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"Use Cases and Service Scenarios"

MASELTOV

Mobile Assistance for Social Inclusion and Empowerment of Immigrants with
Persuasive Learning Technologies and Social Network Services

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CONTENT

1. INTRODUCTION

This deliverable describes the activities and results from the user requirements analysis in MASELTOV. The aim of the requirement analysis is to collect specific service requirements of immigrants in order to profoundly understand their specific service needs and to facilitate their integration in the host country.

By putting the end user at the centre of our research and involving potential end users we want to assure that the MASELTOV services are needed and useable. At the beginning it is crucial and most important to understand the users, their problems as well as their needs and the accordant contexts. Therefore, a hermeneutic approach and the use of qualitative methods seem to be most fruitful for the elicitation of cultural-specific user requirements (Aykin et al. 2006). This means that potential end users should be directly involved by appropriate methods like interviews and focus groups in order to better understand their particular problems and needs.

Our first step was to define concrete target groups of MASELTOV. Subsequently, we collected barriers and problems already known to the three partner NGOs in Austria (Danaida), Spain (Fundeso) and the UK (MRC) who closely work with immigrants. These NGOs possess a broad knowledge about barriers immigrants have to overcome in everyday life. Based on these barriers semi-structured interview guidelines were developed by CURE to gain deeper insights into personal barriers and problems, as well as to identify their causes in order to develop potential solutions and helpful services. These interviews were conducted by the partner NGOs and the results were analysed by CURE. The results of the interviews were the base for developing the first MASELTOV user scenarios. In these scenarios the MASELTOV services are described from a user-centric perspective.

In order to assess the service ideas and to identify more helpful services we conducted in total six focus groups at the three NGOs. The results of these focus groups led to updating the scenarios and to prioritizing the functions and features of the MASELTOV services.

2. GETTING TO KNOW OUR USERS AND THEIR PROBLEMS

In this chapter we describe our approach to getting to know our users and to gain deeper insights into their problems and barriers in everyday life. Before defining the concrete target groups for the MASELTOV project we looked for published experiences of former work with immigrants. A summary of this literature research will be presented in the following section. Subsequently, we will present a definition of our target group and a list of barriers and problems immigrants the three NGOs are working with have to deal with in everyday life. Following this list, we will present results of interviews taking a closer look at individual living situations and barriers.

2.1 WORKING WITH IMMIGRANTS

For the elicitation of cultural-specific user requirements Aykin et al. (2006) recommended qualitative methods. However, when applying qualitative methods for surveys with immigrants several issues have to be considered:

Potential research participants should have the possibility to protect themselves in terms of their social relations with the researchers and they need to have the power to decide over whether to participate (Lammers 2005). Members of hidden populations may also be vulnerable and therefore reluctant to take part in formal research studies (Atkinson & Flint 2001). The immigration status is very relevant regarding vulnerability and the status may change. Bloch (1999) found that asylum seekers were less willing to participate in research than refugees, due to anxieties about repercussions if their responses are given to the local authority.

A lack of trust is an additional problem that researchers might face and building up trust can require more than application of anonymity, confidentiality, and the use of ethical principles (e.g. establishing credentials by working voluntarily with a refugee community organization) (Hynes 2003).

Bloch (2007) argues that the representativeness of samples can be improved by applying non-probability techniques like quotas. Interviewers search for interviewees that fit specified criteria using three or more variables (e.g. age, sex, ethnic group etc.).

Regarding methods, self-completion questionnaires have the advantage of being relatively cheap to administer and of being more suitable than face-to-face interviews when sensitive questions are asked or the research itself is sensitive (Leeuw 2005).

Face-to-face interviews might be necessary to avoid a lack of answers due to literacy skills to meet the research objectives (Bloch 2007, Leeuw 2005). In self-completion modes, there are also higher rates of non-response to individual questions.

Elam & Fenton (2003) name the following pros and cons regarding ethically matched interviewers:

> + due to shared language and culture they might find it easier to carry out sensitive research

> - interviewers should not conduct interviews in their own locality / social network to avoid confidentiality concerns but visit the users context

> - the validity of responses could be compromised regarding social desirability.

In qualitative research translators are seen as active producers of the research (Bloch 2007).

Previous research (e.g. Bloch 2007) has shown that the variation in first language literacy and second language fluency and literacy between and within the groups has to be included in the survey. E.g. Turkish and Kosovar women had lower levels of English language literacy than their male counterparts. Therefore the questionnaires had to be translated into their native language to ensure that also participants with low levels of English language fluency and literacy were included.

In a study conducted by the German Ministry of the Interior (Frindte 2012) the main research question was which criteria lead to integrated and radicalized attitudes of young Muslims in Germany. A part of this study was a multi-generation case study in which interviews, surveys, and discussions were conducted in German, Turkish, or Arab language. Using bilingual Turkish-German and Arab-German interviewers proved to be very effective. Although the third generation preferred German, they sometimes switched to Turkish and Arab respectively. Also the mistrust regarding the study could be minimized.

General lessons for conducting surveys with immigrants is the need to maintain a flexible approach (Jacobsen & Landau 2003), that it is vital to know as much as possible about the survey population (e.g. language and literacy skills, geography, cultural norms), and to safeguard the anonymity of respondents. Adhering to high ethical standards is a basic requirement (Bloch 2007).

2.2 MASELTOV TARGET GROUPS

As immigrants come to the European Union (EU) from all over the world and thus form a much more heterogeneous group than native European inhabitants it is important to define a more concrete target group of the MASELTOV services. Otherwise we cannot assure to provide helpful services that can be used by the majority of the MASELTOV users. Due to the high variety of individual needs depending on many aspects like maternal language, education, motivation and duration of stay, religion, profession and so on, it is not possible to approach all immigrants within this project.

A first selection of the MASELTOV target groups was already done in the proposal phase of this project with the selection of the involved NGOs. In the three countries where they are active the immigration situation as well as legal aspects differ widely. However, we wanted to concentrate on some of the largest groups of immigrants in Europe from non-EU countries. Figure 1 shows that the largest group are Arab-speaking immigrants from North Africa, Turkish and Latin American immigrants (see also Description of Work of the MASELTOV project for details, Part B page 12 and also Figure 1).

In each country, two different immigrant groups were covered: In Austria, Arab and Turkish speaking immigrants, in Spain Arab and Sub-Saharan Africans and in the UK Arab speaking and Latin American immigrants.

By selecting Arab speaking immigrants, a large immigrant group in Europe is covered in all three countries. Latin American immigrants were selected in the UK and not in Spain, because in Spain one of the main barriers – language – is not an issue for this immigrant group. In Austria, Turkish immigrants are the second target group, in Spain Sub-Saharan Africans. Sub-Saharan Africans are selected in this initial phase of the project devoted to user needs and requirements, but will not be addressed later on for the development of language-dependent services and applications.
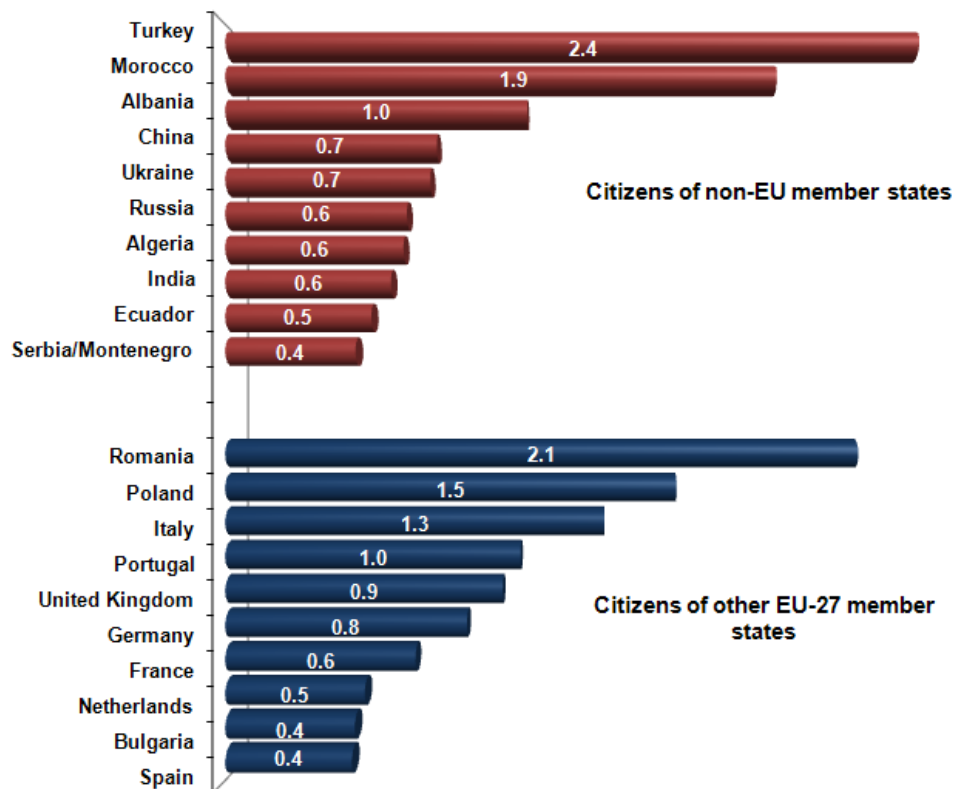
Figure 1: Top 10 Countries of Citizenship for EU Residents (in millions). *Source*: Eurostat, *Migration and Migrant Population Statistics*, available at http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Migration_and_migrant_population_statistics.

For the recruitment and in order to raise comparability we agreed on the following formal characteristics of people to be involved in MASELTOV as direct target groups:

- Third Country Nationals (i.e. with non-EU nationality)

- Length of stay in the EU (up to 5 years)

- Low education (= not beyond 8 years of school / functionally illiterate / digitally illiterate)

- Priority to speakers of Arab, Turkish and Spanish.

Some interviewees (especially Arab speaking interviewees) had higher levels of education. These immigrants more often identified language as their main barrier and worked more actively to overcome this barrier.

2.3 KNOWN PROBLEMS AND BARRIERS

Within the MASELTOV consortium, the three NGOs have already a lot of experience with barriers and problems of immigrants as they are part of their daily business: MRC in the UK, Fundeso (FUN) in Spain and Danaida (DAN) in Austria. Based on their experiences the NGOs created a list of barriers responsible for most problems migrants have to deal with. This list served as basis for developing the semi-structured interview guidelines we conducted afterwards (see section 2.4).

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Mobile Assistance for Social Inclusion and Empowerment of Immigrants with Persuasive Learning Technologies and Social Network Services

2.3.1 LITERACY

In the first instance, literacy in the native language will also aid persons in learning a new language, particularly the written form. It has been shown that encouraging migrants to only focus on English and not improve their literacy skills in their first language can be counterproductive. (MRC)

Literacy is also essential for accessing information on street signs, websites, printed leaflets and guides etc. (MRC)

Literacy in the host language is also necessary for form-filling and for many jobs which also require good writing skills. (MRC)

2.3.2 LANGUAGE

Language skills are certainly essential for accessing information and services, making applications, building up social and professional networks, and general communication. Migrants themselves, or advisers might assume that a very good level of the language of the host country (also known as second language or L2) is necessary for all jobs, however, this is not necessarily true. As a result migrants might be unnecessarily discouraged from applying for jobs within their professions. (MRC)

A lack of L2 capabilities prevents migrants from pursuing a regular job. The lack of dominance of the local language hampers the exit from the underground economy and access to jobs of average qualification. (FUN)

Many migrants only listen to an erroneous form of L2 in their social context and have difficulties in learning it. Especially in Austria, many locals either speak in dialect or use a wrong, simplified grammar when talking to migrants. (DAN)

To prolong their residence, migrants in Austria have to provide a certain level of language skills, sometimes on a very high level. The educational background of the migrants is not taken into account and too few (appropriate) language courses are offered. (DAN)

2.3.3 COMMUNICATION AND PRESENTATION SKILLS

Making oneself understood and good listening skills are important abilities which are culturally and language-specific. The right way to say things, achieve the right tone, get an idea across so that it is understood are all difficult to achieve in a new language and culture. Listening skills are important for many jobs, but also for understanding information that is provided by advisers and others. (MRC)

Presenting information and presenting oneself in a confident manner is important both when looking for employment and in everyday life. (MRC)

2.3.4 INFORMATION TECHNOLOGY SKILLS

Some migrants have limited Information Technology skills (PC knowledge, Internet, smartphone usage etc.) necessary for communication and accessing information and employment. (MRC)

2.3.5 EMPLOYABILITY SKILLS AND OTHER EMPLOYMENT-RELATED BARRIERS

Job search, application and interview processes are culturally specific so migrants need information on how to search for jobs, as well as what is expected of them when filling in application forms or attending interviews. (MRC)

When applying for work in the UK it is culturally accepted that in these circumstances it is okay to take pride in and to present positively one's skills, achievements, knowledge and experience, though without coming across as overconfident or boastful. For a non-native the fine line between confidence and over-confidence, assertiveness and aggressiveness, can be very difficult to gauge. It is something that native British people would find very difficult to describe and it requires a lot of practice and even coaching. This is complicated by the fact that in some cultures it is considered inappropriate behaviour to talk about oneself and modesty is valued. (MRC)

