Talk a Bite

Matchmaking for teachers and learners of languages

Abstract

The purpose of this design project was to come up with a concept and a design that somehow would counteract social exclusion or simply aid the socially excluded. We came up with Talk-A-Bite, a mobile application with the intention of expanding the idea and concept of the language cafes. More often than not, language cafés groups are far too big and the attendants have varying skill levels which tends to disrupt the flow of conversation. This is where our Talk-A-Bite comes into play. The app will match users with each other depending on what language they want to speak and their skill level. It would also recommend a location, such as a cafe, where they could get a discount. The idea is to create a environment where you can practice a language, efficiently but relaxed. The focus group is students, but mainly the ones who are here for an exchange. Especially exchange students tend to be spontaneous, adventurous and also eager to learn languages. For the design process we first did a field study regarding language cafes and other ways to overcome the language barrier. Based on those we interviewed exchange students and other people born abroad to validate our idea. The group constructed personas with scenarios and pain points that should be solved. With collected data the group used brainstorming to create a first prototype. The prototype was evaluated by both another group as well as six external individuals. After each step improvements were made to the prototype. The results were a clickable prototype, with most of the requested features. This can be found further down the report.

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1. Introduction

This project and design documentation takes the aim to develop and present a platform for people to learn and teach languages in a socially inclusive and integrating way. There are several different sorts of platforms for language teaching and learning. Some focus solely on the aspect of online interaction with chat messages which lacks in real world interaction. Firstly this is problematic from a language learning perspective since short online messages often does not accurately resemble and translate well to actual verbal communication. Secondly, you completely miss out on the aspect of body language and other expressions of everyday communications - which has been proven to play a very important role in second language learning (Gregersen, 2007). Others have tried arranging group meetings such as language cafés which has the problems of often becoming impersonal in large groups and that the conversations lacks deeper interaction.

Our goal is to provide a new way of personalized real world interaction in the choices for language learning and teaching and therefore contribute to integration and social inclusion. The aim is to present an easily accessible mobile application available for everyone willing to learn and to teach languages. The idea is simply to act as a matchmaker between people to personalized meetings over a "fika" or a bite of food with the goal of language exchange.

The added incentive to teach by providing an easy matchmaking with people eager to learn will further be strengthened with discounts and free fika for the teachers and learners. It should be easy to get started and easy to continue with the application and therefore have a established and growing user base.

2. Field Studies and State-of-the-Art

2.1 Field Studies

To understand and prepare the design process of the application, field studies consisted of interviews were conducted. In the book *Interaction Design - beyond human-computer interaction,* (Preece, Sharp, & Rogers, 2015) the authors writes that "Learning more about people and what they do can also reveal incorrect assumptions that designers may have about particular user groups and what they need". Since our idea is about connecting different people together it is essential to understand the people that will use the application and also. The people chosen for the field studies are potential users.

In our field studies we decided to conduct semi-structured interviews with a few different people within our target group. We decided to go for a semi-constructed form of interviews since we wanted the interviewees to share as much feedback as possible with us.

Transcripts of the interviews can be found here:
https://drive.google.com/open?id=1PkymDPtrsu3JVlwT5_f712IazMqy9uj7AjQOB4JZ1W0

Summary of the interviews

Six out of the eight respondents we interviewed knew about the concept of a language café but none of them had actually been to one even though all of our interviewees were interested in

becoming better at one of their spoken languages. Most of the respondents we interviewed could also see themselves teaching others through and had no problem with meeting up with a stranger for a fika.

Interestingly enough a very few of our interviewees cared very much about any potential reward as long as they got a chance to learn something themselves as well. The reward should be learning, at least if you are the one participating as a student. If you're the teacher any small reward, like a discount or a bonus, would suffice. None of our interviewees felt the need to be paid directly for teaching.

Overall we got very good feedback on our idea. Almost all of our interviewees could see themselves as potential users of the application and some of them wanted it right away. From these interviews we've been able to find solid evidence that we have a good concept which a lot of people could be interested in. We also know that a lot of people are interested in learning a new language through the method which we suggest. We will look closer at these interviews throughout our development process and make sure to include as much of our interviewees thoughts as possible.

2.2 State-of-the-Art

Application based solutions

There are a few different applications which are working towards integrating and teaching immigrants about society and the native language, each in its own way. We have decided to focus on three different applications, Tandem, Welcome, and HelloTalk.

