



UNIVERSITÀ DEGLI STUDI DI TRENTO

**Department of Information Engineering
and Computer Science**

COURSE: PARTICIPATORY DESIGN

Design of a website or mobile application
for NGO Kaleidoscopio and the community of immigrants living in the
Residenza Fersina

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Project overview

Summary

The aim of this project was to work collaboratively with a local non-governmental organization called Kaleidoscopio, to develop a product or service that improves the condition of immigrants and refugees located in the urban area of Trento. We determined through Participatory Design methods which specific solution, either a product or service, was the most adequate to help them, considering the fact that they have just arrived to Italy and face many difficulties in their daily lives.

SWOT analysis

<h3>Strengths</h3> <ul style="list-style-type: none">• Team with diverse academic background and professional experience• Italian-speakers• Project in the local area (nearby)• Access to many end-users to interact and test• Does not require complex technical skills or resources	<h3>Weaknesses</h3> <ul style="list-style-type: none">• The project depends entirely on the collaboration with the NGO• Time constraints• Limited resources (€)• Team members have different class schedules and daily priorities• Inexperience in Participatory Design projects
<h3>Opportunities</h3> <ul style="list-style-type: none">• Clear needs and requirements of Kaleidoscopio to address• Flexibility of options to design the final solution artifact	<h3>Threats</h3> <ul style="list-style-type: none">• Lack of cooperation of the immigrants• Language and cultural barriers• Quality and quality of feedback affected by privacy concerns• Level of expertise and knowledge about technology of the immigrants

List of stakeholders

1. Kaleidoscopio Cooperativa Sociale (represented by Roberto Casagrande)
2. The immigrants / refugees
3. Local government institutions
4. Citizens of Trento
5. Volunteers at the Residenza Fersina (refugee camp)
6. The designers (group team members)

Key assumptions

- NGO is willing to work with us
- Migrants know about the culture, laws and regulations of the country
- Migrants are always available to participate in our interviews and give feedback because they have a lot of free time
- Migrants have access to technological devices like mobile phones or computers.
- They come from different countries and speak different languages
- Migrants want to stay in Italy
- Participants in activities will be diverse to represent the different nationalities
- That we will follow our proposed schedule and deliver each milestone

Design process

Workshop 1

Below are the objectives for the first workshop:

1. Understand the end-users in the following aspects:
 - a. Skills and professional formation (not past jobs because that can be associated with unpleasant memories from their countries of origin, or something they cannot fulfil now but rather on what they are good at).
 - b. Interests, hobbies, pastimes and leisure activities
 - c. Expectations about their future life, Italy and Kaleidoscopio
2. Understand the context and find out more information about the immigrants' daily life in Trento, their challenges and difficulties.

There were six participants in this workshop from the Residenza with two activities planned with a Frisbee break in between:

Activity 1 started by providing them with different object pictures placed on a table (real objects, printed cards or drawings on post-its) and they were to pick out what was meaningful and relevant to them and explain to the entire group why. They were also given blank papers to draw whatever else came to their minds.



Activity 2 involved them telling their daily life story where they would explain their daily activities and what they hope to achieve in the future.

We also explained participants that we needed them to sign the consent form to continue with this project, explained the contents of the consent form, what are the consequences of signing it and why is it important to have it signed. Participants agreed without objections, so we had the consent forms signed.

Lessons learned

In the beginning, some participants did not understand the tasks given and the details of what they had to write were a bit confusing. So we decided to first give examples by doing the tasks ourselves, so that they could see practically how it should be done. This helped them get motivated to start working. Also participants were a bit shy to open up, especially in the second activity, so we decided to have an ice-breaker activity in the beginning for future workshops, to help them relax and open up.

The recurrent topic that appeared over and over again throughout the workshop was education, its importance and the role it has to improve their life conditions.

Some other topics that were mentioned a couple of times, although by a lesser extent were:

- How "going out around the city" (i.e. on a tour) helps them feel motivated and optimistic
- The desire to stay in Italy and/or reunite with their families
- The need to communicate and stay in touch with their friends and family back in their home countries

We also noticed that they like to get together for events, like play soccer in the park, go hiking and share information about different topics.