In England, JobCentrePlus (JCP) is the mainstream service for advice and support in accessing employment. The service does not usually meet the needs of migrants as a result of many factors including: JCP advisers have limited time to allocate to each individual; JCP advisers promote JCP products and services which may not be suitable for each individual; JCP advisers may have little awareness of migrants' overseas experience and qualifications; or they simply may not see this as valuable and so encourage the immigrant to take low-skilled jobs. (MRC)

Employers often require that job applicants already have UK work experience as well as the common practice of volunteering or unpaid work experience programmes to gain this experience. This is either seen as something very unfamiliar and so undervalued by migrants coming from cultures where this is simply seen as 'working for free' and might also impose a financial barrier for those who cannot afford to spend time doing these activities unpaid. (MRC)

Having busy and hectic lives means that some migrants might find it difficult to always be on time or keep appointments, attend regular training, etc. (MRC)

Surnames that do not sound German sometimes prevent job applicants from closer consideration. Many studies have shown that the name and the country of origin are sufficient to trigger prejudices so that job applicants are not considered anymore. (DAN)

Migrants mainly have jobs below their qualifications, followed by prejudices and low wages. (DAN)

2.3.6 EDUCATION

The low academic level hinders the access and utilization of training courses. Many people interested in training cannot access certain modules because they do not have a degree from their country of origin that can be approved. (FUN)

Migrants are often not able to access training courses that facilitate their social and labour integration. They are aware that they will only be able to access the employment niches by increasing their training and specialization. (FUN)

For children with migration background it is harder to have access to the educational system not only due to language barriers but also because their parents might not know the educational system in the host country. (DAN)

Besides language courses, migrants rarely have access to further education because further education opportunities mostly require a high level of language skills. (DAN)

2.3.7 LACK OF CONFIDENCE

The lack of confidence increases the longer one is unemployed or isolated. (MRC)

Negative reporting on migrants and ethnic minorities in the mainstream media has a negative impact. (MRC)

Discrimination against both migrants and ethnic minorities has a negative impact. This could affect many areas of a migrant's life - direct discrimination from people they meet, employment advisers not valuing their experience or qualifications, negative responses to their aspirations. As an example, a recruitment specialist working with overseas trained teachers said that nearly everyone that came to her thought they needed to improve their qualifications and that if they were former English teachers, they could never teach English in the UK, despite both of these statements being untrue. Often overseas trained teachers meet the qualification requirements, but have been told otherwise by unknowledgeable advisers or admissions staff. A History Subject leader at a university also claimed at some point that she would never take on someone who did not study history in the UK. There is an assumption in this policy that people from overseas are not able to learn British history as well as an assumption that history taught from a British perspective is somehow superior. (MRC)

It is a highly demoralising experience of having Job Centre Plus advisers encourage migrants to take low-paid, low-skilled jobs, such as cleaning, catering and security jobs, despite a higher level of education obtained overseas. (MRC)

2.3.8 ACCESS TO INFORMATION AND SERVICES

Too much information combined with highly bureaucratic systems makes accessing information challenging even for native Britons, let alone newly arrived migrants. (MRC)

Information in L2 might be difficult to find and/or understand fully. (MRC)

Information provided by advisers, officials, organisations is not necessarily the correct information or might not take personal circumstances into consideration. In addition to this, there might be multiple options and the person might only be told one option which is not necessarily the best for them. As a result, access to information might not be sufficient without advice and guidance. (MRC)

Lack of assertiveness and not knowing what one does not already know make it difficult to question information provided by the above sources. (MRC)

Using the internet or libraries or when trying to find out who is in fact the best person / which is the best service to provide accurate information, all require a broader understanding of the domains where information is needed, as well as the keywords required for searching for information, including the names of organisations, services or positions of people who could potentially help. (MRC)

2.3.9 ACCOMMODATION

In many cities migrants live only in certain districts, leading to ghettoization. (DAN)

Migrants often do not have access to council housing. (DAN)

2.3.10 CHILDCARE

Unaware of entitlements to childcare and where the child does not meet the requirements for free or subsidised childcare, financial constraints may mean the person must stay at home with their children instead of engaging in training or employment. (MRC)

2.3.11 LACK OF ACCESS TO HEALTHCARE

Complex and bureaucratic systems complicate the access to health care. (MRC)

Migrants are often unaware of the system and not familiar with their rights to healthcare or entitlements to other services. (MRC)

Migrants are often unfamiliar with the registration process. (MRC)

Migrants are often unaware of the need to register with a general practitioner (GP) in order to get a referral for a specialist. (MRC)

Due to work commitments, migrants are often unable to register with or see a GP during office hours and unaware of walk-in centres (though registration is sometimes also necessary during work hours). (MRC)

Lack of assertiveness means their needs are not taken seriously or that they take potentially inappropriate or incorrect mainstream advice at face value without questioning it. (MRC)

Migrants often have a lack of understanding of mental health, possibly from a culture where mental health issues are taboo and it is considered inappropriate to share emotional needs with someone outside the family. (MRC)

Migrants often are insecure, have a lack of confidence, or are afraid to ask the wrong questions in case they will sound stupid. (MRC)

GPs or walk-in clinics might demand proof of address, which may be impossible for those living in temporary accommodation, such as hostels, to obtain (despite the fact that GPs are not required by the government to make such requests). (MRC)

Migrants with low language skills depend on foreign help regarding the health system. Sometimes people have to wait until someone has time to accompany them to a doctor or hospital. This is why many migrants rather go to an ambulance or hospital than visiting a GP, because in the evening GPs are often already closed. Many migrants at Danaida name going to the doctors on their own as their main incentive to learn German. (DAN)

Due to the lack of knowledge about the health system and low pensions older migrants have less access to care facilities. (DAN)

2.3.12 LEGAL ISSUES

Often barriers emerge when in need of legal advice or representation regarding immigration status, tax rights and responsibilities, housing, etc. (MRC)

Migrants are often unaware of employment rights. Also employers often lack understanding of employment rights and immigration status. (MRC)

The embassies of the countries of origin make it difficult to obtain basic documents to regularize an immigrant's administrative situation. When Nigerian citizens need to present a criminal record, their embassies do not carry out the process swiftly and when the certificate arrives, it is already expired. (FUN)

Bureaucratic barriers for migrants constantly increase. Language exams, knowledge-of-society exams for citizenship, income per month etc. as well as laws and rules constantly change. Therefore, a lot of erroneous information circulates about these issues. (DAN)

2.3.13 TAX AND BENEFITS

Many migrants are unaware of any rights they have to claim benefits, so as a result do not claim any benefits which might help to increase their chances of receiving the support they need. (MRC)

Difficulty understanding and filling in paperwork. (MRC)

2.3.14 LACK OF SOCIAL AND PROFESSIONAL NETWORKS

Migrants mostly dependent on friends and family for information or for finding out about job opportunities, yet friends and family are often from the same community, speaking the same language and not necessarily aware of accurate sources of information or advice. (MRC)

Many migrants are very isolated and when in need of a reference, say for a job application, they have only their GP to approach. GPs will often refuse to write references or will charge high fees for this service. (MRC)

Lack of professional networks also means migrants lose out on keeping up to speed on sector or job-specific knowledge and are less likely to find out about relevant jobs. (MRC)

2.3.15 FINANCIAL BARRIERS

The cost of local public transport is often identified as barriers for some migrants. This prevents migrants from accessing services, visiting advice centres, attending training, etc. (MRC)

If a reference is needed or a health check (e.g. for acceptance onto some courses, such as teacher training, this is a necessity) or a Criminal Records Bureau check, these all incur costs that could prevent the person from accessing services, applying for courses, going for a job. (MRC)

2.3.16 LACK OF RECOGNITION OF SKILLS

Discrimination extends to how qualifications and experience from overseas are viewed. The national recognition centre which compares overseas qualifications to British ones (UK NARIC) openly downgrades qualifications from overseas when they do not have enough information to make an accurate comparison (which is often the case). Employers, without knowledge about overseas qualifications, also assume that they are inferior. While in some cases, a qualification and experience from overseas (e.g. in Law) might lack country-specific information around laws or standards, most qualifications should actually be given equal worth to UK qualifications. In some cases, like in Turkey, some private universities have higher standards and require more years of study than their UK counterparts, yet no investigation into these institutions have been done and they are not recognised at all. (MRC)

Lack of recognition of skills, experience and qualifications might be seen as a barrier on its own and affects a persons' access to both employment and training opportunities. (MRC)

Often college degrees are not officially accepted. Without being able to certify one's titles or experiencing major delays in this process, many labour opportunities are lost and one ends up working in a field below one's qualifications. (FUN)

2.3.17 ISOLATION AND DISCRIMINATION

Indirect and direct discrimination from other people, or from the media, leads to fewer opportunities and decreased confidence. (MRC)

An irregular/undocumented immigration status hinders the access to basic rights (health, housing, work, etc.). The fear of being arrested by the police in the frequent raids that have occurred in the metro or in bus stations has made immigrants stay at home, without improving their training or broadening their social networks. (FUN)

Many migrants have very rare contacts with locals. For this reason learning the host language by listening to native speakers is delayed. Also personal communication between immigrants and natives is often very limited. So locals and immigrants get information about each other mainly from third parties. (DAN)

Isolation is bad also for physical health. (DAN)

People whose skin colour is not white consistently experience exclusion, discrimination or racist assaults in public. (DAN)

Many migrants do not seek for appropriate institutions, or offers, if they do not know them beforehand. Recommendations from their community are very important to obtain trust. (DAN)

2.3.18 CULTURAL DIFFERENCES

Nearly all of the above barriers are complicated by cultural differences and a lack of understanding of cultural norms both from people in the host community and the migrant. A Muslim woman's refusal to shake hands during an interview for religious and cultural reasons might reduce her chances of being chosen for the job. An increased understanding of cultural norms by the employer could solve the problem, but an assumption that the migrant should always be the one to adapt is not in favour of integration, but of assimilation. (MRC)

Migrants still need to know what the host community's expectations are so that they are best placed to decide for themselves how to navigate information and services or to go about looking for work. Without knowing what is expected when writing a job application, including the necessity to promote one's positive attributes, a migrant will have no chance when competing against other candidates. (MRC)

Since many of the barriers migrants face involve bureaucratic systems, unhelpful mainstream advisers and ignorance amongst the host community, we can help by encouraging migrants to have confidence and equip them with tools to be assertive in order to find and question information and access services they are entitled to. The language and communication skills necessary for this are again very culturally specific. (MRC)

2.4   LIVING SITUATIONS

In order to understand how people of our target groups live we conducted 23 interviews.

We used the already known barriers and problems of immigrants that the MASELTOV NGOs have collected as a basis for the interview guidelines. By interviewing some immigrants, we aimed at gaining deeper insights into personal barriers and problems in order to develop potential solutions and helpful services.

In addition to demographic questions, the interview consisted of three parts. In the first part, questions about the social background, education and qualifications of the interviewees were asked ranging from their employment status to language skills and access to technical equipment. The second part referred to their motivation for emigration and reasons influencing the decision whether to stay in a country versus leaving. In the third part of the interview the immigrants were asked about barriers in their everyday lives, where they are

looking for support, and whether they could think of an application for the mobile phone supporting them (11 out of 23 interviewees owned a smartphone at the time of the interview).

The interviews were conducted by the partner NGOs in the native languages of the immigrants to allow for participants with low levels of language fluency in the language of the host country (see Figure 2). The results were then translated into English and analysed by CURE.

Figure 2: Some of the participating interviewees and one interviewer.

In the following, we summarize the results of the interviews according to language or regional provenance of the interviewees.

2.4.1 INTERVIEWS WITH ARAB SPEAKING IMMIGRANTS IN AUSTRIA, SPAIN AND THE UK

2.4.1.1 DEMOGRAPHICS

Four women participated in Austria who all came to Austria because of their husbands. They have children and mainly ask their husbands for help if they have any issues to resolve.

In the UK, two women and one man participated in the interviews. One woman has children, the other woman is divorced and the main barriers of the two women are due to their language skills.

In Spain, three men participated. Their main problem is finding a job.

The age of these Arab speaking immigrants ranges from 19 to 36 years, with an average age of 29.7. All Arab speaking interviewees name Islam as their religious affiliation. Seven out of ten interviewees have finished high school. In Austria and the UK, the main barriers and problems of most interviewees are due to their language skills, while in Spain the main problem of the interviewees is finding a job.

2.4.1.2 EDUCATION AND QUALIFICATIONS

Austria:

All interviewees have at least finished high school. None of the four women is working. Two get unemployment benefits; the husbands of the other two women are working and three out of four women receive family allowance. One woman wants to find a job, but did not find one yet. According to her, the inadequate German language skills are the main problem. In her opinion, being an immigrant is also a barrier for getting a job.

They are able to speak English and German, two additionally have French language skills. They evaluate their German speaking and understanding skills as very good to sufficient, their reading skills as very good to good and their writing skills as good to sufficient.

Two women possess a smartphone, while the other two women don't have one and also don't know how to use it. Two to three interviewees use SMS, e-mail, internet, photography, calling somebody, applications for accessing information and translation applications.

Spain:

One interviewee went to school until the age of 14, another interviewee finished high school and administrative vocational training and the third one obtained vocational training in plumbing in Spain (he was 19 at the time of the interview). While two men are unemployed, the third man is working 30 hours a week. He is responsible for an internet café of a friend of his and is repairing computers. The unemployed men are desperately looking for work, blame recession and a lack of jobs, and would need someone to help them. One participant receives unemployment benefit.

