Thematic Analysis: Focus Group One

Cover note

This document presents the thematic analysis underlying the findings in the Milestone 2 Static Sensory Mapping Report for iMOVE Project 3-048. It documents how participant feedback from Focus Group One and associated validation activities was manually analysed, coded, and synthesised into the themes reported in the milestone deliverable.

The thematic analysis is intended as a supporting analytical artefact, providing transparency and an audit trail linking raw qualitative data to reported findings. While the milestone report presents stable, evidence-based insights suitable for submission and review, this document captures the detailed analytical work that informs those conclusions and supports methodological rigour.

Data sources and analytical basis

This thematic analysis is based on session transcripts, written participant feedback, and facilitator notes collected during Focus Group One and associated validation activities.

Participant scheme

Participant descriptors are included for internal analysis clarity and are not used in external reporting.

The scheme used is:
Participant 1 – Laura (wheelchair user, Easy Read, screen readers)
Participant 2 – Edie (sound and light sensitivity, Newcastle story)
Participant 3 – Chloe (additional written feedback, planning and anxiety focus)
Participant 4 – Cameron (Zac as name on screen for part of the session) (larger/unfamiliar stations, map exploration, filtering, information load)
Participant 5 – Haley (migraines, smell sensitivity, buses, reliability)

Statement of themes

Across participants, seven strong themes emerged. These are not isolated usability issues. They are conceptual findings about how people with sensory sensitivities actually plan and cope with journeys.

Theme 1: Planning and anticipation are the primary need

Participants consistently framed their needs around pre-journey preparation, not live navigation.

They described:

- Anxiety beginning days or hours before travel
- Extensive planning using Google Maps, timetables, images, menus, and backup plans
- Relief from knowing what to expect, even when the experience remained difficult
- Stress driven more by uncertainty than by sensory exposure alone

Key insight:

Analysis indicates that participants primarily value static sensory information as a planning and preparation aid, rather than as an in-the-moment navigation tool.

This supports the prominence of action plans, step-by-step guidance, and “what to expect” content within participant expectations.

Contributing participants:

1, 2, 3, 5

- P1: Extensive advance planning, regulation before travel, anxiety
- P2: Timetables, backups, stress about unfamiliar stations
- P3: Action plans for rest, snacks, timing, and sharing with support person
- P5: Planning is essential due to migraines, smells, heat, and unreliable services

Theme 2: Maps are not as intuitive as the primary interface

Almost all participants defaulted to Google Maps mental models, including:

- Expecting Street View
- Expecting standard icons and interactions
- Expecting search, scale, and consistent behaviours

BindiWeb was often perceived as:

- Too map-centric
- Too visually dense
- Hard to interpret without explanation
- Not obvious how sensory overlays connected to meaning or severity

Key insight:

Participants did not reject maps entirely, but did not want to start with them.

Maps worked better when:

- Supporting understanding after reading content
- Confirming spatial relationships
- Acting as a reference, not the main narrative

Contributing participants:

1, 2, 3, 4, 5

- P1: Difficulty with levels, perspective, orientation
- P2: Expected Google Maps conventions, found map visually noisy
- P3: Visuals overwhelming, increased anxiety
- P4: Explored map deeply but questioned colours, symbols, purpose
- P5: Confusion around polygons, icons, disappearing elements

Theme 3: Action plans were immediately recognised and valued

When participants encountered the action plan:

- Engagement increased noticeably
- Participants read content aloud
- Focus shifted from interface confusion to meaning and usefulness
- Questions arose about printing, saving, sharing, screen readers, and Easy Read

Action plans felt:

- Familiar
- Calming
- Purposeful
- Aligned with how participants already plan journeys

Key insight:

Action-plan-style content emerged as the most accessible and trusted format for sensory information.

This aligns with the analytical conclusion that action-plan-style content is best positioned as the primary user-facing artefact.

Contributing participants:

1, 3, 4

- P1: Immediate engagement, read content aloud, asked about Easy Read and screen readers

- P3: Wanted editable, printable, shareable action plans

- P4: Saw value in action plans but warned about overload without filtering

This theme was strongly expressed by several participants, though not universally across the group.

Theme 4: Images are essential accessibility infrastructure, not decoration

Images were repeatedly identified as critical for:

- Understanding what a space feels like
- Identifying food courts, entrances, platforms, corridors
- Reducing anxiety through familiarity
- Replacing abstract symbols

Participants preferred:

- Real photos
- Google Maps imagery
- Image sequences that follow a human path
- Fewer images with clearer progression

Key insight:

Images reduce cognitive load and anxiety in ways that maps and text alone cannot.

Participants consistently ranked images above sensory overlays in importance.