Workshop 2

From the outcome of the first workshop with the immigrants, we understood that their major interests were education and having a meaningful way to spend their free time. Considering the above, we tried to connect their needs to some technological solution which lead us to the following:

- Social networking;
- Knowledge exchange.

We were certain that the solution should include some service that could overcome the language barrier that existed among them. We were not certain about the following:

- Means of exchange of information;
- Type of information they were in need of

The above were the basis for our second workshop which took place on the 5th of November, 2016 in the Residenza Fersina.

This time, we decided to begin with the food and snacks ready on the table, to try to “break the ice” faster. We also prepared a warm-up activity in which the participants didn’t have to speak but use gestures and mimic (word-guessing game). Both of these ideas had a positive result, since the participants felt more relaxed and confident for the “real work” afterwards.

We asked participants if there were any comments, ideas or suggestions about the last workshop session we had and we asked them to give us the feedback papers we had distributed in the first workshop. However, only one of them returned the filled-out feedback form, indicating the following:

- What worked (positive aspects): “I trust the activities. Works a lot.”
- What could be improved (negative aspects): “More activities.”
- Questions: “Is there any name that can be given to the project?”
- Ideas: “Maybe if an app can be created for the members to keep informed about the project.”

First activity

We explained the rules of the first activity: Pick and Mimic. Participants were meant to pick random folded paper from the table (the content was invisible before one picks), and demonstrate the word written on the paper such that others could understand without saying a word. We all agreed and each person picked a paper.



Second activity

For this activity we suggested participants to imagine they're organizing an event with their friends from Residenza Fersina to see how they would do it, what they would need and how we could facilitate that process through technology. The objectives this time were:

- Understand how much support they need to organize events to spend leisure time
- Define the awareness they have regarding the facilities available for them in order to organize such events
- Understand how much support they would need when organizing leisure events among themselves

We suggested them three different events to organize and allowed them to choose what is more familiar or interesting for them:

- Going to the library or museum
- Going hiking in the mountains
- Going to play a sports game

Participants were given the freedom to choose which activity they wanted to do and so we could also identify implicitly their interests for leisure time hobbies.

Planning the sports game

We suggested this group to organize the football match. Altogether there were five people (three participants and two facilitators). We started by asking the question: *"How would you organize a football match?"*. As a result, we first had the following answers:

- Find out against whom we are going to play (Number of players);
- Check the quality of these players;

- Decide the formation to use;
- Find a technical team for logistics;
- Exercise together (train and prepare);
- Find out the fitness of their players (sick or not);
- Find a coach.

These steps are not really relevant in order to organize a friendly football match, so we tried to contextualize more the scenario, highlighting that the match should be organized with the existing resources available. After this clarification, they came up with the following:

- Get a ball;
- Find a football field;
- Get football jerseys;
- Get football boots;
- Get a First Aid Kit in case of emergencies;
- A standby doctor to administer First Aid;
- Invitation of friends.

They added that there was the need to explain to their mates that it was just for fun, to avoid a fight or injuries.

We asked if they knew any places around Trento where they could play football and they gave an affirmative answer. The nearest field was just 400 meters away from their current location. To the question *"What if the invited players don't have jerseys and/or boots?"* they said they would borrow from their friends for them.

We asked them what means they would use to get to the place and they said that it was a walkable distance and there was no need for a bus or bicycle, but if there was some field far away then they would need transportation. However, they did not know the exact buses that were needed and were very interested to know how to find out such information. We showed them the Moovit App, but gave them some time to try to use it themselves without any instructions. They tried without luck and then we decided to explain them how to use it. They learnt pretty fast and were happy to have acquired some new knowledge.

To put some additional pressure on them, we tried to set up a time constraint to our activity, by asking how to make this all happen in two hours. They replied saying that they would immediately call their friends or go personally to their rooms to talk to them about it. They also added that they would need reserve players, just in case someone got tired or injured. One of the participants from Ghana pointed out that it was easy for them to reach their friends, considering that they knew each other and what their hobbies and interests were. He gave an example of inviting Nigerians, Cameroonians and fellow Ghanaians, as they are more interested in football than Pakistanis, who were more interested in cricket.

We went further by posing the following question: *"Is the field free of charge, or does it require payment? If so, how would you pay for it?"*. They answered that it was free, but in a case where

they would have to pay, they would do it themselves, because it was unlikely that their guest player friends would want to participate if they also had to pay some money.