Tandem is an application which connects two people through a video/telephone call. They have two different focuses; you are either you're connected with a "Tandem" or you can use their teacher/student program. A "Tandem" is basically anyone who speaks a language you want to learn and you simply talk to this person like a normal phone call. A Tandem is a regular person, not a teacher, if you want to be taught by a teacher instead you can find a teacher through the student/teacher program. You book a time and get a session which is 30 - 90 minutes long. Each session costs some amount of money which goes to the teacher.

Welcom is an application which works through so called "handshakes". Anyone can ask a question and the question shows up for everyone within a certain radius. If you answer the question you make a handshake. When the handshake has been made you're connected to the other person so that you can chat and talk to them. Welcome's primary focus is to make sure that newcomers can get easy access and answers to simple questions, an added bonus is that you

also get connected to other people who you can talk to if you wish.

HelloTalk works similarly to Tandem in the way that it connects people through video and phone calls. They also have a chat function where you can practise your target language through text and audio messages. HelloTalk's primary focus is learning through social interactions with native speakers and not through teachers.

None of these apps has any primary target group which isn't necessary a problem. Instead they're focused on anyone who's interested in learning a new language and how the target society works. Though they all lack a few things, proper rewards and face to face interaction.

Tandem has rewards in the form of payments for those who sign up as teachers and have sessions with a student, however this might be expensive for the student. Other than that there are no rewards for the people who take their time of day to teach. We think there should be rewards for those who use their time and energy to teach but it shouldn't come in the form of money from the student. Furthermore much of how we act and talk to each other is based on our body language. You talk a certain way on the phone which might not exactly represent how you talk in a face to face situation. HelloTalk and Tandem both has video calls but this is still not the same as actually meeting someone in person. While each of the applications are good at what they do we think they could be even better by focusing on these main problems.

Face to face interaction based solutions

There are a few different solutions out there which are focused on teaching languages through social, face to face interactions. These come in the form of so called "Language Cafés". We have mainly looked at two different language cafés: KTH Language Café and Nema Problema Foundation Language Café.

These language cafés work in similar ways. A group of people of different nationalities meet up on a certain day, usually at a library, and spend a few hours talking to each other in order to practice a certain language. During the meeting you're usually offered coffee and/or a snack and you're encouraged to speak to each other. KTH Language Café also has a tandem program where you're paired up with someone and talk one-to-one.

The concept of a language café is great. It's simple and you can join the KTH Language Café as long as you're a student at KTH and anyone who wants learn or teach swedish is free to join the Nema Problema Foundation language café. The KTH language café is obviously focused on students while Nema Problema has a much wider target group. However they both have a few things that could be improved, mainly their accessibility and the variety in languages.
The language cafés are only offered a few times a week so if you're not available at the specified time you can't join. Furthermore the language cafés are based in specific locations which you must have access to. They're also mainly focused on a few languages. The Nema Problema Foundation is focused on teaching Swedish and KTH is mainly focused on Swedish and English.

Conclusion

With our idea we aspire to combine the most valuable aspects of the already existing mobile applications with the best qualities of physical language cafés. We want to create an application which easily match people with each other so that you can effortlessly find someone to learn from or teach. We want to create social interactions where two people can sit down and talk face to face and we want to make sure that the people who teach feel rewarded for what they

do. The application should be available to everyone and you should be able to learn any language you want as long as there is someone around who speaks the language and wants to teach. Furthermore we want to focus on learning through social interactions, not primarily through lessons and homework. It should be fun to learn a new language and meet new people.

3. Personas and Scenarios

3.1 Personas

Shokoufa is a 21 year old woman from Syria. She moved to Stockholm, Sweden one year ago and she is slowly adapting to the swedish society. She is currently studying at SFI two days a week, the rest of the time she spends either alone or with her family. She also has an interest for running and loves puppies. She has very few friends, but she believes that learning the swedish language would help her meet new, swedish friends. She also believes that she has the potential to develop the swedish language faster than the SFI curriculum.

Fredrik is 25 year old male from Stockholm who studies the computer science master program at KTH. He grew up in Märsta but is currently living in a student flat and spends most of his time at campus, studying. He has a wide variety of friends, whom he mostly met through school. He is a fairly good chess player and loves animals. He is outgoing and spontaneous and loves to travel. Before he started at KTH he spent three months backpacking through Asia.

