Gather Explore Learn



A Toolkit for Equity-Centred Design Research Involving People with Disabilities

Equity means ensuring everyone has access to the resources they need to participate meaningfully and effectively in the design process.



Table of Contents

Equity in Design Research Toolkit?
- What is this toolkit? 6

Toolkit at a Glance
- Toolkit at a Glance Diagram 8, 9

Cross Disability Perspective 10
- Physical 11
- Sensory 11
- Neurodivergent 11

Centring Equity in Design Research 13

What is an Equity Lens? 15

Gather Explore Learn 17

Design Research Activities 19
- Empathy 20
- Inspirational 21
- Informational 22
- Evaluative 23

Start Gathering

How Do We Gather? 25
Key Questions: Who 26
Key Questions: What 27
Key Questions: How 28
Considerations 29
Tips 31

Start Exploring

How Do We Explore? 36
Key Questions: What 37
Key Questions: How 38
Considerations 40
Tips 42

Start Learning

How Do We Learn? 48
Key Questions 49
Considerations 50
Tips 52

Equity in Design Research Toolkit?

What is this toolkit?

This toolkit provides design teams with a set of “equity lenses” that can be used to modify design research activities and accommodate people with disabilities so that they can be meaningfully involved.

Who can use this toolkit?

This toolkit was created for design teams who use design research to learn from people with disabilities about their experiences and needs.

When can you use this toolkit?

This toolkit can be used when implementing design research activities during the “fuzzy front end” of the design process.

Why should you use this toolkit?

People with disabilities have the most to gain from innovations in design and much to offer in terms of their lived experiences but are often the least included in the design process because design research activities are not accessible to all.

How do you use this toolkit?

Once you have chosen your design research activity critically reflect on your plans using the questions, considerations and tips described in this toolkit. Doing so will increase the likelihood that people with disabilities will be able to meaningfully participate in the design process.

Toolkit at a Glance

The Design Project



Cross Disability Perspective

When doing design work with people with disabilities, a cross-disability perspective is critically important. This means being attentive to the multiple access needs that exist amongst people who identify as disabled as well as those that do not.

For the sake of this toolkit, people with disabilities can be organized into three groups based on their abilities, access needs and how we plan for them.

Physical



The first grouping is composed of individuals with some level of physical disability related to limitations in the use of hands, arms and legs.

This group will require modifications in terms of gradients, surfacing, obstructions, dimensioning of doorways and rooms, and the design and placement of fixtures.

Sensory



The second grouping is composed of individuals with some level of sensory disability such as hearing or visual impairments and/or cognitive impairment.

This group will require modifications in terms of ergonomics, obstructions, kinesthetic and auditory queuing and clueing, lighting, colour and contrast.

Neurodivergent



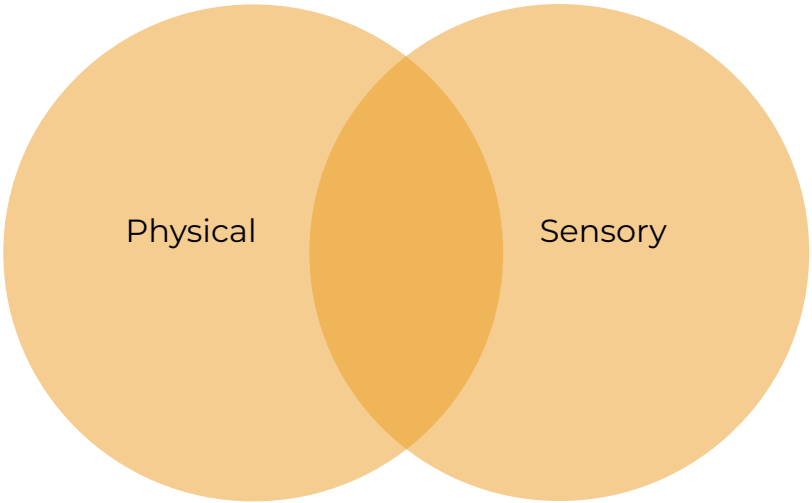
The third grouping is composed of individuals who identify as neuro-divergent or part of the autistic community.

This group will require modifications in terms of ambient noise, lighting, colour and contrast, dimensioning, and olfactory stimulation.

Disability groupings can overlap

It is important to consider that participants can have more than one disability.

For example, someone with limited mobility can also have hearing impairments. This person would be considered part of both groups and may benefit from modifications such as the dimensioning of rooms and lighting, colour and contrast.



Centring Equity in Design Research

One way that we involve people with disabilities in the design process is through their participation in design research activities in the pre-design stage.

There are dozens of well-established design research activities used to understand user experiences and generate information about their needs (see page 22- 27). This includes activities such as structured interviewing, focus groups, user journey mapping, and many others. We use these activities to learn about people with disabilities, their needs, and the context in which they interact with designed things: objects, services or the built environment.

But taking one of these “off the shelf,” so to speak, and using it in a design process without considering the access needs of people with disabilities is highly problematic. People with disabilities can be present but if they cannot fully participate then their involvement is not meaningful.

