

InstaTalk: the unibz platform for practicing languages

Group project by
RAH

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ABSTRACT

To help students connect and practice language skills with each other, unibz started a platform named Tandem. The difficulties that one of its users faced while finding a partner and fixing a time to talk, are what triggered this project.

Different methods of user research -including desk research, interview, and questionnaire- that were used on Tandem and similar applications and websites, proved that the problems of learning language platforms are beyond finding a partner to talk to. For example, many users are dissatisfied with existing platforms because of how most of the participants use these learning tools not to learn but to have fun, in a way that some believe they become "dating apps". Considering the results of user research, the main issues were grouped in two categories: matching and professionalism. Therefore, it was decided to design a website that, while including the advantages of existing platforms, focuses on solving these issues. The website was named InstaTalk.

Different solutions were considered and we deemed some of them useful, including being managed by Language Center, allocating the website to members of unibz, providing automatic suggestions for partners, designing the interface similar to university's website, banning fake names and sharing free time, language level and interests in profile. Additionally, InstaTalk serves as a communication channel with the Language Center at unibz; the students can access the material on the platform, see the events that will happen during the semester and contact them.

The evaluation results showed that the website can be promising. Some aspects like learnability and the design detail level can be enhanced to further improve the platform.

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Chapter 1

INTRODUCTION AND CONTEXT

One of the unibz's characteristics that attract many students every year, is its trilingual environment and the facilities the university offers for learning different languages. One of these facilities is the Tandem project which aims to gather students together so they can practice language skills, especially speaking. It is important to know, unlike any other skill, improving speaking cannot be done individually so anyone who wants to learn a new language needs to find a speaking partner one way or another. That is why Tandem can be very useful if it is able to reach its goals, especially when the pandemic situations, and online classes, made it impossible to find a partner in presence.

To participate in this program, the students must subscribe to the Tandem project, signing up in a platform where they include their information. However, it can take time to be matched with a partner since the process of matching is completely done by the system that selects the partner and sends an email with the contact details. Once the system finds a matching, the students can talk in person or online.

One of the users of this platform and our groupmate, Alessandra Lorefice, talked about her experience and how she had a hard time finding someone to practice German with. The Tandem matching system does not do what users need and has many utility issues [1].

Alessandra's problems shaped the idea of our project which is studying platforms that are created to help people learn and practice languages, discovering their shortcomings, and designing a website that not only solves these problems but is also more customized for the needs of unibz students. Allocating the platform to unibz students, provides the chance of face-to-face meetings and students feel safer connecting with other members of unibz, rather than strangers because they see the website as an extension of campus life.

InstaTalk comes as an answer to satisfy the needs of unibz students, especially who, like Alessandra, started the academic career and the language courses in unibz during the pandemic situation. InstaTalk is a local project that aims to make the process of finding a partner easier, provides better connection and integration among unibz students, and helps social interaction while preserving the academic professionalism.

Chapter 2

METHODS

The project was designed following a human-centered design approach, with the aim of making the interactive system more usable by focusing on the use of the system and applying human factors, ergonomics, and usability knowledge and techniques¹.

In this chapter we will focus on the methodologies that helped us building a human-centered platform.

2.1 Overall design

The main methodology we used for design is the double diamond process that consists in four steps:

1. Discover - In our project this part consisted in PACT analysis, desk research, interviews and questionnaires. Additionally, design sprint helped us discovering the main platforms similar to the one we wanted to develop.
2. Define - Here we focused on the results of user research. To do so, we used thematic analysis, data visualization and lightning decision jam in order to focus on the potential problems of our website.
3. Develop - After several possibilities were explored, we completed this step writing Personas and Scenarios and drawing some sketches.
4. Deliver - We completed our project by developing prototypes and doing user evaluation.

2.2 User research

Understand users' needs and requests was the aim of this step. To reach this goal, we thought the questionnaire alone was not enough, since the questions would have been guessed or biased on Alessandra's short experience. Below we will show the path we followed for collecting data from users.

PACT analysis

PACT analysis, where PACT stands for People, Activities, Contexts and Technologies, helped us visualizing the structure of our website from the very beginning. Below we will shortly summarize the main results we got.

¹International Organization for Standardization, 2010

- People - When we started thinking about InstaTalk, one of the main problem was to understand the target of our website. The potential users we found can be divided into three main groups: primary users (unibz students, researchers, and professors who want to learn new languages and practice their speaking); secondary users (erasmus students, who can be temporarily in South Tyrol, and the Language Centre staff, who uploads news, events, and material on InstaTalk); tertiary users (developers whose responsibility is the technical aspect of the website).
- Activities - The main activities of our project can be summarized in providing a professional environment for connecting language learners and making easier the communication between students and Language Centre.
- Context - As we have seen during the lectures, the context includes both physical and psychological aspects. From a physical point of view, we can say that the platform can be accessed from home, university, office, etc. Basically, any place with an internet connection and a device that can reach the website can be considered an instance of physical context. On the other hand, the psychological context can be analysed in different aspects: motivation and safety. The main characteristic of InstaTalk is given by the motivations that led users choose our website. For instance, we can mention the extrinsic motivation of bachelor students who must get certificates in German, Italian and English in order to graduate and the intrinsic motivation of other users who want to improve their language skills. For what concerns the safety, we can say that our website is thought as a supportive environment, that is controlled by the academic staff which guarantees help in case of harassment.
- Technologies - Computers are the recommended tools for using InstaTalk since they provide a better resolution and screen view. However, also tablets and smartphones can be used.

Interviews and Questionnaires

In these interviews we tried to identify, for example, what are the motivations for people to use language apps, what they like and dislike about them, what functionalities they would like to include. The results that we got from interviews were used to build more appropriate and direct questions in the questionnaire.

The questionnaires was essential to obtain quantitative results and to define the priorities to be considered in the project. The questionnaire includes mainly closed questions in the form of multiple choices. We also tried to add a satisfaction scale for evaluating some known platforms. The technique of snowball sampling was used to reach students from different campus and study programs.

Both interviews and questionnaires had the same structure² and addressed the following themes: personal information (sample characterization), language knowledge, feedbacks on used platforms and suggestions. They also had the same target: unibz students. This choice was made looking at the majority of Tandem project's participants.

2.3 Evaluation

For evaluation, first, a series of non-leading questions about conceptual design, functionalities, and interface was planned. The steps below were followed:

1. We explained what InstaTalk does;
2. We assured users that they are not being tested and the subject of the experiment was the website;
3. We asked them to do simple tasks which are possible in the Figma prototype, such as navigating between pages. Here, the think aloud method was also used and we asked the users to share their thoughts with us while working with the prototype;
4. We interviewed them using prepared questions³ but we also tried to lead them into the dialog.

²The interview and questionnaire's questions can be found in 8.

³The evaluation's questions can be found in the following link https://docs.google.com/forms/d/e/1FAIpQLScU6mYHXcZG7oXCPkhU2up1HhEcJZIo6lCFz7X5iy-HrgLt3w/viewform?usp=sf_link

Chapter 3

RESEARCH

After data gathering was done, the converging part of the first diamond began. Below we will describe the results we got from our initial analysis that included desk research and user research.

3.1 Desk research

To conduct the desk research, we started with signing up on different platforms such as Tandem¹, Cambly, HelloTalk, Speaky and Duolingo. Working with them gave us a firsthand experience of their advantages and disadvantages. After, we read some reviews on the language learning platforms on websites such as Trustpilot and Quora. In these reviews, users talked about their experience with language applications and websites, what they liked about them and especially what they disliked. In Figure 3.1 a user on Trustpilot talked about her experience on Tandem and how some people lied about their native language so they could flirt with her..

