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Socially and culturally sustainable public participation in urban development: Map questionnaire as a bridge-building tool in Kontula shopping mall

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Abstract. Social sustainability is a prerequisite for legitimate public participation. Currently, multilingualism and multiculturalism place particular demands on participation methods and processes. This article presents a case study where entrepreneurs with an immigrant background were engaged in the development process of Kontula shopping mall in Helsinki, Finland. The results show that an existing digital participation tool, specifically a map questionnaire can be utilized in a novel way in a multicultural context to build a bridge between this marginalized group and urban development. New skills and tailored methods are required to support the participation of immigrant entrepreneurs.

1. Introduction

Promoting social sustainability reduces exclusion by building bridges between administrative processes and different social and cultural groups [1]. In the case of urban environments, participation can be seen as both the right of culturally and socio-economically diverse people to live and work in the city and the right to participate and influence the planning of their living environment [2,3]. Social sustainability of urban environments means development that is compatible with the development of civil society. Socially sustainable urban development also supports the coexistence of culturally and socially diverse groups, promotes social integration and improves the quality of life for all groups. [1] The sustainability of the interaction between administrations and locals can therefore be evaluated by its ability to reach to different social and cultural realities and enable their coexistence.

Public participation is a central part of legitimate and democratic urban planning. In Finland, the right to participate in decision-making and planning of people's living environment is widely recognized [4,5,6] and participatory processes are established in planning practices. Municipal councils are required to ensure the diversity and accessibility of participation opportunities and methods, and urge municipalities to, among other things, support community-led development [4].

In Finland, everyone whose life may be affected by the plan can participate in the planning process. However, in practice, those whose lives are affected by planning are not reached in a representative way. Current planning practices support the participation of native speakers, highly educated and active people [7,8]. Often, the focus of planning is more on the imagined future residents and users of the place rather than the current stakeholders [3]. In Finland, for example, places important to immigrants are planned against their interests and without consulting them [7]. It has been argued that



marginalized groups need to be the focus of both the construction [7,9] and use of participatory knowledge [10]. Such knowledge building processes can be difficult to achieve administratively, for example due to a lack of trust or resources [11]. Poorly informed decisions, on the other hand, can lead to exclusion, especially in the planning of commercial environments where people's employment opportunities are at stake [1].

In Finland, municipalities have a monopoly on planning and an obligation to adopt participatory practices, but no monopoly on participation [12]. The self-organized participation of local people, together with local everyday practices, should be seen as participation and part of urban planning and development [3]. Community-based participatory spatial knowledge production is one way to democratize urban development and planning. Community-based processes are typically selective and not democratic per se, but they have the advantage, for example, of being able to reach locally important perspectives and groups of people who are beyond the reach of administrative participation. [9]

Digital participation tools such as web 2.0 and social media, have been identified as methods to empower local people in community-based knowledge building. [12,13,14] On the other hand, it has been observed that information produced online in a self-organized way does not necessarily reach urban planners [e.g. 15,16]. This study seeks tools and methods to bridge the gap between urban planning and local actors with a well-established map survey tool for urban planning. A public participation GIS tool Maptionnaire, originally designed for administration-led public participation (PPGIS) [see 17] is used as a bridge-building tool in this study. The tool has been used in a slightly similar way by urban activists in the past, but in this case the focus is on engaging one group of excluded stakeholders in particular.

This paper reports findings from a case study carried out in Kontula Mall, Helsinki, Finland, where a citizen-driven approach to public participation is developed and tested. In the case study, active citizens could act as bridge-builders to support social and cultural sustainability of public participation. A clear need for functional tools and methods for community-led participation is identified and a participatory process tailored for the certain user group, specifically immigrant entrepreneurs have been developed. The citizen-driven participation process is called bridge-building, and the active citizens facilitating the process as bridge-builders as they act between the immigrant entrepreneurs and city planning and development.

