or result.

**Briefing:** A briefing is a type of meeting. It is normally used to indicate a 'feed' where information on a topic or situation is fed to the attendees as opposed to a meeting where ideas are exchanged and decisions made.

**Debriefing:** A debriefing is a type of meeting taking place after a milestone was reached. It is normally used to reflect an achievement, in order to further improve on the procedure and results.

**Mood Board:** Also called an inspiration board, a mood board is a device that helps a designer and client or a design team visualize design concepts and ideas prior to committing to specific colors, fonts, images, and layouts.

**Style Tiles:** Are a design deliverable consisting of fonts, colors and interface elements that communicate the essence of a visual brand for the web. They help form a common visual language between the designers and the stakeholders and provide a catalyst for discussions around the preferences and goals of the client.

# Appendices

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<b>[stakeholder]</b>	Stakeholder list
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<b>[interview2]</b>	Interview with Lukas Benninger, The Ergonomen Usability AG (German)
<b>[interview3]</b>	Interview with Bryan Zmijewski, ZURB Inc.
<b>[interview4]</b>	Interview with Jonathan Smiley, ZURB Inc.
<b>[interview5]</b>	Interview John Belanger, coupons.com
<b>[persona3]</b>	Personas
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<b>[test1]</b>	User test with Rosa
<b>[test2]</b>	User test with Andrew
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<b>[test5]</b>	User test with Marlene
<b>[testsummary]</b>	User test report summary
<b>[moodboards]</b>	Mood boards



# Appendices linked

<a href="#">[projectdefinition]</a>	Proposal Master Thesis “Bark” - english	<a href="http://bit.ly/VMEUkL">http://bit.ly/VMEUkL</a>
<a href="#">[projectplan1]</a>	Project Plan „Bark“	<a href="http://bit.ly/V9hDwa">http://bit.ly/V9hDwa</a>
<a href="#">[study1]</a>	Sorting it All Out with Humans in the Loop	<a href="http://bit.ly/ZC6FIA">http://bit.ly/ZC6FIA</a>
<a href="#">[reportkarin]</a>	Time tracking sheet – Karin	<a href="http://bit.ly/VcMqqk">http://bit.ly/VcMqqk</a>
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<a href="#">[persona2]</a>	Persona (Customer Profiles), Iteration 2	<a href="http://bit.ly/ZIBGFx">http://bit.ly/ZIBGFx</a>
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<a href="#">[prototype1]</a>	Paper Prototype 1, a vs b	<a href="http://bit.ly/RDTEnV">http://bit.ly/RDTEnV</a>
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<a href="#">[expertreview1]</a>	Expert Review Forrest	<a href="http://bit.ly/UGnsis">http://bit.ly/UGnsis</a>
<a href="#">[expertreview2]</a>	Expert Review Bryan	<a href="http://bit.ly/UFSpqX">http://bit.ly/UFSpqX</a>
<a href="#">[expertreview3]</a>	Expert Review Jordan	<a href="http://bit.ly/UFSw5N">http://bit.ly/UFSw5N</a>
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<a href="#">[review]</a>	Notable Review Implementation	<a href="http://bit.ly/UGo2wH">http://bit.ly/UGo2wH</a>

# Projectplan

## Weekly Timeboxing

### Before ZURB

- Planning: on-site stay
- Planning Thesis Project
- Write Questionnaire for Interviews
- Interview Swiss Agencies (Stimmt, Ergonomen)
- Research (domain, competitive space, ZURB Apps)

### On-site ZURB

#### Week 1

Plan next 4 days rolling:

- Define a process model
- Define framework and general requirements
- Stakeholder list
- Risk-list (plan/mitigation)
- Interviews (ZURB Clients)
- Observation (ZURB Client)
- Clarify open ZURB process questions
- Iteration 1
  - Sketch workflow
  - Hypothetical / Ad-Hoc Persona
  - Scenarios based on work-flow
  - First idea sketches (Prototype “Hot or Not”)

#### Week 2

Plan next 4 days rolling:

- Observation of a negotiation/prio meeting
- Client interviews
- Evaluate Interviews: Affinity Diagramm
- Iteration 1
  - User test (Paper Prototype)
  - Evaluate User test
  - Clickable Paper Prototype (Solidify App)
  - Review with Bryan (Persona/Scenario/Solidify)
- Iteration 2
  - Deeper look at ZURB's Design Process (re: the Project: Fantex)
  - Deeper look at ZURB's Design Process (re: Customer Profiles/segments)
  - Refine work-flow sketch
  - Rewrite Scenario using Touchpoint Map
  - Modelling Customer Profiles
  - Modelling Customer Segments

#### Week 3

Plan next 4 days rolling:

- Brainstorm other Sorting/Ranking concepts
- Study sort algorithm
- Iteration 3
  - Solidify Prototype (real case scenario (Noteable feature list))
  - Expert Test Solidify Prototype (Remote, ZURB Employees)
  - Evaluate test result
- Iteration 4
  - Brainstorm other Sorting/Ranking concept
  - Paper Prototype (dot voting concept)
  - User Test Prototype
  - Evaluate user test

#### Week 4

Plan next 4 days rolling:

- Iteration 5
  - Digging deeper in comparison ranking
  - Get familiar with the ZURB Foundation Documentation
  - Clickable HTML Prototype based on Foundation (a vs. b ranking)
  - Refine/optimize Prototype a vs. b voting Prototype
  - User test clickable prototype
  - Evaluate test result
- Iteration 6
  - Brainstorm / observe behaviour of natural human sorting/ranking
  - Paper Prototype sorting lists
  - User test
  - Evaluate test
  - Review session with Bryan
- Iteration 7
  - Refine Paper Prototype with small paper interactions
  - Prepare Random User Test (Starbucks)
  - User Test
  - Evaluate

### Week 5

Plan next 4 days rolling:

- Iteration 8
  - Sketch refined workflow (Wireframing)
  - Paper Prototype with Solidify based on workflow wireframes
  - Brief / Review Meeting with Implementation Experts
- Iteration 9
  - Create HTML Prototype based on Foundation
  - Define an algorithm for report data
  - Run expert reviews/tests
- Iteration 10
  - Refine Prototype
  - Refine interaction behaviour (Drag & Drop interactions)
  - Brainstorm report screen (with ZURB Designer)
  - Improve report screen
  - Plan external User Walkthroughs / Test
  - Create test scenario
  - External user test
  - Evaluate test result

### Week 6

Plan next 4 days rolling:

- Iteration 11
  - Refine Prototype from user feedback
  - Refine report screen (add agreement level)
  - Study sort algorithm (agreement level calculation)
- Iteration 12
  - Expert review engineers/designer (walk through screen by screen)
  - Refine report screen
  - create moodboard for Visual Designer
  - create specification for handover engineers
  - Refine report algorithm
  - Handover Meeting

### Week 7

Plan next 3 days rolling:

- Evaluate Implementation progress
- Create Review Sheet
- Review Meeting with Implementation Team

# Competitive review

## Overview

[www.tricider.com](http://www.tricider.com)  
[www.doodle.com](http://www.doodle.com)  
[www.choosle.ch](http://www.choosle.ch)  
**Closed card sorting**  
**Dot voting**

### tricider.com

#### Pro:

- Easy to get started, no login required
- One click voting
- Easy to share/invite people
- Pro / Cons arguments addable

#### Cons:

- Only open polls possible. People influence each other.
- Can't vote with more than one star.
- No dedicated report.
- Pro / Cons arguments vs Voting is confusing
- Feedback Bryan:  
no comments

### Doodle.com

#### Pro:

- Easy to get started, no login required
- Supports open vs. closed polls
- Easy to share/invite people

#### Cons:

- Comments are per poll and not related to a particular vote
- Limited rating possibility (yes/no/ifneedbe)
- No dedicated report.
- Feedback Bryan:  
implies excel, too much cognitive overhead

### Choosle.ch

#### Pro:

- Each option can be rated by arguments
- Transparency through arguments
- Easy to share

#### Cons:

- No multi-user support
- Cumbersome if done complete
- No dedicated report.
- Feedback Bryan:  
implies excel, what is the value of a star in this context without having a reference value

### Cardsorting

#### Pro:

- Easy to share/invite people
- Good multi-user support
- Dedicated reporting

#### Cons:

- Concept was made for a different purpose (misuse!)
- Feedback Bryan:  
bucketing vs. ranking of a list, may be too much cognitive overhead

### Dot voting

#### Pro:

- Easy to vote
- Simple and clear voting report.
- Good multi-user support
- Dedicated reporting

#### Cons:

- Unfriendly user interface to setup a dot voting poll.

# Risk list

## Project risks

ID	Description	Effect	Mitigation	Priority	Responsibility	Status
1	Availability of interview and observation possibilities with ZURB clients come in too late in the project.	It will postpone dependent milestones in an already tight project schedule.	Organize interviews & observations in the very first week.	High	Team	Done
2	Due to heavy workload no ZURB engineer will be available for the implementation.	The project may lose momentum and never get implemented.	The master thesis will be finished after the validated interaction design. The project will be handed over to ZURB for later implementation.	Medium	Bryan	Done
3	Overall condensed schedule due to on-site stay	Any delay could postpone the overall schedule.	In case of delays/lack of something, work with assumptions to not block a dependent milestone.  We already have 2 extra weeks buffer time at the end.	Medium	Team	Done

## Product risks

ID	Description	Effect	Mitigation	Priority	Responsibility	Status
4	Neither ZURB or clients of ZURB will use the app in their daily life.	None, but a waste of time and money	Clearly understand the problem during RE and also make sure to well introduce the app to the people.	Medium	Bryan	Open
5	Too much overlap with other ZURB apps like „Strike“.	Confusing app suite.	Make it distinctive from other apps.	Medium	Team	Done

# Stakeholder list

Name	Role	Contact Details	Relevance	Field of knowledge	Goal and Interest in the Project
<b>ZURB, Inc.</b> Bryan Zmijewski	Client & Mentor	z@zurbo.com	most important	product designer, entrepreneur & teacher	For internal usage and to use together with their clients. To further explore how ranking/prioritization can be better done as today.
<b>Reto Lämmli</b>	Student / Project Team Member	rlaemmler@gmail.com	high	interaction designer	to do a neat project for his master thesis
<b>Karin Christen</b>	Student / Project Team Member	karin.christen@gmail.com	high	interaction designer	to do a neat project for his master thesis
<b>ZURB Product Customers</b>	Customers		medium	user	to use the app in their daily life
<b>ZURB Employees</b>	Project Manager		medium	user	to use the app for projects with their clients
<b>ZURB Clients</b>	Clientside Project Manager		medium	user	to use the app for prioritization on their projects
<b>Thomas Bircher</b>		t.bircher@claudiabasel.ch	neutral	coach	help us make a good master thesis
<b>others</b>			low	user	to use the app for any decision making because it's for free

# Customer Interview

Marc Blume  
Senior Specialist, Stimmt AG

## Name, Background?

Mark Blume, Psychologie und HCID Abschluss  
Ist Senior Specialist bei Stimmt! (d.h. Interner trouble shooter in Projekten, falls jemand methodische Unterstützung benötigt, steht er beratend bei)

## An wie vielen verschiedenen Projekten arbeitest du gleichzeitig?

1-2 Projekte die Marc voran treibt, ansonsten punktuell je nach Bedarf.