Thus, according to desk research we can say that the problem of these platform is mainly the lack of seriousness. Indeed, most of the speaking apps allow people to include too much irrelevant information, post photos, etc.

3.2 User research

In this section we will analyse the main results² of questionnaires and interviews. Interviews were carried out with fifteen students while we were able to collect 40 answers for the

¹It is important to specify that Tandem project and Tandem app are different. The first one is proposed by unibz and it is totally controlled by the university. The second one is an application for computer or smartphone that connects people all over the world.

²The sample characterization and main results of the questionnaires are presented in graphics in 9.

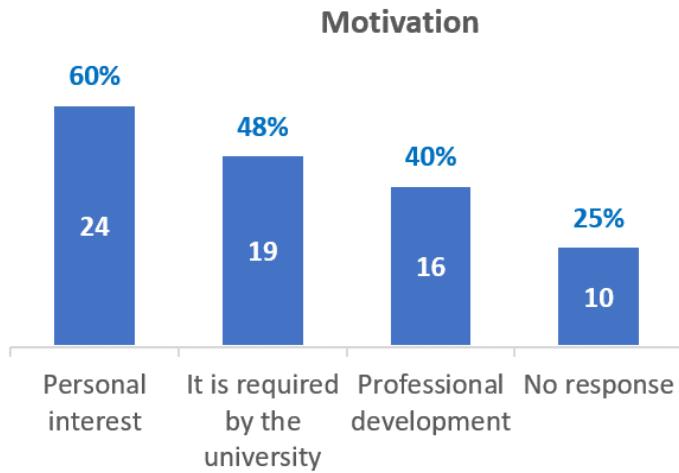
★ ★ ★ ★ ★

Updated Jan 31, 2021

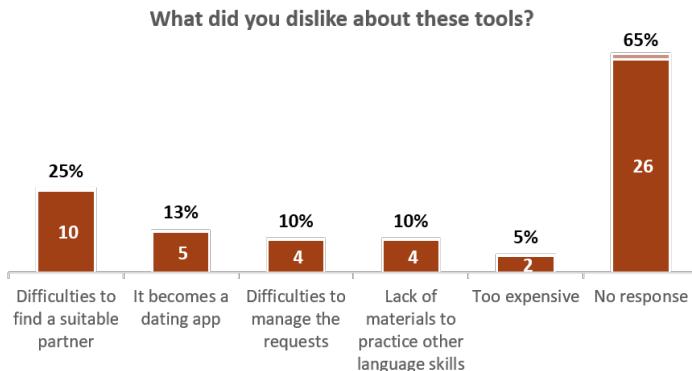
Learning and practicing languages does not seem to be in the foreground here

Unfortunately, there are several factors here which I find very bad about this app. On the one hand, it is the compulsion to upload a photo of your face, without which you cannot create a profile. I ask myself what's the point and purpose of this app, just looking for native speakers to practice certain languages or a partner or a sexual relationship? In the first case I don't see the sense of purpose and why it is not left to one voluntarily, in the second case it would be a fraudulent label. So you don't need to be surprised why this often promotes superficiality and why some users seem to select photos, as if it were Tinder.

Figure 3.1: A review from trustpilot.com



(a) *Students' motivations for learning a new language*



(b) *What students do not like in language platforms*

Figure 3.2: Questionnaire results

questionnaire. As we mentioned before, the interviews were used to build some items of the questionnaire. Some example of these items can be found in Figure 3.2. Indeed, the answers of interviewed students were collected and adjusted in order to create the answers of our multiple choice questions. Below you can find some comments on the graphics about motivation and dislikes.

Motivation

Figure 3.2(a) shows students' motivations for learning a new language. As we can see, our guessing was pretty accurate: intrinsic and extrinsic motivations are both important for unibz students. Indeed, from the interviews we can also say that many students chose unibz because of its trilingual approach to teaching, learning and research.

Dislikes

As it can be seen in Figure 3.2 (b) , most of the respondents had difficulties finding a suitable partner but the results of user research also showed us that the issues with language learning platforms do not stop at finding partners and timing. In most interviews, users complained about a phenomenon that we call the "Tinder effect". It is about how these platforms are used for flirting, dating, and finding a sexual partner instead of learning as we have seen in the Trustpilot review.

3.3 Refined problem

Based on the information collected through desk research and user research, we grouped the issues to face during our project into two categories: **matching** and **professionalism**. Therefore, our goal was to design a learning-language website that would make easier connecting suitable partners with weak ties and, at the same time, would maintain a professional environment.

Chapter 4

DESIGN

The problem of matching can be broken down into two parts: finding an adequate partner and setting a time. To solve the first part of the problem, every user's profile will include their level of language, their interests, and a self introductory paragraph. The users who do not have their level registered at the Language Centre must take a level test on InstaTalk.

In order to manage time, a calendar is put in profile so everyone can display the date and hour they have in mind for practicing language. As it can be seen in Figure 3.2 (c), the third problem that users mentioned is managing the requests because sometimes they find the number of requests they receive excessive. Thus, the calendar should prevent people from asking every potential partner about their free time and reduce the number of unnecessary requests.

In addition, every user fills a form to specify the characteristics that they want in a partner and the free time they have. Automatic suggestions will be built based on this changeable form.

The solution to the professionalism problem includes several tactics. Firstly, we decided to use the students' mental model to remind them that they are in an academic environment. To do so, the website's interface is built similar to LinkedIn and unibz's website. Another reason for taking all colors from unibz's website, is that it is important to incorporate the institution's main colours and blue can induce trust [2].

Secondly, some parts of the profile are pre-built. This prevents people from using fake identities which are a part of a harmful armoury of abuse and harassment.

Lastly, to make sure that the website is not going to be used as a social media application, sharing pictures and chat are restricted to partners.

Prototyping and participatory design activities allowed us to develop different solutions and select the ones that worked the best.

4.1 Personas and Scenarios

In order to build a real-life situation for the usage of our website, we created three different personas and scenarios that helped us thinking about some useful functionalities. The personas and scenarios¹ we analysed can be summarised as follow:

- Mario Rossi is a bachelor student who speaks Italian and English who needs to get B2

¹The complete personas and scenarios can be found in 10

certification in German for graduating;

- Sara Ahmadi is a PhD student who wants to study German and has a C2 certification in English;
- John Smith is a member of Language Centre who is responsible for the updating the Language Centre section.

In this phase, a storyboard² was built to better communicate a typical persona and scenario.

4.2 Prototype

We started with a brainstorming session where everyone presented some drawings with ideas of prototyping for the main views of the platform. Agreeing on the content about what should be considered, we prepared the sketches³ together, considering the aesthetic aspect in low fidelity prototypes.

After finishing the sketches, the prototype was designed in Figma. Some points that were considered in this step:

- definition of the size and appearance of the items;
- bringing attention to the items that are more important;
- test the mix of different colors and contrasts;
- selecting the icons and symbols that people are more familiar with, considering skeuomorphism, but prioritizing a flat design and symbols already recognized in the digital world;
- almost all information of the filters is displayed as a cue for memory;
- negative and positive spaces were defined, considering the entire configurations, similarities among the items, and symmetry.

Homepage

The homepage includes the main functionalities of the website. The list of online people is helpful for social interaction. When the mouse is passed over the images information about the person is shown.

²The drawn of storytelling can be found in 10.

³The sketches can be found in 11.

(a) Login

The website is available in three languages of unibz

Login should be done using unibz's credentials

Welcome to instatalk!

Email: mrossi.unibz.it

Password:

Login

Forgot your password?