3.2 Scenarios

Shokoufa

Scenario 1: Shokoufa walks out from the SFI lesson. She feels very confident about herself since she was praised by her teacher for her astonishing progress in swedish writing, but she still feels she isn't progressing as well with her verbal skills and wants to work on her pronunciation. The teacher tells her about an app called "Talk a bite" that could help her further improve. She registers by filling out her personal information and answers some quick questions about herself. On the way to the closest subway station, she gets a match and is asked to meet up with Fredrik for a fika at the openLab café.

Scenario 2: Shokoufa sits at home, thinking about her meeting with Fredrik. It went better than expected, and they talked about language barriers, future careers and what Shoukoufa could do in her free time. Fredrik had suggested to use the app "Talk a bite" to help someone else with arabic, since the barriers need to be broken from both sides. Said and done, she opens the app.

She has promised to stay at home for lunch, but will have time for a fika later on. Already having an account, she only has to fill in that she wants to help with arabic this time, and will be able to do so at 4pm. After a few minutes she find herself scheduling a meet up with "Klara", at 4:30 pm. [Klara is married a man who has arabic as mother tongue. She'd like to improve her poor arabic skills as a surprise on their anniversary.]

Fredrik

Scenario 1: Fredrik has just left the lecture hall and does not feel like studying anymore. It is three o'clock and he has nothing planned for the next   hour before a chess club meeting. He is craving some coffee and suddenly remembers the app "Talk a bite" he used last week. He opens the app and looks for a fika partner. In just one minute the app suggests that he meets up with Shokoufa. He remember how nice his last fika with Pedro was and that he really felt like he did something good afterwards. He also thinks that it is nice to get a discount on his coffee since he is going for a fika anyway. He decides to meet up with Shokoufa in 10 minutes at the openLab café.

Scenario 2: It's been a couple of weeks since Fredrik met Pedro when he opens "Talk a bite." Last time they spoke only Swedish, aside from the times when Hoping to match with him again, Fredrik implies in the app that he'd like to practice Spanish, at some time, within a few days. By a feature in the app he's happy to find Pedro, who's seeking to practice Swedish but also teach Spanish! Fredrik sends a message, suggesting a beer the next day, and ofcourse an exchange of both languages, to which Pedro accepts. [Pedro is social and adventurous and believe languages and culture is the most important lesson you could learn. He's been backpacking the world for two years and will continue as long as money let him. He came to Sweden six weeks ago, and arrived in Stockholm three weeks later. The town is growing on him, but he will soon head to his next location.]

3.3   Pain Points

Important issues or opportunities that occurs to the personas in their scenarios and how great the effect is on the persona. The scale is 1-5 from not important to very important.

Shokoufa

Issue	Scenario 1 *Spontaneously converse in pre-decided language*	Scenario 2 *Meet up to converse in pre-decided language. Schedule meeting*
Improve language skills	5	2
Improve another one's skills	1	5
Find a partner	4	5
Schedule a meeting	2	2
Find a location for the event	3	1

Fredrik

Issue	Scenario 1 *Spontaneously converse in pre-decided language*	Scenario 2 *Meet up to converse in pre-decided language. Schedule meeting*
Improve language skills	1	5
Improve another one's skills	5	4
Find a partner	5	3
Schedule a meeting	5	2
Find a location for the event	4	2

3.4 Functional requirements

- Sense of achievement
- Simplicity
- Easy to register
- Makes proposals for meetups
- Level of language skills
- Matchmaking by interest
- Diversity
- Pretty, easy on the eye
- Good rewards
- Structured (hard to get lost in)
- Not just fika meet ups, the ability to meet up for a drink or food
- The ability to say "yes" or "no" on match
- Reviews
- Alternative of meeting in groups

3.5 Non-functional requirements

- Safe and secure
- Gets rid of meeting trolls who do not show up
- Quick
- Usability, easy to use

The requirements are divided based on information found at the website reqtest (ReQtest, 2017).

4   Design and low-fi prototyping. Brainstorming

4.1   Brainstorming

When creating and designing of a product, a normal step in the process is prototyping. In the book *Interaction Design - beyond human-computer interaction* (Preece, Sharp, & Rogers, 2015) the authors writes that "a prototype can be anything from a paper-based storyboard thorough a complex piece of software, and from a cardboard mockup to a molded or pressed piece of metal". To make prototypes and make design choices, brainstorming sessions can help creativity and innovation. Our brainstorming session consisted of three different types of brainstorming; parallel design, collaborative iteration and word association.