All of them are able to speak Arab and Spanish, one interviewee is additionally able to speak French. One participant evaluates his Spanish language skills as perfect, one interviewee as very good to good, and the third person as good to sufficient.

Two out of three participants possess a smartphone and the third one knows how to use one. All Arab interviewees in Spain use their mobile phones for writing SMS, playing games, taking pictures, and calling somebody. Two interviewees write emails, use learning, navigation, and information applications. One participant uses the internet and translation applications.

UK:

One woman finished high school, but did not attend a university. She successfully passed a hairdressing course and got a diploma for that. She wanted to study, but her husband did not let her. The other woman went to college and subsequently studied IT for two years. She started studying English. The male participant is from Chad, grew up in Saudi Arabia and was taught in a community school, because he did not have a legal status there.

One woman is divorced. She has been looking for a job and unemployed for more than 6 months. First, she wants to learn English. The other woman works as a housekeeper in a hotel for two days a week (her husband's aunt who is working there too got her the job). She would like to work in pharmacy again, but degrees / certificates were not accepted because they are written in French. The male interviewee wants to study at the university. All three interviewees get financial support from the government. All the interviewees have their own mobile phone, PC/laptop, and TV. Both women have a smartphone. All three interviewees use their mobile phone for writing SMS, playing games and calling somebody, two of them use it to take pictures, and one woman additionally uses it for E-Mails, internet, navigation, and translation applications (Google translate).

In Table 1, the communication tools used for communicating with people in their home country, as well as with people in the according host country are summarized, based on the results of the relationship maps (see Figure 3).

	Communicating with people in home country	Communicating with people in Austria / Spain / the UK
1. ♀ in Austria	Mobile phone mainly Internet and Skype (with sister in law)	Face to face Mobile phone
2. ♀ in Austria	Mobile phone mainly Skype (with her mother and her sisters)	Face to face Mobile phone
3. ♀ in Austria	Mobile phone Skype	Face to face Mobile phone

	Yahoo Facebook	
4. ♀ in Austria	Mobile phone Internet Skype	Face to face Mobile phone Internet Skype
5. ♂ in Spain	Mobile phone Internet	Face to face Mobile phone Internet Facebook
6. ♂ in Spain	Mobile phone Email Facebook	Face to face Mobile phone Email Facebook
7. ♂ in Spain	Mobile phone (mainly) Chat (with his siblings)	Face to face Facebook SMS Chat
8. ♀ in the UK	Skype Facebook	Face to face Mobile phone SMS
9. ♀ in the UK	Mobile phone SMS Email	Face to face Mobile phone SMS Email
10. ♂ in the UK	Mobile phone	Face to face Mobile phone Email Facebook

Table 1: Communication tools of the Arab speaking interviewees based on the relationship-maps (see Figure 3).

The yellow figures represent persons living in the home country of the interviewee, the red figures persons living in the host country of the interviewee. On the lines interviewees wrote the communication tool(s).

2.4.1.3 MOTIVATION FOR EMIGRATION

Austria: All interviewees are in Austria for family creation or reunification. Having/starting a family in the host country is most important to all four women. Other potential reasons for staying / leaving the home country are health care, the educational, and the social system (3♀), having a job in the host country (2♀ w), nice and friendly people (2♀), or finding a job somewhere else (1♀).

Except for one interviewee, all of them claim that they can fully participate in the Austrian community.

Spain: All participants went to Spain for work reasons. A job in Spain is most important to all interviewees, as well as having or starting a family in Spain. One interviewee is divorced and wants to live close to his son. Two have the impression that they cannot fully participate in the Spanish community because of language problems (1♂) and because they do not have the right to vote (1♂).
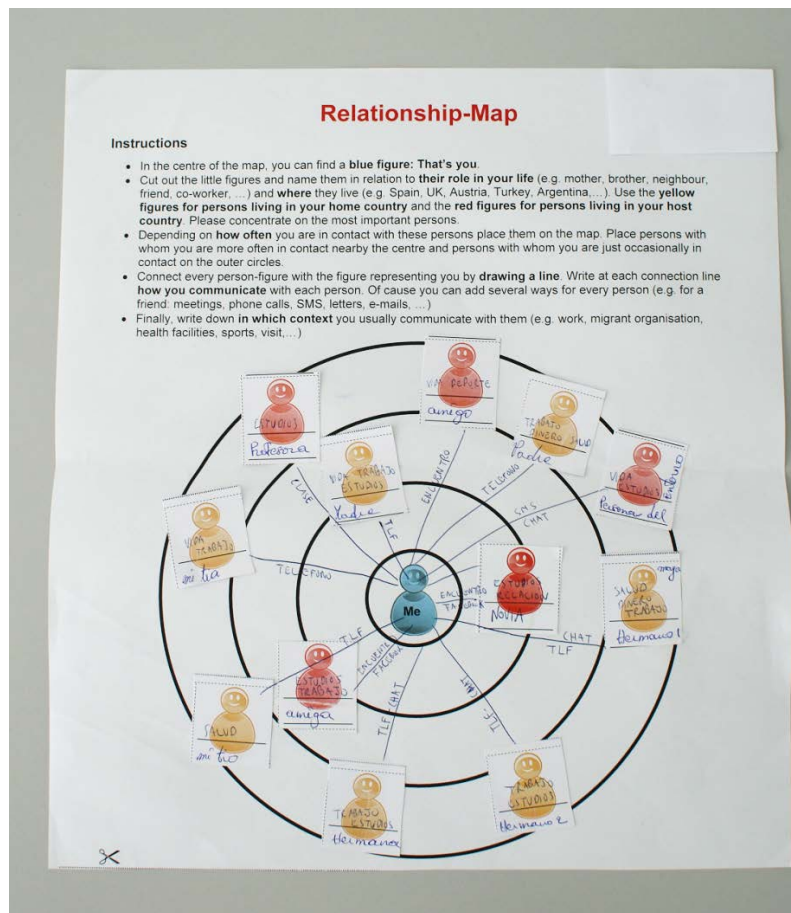
Figure 3: A relationship map made by an Arab speaking interviewee living in Spain.

UK: The two women came because of their husbands, whereas the male interviewee wanted to be in a safer country and did not know that he was coming to the UK until 2 days before he travelled. For one woman, having a job in the UK is most important, for the other woman her family in the UK and for the men his family in his home country and his immigration status.

Two interviewees feel that they can fully participate in the community in the UK, one does not due to her language skills.

2.4.1.4 OBSTACLES AND PROBLEMS

Barriers

- Language problems:
    o regarding health care (4♀ A)
    o at the bank (1♀ A)
    o when shopping (1♀ A, 1♀ GB)
    o local slang (1♀ A, 1♂ UK)
    o sometimes people are talking too fast (1♂ ES)
    o when using public transport (1♀, 1♂ UK)
    o legal jargon relating to immigration (1♂ UK)
- Technical difficulties:
    o a few problems with the internet (1♂ ES)
    o at the ticket machine for public transport (2♀ UK)
- Difficulties with bureaucratic, administrative and other issues:
    o fill out forms, e.g. for opening a bank account (1♂ ES , 1♀ UK)

- o at the job centre (1♂ UK)
- o at the GP (general practitioner) (1♂ UK, 1♀ UK)
- o at college (1♂ UK)
- Lack of knowledge:
  - o navigation (1♀ UK)
  - o parent-teacher conferences in school (1♀ UK)
  - o how to apply for a job (1♀ UK)
  - o information about equal opportunities (1♂ UK)
  - o information about other religions (1♂ UK)
  - o cultural differences (1♂ UK)
  - o women's rights (1♀ UK)
  - o hard to socialise without knowing the different cultures (1♂ UK)

2.4.1.5 INFORMATION AND NETWORKS & IDEAS FOR APPLICATIONS

Austria:

Some interviewees did not know where to get help regarding finding a flat (1♀), finding a job (1♀), legal issues (1♀), financial issues (1♀), and taxes and benefits (1♀). In all aspects mentioned, one to three women would ask their husband for help.

Two women mentioned that the state respects the Islam, but some people do not. They do not like the family life (1♀), men and women living together before marriage (2♀), the clothes of girls and boys (1♀) as well as children smoking (1♀). Nevertheless all of them feel welcome in Austria.

Spain:

One interviewee did not know where to get help finding a job but urgently needed help. Additionally, two people did not know where to find help regarding taxes and benefits and one interviewee regarding education and financial advice. One interviewee uses internet services for finding help regarding these issues.

UK:

None of the interviewees knows where to get financial advice. The male interviewee does not know where to get help when looking for a flat or a job, or regarding taxes and benefits. A woman does not know where to get help regarding legal issues or education.

Two of the interviewees feel welcome in the UK, one woman does not because she is not able to communicate with people and has the impression that people do not like it that she is not able to speak English. The man had difficulties with the police when he arrived because of the way he dressed. Someone told him that might be due to his clothing style and afterwards he changed the way he dresses completely.

2.4.1.6 POSSIBLE APPLICATIONS ON THE SMARTPHONE:

- Language application:
  - o smartphone supporting Arab (1♀ A),
  - o translation application (2♂ ES, 1♀ UK),
    - § text to speech (1♂ ES)
    - § speech to text (1♀ UK)
  - o situation specific dictionary (e.g. applying for housing benefit) (1♀ UK)
  - o language learning games (1♀ UK)
  - o language learning (1♀ A)
- Applying for a job:

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- o job advertisement with details on necessary information and contact details (1♀ A)
  - o receive new job offers every day (1♂ ES)
  - o finding information for finding work (1♀ UK)
  - o how to apply/search for jobs and be taught the necessary vocabulary (1♀ UK)
- Administrative issues:
  - o an application that facilitates the application for a visa (1♀ A)
  - o an application to make appointments (2♂ ES)
- Health issues:
  - o a health 'solution' by an electronic doctor (1♀ A)
  - o how to keep a diet (1♀ A)
  - o making appointments (2♂ ES, 1♂ UK)
  - o chatting with the doctors (1♂ ES)
  - o a map for finding the general practitioner (GP) (1♀ UK)
  - o how to register with a GP (1♂ UK)
  - o how to provide a proof of address (1♂ UK)
  - o how to check in when you arrive at the GP, because one has to use a machine for that in the UK (1♂ UK)
  - o how to refill a prescription (1♂ UK)
  - o how to find interpreters at the GP (1♂ UK)
- Accommodation:
  - o search engine for a flat (1♀ A)
  - o practical information e.g. on how to find a flat and how to pay rent (1♂ UK)
  - o an application that could help with housing for people who do not speak good English, e.g. provide information on contact persons, housing benefits etc. (1♀ UK)
- Navigation:
  - o details about journey duration (1♀ A)
  - o buying tickets on the mobile phone (1♂ ES)
  - o telling you when the train is arriving (1♂ ES)
  - o where to go and how to get there (1♀, 1♂ UK)
  - o which trains or buses to use (1♀ UK)
- Financial issues & taxes and benefits:
  - o a tax office application (1♀ A)
  - o information about special offers (1♀ A)
  - o see account balance (1♂ ES)
  - o providing correct information about council tax, whether you need to pay and how to reclaim money if you pay too much (1♂ UK)
- Other
  - o when using a search engine, too many results are confusing (1♀ UK)
  - o information on organisations, institutes etc. a new migrant might need (1♂ UK)
    - ▪ college, hospital, legal advice, housing system, how to pay rent, how to manage bills.
    - ▪ correct and trustworthy information is very important, e.g. legal advice because it can affect your status.

2.4.2   INTERVIEWS WITH TURKISH SPEAKING IMMIGRANTS IN AUSTRIA

2.4.2.1   DEMOGRAPHICS

Four men and three women participated in the interviews (see Figure 4 for pictures of 2 Turkish interviewees). One woman is aged 37, one is 30 years old and the third one did not indicate her age. The men are aged from 47 to 59. Six interviewees went to primary school for five years, one woman for eight years. Five interviews name Islam as their religious affiliation. The mother tongue of one woman is Kurdish, two women and one man name Kurdish and Turkish, while the other three men have Turkish as their mother tongue.

Figure 4:Turkish interviewees at Danaida.

2.4.2.2   EDUCATION AND QUALIFICATIONS

Six participants went to school for five years (primary school), one woman for eight years. One woman attended a course in needlework for one year and Koran school for another year. In Austria, both of these women attended a German language course. While all the women did not work before coming to Austria, all men had a job.

All interviewees are able to speak at least a little German (speaking: good to basic, understanding: perfect to sufficient, reading: perfect to basic, writing: perfect to none). Most problems and barriers the interviewees mentioned are due to their lacking German language skills. One woman always asks her children to translate, another woman has a hyperactive son, is working, and doing the housework.

In Austria, a woman is working for 3 hours a day, two women are housewives, one man is working as a truck driver, and the other men are unemployed (one is on sick leave and two applied for retirement). Six interviewees get financial support from the government, two additionally also from their families. One woman does not get financial support because her husband is working. The jobs of the participants were cleaning lady, truck driver, unskilled worker and carpenter. The interviewees mentioned age, health, and language problems as reasons why they could not find a job.