EN

EN ↴ The website is available in three languages of unibz

(b) Homepage

User's upcoming meetings

Meetings Today, 10:30-11:30 Julia Sparks See more

Keep training Grammar Writing Reading Listening See more

News

Speed Dating in three languages Dear Students: We are delighted to invite you to take part in our new event "Speed Dating in three languages" taking place online! The event takes place on Thursday, 20th May from 6:30pm - 8:00pm. Please, to register: [click here](#)

The Language Café Dear Students: We are delighted to invite you to take part in our event "The Language Café" taking place via Microsoft Teams on Friday, 21st October from 6:30pm - 8:00pm. To register, please [click here](#)

Sing for language exams 01/06/2021 Enrollment for language exams is now available. You can enroll in the Language exams every semester or you can also do it on the 18/06/2021. It is possible to do it also in July and in September for this academic year.

See more

Hi Alessandra, it's time to talk!

Julia Sparks Carl Müller Paul Schmidt

Partners for you

Based on your interest

Rebecca Schneider Jonas Schröder Emma Brau

Based on your free time

Alex Koch Anna Richter Laura Wo

Based on your campus

This section shows the people Who are online and user can talk To them. The design is based on the similar functionality in Facebook (mental model)

EN ↴ Automatic Suggestions based on the partner form

Figure 4.1: InstaTalk: Login and Homepage

User can see all of his/her partners here

Filters to make search easier

The users can start a video call/voice call chat from here

Shared calendar

Shared calendar

Shared calendar

Shared calendar

Shared calendar

Expand your network!

Shared calendar is created when two people agree to be partners. They can set or cancel their meeting through it

(a) Your network

For people who prefer Manual search

Find partners & tutors

Filters in order to guide the search

Sending a request is possible also from here

Request

(b) Manual search

Figure 4.2: InstaTalk: Network

(a) Example of profile

The video presentation is created so users can show their level in speaking

Gender: Female

Campus: Bolzano

Faculty: Design

Interests: Music, Movies, Travelling, Food

MON	TUE	WED	THU	FRI	SAT	SUN
31	01	02	03	04	05	06
07	08	09	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	01	02	03	04

Speaks: DE, EN
Learns: IT
Language levels: NATIVE B2, B1

This person Is a German tutor

Block and report can be done here

Language levels of this user

The calendar that shows free time. Blue is for partners and orange for people who need a tutor

(b) Suggestions

In THIS PAGE YOU CAN FIND THE PARTNERS WHO ARE SUGGESTED TO YOU BASED ON YOUR ANSWERS TO THE PARTNER FORM. YOU CAN CHANGE THE FORM WHENEVER YOU WANT FROM THE SECTION NETWORK -> PARTNER FORM.

The suggestions are categorized based on the partner form's categories

The partner form can be changed at any time

Based on your interest

- Julia Sparks**: Hi guys! I am a design student and I am learning Italian since September. I love pets and movies. I look forward to meet you!
- Carl Müller**: Hi guys! I am a design student and I am learning Italian since September. I love pets and movies. I look forward to meet you!
- Paul Schmidt**: Hi guys! I am a design student and I am learning Italian since September. I love pets and movies. I look forward to meet you!
- Cecilia Fernandez**: Hi guys! I am a design student and I am learning Italian since September. I love pets and movies. I look forward to meet you!
- Gemma Mayer**: Hi guys! I am a design student and I am learning Italian since September. I love pets and movies. I look forward to meet you!
- Alex Herrmann**: Hi guys! I am a design student and I am learning Italian since September. I love pets and movies. I look forward to meet you!

Based on your free time

- Rebecca Schneider**: Hi guys! I am a design student and I am learning Italian since September. I love pets and movies. I look forward to meet you!
- Jonas Schröder**: Hi guys! I am a design student and I am learning Italian since September. I love pets and movies. I look forward to meet you!
- Emma Braun**: Hi guys! I am a design student and I am learning Italian since September. I love pets and movies. I look forward to meet you!
- Anna Richter**: Hi guys! I am a design student and I am learning Italian since September. I love pets and movies. I look forward to meet you!
- Laura Wolf**: Hi guys! I am a design student and I am learning Italian since September. I love pets and movies. I look forward to meet you!
- Alex Koch**: Hi guys! I am a design student and I am learning Italian since September. I love pets and movies. I look forward to meet you!

Figure 4.3: InstaTalk: Network

The screenshot shows the InstaTalk platform interface. At the top, there is a navigation bar with the 'instataalk' logo, a search bar, and several icons for 'Home', 'Network', 'Language Center' (which is highlighted in blue), 'Chat', 'Notices', and 'Profile'. A language selector 'EN ▾' is also present.

The main content area has a sidebar on the left with links: 'News', 'Courses & Exams', 'Material', 'Events', and 'Contact us'. The 'News' section is currently selected.

Speed Dating in three languages

Dear Students, We are delighted to invite you to take part in our event "Speed Dating in three languages" taking place online. The event takes place on Thursday 20th May from 6:30pm – 8:00pm. To register, please click on the link and enter your name and email no later than 17th May registration. Spaces are limited, so please only sign-up if you are certain you will be able to participate... [See more](#)

The Language Café

Dear Students, We are delighted to invite you to take part in our event "The Language Café" taking place at Unibar. The event takes place on Thursday 29th October from 6:30pm – 8:00pm. To register, please click on the link and enter your name and email no later than 17th May registration. Spaces are limited, so please only sign-up if you are certain you will be able to participate... [See more](#)

Sing in for language exams

01/06/2021 - Enrollment for language exams is now available. You can enroll in the Language Center section or in your cockpit. The deadline is on the 10/06/2021. It is possible to do it also in July and in ... [See more](#)

Summer Courses

Lorem ipsum dolor sit amet, consectetur adipisci elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrum exercitationem ullamco laboriosam, nisi ut aliquid ex ea commodi consequatur. Duis aute irure reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt

(a) News

This screenshot shows a detailed view of the 'Speed Dating in three languages' news item from the previous screen.

Speed Dating in three languages

Dear Students,

We are delighted to invite you to take part in our event "Speed Dating in three languages" taking place online.

The event takes place on Thursday 20th May from 6:30pm – 8:00pm.

To register, please click on the [link](#) and enter your name and email no later than 17th May registration. Spaces are limited, so please only sign-up if you are certain you will be able to participate.

Lorem ipsum dolor sit amet, consectetur adipisci elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrum exercitationem ullamco laboriosam, nisi ut aliquid ex ea commodi consequatur. Duis aute irure reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt

(b) News in detail

Figure 4.4: InstaTalk: Language Centre

The screenshot shows the InstaTalk Language Centre website. The left sidebar has a 'Material' section with links to Grammar, Writing, Reading, Listening, and Topics for speaking. A callout box points to the 'Grammar' link with the text: 'The material are categorized in order to make them more accessible.' The main content area is divided into two columns. The left column contains sections for 'Linking words' (with links to various sub-topics like 'nouns and linkers 1-5', 'Linking Words - Synonyms 1-2', and 'Conjunctions and linkers') and 'Nouns and articles' (with links to 'Un)countable Nouns 1-4', 'Sbj-verb agreement 1-2', and 'Gender of Nouns'). The right column contains sections for 'Determiners and Pronouns' (with links to 'Some, Any, No, None 1-2', 'Much, Many, A lot (of)', and 'Personal Pronouns 1-2') and 'Relative Clauses' (with links to 'Relative Clauses 1-5', 'Defining and non-defining clauses', and 'Omitting Relative Pronouns').