They asked what if the place was free, but people were already playing there. We answered that they would just have to come and wait until it was empty, or find out about booking times and make their reservations well in advance.

Planning the library and museum visit

Only one participant was interested in this activity (the same one that provided the feedback sheet before). He told us that one of his happiest days, so far in Trento, was when a local person “guided him” to the library, like on a tour, and helped him to move around the city. This provided us a valuable idea of potentially having local people as guides for foreign nationals to help them understand what recreational or educational facilities are available in the area and let them feel more safe and confident. He also told us what he perceived as the biggest challenge was overcoming the language barrier. He didn’t have any specific information about the museums and libraries in the Trento, or how to use the public transport to reach any of these places, that’s why his preferred mean of transportation was simply on feet. He was surprised and happy to find out that entrance into museums was free on the first Sunday of each month.

Planning hiking

Most of those who have chosen the hiking activity did that because they wanted to know more about the experience so that they could have some sort of motivation to go. They see hiking as a form of release of tension from what is happening in their lives.

Before planning a hiking trip they usually called their friends on phone or texted them so they could decide on a meeting point. The friends they usually hang out with do not reside in Residenza Fersina, they met them in town. When they got to the bus station, they asked people around for directions on how to get to the mountains or recommendations on where to go. While hiking, most of them preferred using paper maps instead of a mobile app because they saw it as more convenient and easy to use.

The main challenge preventing them from actually going hiking was that they did not know what equipment to bring and how much does it cost. When asked whether they had challenges getting friends to go with them or finding their way around, they answered that there wasn't since they have friends to go with and they have maps too.

Third activity

For this activity, the participants had to take post-its and write down any concerns, questions or doubts they had in mind. They were pretty active and wrote down a lot of questions and posted on a white paper, which had earlier been hung on the wall. We assigned a different number to each question, so we could map them to their corresponding answers on a separate white paper on the wall.



Some of the questions were quite simple and straightforward, so any of the team members could provide the answers right away. For example:

- Where to find cheap clothes and shoes in Trento?
- How to attend classes at the university and how much do they cost?
- How to learn English and how much time does it take?
- What places are there to visit in Rovereto?

Some other questions were more sensible or personal, reflecting the social difficulties that the immigrants have faced in order to reach Europe. For instance, how to reconnect with their family back home? In this particular case, we were surprised to hear an answer coming from one of the participants themselves, to a question we had no idea how to answer. So it was a mutual learning process.

Finally, one of the last questions was related to politics: What advice we would have given to our country mates if they were to hold an election in our country soon? In that moment, we realized that our concept of providing an “open space” to the participants, so they could express themselves and ask each other questions, was also putting us in a difficult position of addressing serious topics with moral and ethical implications, that we did not imagine we had to answer. In this case, we answered the following:

- They should maintain peace;
- They should go and vote;
- They should choose wisely;
- They should educate themselves on justice and fair play.

After reviewing all the questions and trying to answer as many as possible, we gave a first insight of the big interest areas we had identified from the workshops:

- Education and sharing of information
- Organization of events

We asked for their thoughts on the above but they said nothing. We emphasized once again that their opinions were important for us and the project, so we asked them to reflect about

these topics for the next session. We distributed once again the feedback forms to each one of them and fixed the next meeting for the 19th of November 2016.

Lessons learned

- Serving food and snacks in the beginning was very important in breaking the ice and having them participate more. The warm up activity was crucial in preparing them for the main activities.
- Sometimes our participants needed more time and further explanation to understand what was being asked of them. Slow speaking and repetition are very vital;
- Participants are very interested in organizing activities and basically have the ability to identify what they need but don't always have the information or assistance needed for the activities.
- Sometimes it's difficult to collect enough people for the event since all the communication they do is face-to-face. Some broadcasting tools would facilitate this.

Prototype testing session

For this visit to the refugee camp we decided to work with each prototype idea separately in a focus group format. In order to boost the participation, we presented one prototype at a time to the whole group and opened a round of discussion. So the entire session was split into two parts, plus a final debriefing to assign some tasks for them to perform individually as homework.