1.1. Case Kontula Mall

The Case Kontula Mall project was carried out in 2021. It was partly financed by The Finnish Innovation Fund Sitra, and the research team participated with this project in a training program organized by Sitra [18]. The aim of the project was to find functional solutions for more inclusive participation in Kontula mall with the aid of social design and experimental activities. Local entrepreneurs with immigrant background were selected as the stakeholder group because it was known that their involvement in urban planning was limited [7].

Kontula Mall is a strip mall built in the 1960s and 1980s in East Helsinki. It is located in the geographical center of the Kontula suburb. The mall is known for its cultural activities and ethnic restaurants, but also for its complex social problems. Currently, there is an ongoing planning process that aims to renewal of the mall. In 2019, the City of Helsinki issued a development reservation for the property owners of the mall. The aim of the renewal is to increase the amount of commercial space and to accommodate 70 000 km² of new housing in the area. In practice, this largely means replacing the existing mall with new buildings.

Kontula is a multicultural suburb. More than 30% of Kontula's 15.000 inhabitants are non-native speakers. The mall has a total of 80 businesses, almost half of whose owners are of immigrant background. The entrepreneurs are a key group of actors at the mall. However, immigrant entrepreneurs in particular have remained on the margins in urban planning. Although the property owners have informed their tenants and the city has organized a wide range of interactions in the area, the information has not reached or has not been understandable for these immigrant entrepreneurs.

The future of the existing buildings in the Kontula shopping mall is still open. It is estimated that changes in the mall will not be visible until after the mid-2020s at the earliest. The current land lease agreement for the plots is valid until 2025.

The challenge our project aims to solve is complex. Firstly, the problem is that marginalized groups in the area may not be aware of urban planning processes and their impact on their lives, nor have real opportunities to participate in urban planning. Mistrust of administrative processes can also be a challenge for some stakeholders. Secondly, urban planning does not have the capacity to reach out to people's involvement in the area. The case study seeks to find a bottom-up solution to participatory data collection, focusing on the perspective of immigrant entrepreneurs. On the other hand, our aim is to provide understandable information on urban planning and participation for this group.

The aim of our research is to develop a socially and culturally sustainable participation process that helps to fill the gap between the marginalized groups and formal administration-led city planning, and urban development, led by private developers in Kontula Mall. We believe that this gap can be filled by using established participatory methods and tools together with local active stakeholders (i.e. bridge-builders) who act as intermediators in the area.

In this paper, the focus is on the use of an established digital participation tool (a map survey tool) to engage a marginalized group (i.e. immigrant entrepreneurs).

2. Research design

The research was carried out as a case study with participatory action research (PAR) approach in Kontula shopping mall, in Helsinki, Finland. PAR is well suited for a case study related to participatory planning as it represents an approach in which the link between practice and research is strong [19].

In this case, the research process comprises different activities, such as interviews (n=13) with local stakeholders (Apr-May 2021), a co-design workshop with bridge-builders and city planning authorities (n=12) (Oct 2021), testing the tool in real-life participation activities (participatory experiment in Kontula at Nov-Dec 2021), and a feedback session with the bridge-builders and city planning authorities (March 2022) (n=10). Hence, the research data is diverse consisting of recordings of the interviews and co-creation session, experiences from the field work, results of the map survey, and researchers' own observations, which are reported on a digital board (on Miro platform) during the process.

The information gathered with interviews and in the co-creation workshop has been utilized to understand the prospective users and their needs for the participation methods and tools. A central part of the research is the participatory experiment carried out at Kontula Mall, where a set of different participation methods was used by the bridge-builders to reach, inform, and consult immigrant entrepreneurs. The methods included distribution of a marketing flyer and multilingual information material, interviews with translators, a multilingual map questionnaire and on-site visits. During the participatory experiment the map survey was tested in real-life situation with immigrant entrepreneurs and local bridge-builders. Two of the research team members acted as bridge-builders themselves, together with translators with foreign language skills.

3. Results

In this section, we describe how the map questionnaire was developed and utilized to serve as a tool for bridge-building between local stakeholders, city planning and city development. We focus on the experiences from different stages of the experiment: (1) developing the map questionnaire, (2) using it for participation, (3) analyzing the results, and (4) disseminating information.