We started with parallel design brainstorming. The idea is that the whole group is divided in two subgroups where each group selects some requirements and selects a problem from the collected data. Each subgroup then solves the problem based on one pain point, one persona and one scenario.

Group 1

The first group invented a new persona for this exercise, George. George is a retired english teacher who has a lot of free time and feels the urge to teach again. He wants to contribute to society and especially help the deprived people. His pain point is that he has lacking technical skills and even though he has a smartphone, he barely used it for more than calling and texting.


The group picket the requirements: *"Alternative of meeting in groups"*, *"Simplicity" and "Quick and Easy"*.
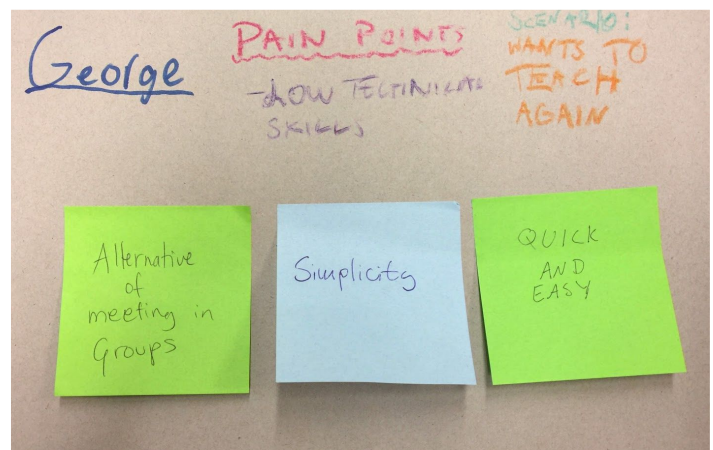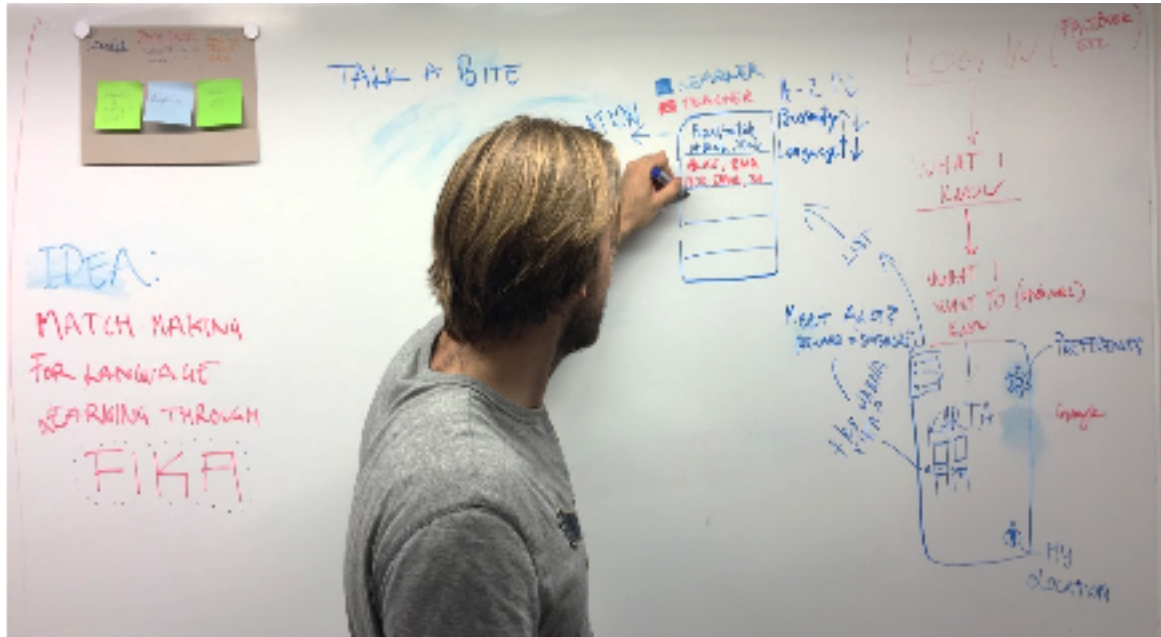
The group worked on the design for the interface of the app and went through each step of starting the app to meeting someone for a fika. The first screen the user would see is the login screen (up right corner of picture). The idea of facebook integration was mentioned and well received by the rest of the group. The next step would be a screen stating which language a user knows, and this would be followed by a screen asking which language the user wants to learn. This screen would also have a "skip" button, if the user only is interested in teaching.