## Wie viele Personen sind an einem Projekt involviert?

Bei einem grossen Projekt: 3-4 Consultants von Stimmt. Das Kernteam des Kunden involviert 2-4 Leute, manchmal mit anderen Stakeholders sind es bis zu 8-12 Personen.

## Was ist das schwierigste Thema das stets auftaucht beim Arbeiten mit Projektbeteiligten?

Problem/Auftragsklärung: Wo steht der Kunde wohin will er? Die Projekt Kickoff-Phase, die Fragestellung was können wir leisten was nicht, sich inhaltlich klar werden. Die politischen Strömungen zu verstehen, in welchem Kräftefeld das Projekt eingebettet ist.

## Wer ist das Zugpferd, Kritiker? Wie steht welcher Stakeholder zum Projekt?

Man versucht die verschiedenen Rollen/Kräfte sinnvoll zu nutzen und richtig einzusetzen. Man versucht die Frage "was mache ich mit den einzelnen Leuten" zu beantworten.  
Entscheiden, welche Schritte wann gemacht werden, wem was gezeigt wird.

## Wie werden Entscheidungen gefällt?

Es gibt Fälle, wo man am Anfang genau weiss, was für Ergebnisse erzielt werden. Und es gibt Fälle, wo man etwas zusammen erschafft.

Versuchen was zusammen zu erreichen:

- Hoher Grad an Interaktivitäten mit dem Kunden.
- Täglicher Kontakt mit Kunde, jedoch nicht viel Zeit vor Ort verbringen.
- Priorisieren: Tiefe vs. Breite? Das kann grosse Diskussionen geben. Kunde benötigt Beratung und muss manchmal auch zu seiner richtigen Entscheidung geführt werden, denn die Entscheidung fällt immer der Kunde. Wer das Geld hat entscheidet! Man kann jedoch direkt oder indirekt die Entscheidung beeinflussen = Optionen aufzeigen und deren Konsequenzen.
- Wie kann der Kunde die Ergebnisse für sich und seine Zwecke innerhalb der Firma nutzen, falls persönliche Positionierung ein Thema ist seitens Kunde.

## Wie strukturiert geht man da vor?

Es gibt beides, reine Gespräche oder moderierte Skizzen-Workshops.

Manchmal verwendet Marc auch Methaphern. Zum Beispiel: wollen wir mit einem Flaggship oder mit einer breiten Flotte rausgehen? Die Kraft einer Methapher hilft oft, damit es nicht rein verbal bleibt.

Werkzeuge:

- Tischmoderation: im kleinen Rahmen. Postits etc.
- Punkte kleben: Vorteil = bekannt schnell durchgeführt werden. Ergibt meistens eindeutiges brauchbares Ergebnis, Nachteil = Gruppeneffekte, Manipulationseffekte. Der Weg zum Ergebnis ist sehr interessant. während der Punktevergebung. Diskussion wieso man die Punkte klebt ist genauso wichtig. Klar machen wer aus welchen Gründen die Punkte klebt.
- Doodle Optionen: Bei einfachen Fragestellungen/ Entscheidungen
- Während einer Präsi mit Powerpoint: wo man nochmals die Folie aufruft,
- iModelar = Online Tool zur Visualisierung von Wirkungszusammenhängen, Netzwerk von Ursachen. Zum Beispiel, um zu erklären woher die Unzufriedenheit her kommt. Ist ähnlich wie Mindmap. Jedoch kann man Faktoren quer verbinden, da Mindmap ist eher streng hierarchisch.
- Informationsarchitektur: online open card sorting.

Wieviel Zeit wird verwendet, um Entscheidungen zu fällen?

Das ist ein extrem fruchtbarer Prozess. Probleme gibt es, wenn seitens Kunde Sabotagen, etc. passieren. Themen die nicht ans Licht kommen. Der bessere Weg für alle Parteien ist immer Klartext sprechen. Heikle/unbequeme Punkte ansprechen ist gut.

Zu was für einem Thema ausserhalb der Arbeit, könntest du ein solches Tool verwenden?

- Ferienplanung
- Finanzielle Entscheidungen
- Mit Freunden Regeln aufstellen

Inputs von Marc:

- Auf welcher Schicht soll das Tool die Entscheidungsfindung lösen?
- Wie verdichtet das Tool komplexe Daten und unterschiedliche Inputs, um die Übersicht zu behalten?
- Das Zwischenmenschliche kann durch ein Tool kaum abgelöst werden. Eine Entscheidungssituation ist eine Verhandlung, wessen Bedürfnisse zum Zug kommen - wessen Meinungen werden wieso gehört und akzeptiert? Ein Tool kann das nicht berücksichtigen, es ist eher ein demokratisches Mehrheitsprinzip, weil keine Gespräche involviert sind.