Our objectives for this session were:

- Present our two final ideas in form of prototypes
- Test and refine our ideas with the immigrants
- Collect further feedback or discover new interesting features that we may have not considered before
- Assign homework and explain the last class

We set up the room by placing a table in the center, where all the participants sat and we organized the time as follows: In the beginning, we presented the first paper prototype of the event planner application. We started by explaining a possible usage scenario and then let them try it, while we explained the features they were encountering step by step, in order to make it more interactive. We collected feedback and new features suggestions from both migrants and people from Kaleidoscopio. Later on, we repeated this same sequence of steps for the second prototype.

Prototype 1: Event planner with local “big brothers/sisters”¹

In order to obtain a whole general impression regarding the idea, we first asked them to imagine an app that helps to plan events together with friends from the Residenza, for different types of

¹ <https://popapp.in/w/projects/5830690b8b19f6786317973d/preview>

activities (For example: sports, trips, visits to local places, etc.). So we asked them the following questions:

- What are your first impressions about this idea? (We asked everyone - including the people from Kaleidoscopio - for feedback)
- Can you list some of the things you would like to have?
- What is your opinion about this idea?

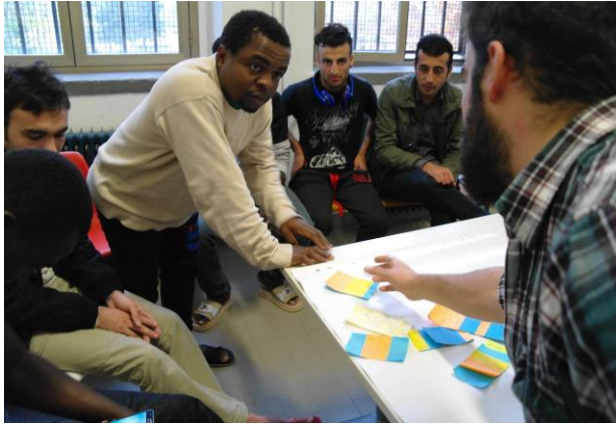
At first, we did not get so many reactions regarding the app idea. As in any session, the group seemed slow to warm up; however, Roberto started to talk and expressed his overall positive opinion regarding this idea, emphasizing the possibility to strengthen the communication inside the refugees' camp through this tool. In a second moment, one of the participants from Afghanistan took part at the conversation, explaining that he would use this app to organize matches of badminton.

At this point, we highlighted the possible functionality of "Big Brother": The possibility to be involved in events with local citizens, with the hope of helping them with the integration process. In contrast to our expectations, we received a weak approval regarding this idea. In general, the group of immigrants do not feel comfortable yet to have this kind of interactions with external local people. There was an overall agreement in keeping this application -at least in the beginning- for exclusive use of the residents of Fersina and the volunteer staff.

After this request of general impressions, we continued showing the mock-up of the mobile application and, after a brief general explanation of the artifact, we asked all of them to complete the tasks of simulating both the organization and visualization of an event through the app. Both tasks were completed quite easily, but not all of them took part actively.

During the discussion, three main topics came out:

- First of all, the concern regarding the privacy and the security of the app, in order to do not allow access to everybody, but to create a hierarchical access control of the shared information
- Second, one of them proposed an additional feature of the app, which allows to store and visualize information about past events, with focus on the visualization of pictures of such events
- Third, they proposed to add an automatic translation tool, in order to have easier access for refugees of different languages



Prototype 2: Info hub

The whole idea is based on creating a “knowledge cloud” with the keywords about topics they are most concerned or experienced about. The user can navigate through these keywords to see existing questions or simply ask a new one. The app detects automatically the key words from the questions they ask. We can also add some kind of rewarding system for answering questions. Users list their skills, so others can read and know what is their area of expertise. The user profiles have a section inspired on Reddit’s “Ask me Anything” threads: Any of the friends and contacts can post questions in the profile of the person. Only those that have been answered are displayed publicly.

In order to evaluate the idea, we asked them to perform directly some tasks with the paper prototypes, while observing their behavior and usage patterns:

1. Ask a question like *“Where can I buy cheap shoes?”*
2. Search for a question like *“Where can I find internet cafes?”* and answer it

Also during this time not all the participants were actively involved. The tasks were performed entirely, but they needed some help to proceed.