3.1. Developing the map questionnaire

Understanding the immigrant entrepreneurs' needs in relation to public participation in the development of the Kontula mall was the primary starting point for designing the questionnaire. Important user insight (e.g. variety of cultural backgrounds and languages, challenges in participation,

needs for information about the mall, and attitudes towards public authorities) was gathered through interviewing local actors and in the co-design workshop in the beginning of the case study. This information had not only an impact on the content of the map questionnaire (e.g. languages, questions) but the whole participation methodology (e.g. information sharing and interaction with the stakeholders).

The initial idea was to use the map survey tool for three purposes: (1) sharing information about the renewal plans of the mall, (2) disseminating participatory data gathered in previous phases of planning, and (3) gathering local experiential information about the mall and its renewal (e.g., values to be preserved, development needs, opinions on plans). However, during the action research process, we identified that the immigrant entrepreneurs were lacking basic information of the renewal process, and therefore a curated and translated information material was created and distributed to the entrepreneurs in paper. At the end, the map questionnaire served for gathering experiential information about the needs, wishes and worries of the participants (Figure 1).

The questionnaire [20] was designed to serve both individual or assisted answering and making field notes by researchers, which had an impact on the structure and the content of it (Figure 2). To make the individual answering as easy as possible, there were only one map question (“What is important to you at the mall?”) in the questionnaire. However, the most used method was assisted answering with an interviewer and translator. For this kind of use, the questionnaire could have been designed differently, and more structured map questions could have been added. This would naturally have had an impact on the end results of the data gathering, and the quality of GIS data would have been better.

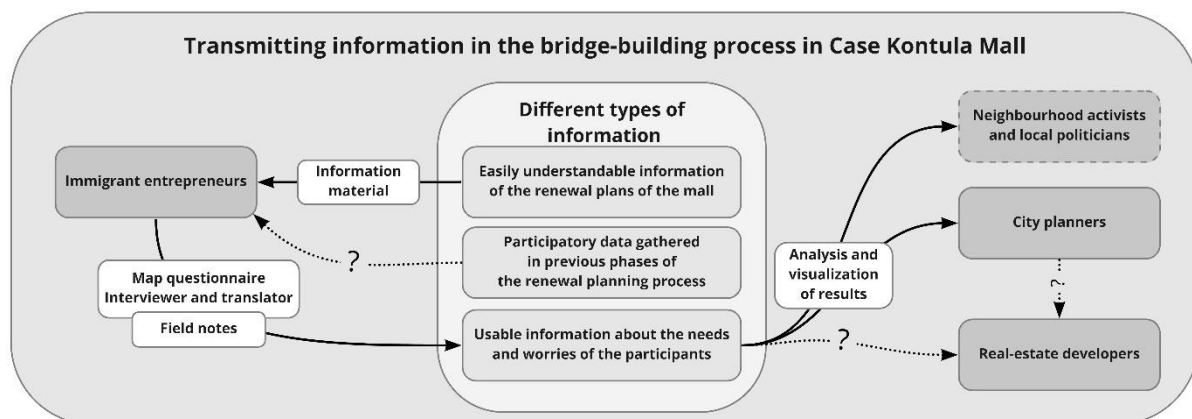


Figure 1: Illustration of the bridge-building tools and types of knowledge.

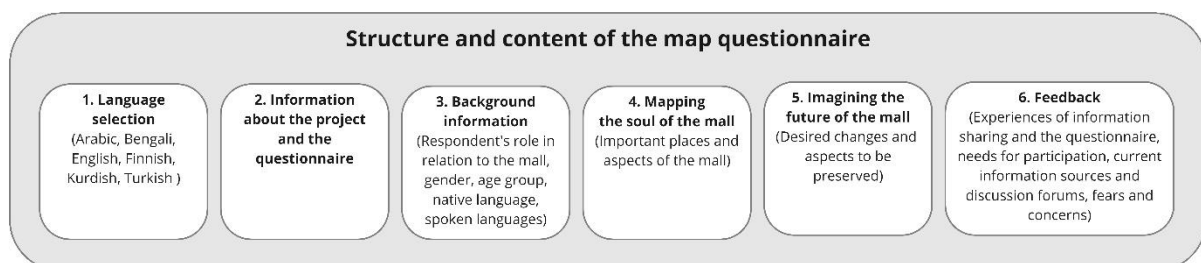


Figure 2: Structure and content of the map questionnaire.