# Customer Interview

Lukas Benninger  
Usability Consultant,  
Die Ergonomen Usability AG

## Name, Background?

Lukas Benninger, Die Ergonomen Usability AG  
Studierte Musik + doktorierte Psychologie. Hat keine klassische Interaction Design Ausbildung, ist Senior Consultant und Stellvertreter des CEO bei den Ergonomen, Kernbusiness: User-Tests (Aber auch Konzeption und ReDesign)

## An wie vielen verschiedenen Projekten arbeitest du gleichzeitig?

Unterschiedlich, 3-4  
In konzentrierten Phasen arbeitet Lukas meist nur an einem Projekt.

## Wie viele Personen sind an einem Projekt involviert?

Normalerweise 2-3 Personen seitens Ergonomen, seitens Kunde gibt es jeweils eine Ansprechperson. Manchmal gibt es bei Teilprojekten mehrere Ansprechpersonen.  
An Test/Workshops nehmen Teams von 4-6 Personen welche möglichst breit ausgewählt werden teil.

## Was ist das schwierigste Thema das stets auftaucht beim Arbeiten mit Projektbeteiligten?

Mit den unterschiedlichen Meinungen der Stakeholders umgehen zu können. Was wichtig ist und was nicht.

## Wie werden Entscheidungen gefällt?

Entscheidungen werden in Workshops gefällt. Priorisierungen jedoch vorher zusammengestellt.  
Das bessere Argument setzt sich durch. Deshalb sollte man darauf achten, dass man dem Kunde aufzeigt was wichtig ist.

## Wie strukturiert geht man da vor?

Faktorenabhängig, Impact + Anzahl Leute die betroffen sind. Die Auswertung fällt meist qualitativ aus.

## Werkzeuge:

- Excel
- E-Mail
- Bug Tracking Tool

Jedoch gibt es immer komplexe Themen die man persönlich diskutieren muss und da helfen die Tools nicht mehr.

## Zu was für einem Thema ausserhalb der Arbeit könntest du ein solches Tool verwenden?

Lukas hat eine Band und da benutzen sie im Moment Doodle um zu entscheiden, welches Konzert durchgeführt wird und welches nicht.

# Stakeholder Interview

Bryan Zmijewski  
Chief Instigator, ZURB Inc.

What's the purpose or motivation for the Bark free app?

**Hypothesis:** Resolving the need to make remote decisions with ZURB's clients.

**Goal:** Getting the big picture of the problem we have to solve.

**Answer:** For internal usage and to use together with their clients. To further explore how ranking/prioritization can be better done as today. Last but not least to have a gut feeling check.

Is there a need to integrate Bark in a existing or upcoming App e.g. Resolve App? What does the Resolve App cover?

**Hypothesis:** yes, as "Bounce" has found its place in Influence, we're likely in to integrate Bark somewhere too.

**Goal:** To find out whether Bark will be a stand alone App only or not.

**Answer:** Doesn't know if part of another app. There is no clear upsale yet.

What's the main target group?

**Hypothesis:** using the app for internal and remote use, primarily with clients of ZURB.

**Goal:** to find out what target group we have to consider.

**Answer:** Internal users and clients of ZURB

Bark will allow to list & share items similar to the feather app "Strike". We think "Strike's" use case for collecting and sharing items is quiet similar, do you agree?

**Hypothesis:** indeed. "Bark" has similarities with "Strike" but goes further on the prioritization & reporting.

**Goal:** to find out if we could reuse the use case of "Strike" for "Bark".

**Answer:** Yes, this would make sense. We may think of a limit for the number of elements.

Shall "Bark" be a supportive tool for the decision and prioritization vs. strongly guide through the process?

**Hypothesis:** Bark will be a tool support the process but not guiding it because it involves too many interpersonal interactions.

**Goal:** Which parts of the process it should cover.

**Answer:** It should be a supportive tool which ideally teaches people to better rank and decide on things. But we shouldn't even assume that users understand the concept of prioritization.

# Stakeholder Interview

Jonathan Smiley  
Design Lead, ZURB Inc.

What's your name, company, background, current function?

**Answer:** Jonathan is Partner at ZURB, Design Lead. He runs client projects and is involved with almost everything.

On how many different projects do you currently work on?

**Hypothesis:** 2-3 Projects at a time  
**Answer:** 2 to 4/6

How many people are involved in an average project? On your side and the client side?

**Hypothesis:** 3-6 Stakeholders  
**Answer:** On ZURB side: Jon himself and usually one more designer are involved in a project. They do almost everything. For Visual Design / Layouts they sometimes loop in 2 more Designer.  
On Client side it can be from 1 up to 15 people involved in a project. avg. 2-4. ZURB has certain Clients where the amount of people involved in a project can be around 12. e.g. McAfee.

What are the most challenging things working with a client?

**Hypothesis:** to manage the needs/requirements at its best  
**Answer:** Getting good feedback from clients. Balancing keeping clients happy vs. keeping ZURB happy. Various designers on the team. (With some designers he has to be very involved, with others not).

Who is in charge of setting priorities in a project?

