CASE
CENTRE FOR AGEING AND SUPPORTIVE ENVIRONMENTS
LUND UNIVERSITY

Action! A novel multi-method approach – reflections from older adults and researchers

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Highlights

- How is an everyday walk actually experienced?
- By combining an action camera, researcher observations, and video-elicited interviews, we captured older adults' walks in real-time and through participants' accounts.
- This approach captured natural walking patterns – often missed by traditional walk interviews – and participants' perceptions.

Background

- Methods for investigating walking environments commonly include walking audits by an observer or walk interviews.
- However, they lack a combination of environmental observations, natural walking behaviour, and participants' accounts of their experiences.
- Here we share reflections on experiences with a novel multi-method data collection approach that we used in an ongoing pilot case study exploring how older people experience their daytime outdoor walks.[1]

Methods

- Sixteen volunteers aged 71–89 (mean 79) took a self-selected daytime outdoor walk, wearing a chest-mounted action camera to record the surroundings (**Fig 1, 6**).
- The researchers observed participants' behaviour and environmental features while walking behind the participants. One researcher tracked the route and speed using a GPS smartwatch (**Fig 2, 3, 4**).
- During the subsequent interview, participants described their walk experience while watching the video on a tablet to stimulate recall (**Fig 5**).
- Reflections regarding the method are based on field notes and summaries of group discussions with the participants.

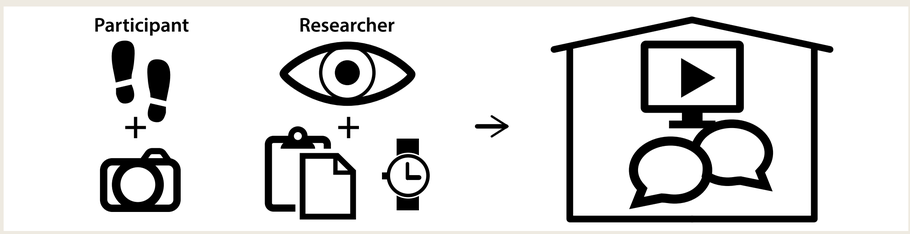


Figure 1. A novel multi-method approach

Results

- *Participants' reflections:*
While some preferred the non-interactive approach, others favoured a walk interview. Nobody was reluctant to wear the chest-mounted camera.
- ***Researchers' reflections:***
The multi-method approach enabled natural walking patterns (e.g. walking pace in motion, stops) and simultaneous observation of environmental features and behaviour. Video playback elicited participants' reflections on their walks – both as observers and as the ones being observed – despite occasional technical challenges (e.g. connectivity, freezes).

[1] Gerhardsson, K.M., Brogårdh, C., Tornberg, Å.B. et al. (2026). A municipality implemented behavioural intervention to improve quality of life among older adults: protocol for a mixed-methods pilot case study. *Pilot and Feasibility Studies, 12*(47), 1–13.

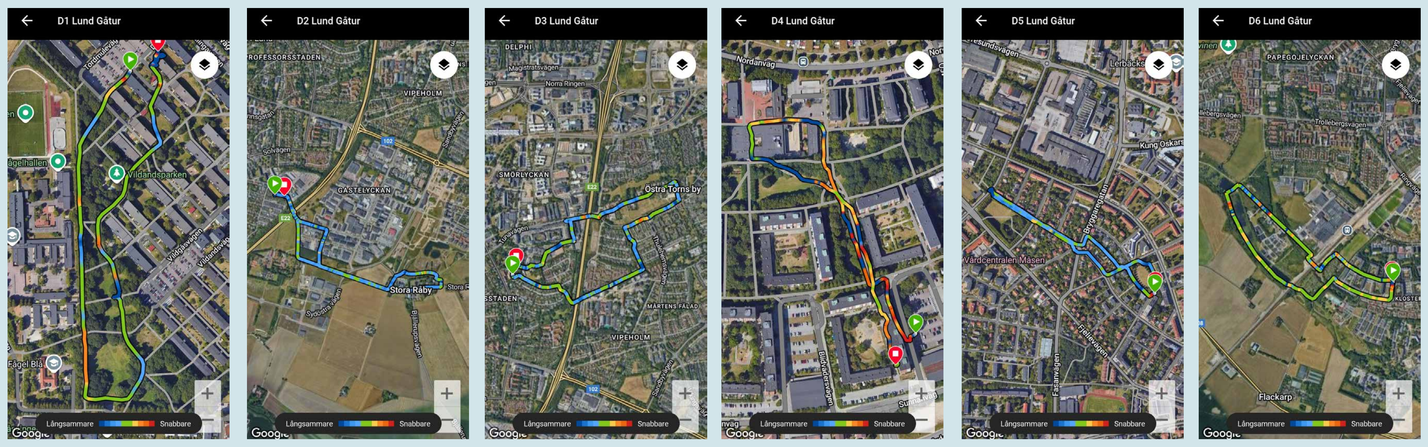


Figure 2. Screenshots from the mobile phone tracking app (paired with the researcher's GPS smartwatch) show 6 of 7 walks in Lund (55.7° N, 13.2° E). Walks, which occurred during March, lasted between 19 and 55 minutes and ranged from 0.85 to 4.11 km