The main challenges in utilizing the map questionnaire in multicultural context relate to the different language versions and making the translations. Although the user interface of the Maptionnaire tool is well designed and doesn't require special IT skills from the user, the needs of using the tool for multilingual questionnaire are not fully supported. Adding new language versions to the questionnaire

is easy, but the structure of the system doesn't support the idea of having multiple languages with equal status. In practice, a single main language must be chosen, which dominates the use of the tool. For the end user this is visible so that the first page of the questionnaire is shown in the default language, which in this case is Finnish. It would have been incomprehensible for many of the users with immigrant background. Therefore, the main page was designed so that it includes only instructions to continue with each language (Figure 3).

The dependence of the default language was also affecting the usability of making translations. In this case, the translators did not have a single language in common but were translating from different source languages (from Finnish to Kurdish and Arabic, from English to Bengali). This caused the situation where the actual translation interface could not be used effectively with the translators, and the contents of the questionnaire had to be exported to an excel file to be shared in Google Drive for the translators. The researcher then copied the translations into the questionnaire, which caused a high risk of error in this process, as the researcher did not master all the foreign languages. Online translation tools were helpful in this phase, and two different translation tools were tested during this process, Google Translator and DeepL. Google Translator was more helpful in this case, as it includes vocabularies also for Bengali, Turkish, Arabic, and Kurdish (Sorani).

The questionnaire was published in six different languages: Finnish, Arabic, Bengali, Kurdish Sorani, Turkish, and English, and it was used during the experiment with all other languages than English. However, English was still an important language: some answers to the questionnaire were given in English instead of participants' native language. Apart from that, English was also used as an intermediate language for translations from Finnish into other foreign languages. For the researchers and bridge-builders English was also important: quick translations using Google Translator performed better from the foreign languages into English than into Finnish.



Figure 3: Main page of the questionnaire: In multicultural context, all the different languages need to have equal status, and be visible to be easily selected in the first page.



Figure 4: Interview and assisted answering session.

3.2. Using the questionnaire for bridge-building

During the case study, altogether 18 people took part in the experiment, either by answering the questionnaire themselves, by participating in an interview or assisted answering (Figure 4), or by coming to meet the bridge-builders at Kontula Library. In total, more than 40% of immigrant entrepreneurs and 20 % of all the entrepreneurs in Kontula Mall were reached. A marketing flyer was

delivered for all the businesses in the mall to encourage to participate. The flyer included information about the projects and ways to participate in our experiment, as well as a link and a QR code to the map questionnaire. During the experiment, total of 26 entrepreneurs were provided with the information material in different languages.

During the pilot, 22 businesses were visited on-site, and four entrepreneurs came to meet the bridge-builders at the library. During the on-site visits, entrepreneurs had the opportunity to answer the questionnaire with the help of an interpreter or alternatively they were given guidance to answer the questionnaire independently. They were also given the information material on the development of the mall. The numbers of persons participating in different ways are presented in Table 1. Altogether 11 entrepreneurs answered the questionnaire with assistance during these meetings. The assisted answering of the questionnaire in their own business premises with the help of a translator was the most popular method of participation. Although there were participants who responded independently, most of the entrepreneurs who said they would participate independently did not answer to the questionnaire at all.

The researcher participated in all interview sessions and made notes. She was also able to extract information relevant to the planning process that was not written down by the interviewee or the translator as answers to the questionnaire (e.g., information on customer flows and means of transport used).

The participated entrepreneurs gave all positive feedback about the questionnaire. They appreciated the fact that the survey had been designed from their point of view. The questions, the length of the questionnaire and the translations to native languages made it usable for them. However, answering to the map question was relatively difficult without assistance, thus, helping in responding lowered the threshold for participation significantly.