**Hypothesis:** Project leader

**Answer:** Depends on the client. Special for larger companies they tend to do more, because they have specific deadlines, needs.... At startups ZURB settles a lot of priorities. A lot of time its down to ZURB. Startups have usually just engineers and founders involved. No designer, that's where ZURB is taking over.

Where else in your live would you need these type of prioritisation and decision making?

**Answer:** Jon's wife sets priorities and Jon is just doing them.

Are there a lot of disagreements between you and the client when it comes to prioritization? And between the stakeholders on the client side?

**Answer:** depending on how patient we are on certain thing. at the end of the day the clients decide. many times there be discussions or email. a lot of conversation happens through email usually goes pretty fast. show them something why they should do it other

# Customer Interview

John Belanger  
Product Manager, coupons.com

What's your name, background, current function?

**Goal:** Demographic Information

John PM and UX @ www.coupons.com, background Filmmaking and bootstrapped programmer, Joined the web space in 1994, 1996 moved to the SV to join Apple, was UX guy for Symantec, Yahoo  
<http://www.linkedin.com/in/bajeeto>

On how many different projects do you currently work on?

**Hypothesis:** 2-3 Projects at a time

**Answer:** 5-6 projects

How many people are involved in an average project? On your side and the client side?

**Hypothesis:** 3-6 Stakeholders

**Answer:** 2 Zurbs + 6 from coupons.com: total 8

What are the most challenging things working with a vendor like ZURB?

**Hypothesis:** to manage the needs/requirements at its best.

**Answer:**

- Culture, communication
- Change management
- ZURB is agile and coupons.com has difficulties to adapt to it

Who is in charge of setting priorities in a project?

**Hypothesis:** Project leader

**Answer:** He (John) is the ultimate decision maker. Has to answer to implicit and explicit management.

Final decision can be overwritten by boss (VP PM)

If you have 10 important todos for a particular project lined up, who decides on the priorities?

**Hypothesis:** Project leader together with the Project leader on client side

**Answer:** He does but may be overridden by his boss. He rates by gut feeling.

How does the prioritization process work today? Who's involved? How do you sort it out? Are there any tools involved?

**Answer:** John performs initial prioritization. Then runs prio recommendations by VP PM, VP Marketing etc. Recommendation is driven mostly by gut feeling, not facts. Managed in a Google Spreadsheet. Then lots of discussion and reordering.

Symantec: spreadsheet based, distributed then aggregated results. Across 100s of stakeholders. At yahoo didn't work. Inquiry -> jbelanger@couponsinc.com

# Personas



Source: [flickr.com/photos/toolmantim/2079685562](https://www.flickr.com/photos/toolmantim/2079685562)

## Doer, “gets stuff done”

- works very focused
- enjoys to get stuff done
- doesn't like to follow rules
- good sense for simplicity

## Patrick – Lead Developer

Patrick is a 28 years old Ruby on Rails lead developer. He works in a scrum team but would prefer sometimes a less structured development process. He has a good sense for simple user interfaces and often disagrees with the specs he gets from the designers.

## Non-Persona for Doer

### – Susan, Product Manager

Susan is a 32 years old Product Manager (PM). Her background is Visual Design. She moved into her new PM role a year ago. She is a strong and reliable coordinator but not the toughest decision maker. Alice likes to hear everyones opinion before making project or product decisions. This is a way to show respect and she further believes this produces better end results.



Source: [flickr.com/photos/kgsglobal/6762759449](https://www.flickr.com/photos/kgsglobal/6762759449)

### Organizer, “juggles many projects”

- is organized
- has to deal with 2-3 project at the same time
- is a team player
- likes consensus
- plays by the rules

### Alice – Design Lead

Alice is a 32 years old Design Lead. She likes to juggle different projects. She is not the toughest decision maker. Alice likes to double check with other people before committing to anything. She believes this produces better end results but also compensates for her insecurity.



Source: flickr.com/photos/76029035@N02/6829378917

### Decider, “makes final call”

- likes to be an important person at work packed with head to head meetings
- is good in getting things done
- is generally a beloved person
- he often discusses outstanding decisions with his wife

### Ryan - VP Product

Ryan is a 37 years old manager with a background in Business Administration. He is efficient at getting things done. People like and respect him as a manager. He never makes quick decisions and likes to listen to other opinions.

# Scenarios

## Patrick – Lead Developer

Patrick is a 28 years old Ruby on Rails lead developer. He works in a scrum team but would prefer sometimes a less structured development process. He has a good sense for simple user interfaces and often disagrees with the specs he gets from the designers.

### a) Creates 'feature roadmap' list and invites team to rate

1. Opens Bark app in the browser.
2. Creates a new list called "feature roadmap".
3. Enters 8 features and completes the process.
4. Selects "Ask people for their opinion"
5. Copies a tokenized URL to share.
6. Copy/pastes the tokenized URL into an email
7. Sends email to the team along with a quick introduction.

### c) Checks report

1. Receives email that new opinion was submitted.
2. Opens the link and sees that everyone has rated already.
3. Opens the report and sees a consolidated result.
4. Drills down on different people's opinion and realizes that some results are controversial.
5. Copies a link to the report.
6. Sends email to Ryan and asks him for his opinion.

### e) Communicates decision

1. Opens email from Ryan
2. Opens the link and reviews his final ranking.
3. Copies a link to a read-only report.
4. Composes a new email with report link and informs everyone about the final decision.