Regarding technical equipment, all interviewees own a mobile phone, one woman has a smartphone, and one woman has access to a smartphone. The men explicitly do not have access to a smartphone. Additionally, three persons possess a PC (1♂, 2♀), five a TV (3♀, 2♂). Two interviewees use the mobile/smartphone for writing SMS (1♀, 1♂), five take pictures (3♀, 2♂), one uses it for navigation (1♂), one uses the internet (1♂), and two play games (2♀). Two have settings on their mobile phone in German for language learning reasons (2♀) and one is looking for the departure times for public transport on her mobile phone (1♀). In Table 2, communication techniques of the Turkish interviewees are presented.

	Communicating with people in Turkey	Communicating with people in Austria
1. ♀ in Austria	Mobile phone Skype	Face to face Mobile phone
2. ♀ in Austria	Mobile phone	Face to face Mobile phone
3. ♀ in Austria	Mobile phone	Face to face Mobile phone
4. ♂ in Austria	Mobile phone	Face to face Mobile phone
5. ♂ in Austria	Mobile phone Skype	Face to face Mobile phone
6. ♂ in Austria	Mobile phone	Face to face Mobile phone
7. ♂ in Austria	Mobile phone	Face to face Mobile phone

Table 2: This table represents the communication techniques of the Turkish interviewees. Except for two participants who use Skype to talk to parts of their family in Turkey, all use no communication tools except the mobile phone and meeting somebody face-to-face.

2.4.2.3 MOTIVATION FOR EMIGRATION

The three women came to Austria for family reunification. Three men wanted to get a better job in Austria. One man visited Austria because of his friends. Initially, he did not want to stay but stayed. He is the only male interviewee having a job. Four interviewees want to remain in Austria, two (♂) want to leave the country. While friends are the most important factor for all participants (except one woman) whether to stay or leave the country, for two women having a job in Austria is more important than for the men. Regarding other potential reasons for staying or leaving the country, having or starting a family is most important for four interviewees (3♀, 1♂), while for two interviewees the family living somewhere else is most important (2♂). Whether a place is nice and people are friendly ranges from most important to unimportant. Health care and the educational system are most important for all interviewees, except for one (♀), for whom it is of little importance. The political situation ranges from very important to least important.

Six interviewees have the impression that they cannot fully participate in the Austrian community. While one woman blames her German language skills, the other woman states she cannot fully participate because she has to care for a sick child.

2.4.2.4 OBSTACLES AND PROBLEMS

- Language problems
  - regarding health care (2♀, 2♂),
  - in bureaucracy (2♂),
  - at work (1♂),
  - getting to know other people (1♂)
  - difficulties getting a visa for more than one year without the necessary language exam (1♀)
- Technical difficulties
  - using a computer (1♀)
  - buying a ticket for public transport at the ticket machine (1♀)
  - difficulties using technical devices in general (1♀)

- Difficulties with bureaucratic, administrative and other issues
  - understanding terminology at the labour office (2♀)
  - looking for all day child care (1♀)
  - difficulties understanding everything at work (1♂)
  - lack of language skills (1♂)
- Lack of knowledge
  - not able to register at the labour office and for the German language course without her children (1♀)

2.4.2.5 INFORMATION AND NETWORKS & IDEAS FOR APPLICATIONS

Some interviewees did not know where to get help regarding education, transport, legal issues, financial issues, taxes and benefits. Regarding health aspects, all interviewees would ask health insurance or a doctor. Regarding flats four interviewees would ask friends, whereas the labour office (AMS) would be asked for help in respect to finding a job. For the transport issues they would only ask friends (4♂). Regarding legal issues, financial issues and taxes and benefits they would go to official authorities.

Regarding awkward habits they mention not respecting older people (1♀, 1♂), hostility to foreigners (1♂), eating pork (1♂), drinking alcohol on public places (1♂, 1♀), lack of discipline of young adults (1♂). Also there are cultural differences regarding neighbourhood (1♂) and sometime confusions about national holidays (2♀, 2♂).

2.4.2.6 POSSIBLE APPLICATIONS ON THE SMARTPHONE:

- Language application
  - a dictionary (1♀)
  - a translation application (1♀)
  - German settings (1♀)
  - looking for information on the internet (1♂)
- Applying for a job
  - search engine (1♀)
  - looking things up on the internet (1♂)
  - calling friends (1♂)
  - calling work (1♂)
- Administrative issues
  - a translation application (1♀)
  - calling some place (1♂)
- Health issues
  - a calendar for making appointments (1♀)
  - calling some place (2♂)
  - looking for information on the internet (1♀)
- Accommodation
  - language support (1♀)
- Navigation
  - city map (1♀)
  - calling somebody (3♂, 1♀)
- Financial issues & taxes and benefits
  - searching for support (1♀)

Except for one woman who had more precise recommendations, all the other interviewees answered the question about potential mobile applications in different areas by just saying: 'looking something up on the internet' and 'calling somebody'.

2.4.3 INTERVIEWS WITH SPANISH-SPEAKING LATIN AMERICANS IN THE U.K.

2.4.3.1 DEMOGRAPHICS AND BACKGROUND

All three interviewees (two women and one man) came from Ecuador and are 39 to 59 years old. They lived in Spain first and came to the UK 2-4 years ago to find work. Their main barrier is language. The religious affiliation of all three interviewees is catholic. Two out of three participants finished high school. Both women have children, one woman is divorced. All three interviewees lived in Spain before coming to the UK, but they left because they could not find a job. The wife of the male interviewee is living in Spain and he hoped to get a fulltime job and bring his family to the UK as well, but due to his language skills he has difficulties finding an appropriate job. One woman would like to go back to Ecuador, but supporting her children is more important to her. For one woman, finding a flat was the hardest thing she ever had to do and it took her one year.

2.4.3.2 EDUCATION AND QUALIFICATIONS

One man and one woman finished high school, one woman secondary school. All three interviewees work as a cleaner part time (1♂, 1♀) or full time (1♀) and all three found their job through a friend.

None of the interviewees receive financial support. One woman did not work in Ecuador and was unemployed in Spain for the last 2 years. Now she is working as a cleaner. The two other interviewees claim language as their main barriers of finding jobs matching their qualifications (one woman worked as a cook in Spain, one man as a carpenter and administrator for a national service).

Their mother tongue is Spanish and all of them rate their English language skills as basic to none.

All of the interviewees possess a mobile phone, a PC or laptop, a camera and an MP3 –player. The two women additionally possess a smartphone and a TV. One woman actually has three mobile phones: one containing all phone numbers (she does not know how to put them on her smartphone), another mobile phone with a LycaMobile SIM card for calling her family in Ecuador, and a fourth one as a reserve phone.

All three interviewees write SMS with their mobile phone, the two women take pictures and one woman additionally uses it for calling somebody, the internet, and learning and translation applications. The used communication techniques of the Latin American interviewees are presented in Table 3.

	Communicating with people in home country	Communicating with people in the UK
1. ♂ in the UK	Email (with his wife in Spain)	-
2. ♀ in the UK	Mobile phone Emails MSN messenger	Face to face Mobile phone
3. ♀ in the UK	Mobile phone	Face to face Mobile phone

Table 3: One man only communicates with his wife in Spain, one woman uses her mobile phone as a communication tool, the other woman uses additionally emails and MSN messenger to communicate with her relatives and friends in Ecuador.

2.4.3.3   MOTIVATION FOR EMIGRATION

All of the interviewees left Spain because there was no work in Spain. One woman additionally got divorced and therefore wanted to leave Spain. The man intended to find a job and bring the rest of his family (his wife is living in Spain), but he could only get part-time jobs due to his English and realised that he cannot afford bringing the rest of his family. One woman who is 59 years old would like to go back to Ecuador and live close to the beach, but she regrets that she did not study and wants to give her children this possibility.

For the man the family living somewhere else is most important, for one woman having a job in the UK and supporting her family in the UK is most important. For the other woman education in the UK is most important.

A man names English as his barrier. He tried to get onto an IT course and passed the written entry exam but not the oral exam due to his English.

One woman states that she has the impression that she cannot fully participate in the UK community because of language barriers.

2.4.3.4   OBSTACLES AND PROBLEMS

Barriers

- Language problems
  - when shopping people often speak too fast(1♂)
  - needing a translator at the doctors(1♂)
  - people talking very fast and the vocabulary are big problems (1♂)
  - has to take her daughter along to a lot of place so that she can translate (1♀)
  - uses the phone to translate things she does not understand (1♀)
- Technical difficulties
  - ticket machines (2♀)
- Lack of knowledge
  - language (2♀ 1♂)
- Norms and local practices
  - sometime you have to bring water in a bucket in a building with 7 or 8 floors (1♀)
  - the food are mainly sandwiches and fried chicken (1♀)

2.4.3.5   INFORMATION AND NETWORKS & IDEAS FOR APPLICATIONS

Two people did not know where to get help finding a flat and one woman had a lot of problems finding a flat. It took her a year and she found one because a friend was leaving. To her it was the hardest thing she ever had to do. The two women do not know where to get help finding a job. All three interviewees got their job thanks to the help of friends. Two people do not know where to find help regarding financial advice and taxes and benefits. The male interviewee only had informal information and did not know whether it is correct. He made some bad experiences and stopped seeking advice on financial taxes and benefits.

One man did not know where to get help regarding education, therefore he asked people on the streets. He also did not know where to find legal advice. One day his car was stolen and he needed to go to the police. They gave him a computer with a translation programme to help him make himself understood. One woman does not know where to find information on navigation.

- Language application

- o a translator for daily useful situations, e.g. how to create simple sentences, how to top up a bus pass, how to order a drink (1♂)
- Applying for a job
  - o give job applicants an idea of the level of English required (1♂)
  - o how to write a CV (1♂)
  - o how to do an interview (1♂)
  - o how to generally find work in the UK (1 ♂)
  - o how to fill out job applications (1♀)
- Administrative issues
  - o templates of forms either in the mother tongue of the applicant or with a glossary of common terms and an example file that has already been filled out (1♂)
- Health issues
  - o common terms like 'I've got a headache' with the translation (1♂)
- Accommodation
  - o information on where to find cheap accommodation and how to get there (1♂)
- Navigation
  - o where to find cheap accommodation, people from different nationalities etc. and how to get there (1♂)
- Financial issues & taxes and benefits
  - o where to get financial advice (1♂)
  - o trustworthy information on where to get information on taxes and benefits (1♂)
  - o information on how much taxes I paid, the payslip in detail and where the tax is going and why (1♂)
- Other
  - o Too many options for a user would be confusing therefore he would concentrate on providing the necessary information. A translator is the most important thing for him (1♂)
  - o exchanging language skills with people from different cultures (1♂)
  - o important that the application would be available in Spanish (1♀)

2.4.4 INTERVIEWS WITH SUB-SAHARAN AFRICANS IN SPAIN

2.4.4.1 DEMOGRAPHICS

One woman, a man from Cameroon and a man from Mali participated in the interviews in Spain. The interviewees from Cameroon both have children. Finding work is most important for all interviewees. Their age ranges from 19 to 35 years. The religious affiliation of the 19 year old man from Mail is Islam. The other two participants are Catholic and from Cameroon. The woman is 28 years old and the man is 35 years old.

2.4.4.2 EDUCATION AND QUALIFICATIONS

The men went to school until they were 13 and 16. The woman went to school until she was 22, got a degree, a training in sewing, and a diploma in fashion industry.

A man is in training, the other man was unemployed for more than six month at the time of the interview, and the woman is working at a dry cleaner 20 hours a day. Two people receive money from the government, the third interviewee from charity and his family. The two men state that it is very difficult finding a job in Spain.

One man evaluated his Spanish language skills as perfect to very good, the other two interviewees as very good to good.

The two men possess a smartphone, the woman a mobile phone, but she has access to a smartphone from somebody else. All interviewees write SMS with their mobile phones, play games, take pictures, call somebody, two use the internet and navigation applications, and one uses learning applications (♂). See Table 4 for communication tools used by the Sub-Saharan African interviewees.

	Communicating with people in home country	Communicating with people in Spain
1. ♂ in Spain	Mobile phone	Face to face Mobile phone SMS Facebook
2. ♂ in Spain	Mobile phone	Face to face
3. ♀ in Spain	Mobile phone Email	Face to face Mobile phone

Table 4: The woman uses emails in addition to her mobile phone to communicate with people in her country of origin, while one man uses additional communication tools (SMS, Facebook) only with people living in Spain.

2.4.4.3 MOTIVATION FOR EMIGRATION

The woman came to Spain because she got an employment contract and thought she would have a better life in Spain. She plans to leave Spain in the next five years if she does not find an appropriate job. A man divorced his wife in Cameroon and lost his job. He came to Spain to earn money and support his children. He also has a son in Spain. The other man came to Spain to get a good job.

A job in Spain is most important to all three interviewees, the family in Spain is most important for the two men, and for one man all other aspects are most important as well. The woman criticizes that she is not able to vote in Spain.

2.4.4.4 OBSTACLES AND PROBLEMS

Barriers

- Language problems
  - they had problems at the beginning, but not anymore (2♂, 1♀)
- Technical difficulties
  - buying things online (1♂)
  - how to use a cash machine (1♀)
- Difficulties with bureaucratic, administrative and other issues
  - it is very complicated in general (1♀)

2.4.4.5 INFORMATION AND NETWORKS & IDEAS FOR APPLICATIONS

One man does not know where to find help regarding education and regarding financial advices.