(a) Material

The screenshot shows the InstaTalk Language Centre website. The left sidebar has an 'Events' section. The main content area displays four event cards for the Winter semester 2020/21:

- 09/09 Trilingual Quiz Night** (EN/DE/IT): 29/10 The Language Café (EN/DE/IT)
- 12/11 Speed Dating** (EN/DE/IT): 03/12 Games Night (EN/DE/IT)
- 17/12 Xmas Karaoke** (EN/DE/IT): 29/10 The Language Café (EN/DE/IT)

Each event card includes details like date, time, location, participants, and sign-up links.

(b) Events

Figure 4.5: InstaTalk: Language Centre

The screenshot shows the InstaTalk website interface. At the top, there is a navigation bar with icons for Home, Network, Language Center (highlighted in blue), Chat, Notices, and Profile. A search bar is located at the top left. On the left side, there is a sidebar with links: News, Courses & Exams, Material, Events, and Contact us (which is currently selected). The main content area features a heading "Can we help you?" followed by a text block about the university's commitment to combating harassment and discrimination. Below this, there are input fields for Name, Your email address, and a Message, with a "Submit" button at the bottom.

(a) *Language Centre contacts*

The screenshot shows the InstaTalk website interface focusing on the Chats section. At the top, there is a navigation bar with icons for Home, Network, Language Center (highlighted in blue), Chat, Notices, and Profile. A search bar is located at the top left. The main content area shows a list of chats on the left and a detailed chat with Kyle Fisher on the right. The detailed chat shows messages between Kyle Fisher and another user. The messages are timestamped and color-coded by sender. The detailed chat window includes a "Start new chat" button at the bottom left and a message input field at the bottom right.

(b) *Chat*

Figure 4.6: InstaTalk: Contacts and Chats

The screenshot shows the InstaTalk profile page for Alessandra Lorefice. At the top, there's a navigation bar with icons for Home, Network, Language Center, Chat, Notices, and Profile. The Profile icon is highlighted. Below the navigation is a search bar with the placeholder "Search". On the left, a sidebar has "Profile" selected and "Progress" as an option. The main content area features a circular profile picture of Alessandra Lorefice, a "Edit video presentation" button, and a "Gender" section indicating she is female. Below this are sections for "Campus" (Bolzano), "Faculty" (Computer Science), and "Interests" (Books, Chess, Travelling, Cooking). To the right, Alessandra's bio reads: "Hi everyone! I want to improve my german. I love travelling, music, movies and food. I love practicing while doing a walk in the nature! ☺". Below her bio is a language proficiency section showing "Speaks: NATIVE B2 B1" and "Learns: B1". A calendar for June 2021 is displayed, with the 16th highlighted in blue. The overall layout is clean and modern.

(a) *Profile*

The screenshot shows the InstaTalk progress page. At the top, there's a navigation bar with "instataalk", a search bar, and language and tutor dropdown menus. The "Progress" tab is selected in the sidebar. The main content area displays three metrics: "11.134 Minutes of Conversation", "50 Classmates met", and "5 Connections". A callout box highlights the first metric with the text: "Shows how much time the user has spent practicing speaking on the website". An arrow points from this callout to the "11.134" value. Another arrow points from the "Connections" value to a "The progress bar" callout. Below these metrics is a "Conversation history" section showing recent interactions with Ben Zimmermann and Lena Schmitt, each with a "Go to audio record" button. The overall design is focused on tracking user activity and communication.

(b) *Progress*

Figure 4.7: InstaTalk: Profile

Network

Network is composed by tutors and partners. They are distinguished by colors (blue for partners and orange for tutors) as can be seen in Figure 4.2 and 4.3.

The idea behind partners is two people who help each other to improve their language skills. But what happens if someone knows only one of these three main languages in a level less than advanced? Logically no one wants to be his/her partner because this person has no knowledge to offer. To help these students, we designed a functionality for tutoring. Native speakers and people with C2 certifications, can become tutors. For a certain amount of tutoring in a semester, they will receive at most two credits from university.

As can be seen in Figure 4.3 (a), the chat button is not shown but it can be found in partners and tutors in Figure 4.2 (a). Indeed, in order to preserve the seriousness and professionalism, chat is restricted to partners and tutors.

To build the automatic suggestion showed in Figure 4.3 (b), users need to fill a form, named Partner Form. In this form, users specify the characteristics they want in their partners, such as language, availability, language level, gender, campus, study field, and interests.

The reason for using flags instead of words when the language is specified is because images can help to attract attention and to guide users' line of sight. They can also be of great value when it comes to presenting important information [3].

Language Centre

In the Language Centre section we tried to group all the facilities that theit offers to students. Indeed, we can find news (Figure 4.4), material for practicing given by language experts (Figure 4.5 (a)), language events (Figure 4.4 (b)) and contacts in case of difficulties (Figure 4.5 (a)). Unfortunately online harassment and cyberbullying are an Inseparable part of any type of social media. The information of unibz's trusted advisor is provided so if a user faces any problem of this sort, he/she can talk to a professional.

Profile

Figure 4.7 (a) shows as one user (in this case Alessandra) can see her/his own profile. Editing will be done on this page by using the buttuns near the sections that can be edited or by using the settings in the upper right corner.

In the profile we also build a progress section shown in Figure 4.7 (b). This functionality aims to encourage students to keep learning. We can see that some of the conversations in Figure 4.7 (b) have a button that connects to the audio record of that conversation. Indeed, since tutors will receive credit, in order to stop cheating, the conversation between a tutor and student will be recorded. Tutors who do not want credit and partners also have the choice to record their conversation if they want.

Chapter 5

EVALUATION

We performed the evaluation in the form of interview to four people and we also shown the prototype to some design students that helped us adjusting the visual aspects. To evaluate the interface some quality metrics were considered:

- **Discoverability** - It is a part of learnability metric and an important consideration in user interface design. It measures how easily someone can find, access and make use of the features of a new system [4]. Based on our observation, in the first try, users needed explanations about some concepts such as tutor, but overall once the users learned how to work with Figma prototype, they did the tasks smoothly.
- **Affordances** - Another part of learnability. It includes the properties of objects which show users the actions they can take. Many questions were asked regarding this metric because we wanted to know whether the design suggests the ways of interaction or not. Most answers were satisfactory and the evaluators understood the main concepts, symbols and the distinctions made with different colors in the website. But there were some shortcomings for example one user did not understand the meaning of different colors in the “Your network” section. She realized they distinguish partners and tutors after she took a look at Find partners and tutors.
- **Satisfaction** - As Don Norman said "pleasant things work better" [4] so it is very important what emotions users feel while working with a system. Does it bring them stress or provide cognitive comfort? During the evaluation we realized there are some issues in this area, for example some users saw the homepage as too crowded.

Other metrics such as few errors could not be measured with our prototype. However, we got positive feedback about the solutions for professionalism and matching problems.

Most of the users felt comfortable and safe with the information provided by the university. However, the possibility for users to change the main photo and to chat with people that are outside their network was requested during interviews.

The different options we proposed for matching (bar search, manual search, suggestions) together with the filters we included were positively evaluated by users.

In conclusion, except for some details such as homepage or navigation among pages, we can say that the overall opinion about InstaTalk is positive and reflect the expectations we had.

Chapter 6

DESIGN LIMITATIONS AND CONSIDERATIONS

In this chapter we briefly summarise the difficulties and limitation we faced while working on InstaTalk:

- When it comes to learning languages, there are a lot of activities that can be done. Other than four main skills –writing, speaking, listening, and reading- a platform for learning languages can include sections for improving grammar, vocabulary, pronunciation, and other things that are essential. This wide range of potential functionalities made difficult choosing what our website consists of.
- As it was mentioned before, the primary users are everyone who is learning languages in three campuses of unibz, including students, researchers, and professors. We were interested in knowing the opinions of every group of users which was not possible due to the lack of time and resources.
- To keep the platform safe, we offered the “report” option. To explore this functionality and design it in the best way possible, a legal consultation was needed.
- The prototyping was really hard since we had to make the notions we saw in the lecture "beautiful" and none of us had design knowledge. Indeed, we built the prototype according to our personal taste since it was the only parameter of evaluation we had.