## Alice – Design Lead

Alice is a 32 years old Design Lead. She likes to juggle different projects because at the same time. She is not the toughest decision maker. Alice likes to double check with other people before committing to anything. She believes this produces better end results but also compensates for her insecurity.

### b) Rates list items

1. Receives email from Patrick with invitation to rate "feature roadmap".
2. Opens tokenized link and sees a quick introduction about rating.
3. Begins the rating.
4. Votes + for the first feature in the list. Feature disappears.
5. Votes - for the next feature in the list. Feature disappears.
6. (above steps repeat until each item is rated)
7. Rating is automatically submitted and overall result is presented.

## Ryan – VP Product

Ryan is a 37 years old manager with a background in Business. He is efficient at getting things done. People like and respect him as a manager. He never makes quick decisions and likes to listen to other opinions.

### D) Makes a decision

1. Receives email from Patrick.
2. Opens link and sees report.
3. Checks the different ranking opinions.
4. Rearranges the consolidated result according to his opinion.
5. Replies email to Patrick about his opinion.



# User Test

– Rosa

## Summary

- She fit somewhat the persona
- She had few misunderstandings on what she was supposed to do. Concept works in general.
- Didn't see TOP and CHOP. Rearranged only within UNDECIDED.
- Link sharing via email seems to be a too complex concept.
- Wisdom of crowd is too complex.

## User Tester Information

Name: Rosa

Age: 30 - 40

Occupation: Admin assistant, PC, heavy user

Which of the following words describes you the best and why? Doer, Contributor, Decider

Doer, takes initiative.

How do you go about setting priorities in a team setting?

find the majority vote by discussing

Would you ever use the internet to prioritize a list in a team?

play a sport, things to buy

## Test 1: Give your opinion on “Perks & benefits”

Your work colleague thinks the company should offer more perks & benefits. He composed a list of perks and benefits and now wants everyone's opinion. You also received an email invitation to give your opinion on “Perks & benefits”. You click on the link and get started.

## Questions

Tell us what you see.

Reads down the list. Unsure she saw the “Start sorting” button.

Do you understand what you are asked to do?

Very self explanatory

[Ranking screen] What actions can you take from this page?

Ranked only within UNDECIDED box. Didn't see TOP and CHOP. Didn't see the comments.

After telling her about CHOP, she tried to move an item there via right click -> delete.

[Report screen] Tell us what you see.

How do you find out, what others opinion was?

Thought she understood, but didn't

Didn't understand the word, wisdom of the crowd.

## Test 2: Create list and get opinions

Now imagine you change company. Now you want to take the same “Perks & Benefits” initiative as John did. Start “Bark” and create the same/similar list.

## Questions

Do you understand the overall process? Explain it.

Not sure she understood her task.

Enter a title, then add possible items. How do you feel?

She just clicked through it and probably didn't understand what she was doing.

How would you share your list to get opinions?

Didn't understand the sharing concept. Too abstract.

# User Test

– Andrew

## Summary

- Totally fit our persona
- He had no problems at all to use the app. Concept works!
- Found the report not intuitive, needs rework in his opinion
- Also misunderstood the field for List name with the first item

## User Tester Information

Name: Andrew

Age: 30 - 40

Occupation: Customer Support, Uses MAC & PC, heavy computer user

Which of the following words describes you the best and why? Doer, Contributor, Decider

Doer. because he likes to get things done.

How do you go about setting priorities in a team setting?

gut feeling

Would you ever use the internet to prioritize a list in a team?

yes at work (after seeing the prototype)

## Test 1: Give your opinion on “Perks & benefits”

Your work colleague thinks the company should offer more perks & benefits. He composed a list of perks and benefits and now wants everyone’s opinion. You also received an email invitation to give your opinion on “Perks & benefits”. You click on the link and get started.

## Questions

Tell us what you see.

got everything.

[Ranking screen] What actions can you take from this page?

after commenting, show that I commented

What is the difference between TOP vs UNDECIDED vs CHOP?

understood the concept from the beginning

[Report screen] Tell us what you see.

- not intuitive
- hard to evaluate the results
- no percentage (e.g. 80% said #1)
- no bucketing.

## Test 2: Create list and get opinions

Now imagine you change company. Now you want to take the same “Perks & Benefits” initiative as John did. Start “Bark” and create the same/similar list.

## Questions

Tell us what you see

The input field wasn’t clear. He added a first option instead the title of the list.

Do you understand the overall process? Explain it. no problems at all

Enter a title, then add possible items. How do you feel? worked all smooth

# User Test

– Rebecca

## Summary

- She totally fit our persona
- She had no problems at all to use the app. Concept works!
- Minor confusion was start screen of bark
- “Name the list” instead “What would you like to call this...”
- Intro appeared clickable, which shouldn't.

## User Tester Information

Name: Rebecca Lancaster

Age: 20 - 30

Occupation: Office Administration (similar to Shawna)

Which of the following words describes you the best and why? Doer, Contributor, Decider  
Doer, she is the one throwing ideas, get things started.

How do you go about setting priorities in a team setting?  
no specific way. she is just good at handling things.

Would you ever use the internet to prioritize a list in a team?  
after the user test, she would use it for her large family to organize holidays, like thanks giving. to find out what's important to people and what's not.

## Test 1: Give your opinion on “Perks & benefits”

Your work colleague thinks the company should offer more perks & benefits. He composed a list of perks and benefits and now wants everyone's opinion. You also received an email invitation to give your opinion on “Perks & benefits”. You click on the link and get started.