As awkward behaviour of Spanish people they mention that Spanish people are very gossipy (1♀) and that many people judge Islam without knowing anything about it, eating late and bullfighting (1♂).

2.4.4.6 POSSIBLE APPLICATIONS ON THE SMARTPHONE

- Language application
  - a chat in many languages (1♂)
  - a translation application (1♀)
- Applying for a job
  - application with job offers (1♂)
- Administrative issues
  - making appointments (1♂)
- Health issues
  - making appointments (1♂)
  - ask a doctor about health issues (1♂)
- Financial issues & taxes and benefits
  - see the account balance (2♂)

2.5 IMPLICATIONS ON MASELTOV SERVICES

The results of the interviews and the gathered barriers have an important impact on the services we are going to develop in MASELTOV. We were able to identify main problems and to prioritize the service ideas. In this section we present the implications in the order of priority to the users of MASELTOV. The referenced services ideas can be found in the Description of Work of the MASELTOV project and are presented in form of scenarios in chapter 4.

Language is the main problem for most immigrants and creates problems in many other domains. The most important areas where language is a main barrier are health care, finding a job, understanding terminology at public offices (e.g. labour office, immigration office), at work, using public transport, when shopping, socialising, people talking a local slang or too fast.

The service idea dealing with barriers induced by language are 'social language learning' and the 'mobile text lens', but also 'playful cultural explanations' can be applied for playful language learning.

Translation applications (text-to-text, speech-to-text, and text-to-speech) as well as situation specific dictionaries were mentioned as possible application ideas by the interviewees.

Finding a job is a large barrier to many interviewees, especially to the interviewees in Spain and the interviewees with lower language skills in the language of the host country. Many interviewees were unsecure about how to find work, how to write a CV, how to do a job interview, how to fill out job applications, which vocabulary to use, how to dress for a job interview etc.

As the problems mentioned concern many different processes, the service 'playful cultural explanations' is prioritized regarding this barrier in addition to a vocabulary containing the most important words to be used.

Interviewees introduce the idea of receiving job offers everyday on their mobile phone including information about the language level required, details on necessary knowledge and contact details. This idea fits to the planned MASELTOV Forum.

Regarding **bureaucratic and administrative issues**, the interviewees mention problems filling out forms, language problems, making appointments, regarding health care, applying for visa, at schools, at labour office and so on.

The geo-social radar is also a potential support and ease for immigrants in critical situations. Making appointments could be combined with a personalised calendar. Learning to fill out official forms could be embedded in a serious game.

Interviewees mention problems with **technical devices**, for example at the ticket machine for public transport, withdrawing money from the cash machine, checking in when arriving at the general practitioner in the UK. These barriers might be declined by playing accordant serious games of the playful cultural explanations service learning how to withdraw money, or using a ticket machine. Also the geo-social radar is a possible support for immigrants in these situations.

Navigation is another barrier mentioned by several interviewees. They miss especially information about the journey duration, the possibility to buy tickets on the train and which trains and buses to use. These service ideas fit within the Mobile Intuitive Navigation service.

Regarding **lack of knowledge** participants name information about equal opportunities, women's right, cultural differences, other religions, parent-teacher-conferences in schools, potential places to go and important information new immigrants might need. Information about these issues fits within playful cultural explanations (cultural differences, potential places and important information new immigrants might need), the MASELTOV Forum (equal opportunities, women's rights, different religions, potential places and important information new immigrants might need) and the multi-cultural event calendar (get to know cultural differences).

3. IDENTIFICATION OF POTENTIAL SOLUTIONS

For identifying potential solutions, we chose focus groups. In the widely accepted definition by (Morgan 1996) he defines focus groups as a research technique collecting data through group interaction on a topic determined by the researcher which has three essential components: the research method is devoted to data collection, it locates the interaction in a group discussion as the source of data, and it acknowledges the researcher's active role in creating the group discussion for data collection.

Focus groups can reveal surprising insights because conversations take their own dynamic way.

(Skop 2006) names several advantages of using focus groups when working with immigrants:

- the potential for unique and spontaneous group interactions
- the potential for the empowerment of the participants
- a method for both exploratory and confirmatory purposes
- particularly useful when seeking to uncover 'world views' as attitudes, perceptions, and experiences

In addition to other qualitative approaches, investigating interlinking processes of immigration, suburbanisation and racialization (e.g. in-depth interviews, participant observations, and landscape analysis) (Skop 2006) emphasizes that in focus group discussions participants have the possibility to express agreement as well as disagreement, highlighting unanimity and consensus in the case of agreement and thereby identify group norms.

Focus groups need to be homogenous with respect to the research question along certain features, such as gender, age, social class, language etc. An advantage of segmenting focus groups according to various characteristics (Skop 2006) is the ability to code the transcripts easily afterwards (along key themes and categories of people).

3.1 SETUP OF THE FOCUS GROUPS

The main aim of the focus groups was to get an impression about the acceptance of the intended MASELTOV services as well as possible preconditions for the usage of those. Furthermore, we wanted to gather ideas for some new services. Therefore, we presented the three user scenarios Social Language Learning (see 4.3), Geo-Social Radar (see 4.4) and Playful Cultural Explanations (see 4.5) to the participants. We discussed these first service ideas in six focus groups with potential MASELTOV users - two in London, two in Graz and two in Madrid with overall 45 immigrants. By this means, we wanted to analyse if the suggested solution ideas for the identified problems are appropriate.

Three Arab speaking focus groups were conducted in Austria, Spain and the UK and additionally one Turkish speaking focus group in Austria, one Latin American (Spanish speaking) focus group in London and one Sub-Saharan African focus group in Spain. Depending on the language skills of the participants, the focus groups were conducted in the language of the host country, or in the native language of the participants. In addition to focus group instructors employed by the NGOs, observers from the MASELTOV partners Open University, Fundacio para la Universitat Oberta de Catalunia, and CURE participated.

3.2 ARAB FOCUS GROUPS

3.2.1 PARTICIPANTS

In Austria eight women participated, half of them is studying or already holds a university degree. The majority has children and is housewives. All of the participants were more or less able to express themselves in German language, sometimes the interpreter had to explain some details they did not understand.

Four men, three women participated in the focus group at MRC in London. One participant had a smartphone.

In Spain three women and five men participated in the Arab focus group (see Figure 5). All participants had mobile phones and although no participants had smartphones, all of them were familiar with them.

Figure 5: Participants of the Arab Focus group in Spain.

3.2.2 THE GEO-SOCIAL RADAR

3.2.2.1 IMPRESSIONS ABOUT THE ACCEPTANCE OF THE GEO-SOCIAL RADAR

Austria

All participants state that the geo-social radar is a very good idea. They would use it in case problems arise and their husband is not at their side. They see the chance to be more independent of their husbands and of translators. All Arabic women prefer an Arabic speaking person and a woman as a volunteer. No matter in which situation or how private the situation is, if they have problems, all of the participants ask foreigners for help, and most of them already asked foreigners on the streets for help.

UK

Some of the participants said they would feel comfortable using the volunteer radar, but others were not entirely convinced. They might use if for situations like getting help to find places (though the navigation tool would also be useful for this).

There was a concern about trust in relation to meeting up with someone they haven't met before. There was a suggestion that vetting the volunteers and storing their data somewhere could help make it safer. Also, it would help if people could rate the volunteers to let other users know that the volunteer has been helpful in the past.

None of the participants wanted their location to be tracked all the time. One already had a bad experience with meeting up a foreign person and did not like the idea at all.

Spain

The participants commented that the geographic location to find a volunteer is important but also depends on the particular situation. In the case of a woman who had to go to court and did not know her rights, it would have been important to find some support. However, in other circumstances it may not be necessary to meet personally.

3.2.2.2 POTENTIAL SITUATIONS WHERE HELP IS NEEDED

Austria

The participants reported they could need help

- when applying for visa (1♀),
- at the health care insurance (Gebietskrankenkassa) (majority),
- in schools, e.g. when they have to enrol their children, at parent-teacher conferences (majority)
- at the hospital when they have to talk to doctors and have to describe their problems where it is very important to use the right terms (majority)
- when learning for the driver's licence (1♀)

3.2.2.3 IDEAS FOR SERVICE SPECIFICATIONS OR NEW HELPFUL SERVICES

Austria

Some participants thought of a tutor at university explaining how they have to enrol for courses, how they have to plan their semester etc. (2♀)

One woman told about her plan to do the drivers licence and her anxiety to fail. The participants suggested a tutor or a tool supporting people learning for the drivers licence.

UK

If there would be something like Twitter where everyone could post a problem and get the answer. Just relying on the internet could be useful for those who don't have smartphones. One participant suggested that the app could also be used when visiting other places within Europe if the network of volunteers would exist in other countries, too.

A participant suggested that people could rate the volunteers to let other users know that the volunteer has been helpful in the past.

None of the participants wanted their location to be tracked all the time. They uttered the idea to enter specific times to be available. Particularly the female participants would only turn on the location tracker when they need it.

3.2.3 PLAYFUL CULTURAL EXPLANATIONS

3.2.3.1 IMPRESSIONS ABOUT THE ACCEPTANCE OF PLAYFUL CULTURAL EXPLANATIONS

The participants in Austria would use it (if it is for free). One participant emphasized the additional advantage to learn words playfully.

In the UK the idea of having a game to learn e.g. about job interviews was welcomed by the whole group – with information about what sorts of questions you might come across, what to wear, including a mock interview.

Participants in Spain mentioned that there is a lot to prepare to appear ready for an interview. This service could help them with the preparation. They suggested that the applications could help with quizzes of potential problems they may encounter during the job interview. Practicing with an application could help them feel more comfortable, but at the time of the real-life interview, things could change and the level of self-confidence may vary.

3.2.3.2 SITUATIONS/AREAS IN WHICH THEY NEED HELP

Austria

They need information on

- how to greet somebody, e.g. do I have to remain seated or do I have to stand up? Do I have to shake hands or kiss somebody on the cheeks? Should I just do it the way in my culture? (majority)
- how to apply for a job. One person was in this situation and was unsecure about how to present herself in front of a future employer. She looked it up on the internet.

They would like to know

- details on different holidays in Austria (2♀)

Spain

They need information on

- rules and standards of specific jobs and requirements
- how to cope with a job interview, how to look for a job, and acceptable behaviours for job interviews

They have the feeling of exclusion because their colleagues at work do not always understand them.

3.2.3.3 IDEAS FOR SERVICE SPECIFICATIONS OR NEW HELPFUL SERVICES

Austria

A participant suggested a game for learning how to greet somebody in the host country in different private and official situations.

In this context, a participant also suggested to provide information about different holidays in the host country. Some participants stated that explanations about these days would be interesting because they do not know what they are about very often.

UK

Other situations where a game could help is booking a hotel, signing up to a gym, registering with a general practitioner, finding accommodation, finding out about places where to go for help – looking at books for learning English would be a good place to start for getting ideas for scenarios.

Spain

A participant suggested a service providing information about different dishes, including their ingredients. This would provide advantages and disadvantages for their health with the consumption of food.

3.2.4 SOCIAL LANGUAGE LEARNING

3.2.4.1 IMPRESSIONS ABOUT THE ACCEPTANCE OF SOCIAL LANGUAGE LEARNING

Austria

Six out of eight women use Facebook and would use the MASELTOV social network service on their mobile phone. As an advantage they mentioned that it could be time saving if they do not have to attend their language courses to enhance their language skills.

The majority would not share photos or videos of their families. But they would share information that could be helpful to find somebody adequate to support and help them. This information includes details on education and qualification in a job forum as well as their learning progress no matter if the progress is good or bad.

UK

Participants were familiar with Facebook. Some thought they would sign up for the social network and liked the idea, but others were concerned about the value in this and about safety issues. Only half of the group, mostly the men, felt comfortable having a profile with a picture or other information that might identify them. They also thought that if others had information about what they could help with, what their skills and strengths are then this would help to build trust. One participant suggested that those who needed help in the first year could later switch to become volunteers to help new migrants once they felt confident with this.

One was reluctant to see the educational side. It would veer towards a social platform. After meeting a person once this participant thought he would depart from the app and just depend on this person. People will tend to stay in their comfort zone. This person also thought that not enough people would be retained on the social network for this reason.

Generally participants thought the social network would be good for meeting people from different cultures as well as people from their own home country.

They liked the idea of finding out about social events through the network.

One participant said that some new migrants won't be aware of privacy settings, or they might be too trusting from some cultures and might share information that they do not realise puts them at risk. Another said she had a bad experience with Facebook and deleted her account altogether.

Two of the female Moroccan participants said they would not want to use the network to meet people from Morocco as they felt that Moroccan people do not always make good friends, but instead use them only for help, without giving anything back. Another Moroccan woman pointed out that wherever people are, you find both good and bad people and so you are always taking a risk.

Spain

The participants think that it could be an important application and help them in learning the language. They hope they can have access to this type of technology because these types of phones are very expensive.

MASELTOV

Mobile Assistance for Social Inclusion and Empowerment of Immigrants with Persuasive Learning Technologies and Social Network Services

Participants have the impression that this type of service would be very useful, although they are wary about putting information online.

3.2.4.2 SITUATIONS/AREAS IN WHICH THEY NEED HELP

Austria

The majority thinks of enhancing their language skills within the social network service and one person mentions a job forum to find appropriate job advertisements.

