JUSTICE

Joining Urban morphology, Spatio-Temporal and socio cognitive accessibility for an Inclusive City Environment

Deliverable 4.1 Report on Participatory Survey Results

1. Introduction

The participatory survey stands for the mainstay of the qualitative methods used in the overall JUSTICE project. It was designed to supplement the quantitative analysis of accessibility to selected places from the general population and for the specific populations (see the deliverable **3.x.5 Report on Operational Accessibility for each target group to selected places**). The very idea of this qualitative task is to integrate the dimension of the representations of Public Transport (PT) users from the various target groups, with a focus on the differences between men and women. Unlike the initial phase of Conceptualization/Co-construction, where association representatives were interviewed, the aim of the Participatory Survey was to involve users who have neither a specific mandate to represent a group of people, nor a major militant commitment in those associations. This step was also intended to prepare for the final decision-supporting phase, by incorporating user representations into the ranking and prioritization of recommendations discussed with the transport authorities (see the deliverable **5.2 Report on the Recommendation Notes**).

2. The Go-along Interviews

The initial idea was that the best way to bring out the problems encountered by PT users was to accompany them during the action, *i.e.* during the walk preceding their use of PT (from their home to the place of connection with the first PT), during their use of PT (including transfers), and during the walk outside PT to their destination. For the research team, accompanying these users on all the legs of their journey was the best way to help them remember the barriers they experienced on their journey, but also on other journeys. From this point of view, the research team was not disappointed. The technique used involves recording all the exchanges during the journey. These exchanges were concentrated mainly during idle time (waiting for the PT, in the PT, at the final destination), but not only. Some of the interviewers also took a few photos to illustrate the difficulties encountered along the way (Fig. 2).

Fig. 1: Photo taken during the journey of a visually impaired user in Strasbourg: fairly crowded tram (difficulty in reaching the tram exit). [Photo: Michel Koebel].

The interviewers did not have a strict script, but rather interview guidelines (Fig. 2) that included three series of indicators:

- the characteristics of the person being interviewed;
- the detailed facts as they unfolded (including the specific characteristics of the environment);
- the representations of the people being interviewed.

The go-along guide

Person code…………………………………………..

Agreement of the person

Contextual information

Person's characteristics (age, gender, occupation)
What is the main disability? Are there any secondary disabilities? Example: a blind person with financial difficulties who is very old.
Where does the person live (location) and what are the characteristics of his/her home location (distance to the main public transport network stations)?
Where is the person's place of work (public transport service)?
How does the person relate to the partner organization (member, activist, leader)?
Involvement in overall social life (activism in associations, unions, politics)

Choice of the journey

What route does the person suggest? The route can be negotiated (see below)
What are the criteria for selecting this route? Does the person think that a shorter route is possible and why not taking it (link with WP3: the optimal route resulting from modelling must then be displayed)?
Purpose of the journey (is the destination related to work, leisure, food, clothing, administrative requirements, etc.)?
-How do you perceive this journey? (Do you think it's easy? Difficult?) If it's difficult, suggest changing journey.

Interview

Have the interview participation and recording agreement signed by the JUSTICE project collaborator.

Context of the route

Conditions (weather: rain, temperature), traffic density (rush hour or not), morning/evening, lighting, day of the week, etc.

Times:
- Time of departure
- Time of entering public transport
- Time of transfer within transport trip
- Time of departure from public transport
- Time of arrival at destination
Feelings associated with the journey and its various parts (get the person reacting during idle time (waiting time, transfers…) and description of the environments.
Reactions of other users (with or without interactions with the user).

After the journey:

Concluding interview

Frequency of difficulties? Was the day's journey as usual? More or less difficult?
What other unobserved difficulties did the respondent encounter in his or her daily life? At other times of the day, week or year?
Did the interviewer's presence change anything for the respondent?
Does the respondent feel a sense of injustice regarding the difficulties encountered (particularly in relation to the transport network)?
Discuss any difference between the model optimal route and the actual route?

Fig. 2: Go-along guidelines.

By contrast to what was initially planned, the research team involved in the go-along task did not consider it useful to have a control group, unaffected by the various vulnerabilities targeted. Therefore, people from the 4 groups of vulnerability (physically disabled, blind or visually impaired, socio-economically disadvantaged, older adults), in each of the 3 cities (Brussels, Konya, Strasbourg) were interviewed. The other sample criteria were gender and distance from the home location to the city center. The plan was therefore to carry out 72 go-along interviews, *i.e.* 24 per case of study, with as many women as men, and 6 people per vulnerability in each country.

This plan could not be carried out. The first reason was that some journeys had to be cancelled at the last minute due to medical appointments (for instance in Strasbourg in the older adults' group, where 2 aged women were missing from the final sample). A second reason was linked to the specific choices made by the Brussels team to take more account of cross-disabilities (this led to an over-representation of people with physical motor disabilities). All of the interviews were transcribed into large tables based on the identified indicators, including factual elements and extracts from the interviews - particularly highlighting representations (see Fig. 3).