## Questions

Tell us what you see.

Clicked on link in email, saw list preview and immediately clicked on Start sorting.

Do you understand what you are asked to do?  
Everything seemed logical.

[Ranking screen] What actions can you take from this page?

Immediately started sorting by dragging tasks up. She understood everything, incl. comments and that she can leave stuff in Undecided.

[Report screen] Tell us what you see.

How do you find out, what others opinion was?

She was excited to see the report. She missed the percentage e.g. 80% voted free lunch #1. After clicking on the Strike button, the mental model broke.

## Test 2: Create list and get opinions

Now imagine you change company. Now you want to take the same “Perks & Benefits” initiative as John did. Start “Bark” and create the same/similar list.

## Questions

Tell us what you see

Wanted to click on the introduction elements, because they appeared to her as buttons.

Further the input field wasn't clear. She added a first option instead the title of the list. So better rename placeholder to “Name the list”.

Do you understand the overall process? Explain it.  
Yes, it was smooth to her.

Enter a title, then add possible items. How do you feel?

She didn't see the “paste a list” the first time. That could be better explained with a tool tip.

How would you share your list to get opinions?

She likes the concept of sharing the list via link. That means no one needs to install an app first. She would share the link via email.

# User Test

– Rick

## Summary

- Fit our primary persona
- Concept worked for him
- Had some difficulties with the test gear (scrolling, maus)
- Report wasn't good enough for him.

## User Tester Information

Name: Rick (Husband of Rosa)

Age: 40 - 50

Occupation: Architectural Designer, Heavy PC User

Which of the following words describes you the best and why? Doer, Contributor, Decider

Doer, better with hands, get things done.

How do you go about setting priorities in a team setting?

decide on what needs to get done first.

Would you ever use the internet to prioritize a list in a team?

decide on a list of contractor, industries etc..

## Test 1: Give your opinion on "Perks & benefits"

Your work colleague thinks the company should offer more perks & benefits. He composed a list of perks and benefits and now wants everyone's opinion. You also received an email invitation to give your opinion on "Perks & benefits". You click on the link and get started.

## Questions

Tell us what you see.

Tried to interact with the preview list. Then clicked on Start sorting.

Do you understand what you are asked to do?

Seemed logical.

[Ranking screen] What actions can you take from this page?

Didn't see CHOP because he couldn't scroll with the computer. Once he saw, he started to use chop also.

[Report screen] Tell us what you see.

How do you find out, what others opinion was?

Report is too abstract. Not really informational.

System asks you to give opinion and at the end you don't see your opinion reflected.

## Test 2: Create list and get opinions

Now imagine you change company. Now you want to take the same "Perks & Benefits" initiative as John did. Start "Bark" and create the same/similar list.

## Questions

Tell us what you see

Started without entering a list title.

Do you understand the overall process? Explain it.

Yes, but was somewhat confused about the predefined items.

Enter a title, then add possible items. How do you feel?

Wanted to remove "bring dog" from the list.

How would you share your list to get opinions?

Understood the concept of sharing via email.

# User Test

– Marlene

## Summary

- She didn't fit our primary persona. She is somewhat the Contributor but is too young.
- She was very shy, has never worked and therefore needed a lot of guidance.
- We aborted the test after Test 1.

## User Tester Information

Name: Marlene (daughter of Rosa)

Age: 18

Occupation: no job, still in school

Which of the following words describes you the best and why? Doer, Contributor, Decider

Contributor

How do you go about setting priorities in a team setting?

-

Would you ever use the internet to prioritize a list in a team?

-

## Test 1: Give your opinion on “Perks & benefits”

Your work colleague thinks the company should offer more perks & benefits. He composed a list of perks and benefits and now wants everyone's opinion. You also received an email invitation to give your opinion on “Perks & benefits”. You click on the link and get started.

## Questions

Tell us what you see.

Clicked on link in email, saw list preview and immediately clicked on Start sorting.

[Ranking screen] What actions can you take from this page?

Drag and drop into TOP seemed logical. Didn't see CHOP.

.

[Report screen] Tell us what you see.

How do you find out, what others opinion was?

Too abstract for her.

Didn't understand “Wisdom of the crowd”

## Test 2: Create list and get opinions

Now imagine you change company. Now you want to take the same “Perks & Benefits” initiative as John did. Start “Bark” and create the same/similar list.

We skipped this part, because she is not a doer and didn't seem to be a good fit.

# User Test Summary

## Ranking

- Drag & drop seems to be the natural behavior to sort and it was well understood.
- Seems to work up to 10 items. More than 10 may not be efficient. CHOP box further may disappear under the fold (but depending on screen resolution).
- Comments were most of the times discovered and well received.
- Submit (done!) was never a problem.
- The concept of Undecided was always understood and almost always used to leave items there.

## Report

- It was not intuitive to read for anyone. It's more of a visual design than an interaction design issue.
- Information is missing: how many people voted for this or how many points out of the max did every item get. Sort order alone is not sufficient.
- Strike button wasn't seen by everyone and those who clicked on it were confused by it.
- Start screen & Add items
- Intro images lead to interaction but shouldn't
- Name field for list title was misunderstood as the item field. Better naming!

## Sharing

- Get people's opinion incl. drop down was well understood.
- The concept of sharing via link was obvious to most of the test people.