UK

The problem most of the participants mentioned is that they meet Arab friends in London and then they do not speak English because they do not have to. The Chadian participants had a different experience, despite speaking Arabic, they did not have a community of people from their home country in the UK and also attended colleges so they were forced to speak English.

Also in London the participants learn English from people who are not necessarily native English speakers and so it can be difficult to understand them and they might learn a different accent or different phrases than if they learnt from a native speaker.

One participant mentioned that at college it was also really difficult to learn English, especially the accent. It is also a difficulty finding work without adequate English proficiency and also without knowing the job application process.

Spain

It is difficult to learn a language, especially when you are working since you have little time to do so.

Watching television in Spanish helped a participant learning the language. It is very helpful to have a Spanish-French dictionary. This helped them better understand the meaning of certain words.

Some are afraid that when you ask the application for information, it may not correspond to the current situation or it might be wrong.

3.2.4.3 IDEAS FOR SERVICE SPECIFICATIONS OR NEW HELPFUL SERVICES

UK

Is there anything that would have helped, also thinking about how a mobile phone application might help:

- Learning English through free newspapers.
- An online dictionary with vocabulary specific to the situation (e.g. at social services)
- Finding courses in a college.
- How to register with a GP, how to order a repeat prescription, how to make GP appointments online, how to express yourself, certain words like prescription, appointment and even how to write them down.
- Places to go and how to get there. A participant talks to Arabic people to find out where to go, where to meet people, and how to get to places.
- Advice on buying travel tickets – particularly finding the best price / offer. That it's cheaper to buy train tickets via the internet, peak and off-peak times, zones, how to use websites like TFL

Spain

They suggested that it would be interesting to have an application that could speak in their language. They could talk to the application and it would respond in their own language. The application would be better if it could offer the possibility of both speaking and writing.

3.2.5 CONCLUDING DISCUSSION AND CONSIDERATION IN THE ARAB FOCUS GROUPS

3.2.5.1 IMPRESSIONS ABOUT THE ACCEPTANCE OF THE MASELTOV APPLICATION

Austria

The majority would use the MASELTOV services because they often need help and they are very often in a situation where family and friends don't have time to help. Furthermore, it would be time-saving to find support on the mobile phone. All participants would feel more confident if they do not have to beg for help, e.g. their husbands but could rather stick to volunteers. One participant suggested to organise the different MASELTOV services within appropriate categories. By this means, it should be easier to find what they are looking for.

There is a very positive reception and a high demand of the possibility to translate text instantly by all participants. A woman reported she got problems as she signed a document which she did not fully understand and had to pay penalty later. Thus, although not discussed in the focus groups explicitly, the mobile text lens (see 4.7) would be used frequently.

The majority of the participants also like to get in contact with other people.

The application should not be interrupted if one uses it while navigating or travelling.

One woman who works as computer programmer asked explicitly about the advantages of the application because she already uses similar services on the internet. Regarding the geo-social radar she had doubts that the volunteer arrives in time.

UK

Most important to the participants is learning and getting help finding a job. The group was split between whether using the MASELTOV services to meet new people would be an advantage or disadvantage. The main disadvantage or risk noted was the safety concern of meeting up with people who might not be vetted.

Half the group, mostly the male participants thought they would use the app. The female participants thought it would be useful for getting information about the language and culture, navigation support, but not for the social network or volunteer radar.

Spain

Overall the participants stated that having a cell phone is an essential tool in daily life. Nevertheless there is a lack of confidence in these types of new applications.

The applications and solutions have to be easy to operate so that anyone can use them. If one can interact via voice it could be very easy to use.

Incorrect information would prevent them from using MASELTOV. Privacy and trust are very important aspects for immigrants who partly made bad experiences with the host society. So it is crucial to control all information regularly and protect their privacy.

3.2.5.2 ADDITIONAL SERVICE IDEAS ARE

Austria

- a house exchange forum (1)

- a job forum (1)
- a forum for childcare (majority)
- support how to describe problems/illnesses to a doctor (majority)
- short stories to entertain little children while travelling (1)
- language course offers (1)

3.2.5.3 PROMOTING IT TO A WIDER AUDIENCE

Austria

For promoting MASELTOV to a broader audience, the participants suggested:

- advertisements on Facebook
- to distribute it orally
- to promote it through mobile operators of smartphones
- to offer workshops to introduce the functionalities of the application and give explanations on how to use it

UK

The app could be promoted through leaflets at the Home Office/UKBA, social services, at colleges, the Refugee Council, other voluntary sector organisations providing support, at the point of entry, local library, local councils, at the GP, Citizens Advice Bureau, railway and other stations, community centers, MPs, police stations, exam centers (like IELTS), places where you can take the citizenship test. Also links on government websites (Gov.UK / currently DirectGov).

3.3 TURKISH FOCUS GROUP

3.3.1 PARTICIPANTS

Seven women participated in the Turkish focus group in Austria. On average they had lower levels of education and have been living in Austria for at least five years. The participants communicated with the workshop leaders exclusively with the help of an interpreter.

3.3.2 THE GEO-SOCIAL RADAR

3.3.2.1 IMPRESSIONS ABOUT THE ACCEPTANCE OF THE GEO-SOCIAL RADAR

There was very positive resonance about the geo-social radar. All participants stated that they would use it. A necessary precondition however would be that the volunteers are able to speak Turkish and they prefer woman because of jealous husbands and potential gossip. No matter in which situation, all of the participants would ask for help. But some of them have concerns regarding the geo-social radar because they do not want everybody to see their current location.

3.3.2.2 SITUATIONS/AREAS IN WHICH THEY NEED HELP

They need help

- in all everyday life situations (majority)
- in schools, e.g. when they have to register their children, at parent-teacher conferences (majority)
- at the hospital when they have to talk to doctors and have to describe their problems, where it is very important to use the right terms (majority)
- at work (difficulties to express themselves) (1♀)
- finding certified translators (1♀)

- in navigation (1♀)
- reading the package leaflet of a medication (2♀)
- when communicating with authorities (bureaucracy) (majority)
- how to find a lawyer for court hearings (1♀)

3.3.3 PLAYFUL CULTURAL EXPLANATIONS

3.3.3.1 IMPRESSION ABOUT THE ACCEPTANCE OF PLAYFUL CULTURAL EXPLANATIONS

Such games seem to be very useful to all the participants. They would play these games if they have enough time.

3.3.3.2 SITUATIONS/AREAS IN WHICH THEY NEED HELP

The participants mainly described certain misunderstandings:

- They did not know where the sound of church bells is coming from (majority)
- They were irritated by the siren at noon on every Saturday (majority)
- The participants did not understand why people have these 'strange eggs' in April (1♀)
- Informing neighbours about slaughtering animals or having a party or getting up in the middle of the night to eat during Ramadan (1♀)

3.3.3.3 IDEAS FOR SERVICE SPECIFICATIONS OR NEW HELPFUL SERVICES

A participant suggests a game for describing certain symptoms and complaints at the doctors.

Another possibility for a game would be to learn how to fill in an official form.

A woman suggests a game about the driver's licence examination, encouraging people to take this exam and how to explain it to their families.

As a fourth game a person suggests to playfully learn how to communicate with neighbours about having a party, slaughtering animals etc. This includes phrases they could use and possible answers to certain questions.

3.3.4 SOCIAL LANGUAGE LEARNING

3.3.4.1 IMPRESSION ABOUT THE ACCEPTANCE OF THE MASELTOV MOBILE SOCIAL NETWORK SERVICE

The children of most participants use Facebook but the participants themselves have never used it. Nevertheless, the majority likes the idea of a such an social network and stated to use it. Some mentioned it would also be helpful for their children.

Except for private problems, the majority would share personal information with the community to find appropriate support. But several participants mention that the possibility to hide certain information is very important to them.

3.3.4.2 SITUATIONS/AREAS IN WHICH THEY NEED HELP

To speak the German language is the main problem of all participants. Nevertheless, none of the participants mentioned explicitly language as a barrier although many problems are caused by the lack of language skills.

3.3.5 CONCLUDING DISCUSSION AND CONSIDERATIONS IN THE TURKISH FOCUS GROUP

3.3.5.1 IMPRESSION ABOUT THE ACCEPTANCE OF THE MASELTOV APPLICATION

Overall, there was a very positive resonance on the MASELTOV application. The majority likes getting to know other people, to exchange experiences and mutual support best.

In the case that problems with the application occur a contact person would be good. (1♀)

Although some of the participants never used a smartphone before, it did not seem to be a problem for them.

A disadvantage the majority of the participants mentioned is that everybody is able to see personal information about them. They mentioned that some information should be restricted. Nevertheless, the possibility to find appropriate help according to the hidden information is important.

3.3.5.2 ADDITIONAL SERVICE IDEAS ARE

- a topic specific dictionary for urgent situations (this service – with which they came up by themselves – is the service the majority likes best).

3.4 LATIN AMERICAN FOCUS GROUP

3.4.1 PARTICIPANTS

Two men and five women form Venezuela, Peru and Colombia participated. Two of the participants had smartphones.

3.4.2 THE GEO-SOCIAL RADAR

3.4.2.1 IMPRESSION ABOUT THE ACCEPTANCE OF THE GEO-SOCIAL RADAR

Participants did not feel good using this function in an emergency, or when already dealing with someone face to face since they thought it would be rude to turn the phone on and use it while trying to talk to someone. They also thought in an emergency or in the moment, when under pressure they would not use it because they would be focused on the issue at hand, might not remember to use the app or might not feel confident to use it quickly in such a situation.

It might be better to arrange for help in advance, also because they thought it would be unlikely that enough volunteers would sign up for there to be someone nearby in the case that they needed help immediately.

All the participants were very concerned about the risk involved in meeting up with someone they had not met before and particularly if the volunteers were not vetted by an organisation they could trust. They would feel better finding someone they already knew or someone close to them. They didn't like the idea of a volunteer simply registering and then being able to meet up with people using the app. They pointed out that people in these critical situations are often vulnerable and so it would be necessary to ensure the volunteers would not take advantage of them.

They did not like the idea of their location being tracked. Some might use it if they could turn this location tracking function on only temporarily when help was needed.

In particular the participants thought that they would not like to get help from a complete stranger at the doctor's or any situation where the person would have to give personal information.

3.4.2.2 SITUATIONS/AREAS IN WHICH THEY NEED HELP

Participants agreed with the barriers described and said they had experienced lots of similar situations where they didn't understand what they had to do and what the process was, e.g. not understanding what a National Insurance number is for, where you have to go or what the process is.

They suggested that they might need help in these situations, for example, at the bank, or when registering with a general practitioner.

3.4.2.3 IDEAS FOR SERVICE SPECIFICATIONS OR NEW HELPFUL SERVICES

Participants suggested that the volunteers should be recruited by a trusted organization and details of the volunteers held by a central organisation in order to take action in case of an assault.

3.4.3 PLAYFUL CULTURAL EXPLANATIONS

3.4.3.1 IMPRESSIONS ABOUT THE ACCEPTANCE OF PLAYFUL CULTURAL EXPLANATIONS

Some people thought they would prefer to get the information in a more traditional way, like through organisations or people who have been in the UK for longer. One person thought it would only be good for children.

Others thought it could be useful since some people might not want to have to read too much. These people suggested that the game be animated and more playful and that this could be good for people having to take in a lot of information already. Also it would be good for people who learn better through something visual. One participant claimed that the information should also be available in a written format.

One suggested we should also look at other learning games e.g. at those created by RSA Anime and Cognitive Media. He liked the idea of having a visual representation of the information.

3.4.4 SOCIAL LANGUAGE LEARNING

3.4.4.1 IMPRESSIONS ABOUT THE ACCEPTANCE

All participants were familiar with Facebook. They said they would sign up to the social network if they didn't have to put personal information on their profile unless they choose to.

They thought having a profile was a good idea. They only wanted to put information up that they chose to and not be required to add anything in particular. Some people would be happy to put information about their education, but they were concerned that some people would not want to put information about where they studied, for example, for fear of being traceable. Generally, they would be happy to add their learning goals and to add comments about their learning. They would want the option, like on Facebook, to decide who they share their information with and not automatically share it with everyone who is signed up to the app. Some would be happy to share photos, thinking it would be more likely that people would then add that person as a 'friend', but others did not want to add a photo at all, again worrying about safety.

3.4.5 CONCLUDING DISCUSSION AND CONSIDERATIONS IN THE LATIN FOCUS GROUP

3.4.5.1 IMPRESSIONS ABOUT THE ACCEPTANCE OF THE MASELTOV APPLICATION

Participants said they would recommend the app to their friends if it was good. They thought it shouldn't cost more than £2, preferably free and they didn't like the idea of ads. A free version with ads could be okay.

They liked the idea of having a dictionary and they touched on the text lens during the focus group which they thought would be a great idea.

Disadvantages discussed were safeguarding of users and accessibility, as referred to above.

Participants said they would want a website, as well as an app for language learning. The website should have advice on how to use the social network and/or volunteer radar safely – about the importance of meeting in a public place, a disclaimer to say that meeting up with a volunteer is the responsibility of the people meeting up and not.

3.4.5.2 ADDITIONAL SERVICE IDEAS

- pronunciation features to give people the correct pronunciation of words

- a checklist of important things immigrants have to do when you first arrive and then practical tips on how to do each of these things

3.4.5.3 PROMOTING MASELTOV TO A WIDER AUDIENCE

The app could be promoted at the embassies or consulate, at colleges where ESOL is taught, via Facebook, or paid advertisements on public transport, community newspapers, metro, and other free publications.