Chapter 7

CONCLUSION AND FUTURE WORK

InstaTalk focuses on facilitating the process of finding a partner and maintaining a professional environment. It tries to achieve the first goal by providing all the relevant information users need to choose a partner and giving different options for searching partners and tutors.

To preserve the professionalism, it is designed in a way that operates as an academic setting. However, to do so we had to restrict social interactions and this can be considered a weakness if the trade-off is not reached. In addition, the system is designed for unibz's members and this brings some advantages and disadvantages. On one hand, users feel more safe to interact and on the other hand the number of potential partners is much less than other platforms.

7.1 Learning outcomes

One of the most important things that we have learned during this project is that in order to build a successful system, users must be at the center of the design. Unlike what most of us thought, the priority is not coming up with cutting-edge technology, but a system that solves a problem or satisfies a need in the right way.

7.2 Future works

- Building a fully interactive prototype will be very helpful to analyze the system and measure all quality metrics.
- Designing a platform that connects all universities around Italy and later, around Europe is a project that interests us. Such a platform is definitely more difficult to manage but it can do wonders for improving languages and cultural exchange.
- Another issue with language platforms is harassment in the forms of racism, sexual harassment, and xenophobia. Although mediation solutions were considered, such as a report button, we could not work on it as much as we wanted to. The reason is that it was not a problem that was frequently mentioned but since studying this problem, analyzing why it happens in an environment that is designed to be academic, and solving it, are important to us, we would like to work on it in the future.

Chapter 8

APPENDIX A

8.1 Interview format

1. How old are you?
2. Study program () Bachelor () Master () Phd
3. How many years do you study in the italian university? And in South Tyrol?
4. What is/are your native/s language/s?
5. Which languages have you studied?
6. Which languages are you studying at the moment?
7. Why are you studying them?
8. Are you following any courses provided by unibz?
9. Would you like to have some other student to practice with and improve the languages that you study?
10. Have you joined the Tandem project of unibz or other apps where you can find people to practice with? If yes, which ones?
11. If already used, what did you like and/or dislike in those systems?
12. What kind of information would you like to find there?
13. Can you describe your experience whit Language Centre if you ever had one?
14. Do you prefer to choose your partner or do you want the app to do it for you?
15. How many partners would you like to have?
16. Have you any suggestions for the learning language app?

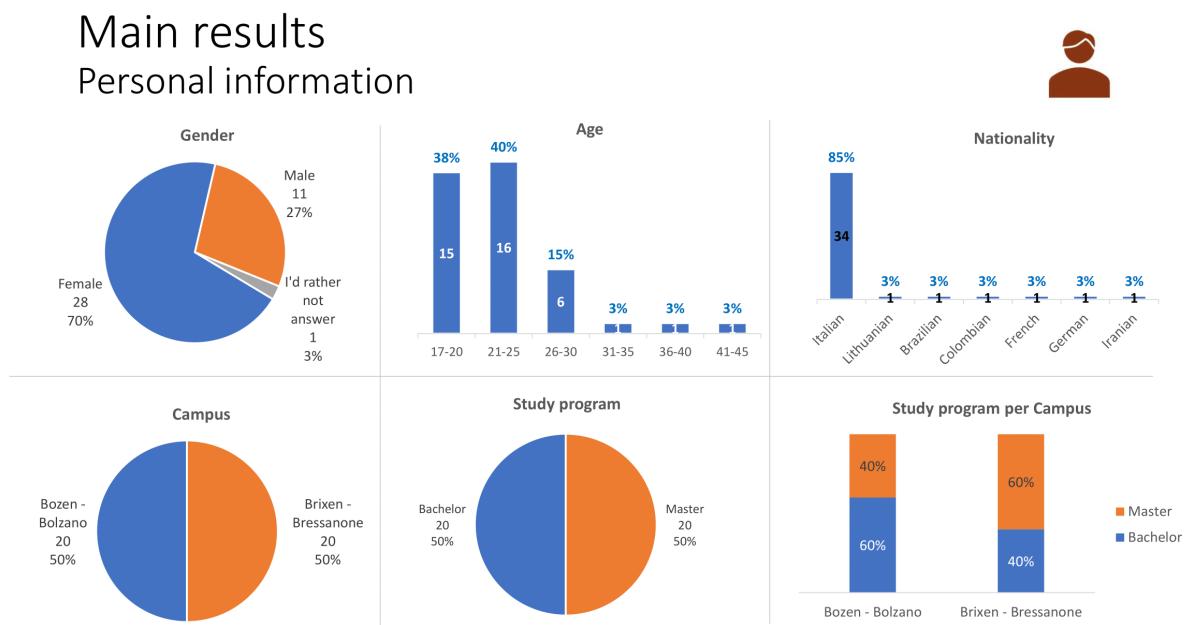
8.2 Questionnaire format

The questionnaire can be found in the following link <https://meetme.inf.unibz.it/apps/forms/7fqkxQBx3acKYgpe>.