The user would then be directed to a map that shows where the user is located and where other users wants to meet up. In the up right corner is a preferences button where, for instance, the user could add more information about him/herself or the if the user where the user could add another language. In the up-left corner would be a "list" button where the user was directed to a list of either teachers or learners, wanting to meet for a fika at a given time and place.

Group 2
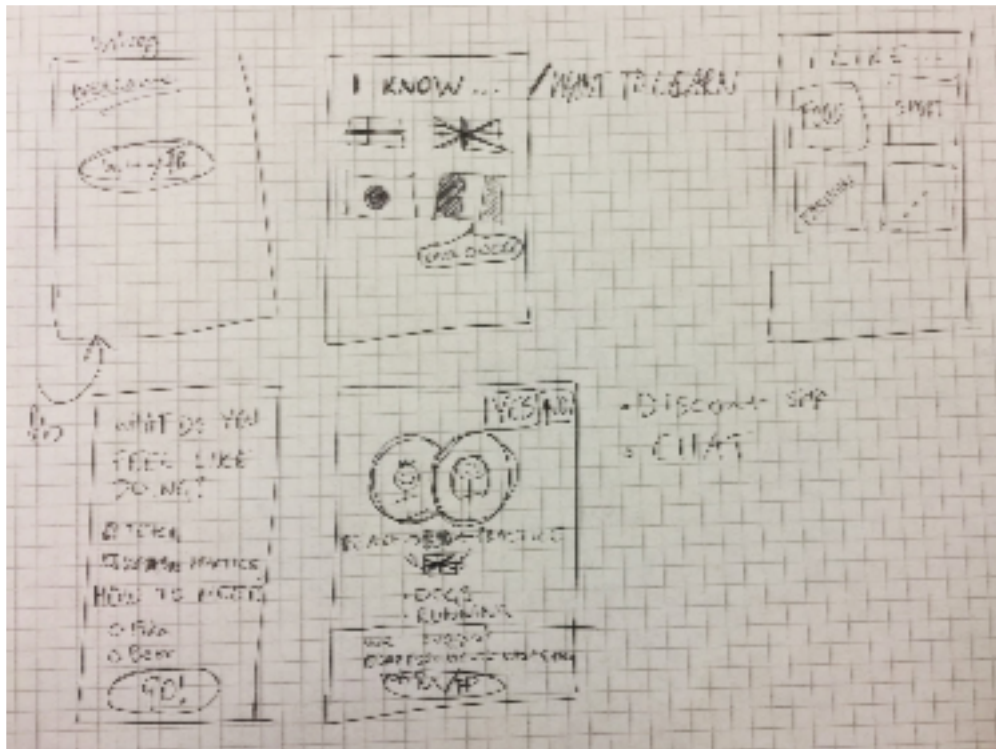
The second group also went through each screen from "starting" to "meeting" screen and made had a similar structure but with minor design differences.

The second brainstorming session was *collaborative iteration* and was done with everyone being in the same group and where each person were given a blank sheet of paper. Everyone would then draw or write down a design for one minute. Everyone would then send their paper tyo the person sitting next to them and they would continue and develop the idea further.