3.5 SUB-SAHARAN AFRICAN FOCUS GROUP

3.5.1 PARTICIPANTS

There were seven men and one woman participating in the focus group form Cameroon (1), Senegal (4), Guinea Bissau (1), Sierra Leone (1), and Guinea Conakry (1). Although all participants had one or more cell phones, none had a smartphone. The telephone services they used are pre-paid with a rechargeable phone card.

None of the participants in the group had a job.

3.5.2 THE GEO-SOCIAL RADAR

3.5.2.1 IMPRESSIONS ABOUT THE ACCEPTANCE

There was a positive resonance for the geo-social radar, although the participants fear that the actual usage could be complicated. In some legal situations (courts, police stations, etc.) it is not allowed to use cell phones. It is important for the participants that public authorities are aware of this system so that they permit to use the application, especially in locations that normally do not allow the usage of cell phones.

Participants also mentioned that they fear not knowing how to use this service.

3.5.2.2 SITUATIONS IN WHICH THEY NEED HELP

- when they are detained by the police and brought in front of a lawyer to sign documents that the immigrant is not permitted to read
- when opening a bank account
- signing specific documents
- in medical situations, to better understand their conditions and the recommendations by the doctor

3.5.3 PLAYFUL CULTURAL EXPLANATIONS

3.5.3.1 IMPRESSION ABOUT THE ACCEPTANCE

The participants think that an application like this could prove to be useful in social situations, although they did not think they would not use it.

3.5.3.2 IDEAS FOR SERVICE SPECIFICATIONS OR NEW HELPFUL SERVICES

- Simulating daily life situations, for example how to present oneself in front of others, how to behave in public places, etc.

3.5.4 SOCIAL LANGUAGE LEARNING

3.5.4.1 IMPRESSIONS ABOUT THE ACCEPTANCE

The application could help them to decrease travel costs to language courses and could also help them to get to know other people.

They would download this type of application on their cell phones, although they still feel some discomfort regarding the information that the phone application could provide them.

3.5.4.2 SITUATIONS IN WHICH THEY NEED HELP

The Participants cannot afford travel costs to language courses.

3.5.5 DISCUSSION CONCLUDING THE LATIN FOCUS GROUP

As advantages of the MASELTOV application participants mention

- saving time and money

- help and support in critical situations by individuals

- easy access to information

- support for communications problems

As disadvantages they mention

- fear of the confidentiality of information needed to register for the application

- privacy: public authorities could use the application to locate someone

- the application does not facilitate the face-to-face interaction with people

- smartphones are not common among immigrants

4. IMPLICATIONS ON THE REQUIREMENTS

In this section we present the implications that we deduced from the results of the focus groups and the interviews in terms of functional and non-functional requirements. The geo-social radar, playful cultural explanations and social language learning were discussed in more detail. Although not explicitly broached some participants also mentioned needs for the multicultural event calendar and the social network that we include here as well. All services including the not discussed ones Mobile Text Lens and Navigation Support will be specified technically in the deliverable D3.2 "System Specification" where a mapping from user needs and technical specifications will be presented.

4.1 FUNCTIONAL REQUIREMENTS

To each functional requirement we assigned an ID to facilitate references in further deliverables. A prefix (e.g. SLL) refers to the different services (e.g. Social Language Learning) followed by a dash and a digit for the requirement. For each requirement, a context is listed (e.g. health). In the column Method it is origin of the requirement is indicated (focus group (FG) or interview (INT)). 'Priority' marks the importance of the requirement and is based on the interviews and the focus groups.

ID	Functional requirement	Context	Method	Priority
Geo-Social Radar (GSR)				
GSR-1	The users and the volunteers provide information which is automatically filtered be the system and volunteers are assigned automatically	Security and Privacy	FG	Low
GSR-2	Provide the possibility to turn control location tracking.	Security and Privacy	FG	High
GSR-3	Display the languages the volunteers are able to speak to the migrants.	Communication	FG	High
GSR-4	Display to the volunteers the areas in which volunteers are able to provide help.	Support in certain areas	FG	Medium
GSR-5	The gender of the volunteers needs to be displayed to the migrants.	Social context	FG	High
GSR-6	Provide the possibility to vet the volunteers.	Security and Privacy	FG	High
GSR-8	Combine the Geo-Social Radar with a calendar to make appointments with the volunteers.	Security and Privacy	FG	High
Playful Cultural Explanations (PCE)				
PCE-1	Provide information on how to search for a job	Job	FG	High

PCE-2	Provide information on how to apply for a job	Job	INT	High
PCE-3	Provide information on necessary vocabulary for applying for a job	Job	INT	High
PCE-4	Provide information on how to do a job interview	Job	INT	Medium
PCE-5	Provide information on how to fill out a job applications	Job	INT	Medium
PCE-6	Provide information on how to write a CV	Job	INT	Medium
PCE-7	Provide short stories to entertain children when travelling	Children	FG	Low
PCE-8	Provide information for learning for the drivers licence	Drivers licence	FG	Medium
PCE-9	A checklist of important things immigrants have to do when they first arrive and practical tips on how to do each of these things	New arrival	FG	High
PCE-10	Provide information on greeting behaviours in unofficial and official situations	Contact with locals	FG	Medium
PCE-11	Provide a game about cultural peculiarities, e.g. Easter or traditions which might be frightening, e.g. the sound of church bells, the siren at noon on every Saturday.	Cultural peculiarities	FG	Medium
PCE-12	Provide information on how to talk to neighbours, about which situations, events you should talk with your neighbours and how to talk to them.	Contact with locals	FG	Medium
PCE-13	Provide possibilities to describe certain symptoms and complaints at the doctors.	Health	FG	High
PCE-14	Provide information on how to register/make appointments with a general practitioner.	Health	FG/INT	High
PCE-15	Provide information on how to provide a proof of address	Health	INT	Low
PCE-16	Provide information on how to refill a prescription	Health	INT	Low

PCE-17	Provide information on how to fill in an official form including a glossary of common terms and an example file that has already been filled out	Bureaucratic / administrative issues	FG/INT	High
PCE-18	Provide information on how to apply for a visa	Bureaucratic / administrative issues	INT	High
PCE-19	Provide information on how to book a hotel	Accommodation	FG	Low
PCE-20	Provide information on how to sign up to a gym	Sports	FG	Low
PCE-21	Provide information on how to find accommodation	Accommodation	FG	Low
PCE-22	Provide information on how find out about places where to go for help.	Support	FG	High
Social Language Learning (SLL) and Mobile Text Lens				
SLL-1	Dictionary containing topic specific entries, especially for medical terms	Language learning / health	FG/INT	High
SLL-2	How to describe problems / illnesses to a doctor	Language/ health	FG	High
SLL-3	Offer a forum to facilitate finding a partner for tandem language learning	Language learning	FG	Medium
SLL-4	Pronunciation features to give people the correct pronunciation of words	Language learning	FG	Medium
SLL-5	Provide translations that take the context into account.	Language	FG	Medium
SLL-6	Arab, Turkish and Spanish language has to be supported	Language	INT	High
SLL-7a	Offer a translation application supporting text-to-text	Language	INT	Medium
SLL-7b	Offer a translation application supporting text-to-speech	Language	INT	Medium
SLL-7c	Offer a translation application supporting speech-to-text	Language	INT	Medium
SLL-8	Provide information about how to find interpreters	Language	INT	Medium

SLL-9	Possibility to exchange language skills in general with people from different cultures	Language	INT	Medium
Social Network Service (SNS)				
SNS-1	Job offers including necessary information on contact details	Job	FG/INT	High
SNS-2	Receive messages in case there are new job offers	Job	INT	Medium
SNS-3	A search engine for finding jobs	Job	INT	Medium
SNS-4a	A house /accommodation exchange forum	Accommodation	FG	Medium
SNS-4b	A search engine for a flat	Accommodation	INT	Medium
SNS-5	Provide practical information on how to find a flat, how to pay rent and how to get housing benefits	Accommodation	INT	Medium
SNS-6	A forum for child care	Child care	FG	Medium
SNS-7	Language course offers	Language learning	FG	Low
SNS-8	Provide information about paying taxes	Financial issues	INT	Medium
SNS-9	Provide information about receiving benefits	Financial issues	INT	Medium
SNS-10	Provide information about where to get legal advice	Legal issues	INT	Medium
SNS-11	Explanations on different national holidays	Cultural differences	FG	Medium
Navigation (NAV)				
NAV-1	Provide details about duration of public transportation	Navigation	INT	Medium
NAV-2	Provide information about means of transport/which trains and busses to use	Navigation	INT	High
NAV-3	Provide the possibility to buy tickets with the mobile phone	Navigation	INT	Low
NAV-4	Provide information on how to use the ticket machine	Navigation	FG/INT	Medium

4.2 NON-FUNCTIONAL REQUIREMENTS

In addition to functional requirements, we also collected comments on non-functional requirements in the focus groups.

In general, participants doubt they can have access to this type of technology (i.e. smartphones) because these types of phones are very expensive, especially in Spain and the UK. In the UK, new immigrants would not be able to afford a smartphone or would not be able to get a contract necessary to have a data allowance due to not being able to show proof of address, for example.

Very important are safety and privacy concerns, especially regarding the Geo-Social Radar and the social network especially in relation to potential illegal status of the migrants. The possibility to share different information regarding different services should be given. Some new immigrants will not be aware of privacy settings and may share information that puts them at risk. Therefore sufficient information about privacy issues must be provided.

ID	Non-functional requirements	Priority
NF-1	The application has to be for free if possible or at least affordable	High
NF-2	The service should save time	High
NF-3	Access with low-budget smartphones should be supported	Medium
NF-4	Services have to be easy to operate (usability)	High
NF-5	Safety and privacy concerns have to be taken into account	High
NF-6	Sufficient information about privacy issues has to be provided	Medium
NF-7	Provide the possibility to share different information in different services	Medium
NF-8	The information about locations has to be encrypted	Medium
NF-9	Provide the possibility to use only one of the MASELTOV services	Low
NF-10	Offer a workshop/tutorials on how the services work and how to use them	Medium
NF-11	Provide a contact person/point in case problems occur	Low
NF-12	Inform legal authorities, so that immigrants are allowed to use this application in legal contexts	Medium
NF-13	Volunteers should be recruited by a trusted organization and details of the volunteers held by a central organization to take action in case of an assault.	Low

5. DESCRIPTION OF THE MASELTOV SERVICES

The insights of the research and the studies described above led to an elaboration of the MASELTOV services. In this section we describe the services with the help of user scenarios, so from a user-centric perspective.

5.1 GEO-SOCIAL RADAR SCENARIO

Mesut just turned 39 and lives in Vienna for three years now. Originally he came from a small Turkish town nearby the border to Syria. His family was very poor because his father died when he was a little child. After visiting primary school he needed to support his mother financially and started helping his uncle to repair cars and other machines. Some years later when he was already married and had children, his daughter Özge turned seriously ill. The money he earned from his uncles garage did unfortunately not suffice for paying the medical treatment necessary for his child. This was when Mesut made the decision to go to Europe. He heard that people over there earn much more money for the same job.

When Mesut arrived in Vienna he started working as a mechanic in the garage of a friend of a cousin. His salary is rather small but still much higher than in his home town. So he is able to send half of his salary to his wife and therewith support the treatment of his child.

Although he is basically able to communicate with customers and colleagues in German, he prefers to talk in Turkish. Therefore Mesut's German language skills are rather insufficient for visits at some authorities or talking to German speaking doctors. The problem is increasing when he needs to clarify things in spontaneous situations. Up to now he tried to avoid those situations but it is not always possible. If not he had to spend a lot of efforts to resolve these issues including calling someone for help, repeatedly visiting different authorities or paying extra money. Sometimes he just gave up. Some weeks ago, a Turkish customer showed him the smartphone application MASELTOV. It included a Text-Lens tool for adhoc translations, social language learning courses, playful explanations of special Austrian behaviors and many more helpful services. Mesut really liked this approach and downloaded the app.

One day Mesut was really glad that he discovered MASLTOV because he needed immediate help after a car accident. On his way home another car driver crashed into his left front wing because he didn't give priority to the right. The name of the man who caused the accident was Martin and he seemed to be really sorry but spoke a strong Austrian dialect. So Mesut could not understand him at all. In this situation, Mesut remembered the geo-social radar service of MASELTOV. This adhoc help service where near-by volunteers can be asked for support was of great help for him in this situation.

One of the available volunteers at that time was Ahmed who indicated to MASELTOV that he knows Turkish and German. Ahmed was watching TV in his flat around the corner of the place of accident when Mesut's message reached him. Immediately, he left his flat and arrived 5 minutes later at the place of the accident. He mediated between Mesut and Martin and additionally suggested that Mesut could repair both cars in his garage. Martin was very happy with this solution as the damages were not that grave and he preferred to pay for them instead of paying higher rates for his insurance. Finally, with the help of Ahmed Mesut as well as Martin were contented and it was not even necessary to call the police.

This time Mesut used the geo-social radar when he needed immediate help. However, it is also possible to make appointments with volunteers in advance if it is already known that he

will be in a situation in which he needs help. Furthermore, the volunteers have the possibility to indicate specific time slots where they are available e.g. every Saturday from 1-6pm.