Chapter 9

APPENDIX B

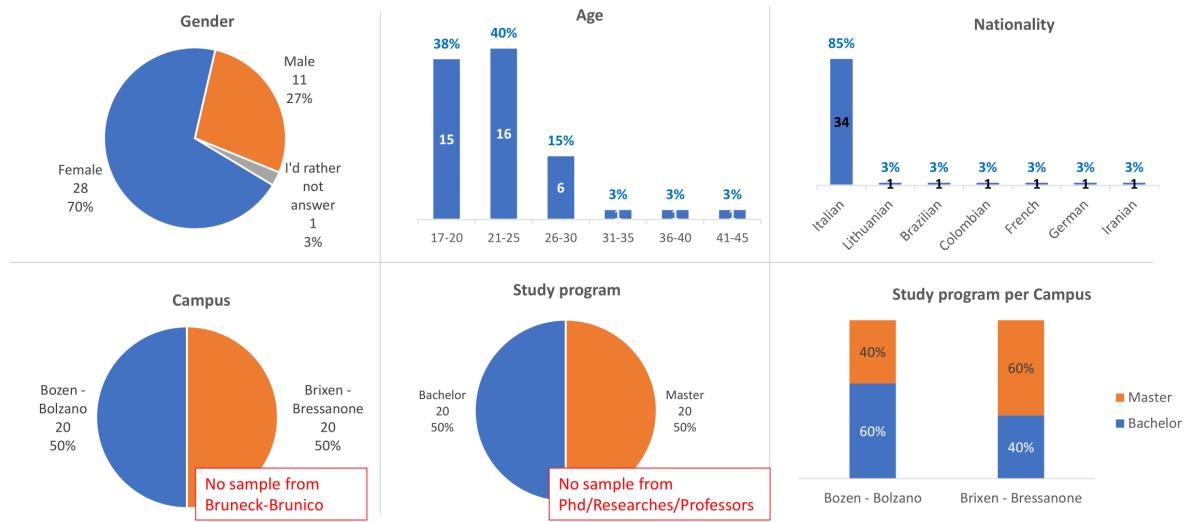
9.1 Graphics for questionnaire answers



Main results

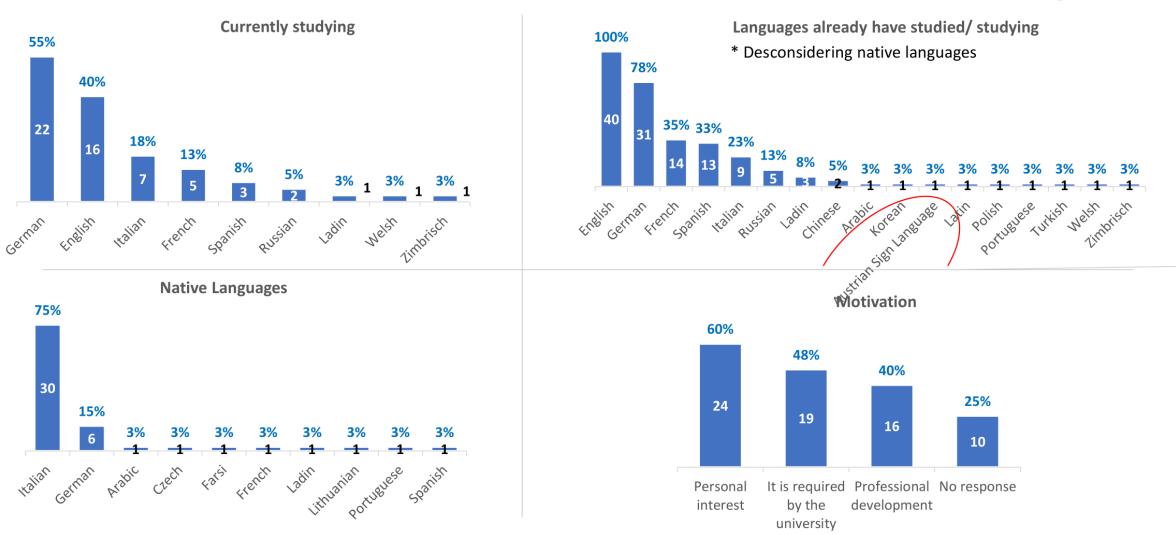
Personal information

Pandemic situation
 - Online and remotely
 - Concentrated for some groups
 - Not considered Center Language Staff



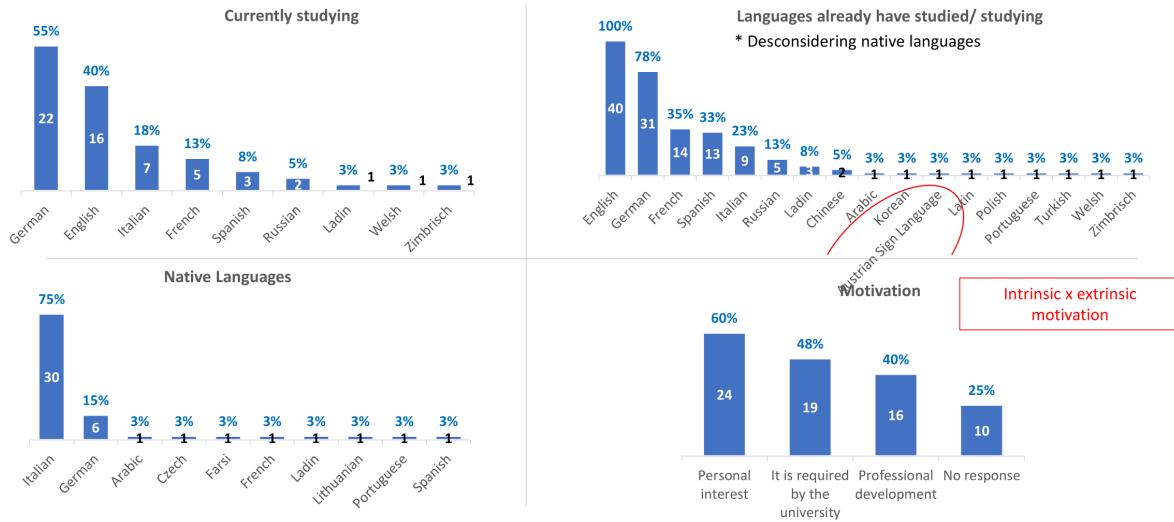
Main results

Language studies and motivations



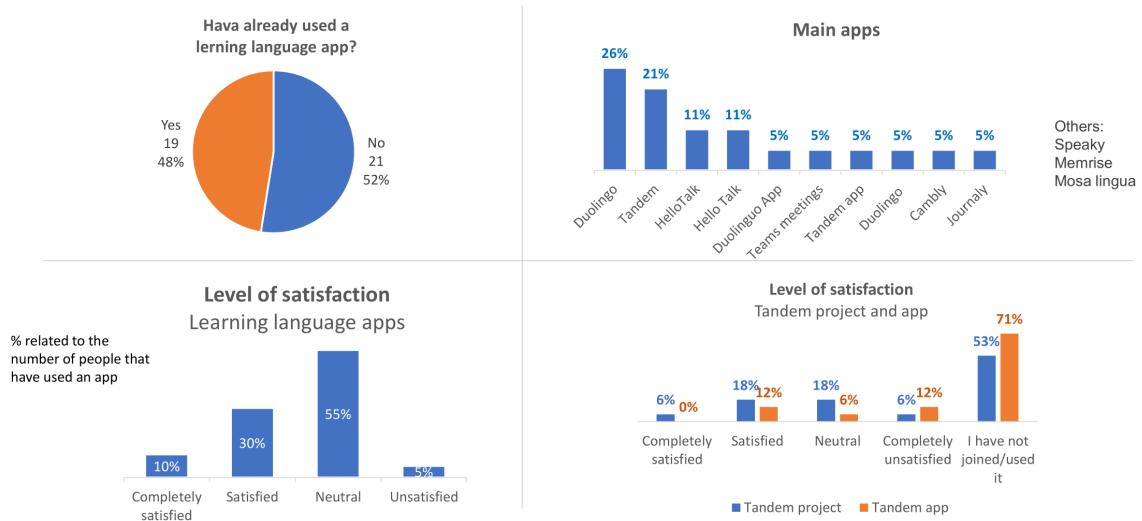
Main results

Language studies and motivations



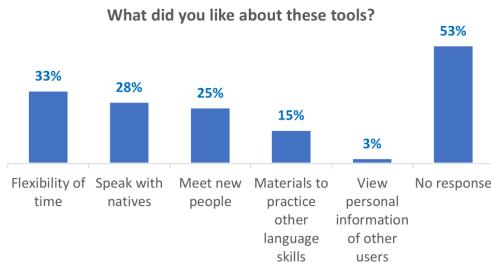
Main results

Apps and tools used and feedback about them

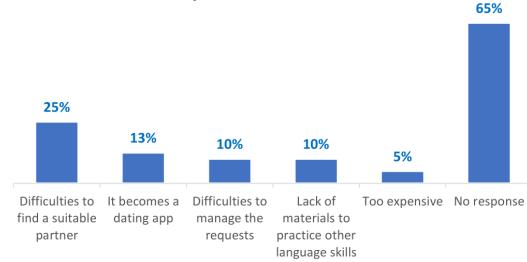


Main results

Apps and tools used and feedback about them



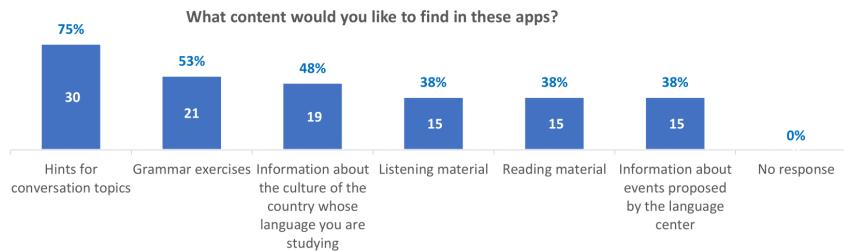
What did you dislike about these tools?