By failing to meaningfully involve people with disabilities we leave them feeling like a means to an end, that their participation is tokenistic.

To avoid this trap we need an equity lens.

What is an Equity Lens?

An equity lens is a set of **questions, considerations and tips** you can use to properly acknowledge diversity and difference and identify ways of modifying and accommodating activities to ensure inclusion.



An Equity Lens (questions, considerations, tips) assist in identifying the access needs of people with disabilities.

Applying an equity lens means being attentive to the multiple access needs that exist amongst people who identify as disabled as well as those that do not and ensuring that everyone has access to the resources they need to participate meaningfully and effectively in the design process.



Gather Explore Learn

Ensuring meaningful involvement requires that we modify activities to the greatest extent possible and provide accommodations when and where they are needed.

HOW?

Design research encompasses many types of activities. For example, some design teams may choose to run focus groups with future users. Another design team may choose to involve similar groups in user journey mapping. Whether running focus groups or user journey mapping exercises, you are gathering people together to explore experiences in order to learn about their needs.

Design research activities can be broken down into three generic parts:

Gather

Gather users together.

Explore

Explore user experiences.

Learn

Learn about user needs.

After you have chosen your design research activity, begin by disassembling your activity and carefully examining each part through an equity lens.

For each part, we provide a list of things to consider, questions you can ask yourself, and tips based on what we learned. All of these will make your design research more equitable and therefore more successful for people with disabilities.



Design Research Activities

There are four general categories of design research activites.
Only a few examples of each are listed in this document.

Empathy Activities

Empathy research activities are intended to create a portrait of users, generate empathetic understandings, and eliminate stereotypes.

Structured Conversations

Structured or focused conversations are useful in exploring certain situations or issues. They guide conversation by preparing questions that are arranged in four stages, starting at the surface level and working towards in-depth conversations. These four stages are objective questions to review facts, reflective questions that evoke emotional responses, interpretive questions to draw meaning from something, and decisional questions that consider future action.

Collage Exercises

Collage exercises are a brainstorming activity that involves the cutting and pasting of images, words, textures, or symbols to express ideas, experiences, or feelings related to the discussion. They allow for a quick and creative method of expression. Collages can reveal common themes, differences, and underlying assumptions among participants.

Inspirational Activities

Inspirational research activities are intended to spark inspiration and capture innovative design ideas.

Card Storming

Card storming is a brainstorming technique that permits a large number of people to provide input about what is most important to them in regards to an issue, problem, or process. Participants can be split into smaller groups to note their ideas on sticky notes or cards, to then organize their ideas based on natural groupings and identify emerging themes. This technique is useful in maximizing participant engagement, while also ensuring inclusion by using all ideas provided.

Site Visits

Site visits are helpful for gathering opinions about design and to visualize the potential of a project. Feedback received during and after site visits are valuable in raising awareness about the possibilities and pitfalls of design.

Informational Activities

Informational research activities are intended to generate detailed information about users, their experiences and access needs.

Bubble Diagrams

Bubble diagrams are conceptual sketches that represent the orientation, flow, and relationships between space. It uses circles (“bubbles”) of varying sizes representative of a room’s size or importance, which are connected by lines that show how these elements relate to one another. Bubble diagrams can help visualize spatial hierarchies, revealing what spaces are most important to a participant, what use each space is intended for, and how an individual may interact with that space.

User Journey Map

User journey mapping is a flow-chart like diagram that follows the particular steps a participant takes to complete a certain task. They are useful in uncovering how people may experience a space, service, or process. This exercise can identify essential features required to complete a task, or barriers that prohibit it. User Journey Maps can help identify lived experiences to ensure design decisions can respond to real needs.

Evaluative Activities

Evaluative research activities are intended to test design ideas, concepts or prototypes with potential users.

