

Digital Mapping with Disabled Citizens

How to engage people with divers abilities in the participatory planning of walkable neighbourhoods? How to design a digital collaborative mapping tool that can be used by people with cognitive disabilities?

Keywords

Mapping | Public space | Inclusive Mapping | Safety | Disability | Citizen Science Collaboration | Coresearch | Pilot #6

Engaging a group of people with diverse abilities in the co-design of an inclusive digital collaborative mapping tool in Herne, Germany.



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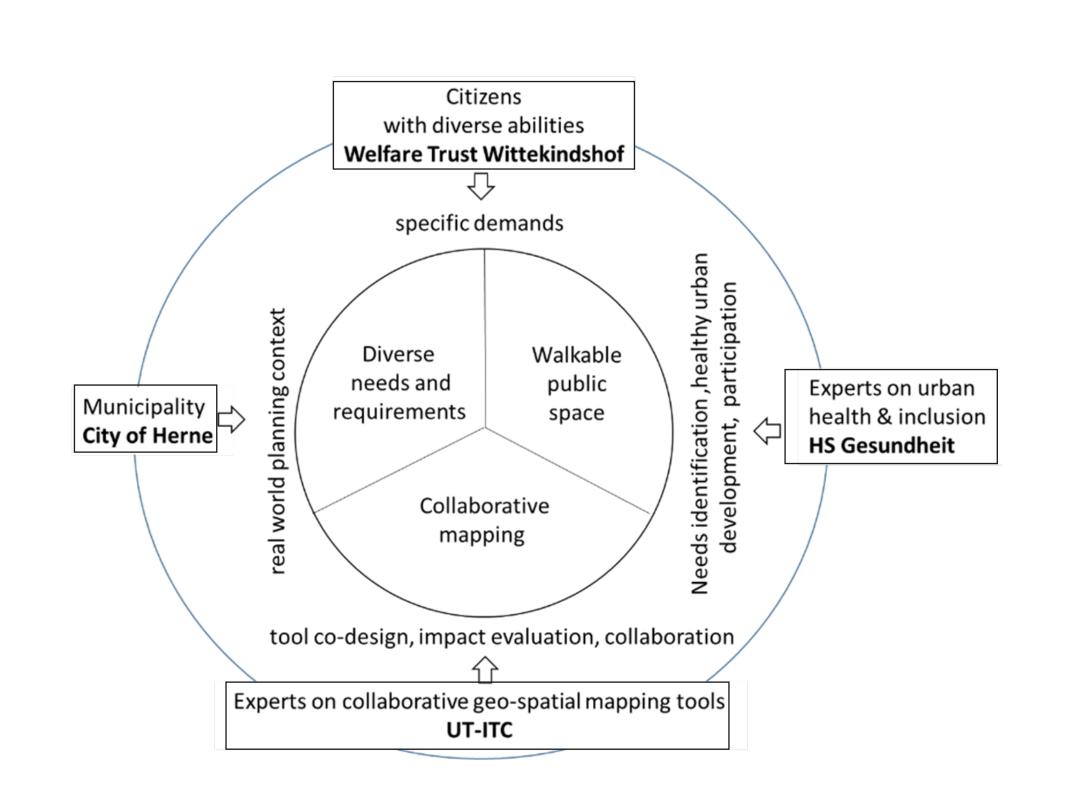
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Marie Meinhardt, head of the Citizen Self-Help Center and the Department of Health Promotion and Planning in the City of Herne Tobias Rahe, business unit manager at Wittekindshof Herne

and the actively engaged co-researchers Daniel Beisbart, David Zimmer, Stefan Zinta, Pia Bruchhage, Markus Tunkel, Maria Jeschonnek, Iwona Stawinogo, Muharrem Saygün, Ute Röseler, Sven Kämper, Ralf Liedtke Within our team, we all view ourselves as co-researchers, with each individual

contributing unique strengths and skills to the study.









Herne, focusing on Wanne-Eickel and city center. Study of activities in semi-public spaces at Wittekindshof.

A software application called **OGITO** (Open Geospatial Interactive Tool)



The methods resulted in various findings provides va-

METHODS

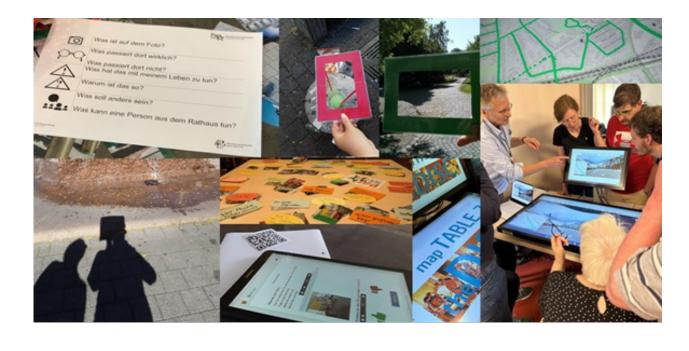
Participatory Methods employed to identify walkability and accessibility aspects and challenges.

- Potovoice
- Digital mapping with maptables
- Focus group, and mental maps, user story writing, group tool testing
- Observation and documentations during the workshops

CHALLENGES

• Evaluation process with input from people with diverse abilities and city health department staff







luable insights into daily experiences and interactions within the community:

- Public **cleanliness issues** (litter, broken glass)
- Dirty green spaces
- Call for more pet-friendly and well-maintained parks
- Demand for seating areas in parks
- Safety concerns (poor lighting, intimidating groups)
- Obstacles on sidewalks (e-scooters, bicycles, motorcycles)
- Noise pollution from busy streets



- Established foundational principles of transparency, openness, trust and equality for project success
- Fostered a relaxed and joyful atmosphere, enhancing teamwork and engagement
- Prioritized inclusion of diverse individuals in all research steps of citizen science projects

• Ensuring inclusive moderation sensitive to individual strengths and needs • Designing organizational conditions for accessibility and tailored communication Balancing participant autonomy and group dynamics in the participatory process • Effectively utilizing visual aids and feedback mechanisms for comprehension

• Structuring meetings, providing adequate breaks, and adapting research sessions to participant needs

• Allowing time for informal conversations and fostering a trusting atmosphere • Organizing numerous meetings for coordination, which would have been scarcely possible without synergies with other projects

• Demonstrated potential for integration into participatory planning processes

 Observed empowerment process, acknowledging the expertise of people with diverse abilities in their own life, journeys, resulting in positive shifts in self-efficacy and perception

> **Research blog** (in English) dimdici.hypotheses.org >





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