After the test of the two prototypes, we asked them to choose the favorite one and to explain the motivations:

“Which one of these two ideas do you prefer and why?”

Of course, this was just a tricky question, to try to motivate them to speak more and raise their opinions. They didn’t want to choose either idea at the beginning, however after a few interactions they seemed to lean in favor of the first one (event planning), or more like against the second one.

For instance, some arguments against the second idea were:

- There could be two completely different answers for the same question, so what would be the real value of having a platform to ask?
- It's easier and more simple to ask directly the person.

- Furthermore, it can also take too much time to write down the questions

On the other hand, the arguments in favor of the second idea were:

- The knowledge exchange has the advantage of being written and the text can be translated easily into other languages.
- The value of this knowledge is that can be accessed by many people multiple times.

Homework explanation and next steps

In order to amplify their involvement, we decided to assign them some tasks with the aim to further explore the two solution ideas and to make them feel actively engaged into the testing and evaluation stages of the project. So we distributed a printed homework paper to every participant, explaining the following tasks to the participants:

- First, they had to choose a name for the two apps we presented
- Second, they had to interview their friends here inside the Residenza, explaining these two ideas, writing down all the comments and opinions

We also proposed them to prepare a small presentation to explain the results of these interviews, what they found out and most importantly, which one of these two ideas they would like to continue working on and why. We also asked them to come to our class during the 16th of December in Rovereto to present the results. At the end of the class, we would also give them official course certificates for their valuable help and effort during this project

All the participants looked enthusiastic and agreed to perform the tasks and to meet for the last presentation.

Results of the project

As a result of all the participatory design activities conducted for this project we identified the main needs of participants, as it is stated in outcomes of the workshops, and those were:

1. The need of convenient wide reach communication channel between all the refugees living in Residenza Fersina, as well as with the coordinators and other people in charge.
2. The need to have answers to multiple important issues that arise for most of refugees living in Residenza Fersina.

Having recognized these needs, we came up with two ideas complementary services that could be the parts of a single Residenza Fersina mobile application, website or both. We describe now each one of these potential solutions:

1. Online event organizing tool

Testing the prototype with the participants confirmed that it is a suitable thing to develop and it fulfills:

1. The refugees' need to have the instrument for informing peers when they want to organize events or gatherings (like playing football together, hiking in the mountains, going to the museum, library etc.)

Participants admitted that this tool would be particularly relevant, since at the moment in order to organize any sort of event one needs to talk to all the other people personally, literally "knocking at the doors of everyone's room because they don't have the other way to notify everyone about the idea.

The proposed tool would give them such a convenient opportunity to be able to attract more relevant people to suggested event and to reach wide array of refugees who would be using this application.

Additionally, as a feature to be implemented in the future, we suggest to have the opportunity to invite the "mentor" from local people, who would help refugees in organizing and conducting their event.

2. Kaleidoscopio's need to inform all the refugees about events organized by them or by the city authorities, etc. At this moment, there is no single communication channel and all of them are informal.

2. Knowledge exchange platform

1. It allows refugees to ask other inhabitants of Residenza Fersina the important questions about everyday life in Trento (like *Where to buy clothes cheaper? Which libraries provide internet access for refugees? Where to look for a job? How can I contact my family back home? What are the main legal issues I should be concerned about?* etc.). This will allow to collectively form and document the best practices of dealing with the issues that refugees coming to Trento encounter.
2. It allows Kaleidoscopio to track which issues are the most important for the refugees and therefore understand how to adjust their work to meet the refugees' needs.

The latter discussion of the prototypes with the participants confirmed that both tools are relevant and needed, participants admitted that it is difficult to choose which one they prefer the most, so it is preferable to implement them both together. But if it is impossible to do it simultaneously, when tackling the development phase of these tools, we recommend to start with event planner tool, as in the end most of the participants agreed that it is the tool that is more urgent and the moment.

Group reflections

Did we reach the objectives we had?

We realized that the objectives and vision we had as a group of students did not match the vision that our contact person had about the project. We knew our project scope had a beginning and an end, to deliver a specific artifact as a result.