In the interview situations, an unexpected challenge arose in using the multilingual questionnaire. In situations where the translator was unwilling or unable to write the answers to the questionnaire himself, the Finnish-speaking researcher had to write the answers in Finnish, for example, to the Sorani language questionnaire. This was difficult because the text fields in the questionnaire were set in Arabic, and the text ran from right to left regardless of the language being written in. There were also situations where the user's spoken language and the written language were not the same. For example, with the Bengali participants the questionnaire was used in Bengali but the translator preferred to write the answers in English.

Table 1. Responses for the map questionnaire (n=21)

	Non-Finnish speaking entrepreneurs	Finnish speaking entrepreneurs	Other responses	Total
Assisted answering at the library	4	0	0	4
Assisted answering at entrepreneur's own business premises	7	0	0	7
Independent answering	2	3	2	7
Field notes submitted by the researcher	0	0	3	3
Total responses	13	3	5	21

3.3. Analysing the questionnaire data

The questionnaire data consisted of 21 responses and 34 map locations. The submitted answers consisted of different kind of responses: independently submitted answers, responses made during interviews together with translators, and researchers field notes. Due to the small size of the data, and

the fact that it was produced in a non-uniform way, the analysis was mainly based on qualitative methods. Quantitative methods were only used in descriptive way to understand the background of the participants, and their preferred way of participation. One additional challenge in processing the data was the responses given in different languages, in English, Turkish and Finnish. Before analysis, the Turkish answers had to be translated with Google Translator into English.

Participants' experiences of the mall were extracted with qualitative methods from the open answers by reading through the responses many times, combining data from open questions and map question, condensing information, and visualizing it on map and as charts. The map questionnaire tool included a map analysis tool which was used in the beginning of the analysis to get an overview of the map data. For further processing the map data was exported from Maptionnaire to QGIS for editing and making translations of the responses. The final analysis results were created and visualized on a map in Miro board which was considered easy-to-use by the researcher for creating visual presentations. The end results were distributed in a blog (cityplanningactivism.fi) and with a PowerPoint presentation which was presented for the bridge-builders and city administration.

The data also included a set of questions about participants' information needs in relation to the mall renewal. These questions were classified by the content and have been forwarded to the city representatives for response.

3.4. Transmission of information

The visual presentation material describing the participatory experiment process and analyzed results from the questionnaire data was shared with urban planners and other stakeholders in an online meeting in March 2022. Feedback and ideas how to proceed with the information transmission was gathered from the participants. The city representatives wished for clear presentation material (PowerPoint file) or a video presentation of the results. Urban planners emphasized the need for map-based presentation and would be willing to receive the results as GIS data. Despite our initial aim to use the map survey tool also for transmitting the information, the information collected was only partially in GIS format, and the results could not be fully mapped at the appropriate scale of the mall.

During this experiment, the dissemination of information to the real estate development was not successful because the owners of the mall or the real estate developer coordinating the project were not interested to collaborate with the project. However, in the final meeting in March 2022 the city representative mentioned an ongoing market dialogue, which aims to find a developer for the renewal of the mall and considered it important to communicate the results to this process. Thus, it is possible that in the future the information will also be passed on to these actors. At this stage, it remains unclear how the results will be communicated to the entrepreneurs, and whether the city will respond to their questions.

4. Discussion

The initial idea to use the map survey tool for several different purposes (e.g. disseminating information about planning, gathering local knowledge, and transmitting the information back to planning) didn't fully succeed. It is obvious that the map survey tool can be an essential part of the bridge-building process, but also other tools and methods, such as communicating curated information on paper, and developing easily digestible visualizations of the results and conclusions of the gathered participation data, are needed. Instead of using the map survey tool for each of these tasks, during the experiment, we decided to communicate the information about the renewal plans of the mall on paper to the entrepreneurs. Thus, the map survey was only used for gathering local knowledge. During the analysis phase, it also became clear that transmitting the results of the plan back to city planning was not possible to do only with the map survey tool. The diverse raw data was more suited to qualitative analysis, and visual and verbal illustrations than for distribution as GIS data.