## Rebecca

- Totally fit our persona
- She had no problems at all to use the app. Concept works!
- Minor confusion was start screen of bark
- "Name the list" instead "What would you like to call this..."
- Intro appeared clickable, which shouldn't.

## Andrew

- Totally fit our persona
- He had no problems at all to use the app. Concept works!
- Found the report not intuitive, needs rework in his opinion
- Also misunderstood the field for List name with the first item

## Rosa

- She fit somewhat the persona
- She had few misunderstandings on what she was supposed to do. Concept works in general.
- Didn't see TOP and CHOP. Rearranged only within UNDECIDED.
- Link sharing via email seems to be a too complex concept.
- Wisdom of crowd is too complex.

## Marlene

- She didn't fit our primary persona. She is somewhat the Contributor but is too young.
- She was very shy, has never worked and therefore needed a lot of guidance.
- We aborted the test after Test 1.

## Rick

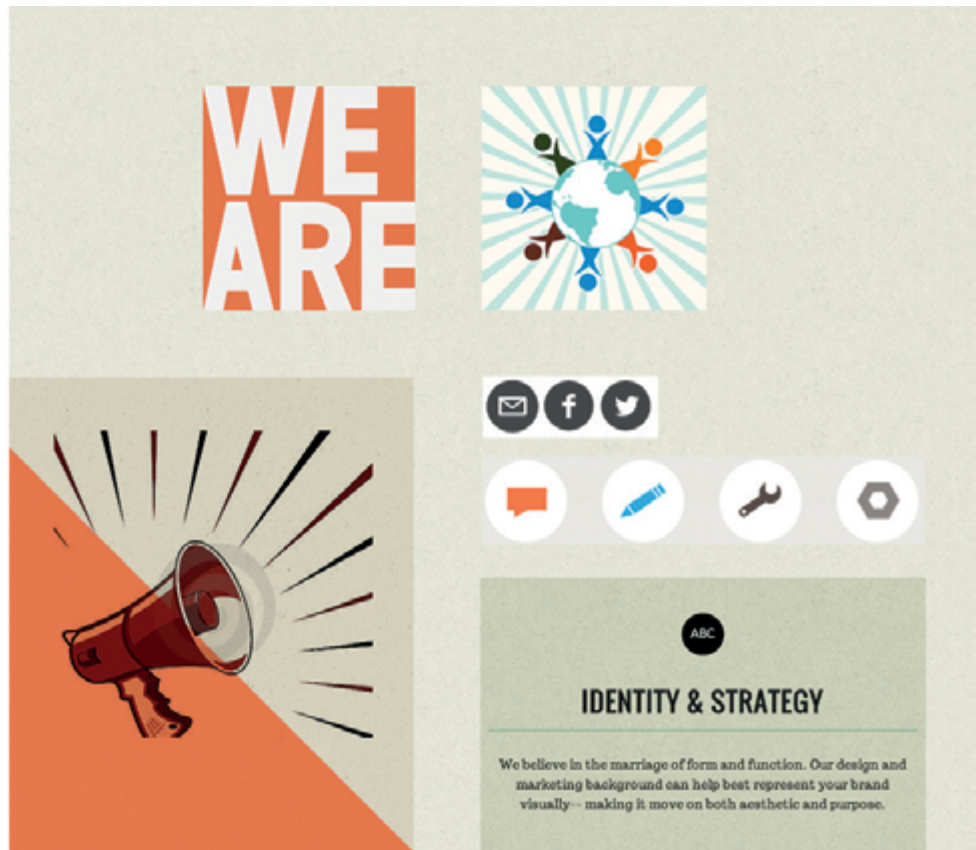
- Fit our primary persona
- Concept worked for him. Didn't see CHOP first.
- Had some difficulties with the test gear
- (scrolling, maus)
- Report wasn't good enough for him.

ZURB Visual Themes

**Bark**

A vibrant, clean design that empowers.

- clean and minimal, marked with flat colors, a warm background and simple glyphs.
- clear and strong typo to express simplicity and strength. Center aligned for clear focus.
- warm and strong color gives energy to the design.
- simple but clear illustrations to express the collaborativeness.
- the megaphone expresses priority or barking/yelling.

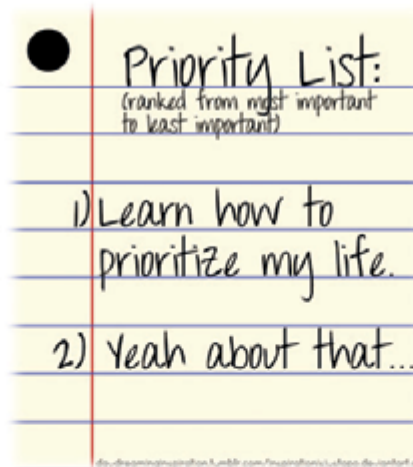


ZURB Visual Themes

**BARK**

A playful design with a personal touch

- Cartoon feel with dog theme (bark!). It underlines the app name and makes it funny and playful.
- Hand made shapes give a personal touch. This takes away the seriousness and people can have fun with it.
- Should convey «from people for people». It's all about people giving opinions to others and make changes.
- We can make a difference! This is how the app should make a user feel.
- Mellow pastel colors to underline the personal touch.
- Personal fonts, with a handwritten touch to be in line with the overall theme.



INFORMATION



New York City

San Francisco