One of the most notable ideas form the collaborative iteration was an interface design in which the whole screen was divided into two choices and the prototype featured the screens in a manner in which you could imagine how you go from one screen to another, by the last iteration several other categories and choices was added by other members of the group. As displayed by figure XX.
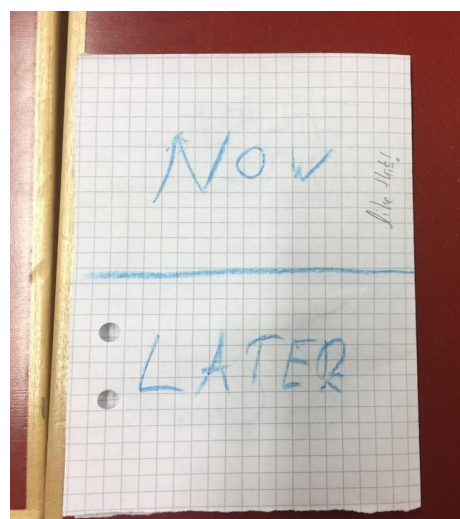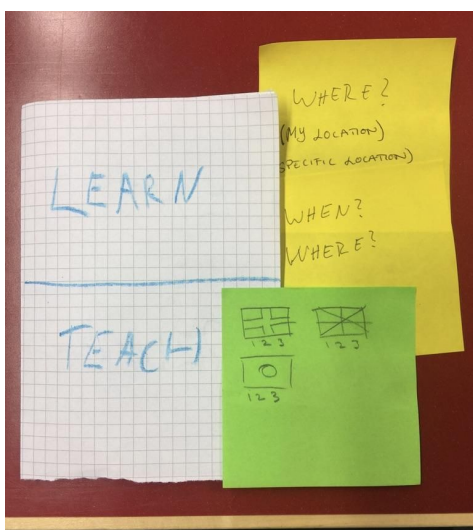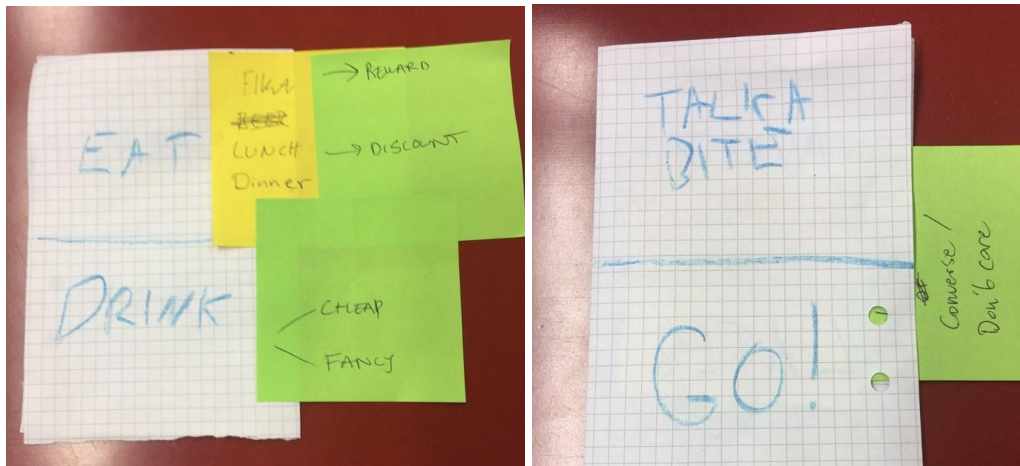
4.2 Design after brainstorming (for evaluation)

The design that was decided in a result of the brainstorming can be found in the following drive folder:

https://drive.google.com/open?id=18kOnj_06AEgYHorpYKoPc0SwSaeTiKKl

5. Evaluation

5.1 Peer evaluation

In the book *Interaction Design - beyond human-computer interaction* (Preece, Sharp, & Rogers, 2015) the authors writes that evaluation is done to "collect information about users' or potential users' experiences when interacting with a prototype. The following bullet list is a summary of the evaluation given by group two from exercise four:

Target group
- The app is targeted to people who want to learn a new language, and to get a personalized exchange of learning and to learn a new language.
- Since the application is based around spontaneous meetups there should probably be a defined target group.
- It is probably more usual than you can think that people don't have facebook and it would seem like a good idea to have an alternative to facebook when logging in.

The "feeling"
- Welcoming, you get a good first impression.
- More information about what kind of person you are. Possibly a short description and a few more photos.
- Is there enough information about your match?
- How do you communicate with the person you match with? Don't you have to decide when and where you are meeting up?
- It would be nice with some idéas on talkable topics.

- What type of user would consider having a fika with just anybody with the same interests? How could you attract more users?
- Specify the interests more. Maybe you should be able to pick what genre of music you like instead of just "I like music".
- Choose your academic background.
- Who should accept the meeting?
- A help button would be nice for users to help understand the application.

Reflection of the evaluation:

Target group
We have decided to minimize our target group to students. It's a smaller group with more flexible schedules and more spontaneous individuals. We believe it's easier to reach this group than the general public. The target group of students could also help to include exchange students in sweden to get a better experience overall of their studies, while at the same time helping eager swedish students perhaps prepare for their exchange studies abroad. As for login we would agree that only having facebook login would be a limitation for users but it saves a great deal of work with authentication of users and problems with fake profiles. An option would be to include several different social networks sites (such as google+) as login alternatives to broaden the user group abit more.