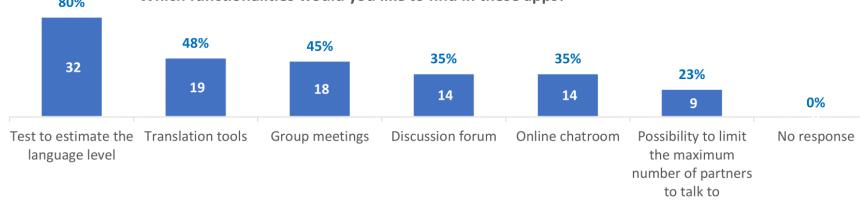
:

Main results

Suggestions of new functionalities, utilities and content



Which functionalities would you like to find in these apps?



Chapter 10

APPENDIX C

10.1 Personas and Scenarios

Below the full personas and scenarios are described.

Mario Rossi

Mario is attending the first year of Bachelor of Economics in unibz. He is Italian and he must reach B2 in German since it is required by the university. He wants to reach it as soon as possible for taking his German lectures. Additionally, He wants to improve his English for better understanding of English lectures and getting the final credits for having C1 in English and B2 in German.

1. Mario logs in with his unibz credentials and starts filling the empty parts of the profile.
2. He tests his language ability in both English and German.
3. He fills the partner form. He doesn't care about gender, campus or study field. He just wants someone who agrees to a flexible schedule.
4. He cannot find anyone with his search, so he goes to *Suggestions*.
5. He finds a partner called Finn for practicing German and sends him a request using the request button on Finn's profile.
6. After their video call on the website, the related slot's colour of their shared calendar changes from yellow to green.
7. He gets a message from the Language Centre, telling him if he becomes a tutor and spends one hour a week practicing Italian with someone who couldn't find a partner, he will get one credit at the time of graduation.
8. He does not have time for tutoring so he doesn't turn on the tutor button.
9. He checks the *Courses and Exams* part of the Language Centre section to see the exam's date.

Sara Ahmadi

Sara is a Software Engineering PhD student and her native language is Persian. Her boyfriend is accepted in a PhD program in Germany. In order to join him, she wants to apply for a job so she needs to get at least B2 certificate. Also, it is very important to her to be able to communicate with people easily therefore her speaking must be fluent.

1. She logs into the system and reads the profiles. She sends requests for everyone who is from Germany and in optional notes in request tells them that she wants to only talk about German culture.
2. Sara and Ben set a fixed schedule. They are going to meet online every Sunday.
3. Sara puts a lot of effort into her video presentation to prove her ability in English because she is not native and others don't easily trust her as a partner or tutor.
4. Sara gets inappropriate comments from her previous partner in the chat section. They can be considered harassment.
5. She immediately goes to *Contact us* in the Language Centre function and contacts the unibz's trusted adviser.

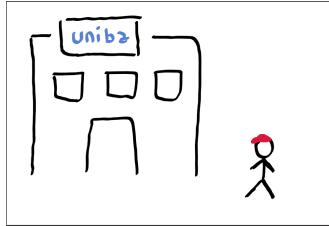
John Smith

John has started his work at language centre of unibz three months ago. Managing the newly developed learning language website is one of his responsibilities.

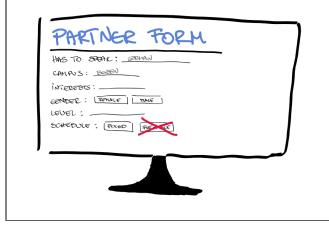
1. He uploads the books and audio files for English and German courses.
2. He goes to calendar and uploads the date of language exams. He also categorizes it as highly important so the students receive notification and email.
3. He receives a warning that tells him a comment in discussion forum is reported more than once.
4. He checks the comment and deletes it. An automatic message will be sent to the sender of deleted comment.
5. There is a message in help section. A student forgot his password. John tells him that he should contact ICT.
6. An Erasmus exchange student has sent an email to language centre, requesting to join the website. John goes to profile section of website, chooses Erasmus students section and sets up her profile based on her information.

10.2 Story telling

PERSONA: MARIO ROSSI



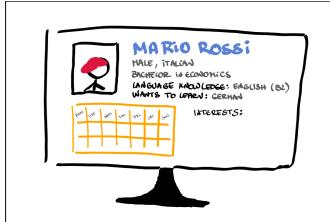
MARIO HAS JUST ARRIVED AT UNIBZ.
HE IS NATIVE ITALIAN AND HE HAS TO
GET B2 CERTIFICATION IN GERMAN.
HE FINDS THIS WEBSITE OFFERED
BY UNIBZ AND DECIDES TO SIGN IN.



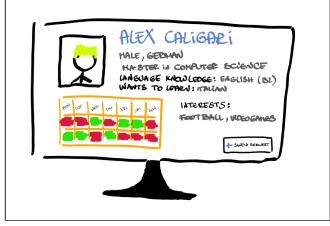
MARIO FILLS THE PARTNER FORM. HE
DOESN'T CARE ABOUT FIXED SCHEDULE,
HE JUST WANTS FINDING SOMEONE TO
TALK WITH.

PAGE # PROJECT/TEAM: RAH GROUP

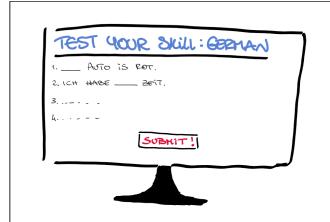
USER STORY/SCENARIO: FIRST ACCESS



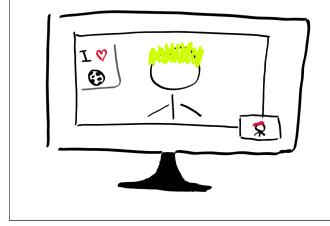
HE USES HIS UNIBZ CREDENTIALS
FOR REGISTERING AND BUILDS HIS
PROFILE.



MARIO SENDS A REQUEST TO ALEX AND
HE ACCEPTS.



MARIO MUST INCLUDE IN HIS PROFILE
THIS GERMAN LEVEL SO HE DOES THE
TEST PROVIDED BY THE WEBSITE.



MARIO AND ALEX DO THEIR FIRST MEETINGS
USING THE VIDEO CHAT OF THE WEBSITE.