Characteristics of the person	Objective facts	Representations
Age: 35 Gender: Female Job status or most recent occupation: Not working Workplace: - Home address: ▮▮▮ ▮▮▮ Apt. No: ▮▮ Karatay/Konya	**Before the trip** Suggested destination by person: Association for the Disabled Reason for travel (work, activity, shopping, doctor's appointment, meeting): Visit The route suggested by the person: Walking then tram (Adliye (Court)) to reach a destination Recommended day and time: 12.01.23 11:00 Difference to WP3 optimal route: Are there alternatives? Instead of going to the bus stop right in front of her house and taking the bus, she prefers to go to the tram stop, which is a little distance away, and take the tram Preferred Route: Using the tram as the only vehicle, getting off at the Zafer tram stop, and then walking 400 meters	Reasons for choice: She chose the tram because she could not get on the bus himself Ability to travel independently by tram She does not want to experience the problems she has experienced before on the bus journey again Reasons for selection: Having other disabled people in the Association for the Disabled Representations/journey (easy/hard…): Easy Reasons for day selection/time: Availability Difference between representations/optimal route and chosen route: If she had chosen the bus as a means of transport, she would have had to wait and ask for help Why weren't alternatives chosen? She cannot get on the bus by himself. She prefers the tram because of the negativities she has experienced on the bus

Fig. 3: Extract from a table of indicators for one of the 70 respondents

3. The Focus Groups

Apart from the link with the modelling steps done according to the global JUSTICE framework (see **Deliverable 3.x.5 Report on Operational Accessibility for each target group to selected places**), several outcomes of the surveys were highlighted. From the 70 interviews were extracted the problems and the recommendations to build an overall table that distinguishes these outcomes according to gender, type of vulnerability and city in which the information was gathered (see Figure 4).

Age 33, woman, socio-economic vulnerability, Konya **The bus is crowded.** **No privileges for disabled people.** **No space on public transport.** There is **no 'stop' at the bus stop**, and **the driver doesn't know if people are waiting at the stop.** **The digital sign on the bus doesn't work.** Although the buses are overcrowded, the driver tries to pick up passengers at each stop. **The driver's wait is very short and passengers move around before getting off.** This is why those who want to get off have to do so at the next stop.	**Age 32, man, visually impaired, Konya** 'I don't go to many places [in Konya], most often we go to the places that are accessible with the tram.' **He feels worried when he gets on the bus.** Sometimes **he can't tell the difference between the road and the pavement** because of the colours and surfaces.
Age 30, woman, socio-economic vulerability, Strasbourg **Lack of shuttle service, failure to keep to E27**, otherwise she is dropped off at Strasbourg station by a colleague who is happy not to be alone in the car so that she doesn't fall asleep at the wheel, but then **she still has to make the journey from the station to her home with very little transport available**, so a lot of walking after 8 hours of night work). **Morning shift 5am-1pm (very complicated to get there, has to get up at 2am to walk to the station…** Afternoon shift 1pm-9pm (problem on the way back with **the last shuttle bus, which doesn't always run**, so is dependent on a colleague to get her close. **Difficulties increased when there is a strike or a technical problem** with the transport system. Often forced to take unwanted leave because no other solution.	**Age 60, man, visually impared, Strasbourg** '**To cross the tracks, it's dangerous** as anything' (wants the interviewer to stay at a distance to see the danger). Waits a long time before crossing them, to listen to the trams nearby, before finally being able to cross. On the way back, was rather **disorientated because two trams were following each other quite closely**. He must have realised that **the tram was longer than he thought** (to cross the tracks and end up on the pharmacy side). Lost his bearings when he had to get round some **badly parked bikes (on the ground)**: 'The bikes, yes! Oh, that's a problem! bikes, **cycle paths**. Difficulty to pass **in front of the ticket office**, when another person is taking tickets. **The paving stones were considered by the respondent to be very dangerous for blind people**, because they do not allow them to get their bearings in relation to the lanes.

Fig. 4: Extract from the table summarizing the problems encountered

Then, the second method used to involve the targeted users consisted of focus groups organized in each of the three cities, with participants selected among the respondents. The Focus Groups consisted in a presentation of the list of problems encountered and/or reported during the go-along interviews (based on the table described above) to a panel of respondents from the four target groups. The goals were:

i)   get them interacting with each other;

ii)   ask them to collectively rank the problems and the associated recommendations[1] (see Fig. 5).

Themes (7)	Potential solutions (63)	G1 (5)	G2 (5)	G3 (6)	G4 (6)	Total	11 May Rankings
ROADS	Develop markers for the blind when public work is being carried out, even for temporary obstacles, and enforce their use	XXXX				4	1
CTS-ergo-information	Increase the volume of station voice announcements (especially when crowded): trams and buses	XXX	X			4	2
CTS-ergo-material	Tram doors should open automatically: trams and buses	XX	XXX			5	3
CTS-services	Increase the PT frequency at peak times				XXXX	4	4
CTS-conductors	Avoid hard acceleration and braking as much as possible - drive more smoothly			XXXX	X	5	5
CTS-ergo-information	Increase and systematize the use of voice announcements on platforms: bus and tram, but avoiding both at the same time	XXX				3	6
CTS-ergo-material	Increase the number of handholds to hold on to			XXXX	XX	6	7

Fig. 4: Table of expressed potential solutions, classified by theme and frequency of appearance during the Go-Along Interviews – Extract.