Contributing participants:

1, 2, 3, 5

- P1: Strong preference for images, Easy Read, visual familiarity
- P2: Relied on Google Maps images to reduce anxiety
- P3: Wanted interactive, journey-based images
- P5: Wanted photos to understand smells, seating, avoidance options

Theme 5: Cognitive load and visual clutter actively increase anxiety

Many participants described the prototype as:

- Overwhelming
- Too busy
- Too many colours, dots, overlays, and symbols
- Hard to interpret the severity or meaning

There was strong interest in:

- Filtering by sensory type
- Severity indicators
- Smaller, more precise zones
- Progressive disclosure rather than “everything at once”

Key insight:

Unfiltered sensory maps can inadvertently increase anxiety and deter access.

Several participants said the map made them less likely to visit the station.

Contributing participants:

1, 2, 3, 5

- P1: Overwhelm from colours, pop-ups, perspective changes
- P2: Too much information, wanted filters
- P3: Visual clutter increased anxiety
- P5: Busy interface and disappearing icons caused confusion

Theme 6: Accuracy and trust are non-negotiable

Participants repeatedly stated that:

- Inaccurate information is worse than no information
- Late buses, incorrect trackers, or unclear rules undermine trust
- Broken social rules (quiet carriage, loud music) cause significant distress
- Lack of guidance on what to do when things go wrong increases anxiety

Key insight:

Sensory information must be framed carefully, with clear limits and contingencies.

This supports action plans that include:

- "What to expect"
- "What you can do"
- "What to do if this happens"

Contributing participants:

2, 4, 5

- P2: Distress when rules are broken, unpredictability
- P4: Explicitly stated inaccurate information is worse than no information
- P5: Live tracker inaccuracies increased stress and undermined planning

Theme 7: Diversity of needs, but consistency of patterns

Participants varied widely in:

- Sensory profiles
- Mobility
- Neurodivergence
- Health conditions
- Coping strategies

Yet patterns were consistent:

- Sound and light were dominant stressors
- Indoor environments were harder than outdoor ones
- Transitions between journey segments were particularly difficult
- Support people made a major difference

Key insight:

There is too much variability for full automation, but strong consistency in needs around preparation, clarity, dignity, and control.

This aligns with facilitator reflections that documentation-based approaches may be more appropriate than full automation in this context.

Contributing participants:

1, 2, 3, 4, 5

- All participants described different sensory profiles and coping strategies
- Despite this, all converged on needs for preparation, clarity, images, and control

Formal Evidence Table: Focus Group and Validation Themes

This table documents how participant data supports each identified theme and provides an audit trail linking raw feedback to reported findings.

Participant reference key (internal only):

- P1 – Laura
- P2 – Edie
- P3 – Chloe (written feedback + session)
- P4 – Cameron
- P5 – Haley

ASPECT staff contributions are excluded from participant attribution.

Theme 1: Planning and anticipation are the primary need

Participant	Evidence from transcripts / feedback
P1	Described extensive pre-journey planning, dread before travel, need to regulate before entering spaces, reliance on preparation to cope
P2	Detailed advance planning using timetables, Google Maps, backup options; anxiety driven by unfamiliar stations
P3	Explicitly stated she would use the information to plan rest, food, timing, and coordination with a support person
P5	Described planning as essential due to migraines, smells, heat, unreliable public transport, and uncertainty

Strength of evidence: Strong, cross-participant

Used in report: Sections 8.3, 9.3, 9.5

Theme 2: Maps are not as intuitive as the primary interface

Participant	Evidence from transcripts / feedback
P1	Difficulty understanding levels, perspective changes, map orientation; not intuitive under stress
P2	Expected Google Maps conventions; found map visually noisy and hard to interpret
P3	Found visuals overwhelming; map increased anxiety about visiting the place
P4	Explored map extensively but questioned meaning of colours, symbols, and what information was for
P5	Confused by polygons, icons, disappearing elements; unclear what areas represented

Strength of evidence: Very strong, unanimous
Used in report: Sections 8.3, 9.3, 9.6

Theme 3: Action plans were immediately recognised and valued

Participant	Evidence from transcripts / feedback
P1	Immediately engaged with action plan; read content aloud; discussed Easy Read, screen readers, and plain language
P3	Requested editable, printable, shareable action plans; wanted to add personal notes and share with support person
P4	Recognised value of action plans but noted risk of overload without filtering

Strength of evidence: Strong, but not universal
Used in report: Sections 9.3, 9.6, 10

Theme 4: Images are essential accessibility infrastructure, not decoration

Participant	Evidence from transcripts / feedback
P1	Strongly advocated for images alongside text; stressed importance for Easy Read and screen reader users
P2	Relied heavily on Google Maps images to understand unfamiliar spaces and reduce anxiety
P3	Requested interactive, journey-based images rather than abstract visuals
P5	Wanted photos to understand smells, seating, spaces to avoid, and what environments feel like

Strength of evidence: Strong, cross-participant
Used in report: Sections 8.3, 9.3, 9.5, 9.6