For the data collection purposes the tool functioned well, especially in assisted answering together with the translator. The content of the survey could have been designed differently if we had known in

advance that assisted responding was the most popular way to participate. There could have been more map questions, which would have allowed us to collect more structured and varied spatial information.

Based on the results, we argue that existing participation tools can be used in multilingual and multicultural contexts. However, it is necessary to tailor the methods to meet the needs of the specific user groups (i.e., in this case immigrant entrepreneurs). With a user-centred participation approach it was possible to gather important information describing the needs of a marginalized group. In practice, tailoring the methods to the situation requires, above all, putting oneself in the position of the target groups and understanding the challenges of their participation and everyday lives.

Although the map questionnaire tool was partly successful in this case study, the results show that there is a need to rethink the logical structures of digital participation tools. In a multilingual context, tool development should consider the equality of different languages and the requirements of agile translation: the use of several translators from different languages, and the use of automated translation tools as part of the translation and participation processes. Attention should also be paid to the citizen-oriented, bottom-up use of tools. In these cases, the tools are used outside institutional planning processes, and the transmission of the information across administrative boundaries is essential. Further development is needed to find new ways to communicate the information gathered in citizen-driven participation to urban and real estate development.

5. Conclusions

This experiment provided information on the needs of one marginal citizen group to participate in urban development projects. During the experiment, the immigrant entrepreneurs in Kontula mall were reached out and their experiences and opinions on the development of the mall were gathered. However, the bridge building between the entrepreneurs and city development was only partially successful. Our participatory process reached a wide range of entrepreneurs from different language groups: altogether 70% of immigrant entrepreneurs received the information material and 40% participated in the questionnaire. We got an insight into their needs in terms of participatory methods and managed to gather relevant information for urban planning about their experiences as users of the mall and their ideas for the development of the mall. The main shortcoming of our process was that we didn't reach out to the real estate developers. On the other hand, the cooperation with the city officials was fruitful in the sense that they were interested in our experiment, and we were able to transmit information to them.

Although the map survey did not work as a bridge-building tool as originally intended, it was useful and functional for gathering local knowledge from this particular stakeholder group. However, there is room for improvement in the usability of the questionnaire tool for surveys in multilingual contexts. To this end, it would also be important to better support multilingual interaction by enabling easier and more dynamic selection of the language both in the end-user's questionnaire and admin user interface and supporting different ways of answering (independent and assisted answering with a translator).

Based on the results of this experiment, it appears also that the participatory culture should change in order to integrate bottom-up bridge building in formal planning and development processes. Self-organising local actors with the skills and motivation to act as bridge-builders should be seen as a resource for urban development. Within the city organisation, this resource could be harnessed by working with bridge-builders and taking up the local information they gather and offer.

The results of this case study indicate that the transformation towards socially and culturally sustainable public participation require:

1. Empathetic user-centred approach for tailoring participation process and methods, including mapping participant groups, their native languages, characteristics of their everyday lives,
2. New practices and skills for the facilitator, such as adopting a user-centred approach and using translation tools and translators in an agile manner, and learning to communicate with participants from different cultures,

3. Rethinking digital participation tools to support bottom-up bridge-building and multilingual participation (e.g., equality of different languages and answering modes, use of agile translation tools and methods).

At the end, the social sustainability of public participation is totally dependent how the gathered information will be interpreted and used in the planning. We believe that, using pluralistic local knowledge in planning and development a more culturally and socially sustainable planning solutions can be achieved. Nevertheless, this can only be assessed by examining the outcomes of planning and impacts of the plans from the viewpoints of the different stakeholder groups.

Digital tools, such as the map survey tool, can either facilitate or hinder the gathering of pluralistic local knowledge. It is important to critically assess how democratic are the tools used and whose participation they promote. Communicating the results of research to the developers of digital tools is essential. In this case, cooperation with tool developers has been close and fruitful, but we do not yet know how feasible our development proposals are for implementation.

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Supplementary data

Information of the case study is available at the web site in address cityplanningactivism.fi.

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