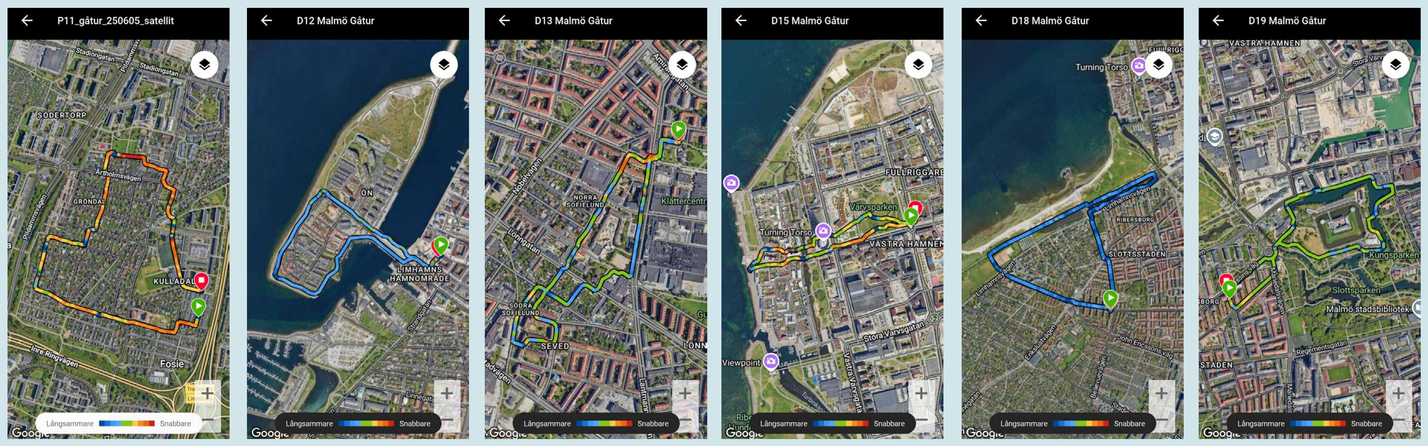
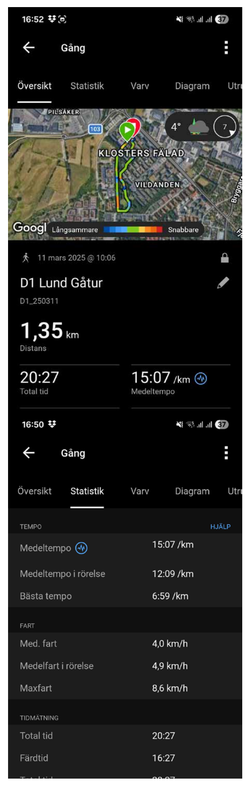


Figure 3. Screenshots from the mobile phone tracking app (paired with the researcher's GPS smartwatch) show 6 of 9 walks in Malmö (55.6° N, 13.0° E). Walks, which occurred during March except for one in June, lasted between 26 and 49 minutes and ranged from 1.42 to 4.85 km



Municipality:	Date:
Participant ID:	Observer:
Weather and temperature:	Start time:
Residential or mixed-use district:	End time:
Peripheral, mid, central:	Duration of walk:

Timestamp	Observations, including comments

Stationary features	Moving features
Bench **(BE)**	People **(PE)**
Pavement/Footpath/Pedestrian and cycle paths **(PA) (FP) (PC)**	Animal **(AN)**
Separation strip between pedestrian and cycle lane **(SS)**	Skateboard, inlines **(SK)**
Pedestrian kerb ramp by crossing **(PKR)**	Cyclists **(CY)**
Walking surface (accessibility, unevenness, bare ground, slush snow, snow) **(WS)**	Electric scooter **(EL)**
Safety barriers for pedestrians (sidewalk buffers, green strip of vegetation, posts, parking spaces) **(SB)**	Cargo bike **(CA)**
Crossing (signed, painted, signaled) **(CR)**	Motor vehicle **(MO)**
Junction/intersection (traffic signals, road signs) **(JU)**	Tram **(TR)**
Greenery along sidewalk/walking paths (trees, vegetation, abundant, sparse) **(GR)**	Railway **(RA)**
Green spaces (parks, greenery in the neighborhood) **(GS)**	Sound **(SO)**
Service facilities (grocery store, café, hairdresser, health care centre, senior meeting point, training fitness facility/wellness centre) **(SF)**	
Transit stops for public transport (transit shelter with/without roof/side walls) **(TS)**	
Graffiti and damage (clear deficiencies in repair and maintenance) **(GR)**	

Figure 4. (a) Action camera with a chest belt for mounting, an audio recorder for interviews, a tablet to play back the recorded videos; (b) the smartwatch worn by the researcher to track the route, (c) screenshots from the mobile phone tracking app, showing distance, walking pace and speed in motion, total duration; (c) and a pre-prepared form to record observations. The form was inspired by walking environment assessment tools, such as the Microscale Audit of Pedestrian Streetscapes (MAPS)

Figure 5. Snapshots from the videos show appreciated sceneries by two participants (D02, D14)

Figure 6. (below). Pre-testing the novel multi-method approach with a volunteer, who did not participate in the study