Theme 5: Cognitive load and visual clutter actively increase anxiety

Participant	Evidence from transcripts / feedback
P1	Described overwhelm from colours, pop-ups, perspective shifts, and dense information
P2	Found information heavy and difficult to filter; wanted more control
P3	Explicitly stated visuals increased anxiety and made place feel overwhelming
P5	Busy interface, disappearing icons, and lack of clarity caused confusion and stress

Strength of evidence: Strong, cross-participant
Used in report: Sections 8.3, 9.4, 9.6

Theme 6: Accuracy and trust are non-negotiable

Participant	Evidence from transcripts / feedback
P2	Described distress when rules were broken and behaviour was unpredictable
P4	Explicitly stated inaccurate information is worse than having no information
P5	Live tracker inaccuracies undermined planning and increased stress

Strength of evidence: Moderate to strong
Used in report: Sections 9.3, 9.6

Theme 7: Diversity of needs, but consistency of patterns

Participant	Evidence from transcripts / feedback
P1	Wheelchair use, Easy Read, screen readers, airport stress
P2	Sound and light sensitivity, unfamiliar stations, planning reliance
P3	Anxiety, need for calm spaces, support person coordination
P4	Anxiety around unfamiliar large spaces, information filtering needs
P5	Migraines, smell sensitivity, avoidance of public transport

Synthesis: Despite diverse sensory profiles and access needs, participants consistently prioritised preparation, clarity, images, and control.
Strength of evidence: Very strong
Used in report: Sections 9.1–9.6

ASPECT Staff Thematic Evidence Mapping (Internal)

In addition to participant contributions, three ASPECT staff members were present to support facilitation of the validation activities. These staff members also have lived experience of sensory sensitivities and provided valuable contextual and reflective insights throughout the sessions. While their observations are not treated as participant data within the thematic analysis above, their input was documented and considered as expert–lived experience insight to support interpretation of participant feedback, clarify constraints, and inform subsequent refinement. This distinction ensures that participant voices remain primary, while recognising the value of specialist lived experience in contextualising and triangulating findings.

Scope note:
ASPECT staff contributions reflect expert–lived experience insight and facilitation observations, not participant evidence. They are used to contextualise, corroborate, and interpret participant feedback.

Theme 1: Planning and anticipation are the primary need

ASPECT insight	How it aligns with the theme
Emphasised that anxiety often begins well before travel	Reinforces that sensory support must address pre-journey planning, not just navigation
Noted that people often avoid travel due to dread and uncertainty	Supports planning-oriented information as a confidence-building tool
Highlighted transitions between journey segments as particularly challenging	Aligns with participant emphasis on preparation across the whole journey

Theme 2: Maps are not as intuitive as the primary interface

ASPECT insight	How it aligns with the theme
Observed that participants defaulted to Google Maps expectations	Reinforces mismatch between user mental models and custom map interfaces
Reflected that sensory information was being “shoehorned” into maps	Supports conclusion that maps are not always the right primary container
Identified awkwardness around multi-level navigation and orientation	Corroborates participant confusion and cognitive load

Theme 3: Action plans were immediately recognised and valued

ASPECT insight	How it aligns with the theme
Treated action plans as a familiar accessibility artefact	Reinforces participant recognition and trust in this format
Suggested flipping the model to action plan → map	Supports action-plan-first representation
Noted action plans support planning, printing, and sharing	Aligns with participant desire to prepare and coordinate support

Theme 4: Images are essential accessibility infrastructure, not decoration

ASPECT insight	How it aligns with the theme
Repeatedly suggested embedding images within action plans	Supports participant prioritisation of visual familiarity
Noted that content quality matters as much as UX mechanics	Reinforces images as core information, not decoration
Acknowledged limits of creating Street View–style imagery	Supports pragmatic use of existing imagery and photos

Theme 5: Cognitive load and visual clutter actively increase anxiety

ASPECT insight	How it aligns with the theme
Observed “scattergun” exploration due to lack of clear entry point	Reinforces need for guided, progressive disclosure
Suggested filtering by sensory type	Aligns with participant requests for control and reduced overwhelm
Raised concern about too much information presented at once	Supports risk of map-based overload

Theme 6: Accuracy and trust are non-negotiable

ASPECT insight	How it aligns with the theme
Emphasised that incorrect or misleading information increases distress	Directly corroborates participant statements
Highlighted difficulty of guaranteeing accuracy in dynamic environments	Supports cautious framing and limits of automation
Noted rule-breaking and lack of guidance compounds anxiety	Aligns with need for “what if” guidance in action plans

Theme 7: Diversity of needs, but consistency of patterns

ASPECT insight	How it aligns with the theme
Explicitly stated there is too much variability to fully automate	Reinforces “document, not automate” conclusion
Emphasised lived experience differs day to day	Supports flexible, user-controlled formats
Recognised consistent needs around preparation and clarity	Corroborates cross-participant convergence