These outcomes were essential for the decision-supporting phase of the JUSTICE project, where the most recurrent problems were retained. In Strasbourg, an intermediate stage was added in which this prioritization was first done by separating men and women to see if the hierarchy was the same.
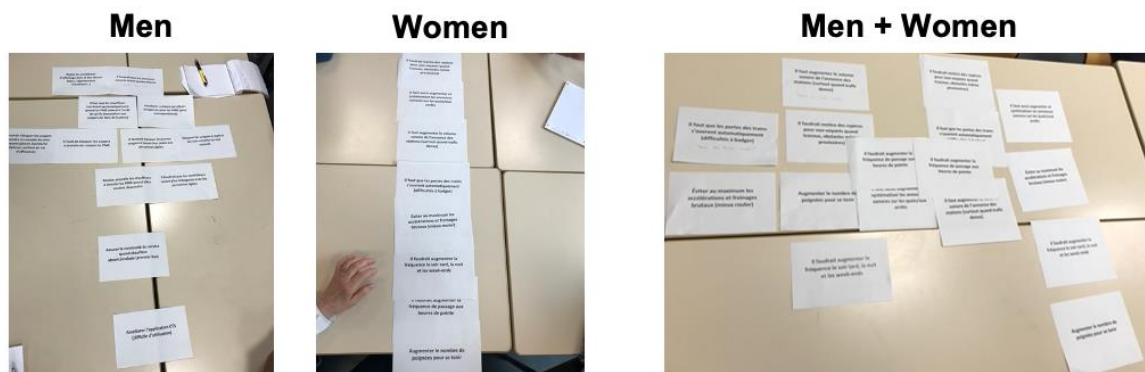

Fig. 5: Prioritizing the problems/potential solutions in Strasbourg

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[1] To facilitate the focus groups process, the problems and ideas of solutions expressed during the go-along interviews and reported in the transcribed interviews have all been turned into potential "solutions".

In each metropolis, these results then formed part of the recommendations forwarded and discussed with the people in charge of PT to assess their feasibility and whether they should be put on the agenda.

4. Discussion

Identifying the main problems expressed by and with the vulnerable PT users enabled us to draw a list of problems in each city, which were easier to prioritize.

This prioritization work was carried out by some of the interviewees, which fully meet the objective of involving themselves in the process.

In the end, we can see that some problems are shared by all the vulnerable people we targeted, such as obstacles on pavements and difficulties in finding the exit of the PT vehicles. Blind people and people with physical impairment were undoubtedly the most vulnerable, but the other categories were quite happy to put them at the top of the list of problems to be raised and passed on to the decision-makers, demonstrating a strong sense of solidarity. Some of the raised issues regarded the lack of civic-mindedness of other PT users, particularly the younger generation. The participants were well aware of the difficulty of taking action to solve these issues, since they related to much broader issues such as children's education, issues for which the transport authorities are not responsible. They deliberately kept them as problems to be solved.

There were notable differences between men and women. Finally, it is worth noting the quality of the discussions between the different categories of users, who were able to make concessions on their own priorities.

Taking account of the representations of PT users helped to refine the quantitative measurements (see **Deliverable 3.x.5 Report on Operational Accessibility for each target group to selected places**). These outcomes enabled the research team to understand the differences between the routes actually taken by the vulnerable users and the shortest routes provided by the mobile phone applications or by the calculator used in the project:

- Fears linked to some crossroads or stations considered to be dangerous or too busy;
- Fears of sudden braking on the bus which lead users to choose the tram instead, even if the journey is longer;
- Phobia about transfers;
- Fear of the aggressive attitude of some other users;
- Fear of aggressive or inappropriate driving (sudden braking, starting the vehicle before being able to sit down or secure oneself, no time to get out in time); etc.

The gender differences do not appear at first analysis: the same kinds of issues were mentioned by men and women during the go-along interviews. However, a more in-depth analysis reveals that women are more likely to express feelings of fear and anxiety about the situations they encounter, even though the feeling of insecurity is not totally absent among men.

Differences also emerged in the Strasbourg focus group, where women and men were separated in the initial work of ranking the priority issues to be resolved.

Last but not least, the economically disadvantaged people suffer of their financial difficulties. Using public transport is not a choice for them: they cannot buy a car. Their precariousness is reflected in the fact that they have to comply with their employer's demands in terms of working hours (staggered hours, late evenings or very early mornings, with very low frequency of public transport services, which increases waiting times). The long waiting times (sometimes because of unsynchronized connections, and often because the frequency of service is just too low) are often perceived as a barrier: they live further from the city center and further from transport (proximity increases the cost of rent).

5. Conclusion

Taking into account the problems encountered or mentioned during the go-along interviews and the associated representations has enabled us to i) gain a better understanding of the constraints endured by vulnerable people, ii) better set the parameters for the tool used in each of the cities to visualize the effects of vulnerability on urban journeys *via* public transport, and iii) determine the priorities to be defended with the transport authorities.