The "Feeling"
We're going to keep most of the design we've done since the overall reactions to it were good. We are mostly going to focus on the parts regarding the information about each person. We got a lot of feedback saying that we should give the users more ways to define their interests and overall profile (such as profile pictures). There also needs to be a few changes done to the "match page", we need to add a better way for the matched people to talk to each other and make plans (like a chat function). We should probably consider adding a "Help" button as well. We also decided it's a good idea to have some generated talkable topics if the users get stuck during fika.

5.2 Think-aloud evaluation

For our think-aloud evaluations the overall impression was that our design was nice and quite easy to understand at first glance. However, we got recurring feedback throughout the different think-alouds was that the testers experienced some consistency problems when trying to go back from screens where they ended up on a different screen than they came from.

Another point of critique was that you could only login with facebook which we previously thought about to address with the possibility of logging in with different social media sites. The last primary take away from the think-alouds was the fact that the "language-levels" with three different steps of expertise in a language could be quite unclear for the user since it can be hard to self-assess how good you actually are when the levels are so broad(only three different types).

We took the think-alouds into account during our final design process and ended up on deciding that most of the feedback was good, but we didn't actually have to change much. We mostly need to make sure that we give the user clear information which we really tried to focus on in the final design. Some users had problems with the workflow of the application,

something that is easily fixable when you have a finished product and not just a design concept.

6   A Concrete Design Proposal

The final design was done in marvel and consisted of multiple screens. Some, less important screens, were not modeled but the main concept is clearly visualized in the prototype. Some examples of left out screens are how it would look like to specify the location or the time of a meeting, the conversation screen and how it would look like to invite a friend to a meeting. The design has a similar look as the first design that was done after the brainstorming, with changes that were done after the evaluation.

The user starts off with a welcome screen and is prompted to login using facebook. The next screen is a short instruction screen of what information you will give to the app. The user can then navigate using any of the bottom icons, where the leftmost is a screen showing the user his/her own profile, the third from the left showing the user rewards and the rightmost showing the users chat history.
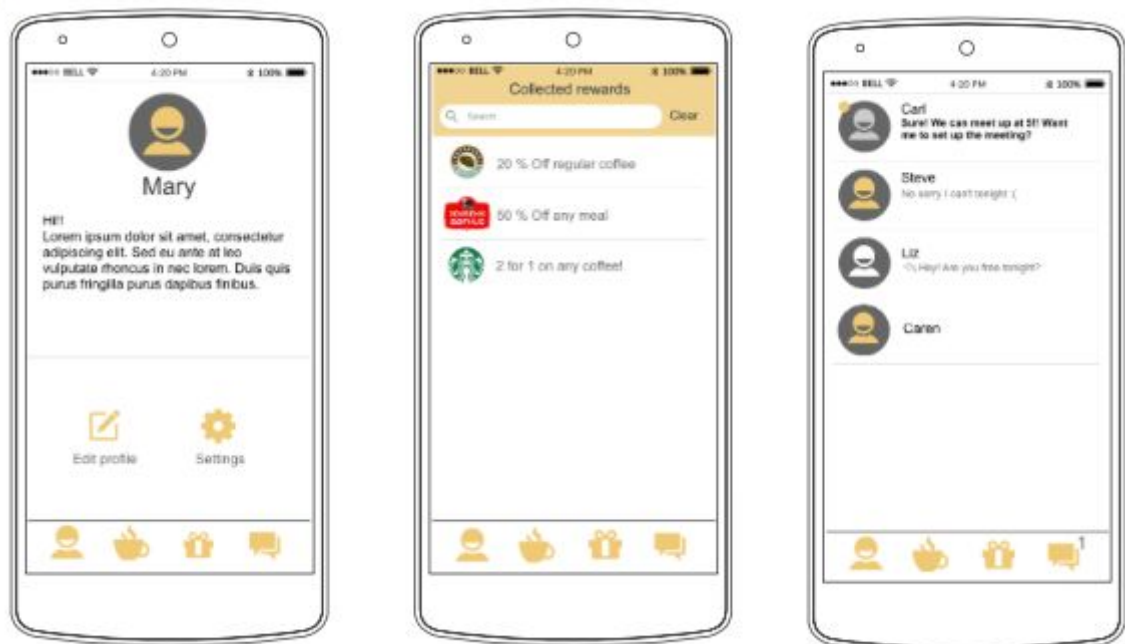
The profile screen, the reward screen and the chat function screen.