5.2 PLAYFUL EXPLANATIONS SCENARIO

Mustafa (31) from Ankara arrives at the railway station (Kings Cross) in London. As he has never been to England before he is quite excited and hopes that there won't be any problems with his new job as caretaker. A private employment agency in Ankara procured him this job.

In spite of having attended a Basic English language course in Turkey he doesn't understand a lot. Fortunately, a friend of his told him about the MASELTOV service and he downloaded it to his smartphone. The service provided him with some guidelines about how to provide the necessary information in the immigration office. One part of the MASELTOV service was a serious game that simulated the necessary procedures he had to follow in the immigration office.

During his first week in UK, Mustafa found a place to live. However, he wanted to create account to different utility companies e.g. at a bank and an insurance. He decided again to use the MASELTOV service for a simulation game. By running the simulation and interacting with virtual characters from the game he gained understanding about the procedures he has to follow and the information that he needs to fill in. Mustafa was really happy with the services that MASELTOV provided. Another example for which Mustafa found MASELTOV very helpful was specific behavior in public space. Mustafa went for a coffee with his colleagues from work. By playing the game Mustafa understood that he had to be more aware of his surroundings and tried to understand the culture and improved his interactions with his friends.

5.3 SOCIAL LANGUAGE LEARNING SCENARIO

Jesus is an electrician living in the city of Puebla in Mexico. He is 21 years old and, like most single men of his age he lives with his mother, father and sisters a few kilometres from the city centre. He has a good job with a company that carries out maintenance work in the industrial units in the many industrial estates in Puebla. One June evening, whilst out with friends, he meets Claire. Claire is an English woman who is in the 3rd year of her course in Translation, Media and Spanish at the UEA, a year that is spent abroad gaining translation experience. Claire is spending this year working at the Ternium steel mill, assisting their translators produce documents to secure export orders, and learning from them as she does so. Claire can speak Spanish well, but Jesus' English is not that good.

To cut a long story short, Claire and Jesus fall in love, and keep in contact via SMS and Skype after Claire returns to UEA for her final year. Upon graduating Claire finds a job in London. Desperate so see her again, and with Claire's encouragement, Jesus decides to resign from his job and moves to England (as a general visitor i.e. permitted to stay for 6 months, without working).

After a few weeks in rainy autumn London, he misses his family and friends and wants to build a new network of friends in London. Despite the conditions of his entry to the UK, Jesus also wants to explore the possibility of getting a job as an electrician, the trade he practised in Mexico. He needs help to develop both his technical language and his social language skills. Claire can help him with some aspects of this, but as she isn't an electrician and is at work herself Monday to Friday, the help she can provide towards the goal of working as an electrician is particularly limited.

Whilst Claire is at work, Jesus makes use of the MASELTOV service which Claire discovered some days ago in a newspaper article. The service suggests to engage in activities related to his job such as buying or enquiring about electrical items in shops, and it supports him to prepare for and to carry our these activities. The MASELTOV system provides him with a set of simulations in which he can practise conversing about electrical items. For example, it shows a simulation of an electrical appliance shop and allows the user to focus on an appliance of their choice. The first appliance he chooses is a freezer, and the simulation allows him to read the sign on this freezer. The sign gives the price, and various technical characteristics of the freezer such as its capacity, energy efficiency grade, and energy consumption. The system prompts him to formulate a question in English to ask the simulated sales person about each of the technical characteristics. If he cannot do this, the service makes some relevant tools and prompts available to him such as definitions etc., including audio indicating how the words and phrases should be pronounced). Once he has practised the scenario several times, the system prompts him to try it out in a real shop (it does this by rating his performance each time, and encouraging his improvements). It suggests the name, and links to a map and transport options, for the nearest appropriate. Considering the transport options, Jesus decides to make the 3 km journey by bus from Claire's flat in suburban South London to the nearest branch of Currys, an electrical appliance retailer. He walks to the nearby bus stop, waits for, then gets on the bus. The bus journey takes 10 minutes, and whilst on the bus Jesus uses his time to run through the simulation once more, though this time instead of speaking his answers he enters them by text so as not to draw attention to himself.

Once in the shop, before calling over a shop assistant he takes a picture of the sign on the freezer that he will enquire about. He then calls over a shop assistant and the conversation begins. Thanks to his practising with the MASELTOV service the conversation goes pretty good.

Once he has returned home, he uploads the photo to the MASELTOV service and the service asks him to tell it what questions he asked, and what he thought were the main achievements and problems he faced. The service provides some advice and some alternative questions by using information from the photo, for the next time he tries this exercise.

A few weeks later Jesus finds a job advertisement perfectly matching his education and experience. Although he is very confident, that he would be perfect for the job, he is insecure about cultural norms for applying for a job in the UK. Norms for applying for a job highly differ from country to country and are essential for finally getting the job. The MASELTOV service also provides a serious game for learning cultural norms necessary for applying for a job. This includes sufficient training on word use in letters of application, how to present one's skills in front of a future employer, as well as dress codes for the job interviews. Jesus plays this game several times before he went to the interview and lost his insecurity about presenting himself in front of his potential future employer.

5.4   SOCIAL NETWORK SCENARIO

Fatima is 27 and arrived in Turin 3 months ago. She came from Khouribga a city in Morocco. Fatima is the third of 3 children. Her father worked as a miner. She had to struggle with him to study and to become a teacher in a primary school. One day she met a boy, Youssef, who was back to Khouribga from Italy for summer holidays (he had migrated to Turin 1 year before) and after a few months they married. Later on she reached him in Turin.

She doesn't know anyone apart from her husband, who leaves her alone for work most of the day. They live in a small apartment in a huge building far from the city center. She doesn't

know any Italian, she can speak and read only Arabic, and just a little of English. This is why she cannot find a job. She feels homesick, everything is different: people, language, habits, climate, food, sounds, and smells.

One Saturday her husband takes her to Porta Palazzo which is one of the biggest open air markets in Europe where you can find people and food coming from a lot of countries. They meet a lot of Moroccan migrants. She recognizes Karima, coming from Khouribga too. They become friends and once Karima takes Fatima to an Italian-Arabic cultural center nearby. There they see a MASELTOV advertisement. Karima has a basic smartphone and they discover together the MASELTOV app.

First of all, they find an app devoted to Italian language learning so they decide to try it out. Then they are also attracted by the MASELTOV Social Network (SN) where they can find events in Turin organized by Moroccan communities and by various intercultural centers. Each information is written in Arabic, too.

They discover that there is a meeting every week with other migrant women in the center "La Casa del Quartiere di San Salvario" where they have tea together and everybody can bring homemade sweets or dishes (different receipts from different countries are welcome) This meeting serves on the one hand site to enjoy the home culture and on the other side to open themselves to other cultures.

By means of MASELTOV SN app "La Casa del Quartiere" informs about all its activities: some migrants volunteers working in "La Casa del Quartiere" have already joined MASELTOV SN and are frequently updating news from "la Casa del Quartiere" in their native language. Actually they have no time and no skills to update/translate news in the official website of "La Casa del Quartiere" but they find it easy to write short news in the SN.

Fatima and Karima find in the SN an intercultural calendar with the main civil and religious anniversaries of different countries (Morocco included).

5.5   NAVIGATION SCENARIO

Ali (24) from Morocco landed in Barajas Airport in Madrid. He reminded himself about the family he left behind and how he plans to support them financially. He already contacted his cousin Salah who has been living in Madrid for 5 years now. He knew ahead of time that he will set him up with a job. He brought back his thoughts to a more pressing matter which is getting to his cousin's apartment. He didn't blame him for not meeting him at the airport considering he can't leave his job at this hour. He couldn't understand how to use the metro. The lady at the information desk only spoke Spanish and couldn't really help him.

Then a logo and an Arabic explanation caught his eye. It said that MASELTOV will be the immigrants' guide to everything. By downloading it, he immediately saw a language support option for different situations. One of them is asking for directions. It clearly stated the exact expressions he needed at this moment with Arabic translation. By the help of the integrated text-to-speech engine he was able to ask the lady for directions and she showed him the way on a map. Unfortunately, Ali still had problems with orientation in the city and the public transportation system. By looking again at the MASELTOV app, he discovered a routing service. He could search for the best route by typing in the address or by taking a picture of the address. Although he just had this hand written name of the street and the house number to take a photo the system suggested the right address as top result. Based on the GPS sensor of the smartphone MASELTOV could identify that Ali was in Madrid. Based on a clear and structured description of the route he was able to easily find the way and the change of trains

was as well no longer a problem. A detailed turn-by-turn description of the footpath enabled Ali to orient even beyond the public transportation system. He was very pleased.

5.6 HEALTH SCENARIO

Isha is a 21 year old woman from Algeria living in a private asylum center in Austria for one month now. Her husband has been arrested in Algeria for political reasons. Isha was three months pregnant when she fled to Austria together with her sister because in Algeria she had no possibility to get the necessary medical examinations. They have heard that public health care is much easier to access in Europe and Isha was afraid to face the same fate as her older sister who died of serious complications during childbirth.

In Austria, Isha got a care card from refugee support with which she could visit a local medical practitioner. With support of her sister she tried to communicate with the doctor and the nurse. Since neither Isha nor her sister is able to speak German or English the communication was quite difficult. The assisting nurse tried to explain to her that in Austria it is required to get a separate medical certificate from the Austrian GKK (Gebietskrankenkasse) during pregnancy. However, the two young women could not understand a word she said.

Back in the asylum center one of the refugee assistants borrowed Isha a smartphone with the App MASELTOV installed. Apart from some practical tools like a mobile text lens and language learning support it includes some general information about the Austrian health care system in Arab. As Isha has difficulties in reading a lot of text she used the text-to-speech output and listened to the necessary information. Subsequently, she used the search mode, entered the Arab term "pregnancy" and received the help she was looking for in her native language. She is entitled to medical examination by Austrian law and receives a so called mother-child pass. However, therefore she needs a GKK-MKP-bill that the local GKK office will provide for her. Furthermore, she received a list of doctors who offer these services and are able to speak Arab. The MASELTOV service also provides support for navigating to the closest GKK and doctor's office, visualized on a map. In addition, Isha is able to retrieve a timetable of upcoming connections with public transportation and a step-by-step navigation guide to these locations.

5.7 MOBILE TEXT LENS SCENARIO

Nesrin is living in Vienna for three months now. She is a 25 years old woman who grew up in a small village nearby the Red Sea. She left her home country Egypt to live together with her husband who works in Vienna for five years.

Before immigrating to Austria, Nesrin worked at a market to sell fruits and vegetables. She loved this work as she was in contact with many people all day long. Sometimes she sold some fruits to European or American tourists. Since she married she dreams of having her own little fruit shop in Vienna where her husband lives.

As a child she attended primary school for four years. However, this was the only formal education in her life. As Nesrin hardly needed her reading and especially writing skills in Arab language, she now has difficulties using these abilities. However, she is skilled in mental arithmetic and knows a lot about the growing and treatment of fruits.

Thanks to the help of her husband Nesrin started to attend a German language course for immigrants in Vienna twice a week. The teacher of the course presented an application for smartphones that seems to be very helpful for Nesrin and the other immigrants: MASELTOV. The teacher highlights the special language learning aspects of the app as it supports the

Mobile Language Training in various contexts. Nesrin soon discovered that the app allows her not only to train her German language skills but also her Arab reading skills.

Another aspect of the MASELTOV app, the Text-Lens tool, turns out to be very helpful for Nesrin as well. She is frequently faced with signs and information boards or other textual information she does not understand, yet. Everywhere, e.g. in metro stations, shops and also in the language school, information is provided that seems to be important. With the help of the Text-Lens tool she is now able to translate these texts to Arab. She just has to take a picture of the text with her smartphone and it is immediately displayed in Arab. It is even possible to let the program read the words aloud using the speech output. Nesrin uses the Text-Lens tool very often when she is on the go. Sometimes she translates information boards various times as she forgot again the meaning. After a while she noticed that the Mobile Language Training picks up this information and included it into its lessons. By this means, Nesrin is much better able to remember the accordant German words.

6. SUMMARY AND OUTLOOK

In this deliverable we described how we involved potential end users in the requirements analysis of MASELTOV. In order to support immigrants at problematic situations in the right way and to reach a high acceptance rate of the MASELTOV services we put the users at the centre of our research. This means that we not only involve immigrants in the requirements analysis but also in the design and testing phase later on in the project. As their feedback on design and service architecture also influences specification and requirements this deliverable will be updated in the course of the project (month 24).

At the beginning of the project we defined firstly a more concrete target group for the MASELTOV services as immigrants are a very heterogeneous group. Thus, we will mainly address Arab and Turkish speaking immigrants from outside the European Union with a rather low level of education. Afterwards we researched typical barriers and problems of immigrants in order to gather an overview of wide comprehension. Subsequently, we directly spoke to several immigrants in semi-structured interviews to deeper understand their living situations. In focus groups with various groups of immigrants we presented and discussed our first service ideas as well as elaborated further solutions to reduce the barriers of integration.

The next step will be to match the user needs and requirements to technical specifications (D3.2) and to research cultural particularities for the user interfaces and the interaction concept (D2.4). Afterwards we can start designing the user interface for the MASELTOV services (D2.5).

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