However, the purpose of Kaleidoscopio association was different from ours. From their point of view, the whole process was aimed to make the migrants develop working skills, and empower their capacity of cooperation in order to reach a common goal. In other words, our work from the Kaleidoscopio's outlook was aimed to boost their integration process through an involvement in a common task. Their main goal so was not to release any artifact, but to produce and add value for the migrants, and make them develop specific social skills. This perfectly fits with the task that Kaleidoscopio has regarding the integration service for the asylum seekers, which is actually the main objective of the association; and in particular:²

1. Orientation to the territory and process for the facilitation of the social integration and the community path
2. Organization of info-formative activities and for the leisure time to perform during the day

Due to the reasons mentioned above, we often felt that we were investing too much time in doing things that were out of our initial project scope, and involving ourselves too much in other activities with the participants, which did not provide much value towards designing a concrete artifact.

But on the other hand, we also knew that Participatory Design was more about the process than the end results. Therefore, it was a reasonable trade-off between the value we provided to Kaleidoscopio's objectives and the value they provided to our academic project.

Since our initial meeting, the needs and requirements of Kaleidoscopio were very clear. They wanted to have a technological tool or platform to organize the information and communication inside the refugee camp. However, during the process of interacting directly with the immigrants were identified some additional needs that were not exactly the same as the ones Kaleidoscopio had. For our two final idea proposals, we came up with two potential solutions that tried to address the needs of both the refugees and the people in charge of them.

Did we get the information we needed?

The participatory approach was useful to understand the WHAT (their needs and requirements) but not did not allow us so much to dig deeper into the HOW (the specific features and functionality) of the solution we were designing for them.

² http://www.appalti.provincia.tn.it/binary.php/pat_pi_bandi_new/bandi/Avviso.1458830118.pdf

We consider that some of the reasons why we were not able to obtain deep feedback about the functionality were:

- Lack of involvement of the participants. They wanted to be there in the workshops and activities, but we did not give them enough tasks from the beginning, so they would become more empathic towards our project
- They were not familiar with the participatory design approach (and neither we were when we organized our first activities)
- The lack of technical knowledge of the participants to understand some terms and concepts
- The language barrier

On the other hand, having the participants in class was useful to give them a better vision of what we were doing and why we were doing it, to generate empathy and involvement. It also helped them understand that their contributions were useful and valuable for us.

We have also discussed that we could have had more reflection sessions during lecture hours about the problems and difficulties that we were facing during the project. For example, how to deal with the lack of participation or how to break the ice and let people feel more involved.

How did the initial project idea evolve?

Initially, the aim of the project was to work collaboratively with the NGO, Kaleidoscopio, to develop a product or service that helps them in their daily tasks to deal with immigrants that have just arrived into Italy and are still waiting to regularize their immigration status. Below are some of the initial project ideas along with their main objectives:

Objective 1: To involve the immigrants in various activities that allow them to feel accepted and integrate them into the community

Ideas:

1. Healthy food & nutrition ideas in a context of mass immigration (these are not mutually exclusive or limited to the creation of a technological artifact) for example:
 - a. Cooking courses for/by immigrants;
 - b. (Tech) solutions to help refugees and immigrants monitor and improve their nutrition habits;
 - c. Inspection of the menus provided at refugee asylum centres;
 - d. Organize events and fairs to showcase local gastronomy (from the refugee countries);
 - e. Make sharing food and ingredients easier (i.e. food sharing communities);
 - f. Apply “Slow Food” principles with the participation of immigrants, learning how they cultivate and produce their food, what kinds of food they consume back home, etc.
2. LinkedIn for immigrants

- a. After the presentation of the request for international protection, the immigrant can get 6 months of residency permit which allows him to work in the country. So it would be nice to have a platform that lists them with his/her skills and experiences.

Objective 2: To give information and support to immigrants in the legal or formal procedures, thereby making their waiting experience easier

Ideas:

- A mobile application that guides them on how to start their lives in Italy (inspiration example: “Ankommen” German app);
- Communication between migrants and institutions;
- Provide general overview of the immigration procedures and status;
- Translation tools, information in their own languages;
- Information added and maintained by the migrants themselves (e.g. wiki style);
- Providing education and training about Italy, the region, history, local culture and rules, how to move around.