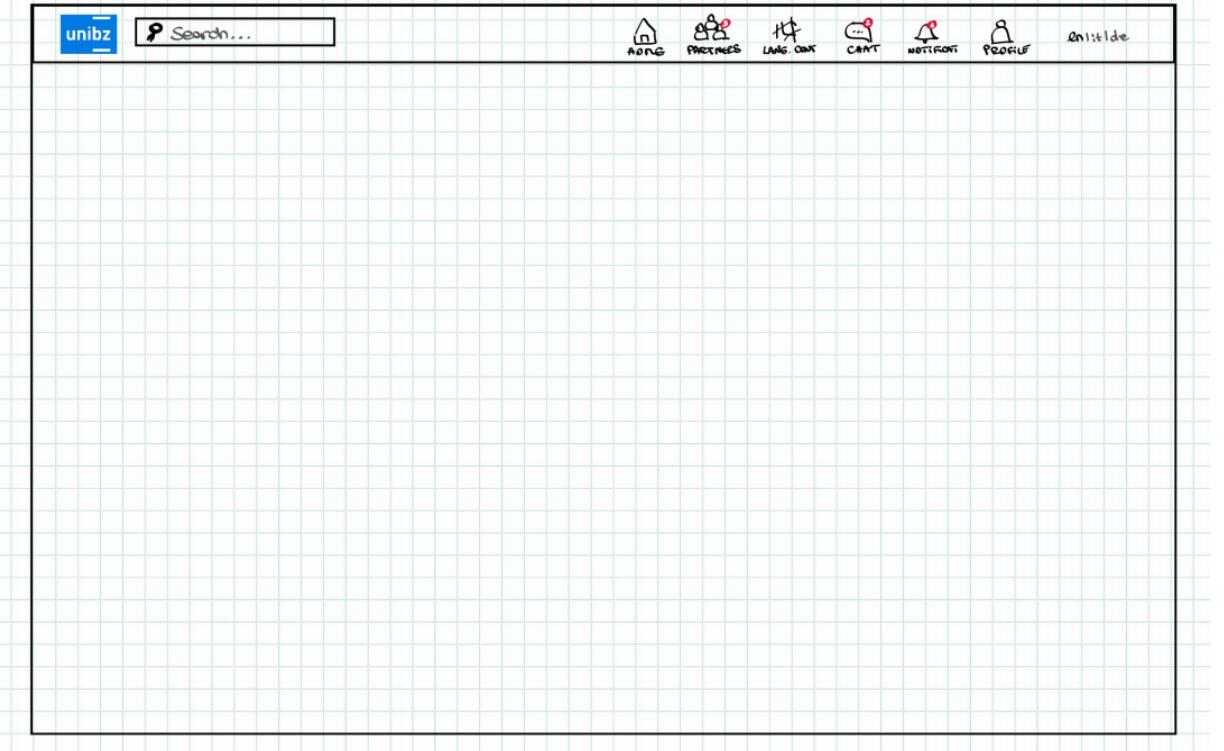
DATE:

STORYBOARD NNGROUP.COM

Chapter 11

APPENDIX D

11.1 Low fidelity prototype sketches



unibz **Search ...**

HOME **PRACTICES** **LANG. COUR.** **CANT.** **NOTIFICATIONS** **PROFILE** **Logout**

NEWS

DISTANCE LANGUAGE Courses
This summer the language courses will be online

EXAMS ARE COMING!
From today you can enrolle

AVAILABLE SPEAKERS

May 7th

	NAME SUR LANGUAGES ONLINE • REQUEST
	NAME SUR LANGUAGES 15:00 - 16:00 REQUEST
	...

SUGGESTIONS

	NAME SUR LANGUAGES Bio: --- REQUEST
	NAME SUR LANGUAGES Bio: --- REQUEST
	...

SUGGESTIONS

	NAME SUR LANGUAGES Bio: --- REQUEST
	NAME SUR LANGUAGES Bio: --- REQUEST
	...

Search ...

HOME **PRACTICES** **LANG. COUR.** **CANT.** **NOTIFICATIONS** **PROFILE** **Logout**

BLA BLA BLA

NEWS

DISTANCE LANGUAGE Courses
This summer the language courses will be online

EXAMS ARE COMING!
From today you can enrolle

SUGGESTIONS

 BASED ON YOUR INTERESTS	NAME SUR LANGUAGES Bio: --- REQUEST	 BASED ON YOUR CAMPUS	NAME SUR LANGUAGES Bio: --- REQUEST
 BASED ON YOUR SCHOOL	NAME SUR LANGUAGES Bio: --- REQUEST	 BASED ON YOUR INTERESTS	NAME SUR LANGUAGES Bio: --- REQUEST
 BASED ON YOUR STUDY FIELD	NAME SUR LANGUAGES Bio: --- REQUEST	 BASED ON YOUR INTERESTS	NAME SUR LANGUAGES Bio: --- REQUEST

unibz Search...

HOME PARTNERS LANG. CAT. CART NOTIF. PROFILE ENTRALDE

YOUR PARTNERS

FIND A PARTNER

SUGGESTIONS

In this page you can find the partners that the system suggests for you based on your answers to the Partner Form. You can change your preferences whenever you like.

Based on your free time

Based on your interests

Based on your Campus

Based on your study field

unibz Search...

HOME PARTNERS LANG. CAT. CART NOTIF. PROFILE ENTRALDE

YOUR PARTNERS

FIND A PARTNER

SUGGESTIONS

LANGUAGE ▾ GENDER ▾ STUD. FIELD ▾ LEVEL ▾ CAMPUS ▾ INTERESTS ▾ AVAILABILITY ▾ **SEARCH**

NAME SURNAME
KNOWS: GERMAN (6)
LEARNED: ITALIAN (8)
CULTURE: BOZEN
STUD. FIELD: ROMANTICS
INTERESTS: SPORT, MOVIES
Bio - I AM A PERSON WITH BLONDE HAIRS.
REQUEST

NAME SURNAME
KNOWS: GERMAN (6)
LEARNED: ITALIAN (8)
CULTURE: BOZEN
STUD. FIELD: ROMANTICS
INTERESTS: SPORT, MOVIES
Bio - I AM A PERSON WITH BLONDE HAIRS.
REQUEST

unibz

HOME PARTIES LANG. COUR. CHAT NOTIFICATION PROFILE ENTRATA

YOUR PARTNERS

FIND A PARTNER SUGGESTIONS



NAME SURNAME 

KNOWS: GERMAN (C1)
LEARNS: ITALIAN (B2)

UPCOMING MEETINGS:

- 23/04 , 18:30 - 19:30 [edit](#)
- 27/04 , 11:00 - 12:00 [edit](#)

[SHARED CALENDAR](#)



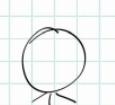
NAME SURNAME 

KNOWS: GERMAN (C1)
LEARNS: ITALIAN (B2)

UPCOMING MEETINGS:

- 28/04 , 18:30 - 19:30 [edit](#)
- 30/04 , 11:00 - 12:00 [edit](#)

[SHARED CALENDAR](#)



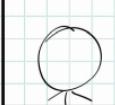
NAME SURNAME 

KNOWS: GERMAN (C1)
LEARNS: ITALIAN (B2)

UPCOMING MEETINGS:

- 27/07 , 18:30 - 19:30 [edit](#)
- 21/08 , 11:00 - 12:00 [edit](#)

[SHARED CALENDAR](#)



NAME SURNAME 

KNOWS: GERMAN (C1)
LEARNS: ITALIAN (B2)

UPCOMING MEETINGS:

- 1/06 , 18:30 - 19:30 [edit](#)
- 5/06 , 11:00 - 12:00 [edit](#)

[SHARED CALENDAR](#)

unibz

HOME PARTIES LANG. COUR. CHAT NOTIFICATION PROFILE ENTRATA

 NAME SURNAME

YOUR PROGRESS

EDIT

PRIVACY

↓

My Profile



ED SEE VIDEO PRESENTATION

ALESSANDRA LOREFICE

Hi everyone! This is my fantastic Bio!!

LANGUAGES		
ITALIAN	ENGLISH (B2)	GERMAN (B1)
NATIVE	KNOWLEDGE	WANTS TO LEARN

← JUNE 2021 →

MON	TUE	WED	THU	FRI	SAT	SUN
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	1	2	3	4

REFERENCES

- [1] Jakob Nielsen: *Usability 101: Introduction to Usability*, <https://www.nngroup.com/articles/usability-101-introduction-to-usability/>, 3 January 2012.
- [2] Dave Riju: *Which colours can help you professionally?*, <https://economictimes.indiatimes.com/wealth/earn/which-colours-can-help-you-professionally/articleshow/57578853.cms?from=mdr>, The Economic Times, 2017.
- [3] Sabina Idler: *10 Things To Know About Images In Web Design*, <https://usabilla.com/blog/10-things-to-know-about-images-in-web-design/>, 2012.
- [4] Don Norman: *The three ways that good design makes you happy*, <https://www.youtube.com/watch?v=RlQEoJaLQRA>.