The main functionality of the application is found if the user presses the second icon from the left, the fika icon. The user should then choose if he/her wants to teach or learn. If the user chooses to teach, he/ her will be prompted to set up a meeting and specify what language to teach, the setting of the meeting (fika, restaurant or bar), what reward the user wants from the meeting, where and when a meeting should take place and if the user wants to invite a friend that also could join the meeting. If the user instead would have pressed the learning button, the user would then be able to choose from already existing meetings that teachers created. The user could also filter out irrelevant meetings on this screen.
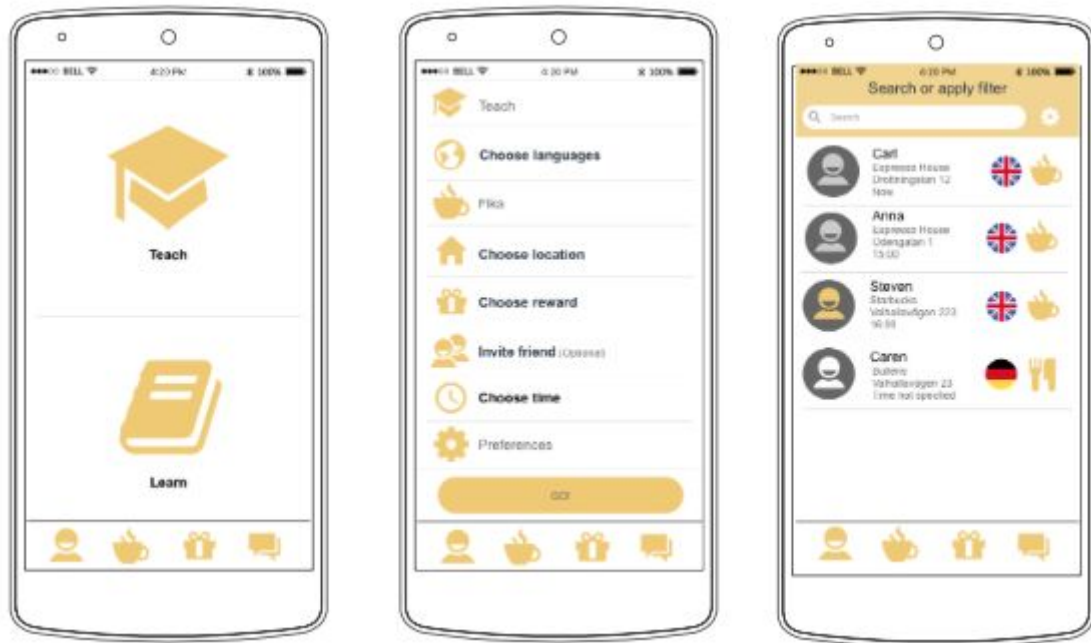
The fika icon screen, the meeting set-up and the" already existing meetings"-screen.

There rest of the functions can be found in the prototype itself. To summarize this report and this project, the whole group agree that it has been a very interesting journey with multiple important and awarding methods of brainstorming, prototyping and evaluating. Sometimes, different opinions caused us having trouble making decisions, but that is also an important part of the process. Overall, we are satisfied with the results of the project.

The prototype:
https://marvelapp.com/11cdefe6/screen/35076970

Documentation process presentation slides:
https://docs.google.com/presentation/d/18XPaOkvrbwr6dSBjtWeHb6CH0z0dMD76vGuktbBvggc/edit#slide=id.g2869cbaa93_1_0

Final presentation slides:
https://docs.google.com/presentation/d/13JFZkwDGfh1Yl95I2wBjcei9x3qz0NcEJsJI64nnslM/edit#slide=id.g2b76d4ba39_0_0

7.   References

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Preece, J., Sharp, H., & Rogers, Y. (2015). *Interaction Design: Beyond Human–Computer Interaction*. Chichester: John Wiley & Sons Ltd .

ReQtest. (den 4 November 2017). *The difference between functional and nonfunctional requirements*. Hämtat från ReQtest.com: http://reqtest.com/requirements-blog/understanding-the-difference-between-functional-and-non-functional-requirements/