Objective 3: To provide channels for immigrants to be in touch with their own communities and loved ones back home

Ideas:

- Aggregate news about their communities of origin, make them accessible (translate into their language)

Objective 4: To generate awareness and empathy about immigrants' lives

Ideas:

- Allow them to narrate their stories (i.e. diary or testimonials).

Objective 5: Social networking platform for immigrants

Ideas:

- Connect with members of their own community
- Provide relevant information according to their interests
- Information related with outside activities in Trento and surrounding areas.

After identifying the above, we planned several workshops at the refugee camp to observe and understand the actual needs of the refugees. From this we learnt that they were interested in two main things, namely:

1. Sharing information with each other for example, where to buy clothes, how to access internet, how to organize activities, etc.
2. Event planning among themselves and with local guides to help them socialize

This helped us narrow down our ideas and focus on particularly one objective, involve the immigrants in various activities that allow them to feel accepted and integrate them into the community. Below is a detailed description of the solutions we ended up with:

- a. An “event planning” app in your phone that helps to plan events together with friends from the Residenza, with different types of activities. For example: Sports, trips, visits to local places, etc. It includes a list of categories and events, so you simply choose which event you prefer.
- b. A knowledge exchange platform to allow the convenient sharing of knowledge between the refugees living in Trento.

The final design delivered is the same as we described in detail earlier in this document, in the “Results of the project” section.

Finally, we gave them the opportunity to choose between the two solutions. Even though both are important for them, they decided that Event Planning could be given priority. According to their criteria, having the means of communication with all of the inhabitants of Residenza Fersina is the first problem to be solved.

What we learned in practice about organizing workshops

- During our first workshop the participants were not talking so much, so the next time we changed the order of the activities, providing food and drinks at the beginning, so the participation improved
- We found out that the language barrier could be overcome by using other more artistic ways of expression and communication, like drawing or mimicking
- Some participants were much more active and talkative than the others, so the group was not equally involved in the project. This caused some specific participants to take the spotlight, while the opinions of others were at risk of not being heard, so they needed an “additional push”
- Ice-breakers like having snacks, or organizing small sports activities like frisbee were fundamental to make them more collaborative
- Some participants opened-up more when they were alone than in front of all the group

Reflections about participatory design scope

We began our project with a very broad and vague topic: “Designing something useful for refugees”. This apparent disadvantage -having many doubts at the beginning of the project- became the best opportunity to be flexible and to change the flow of our ideas based on the needs groups in the course, we realized that they began with more concrete ideas of their projects, of participants. When we compared our own experience with the process conducted by other which seemed to be an advantage, but became a problem when their participants expressed some different needs that did not match their original project goals. They hit a dead end and got stuck, basically having to discard their ideas and start designing everything from scratch, while we were able to adapt quickly and carry on with our project.

We did not have any concrete idea of what we would create, but through participatory design techniques we captured the evolving participant's needs, which led us into the final product idea and its requirements.

So we have come to the conclusion that participatory design works very good when one needs to design something to facilitate the participants' needs, without even having any clear idea of the what the final artifact will be like at the beginning of the process.

Conclusions

For all the members of our group, this Participatory Design project represented a valuable experience that provided several lessons. In contrast to other development and design projects we had in the past, this project did not follow some standardized methodology or sequence of steps to capture the requirements of the users. We had to be professional and objective, in order to maintain ourselves on track with the requirements of the course, but at the same time we had to be creative and sensible enough to capture the requirements of our users.

We were not just acting as external observers, but had to become actively involved in the daily lives and environment of the participants. This led us many times to question ourselves whether we were drifting too far away from our academic and professional setting, and involving ourselves more than we should in their personal problems.

We were not pursuing just some business goals, like most of other courses teach us (e.g. maximize value for the customer, reduce company costs, etc.) so many of the paradigms we have learnt about designing technology were challenged during the course of our project. The motivations of the refugees were very diverse: Some of them were participating just out of curiosity, others were interested about technology, while another group wanted to do something meaningful for their lives, in order to escape the reality of their constrained situation. At the end, whatever the motivations it was all about empowerment, about being capable to turn the stakes and give them a real opportunity to take control of the project itself. A solution for refugees, designed by refugees.

Considering all of the circumstances mentioned above, it was difficult to measure our progress and know if we were on track to produce some meaningful results. But at the end, we realized that Participatory Design is not so much about the result but about the process itself.