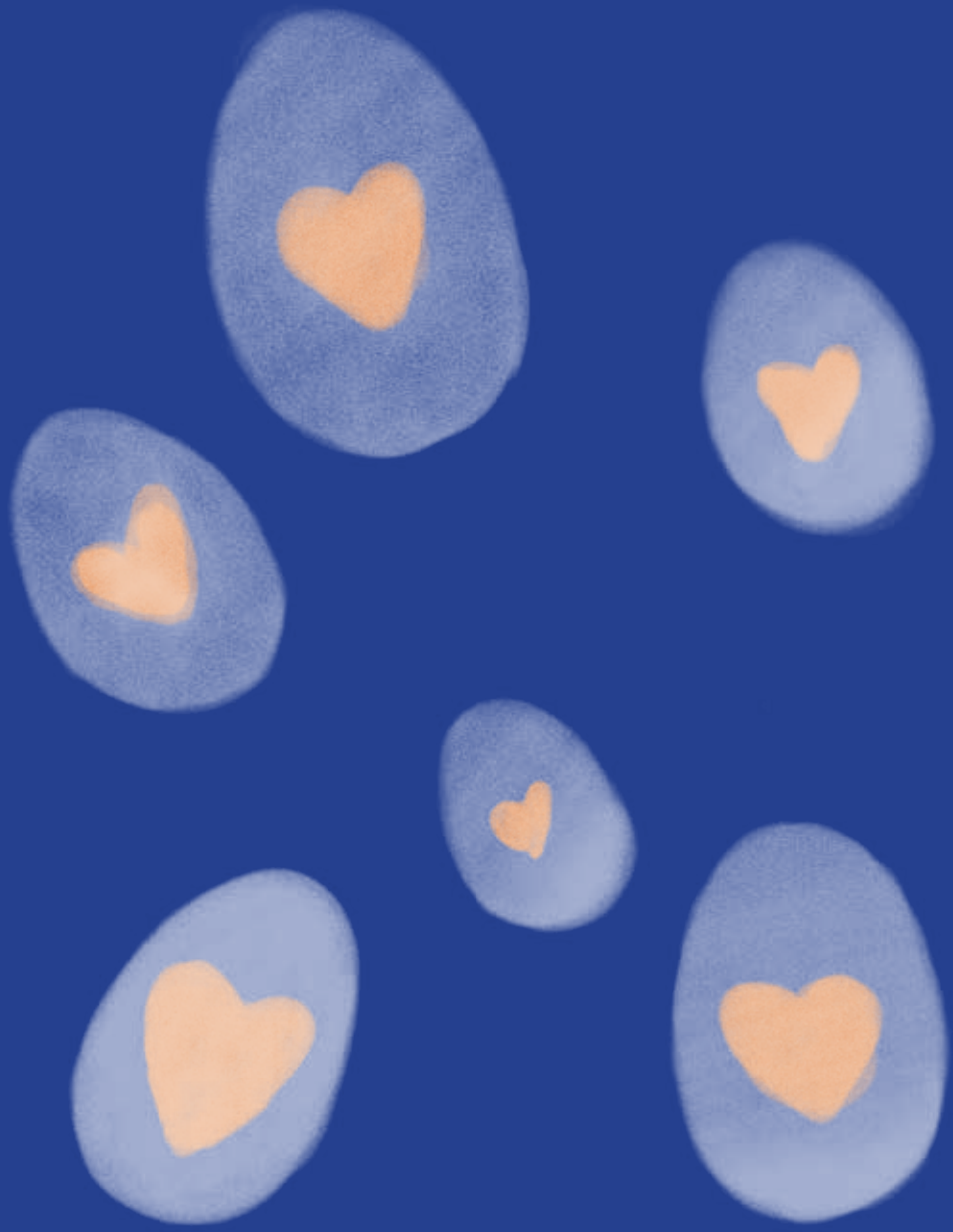
Dot Exercises

In a dot activity participants are broken into groups, according to the number of participants present. Each group will then prioritize ideas using icons or dot stickers on maps, images, or collages to suggest design options, preferences and/or priorities. Individuals place dots or pins to vote for elements or ideas they do or do not like. This allows facilitators to learn and understand participant preferences and prioritizations.

Problem Tree

This analysis allows participants to identify main problems including their root causes, what influences them, and their effects. This technique breaks down larger problems into more manageable and comprehensible issues. Problem tree analyses can promote a shared understanding of the problem at hand, and provides a mechanism for prioritizing how it will be addressed.

START GATHERING



How Do We Gather?

Gathering involves identifying users who have a stake in the design process and coordinating their participation in design research activities.

When gathering users it is critical to treat them as capable agents. This involves creating conditions in which people are informed, supported, and feel safe enough to explore options, ask questions, and make adjustments as needed.

QUESTIONS : Who

Who should participate? 

What user groups do I need to involve?

Who are the most impacted?

Who am I missing?

Are we adopting a CROSS-DISABILITY PERSPECTIVE? (p.12–13)

QUESTIONS : What

What do we know about a particular user group?

What do we not know about them?

What are we forgetting to consider?

What assumptions are made about a particular user group, and who might they exclude?

QUESTIONS : How

How will we recruit and engage participants?
Individually? In groups? In-person? Virtually?

How will we meet or gather?

How often?

CONSIDERATIONS



Provide Choice and Autonomy

Provide participants with different options for participation such as completing activity individually at home or with a group at a meeting or workshop.



Ensure Informed Consent

Confirm participants' willingness to participate after they have received information about the process, what participation will involve and how their information will be used.





Deliver Information in a Clear and Accessible Manner

Ensure instructions are clear, concise and easy to follow. Avoid open-ended language and technical terms without explanation. Ensure the information provided is equally accessible to all participants.





Choose an Inclusive Physical Setting

When organizing a gathering such as a meeting or workshop, ensure a safe and comfortable environment by considering the size, lighting, acoustics, and orientation of the meeting room.

Allow flexibility by providing movable tables, adjustable chairs, ability to dampen or moderate background noise.

TIPS

VERBALIZE

Always verbalize welcomes and instructions to participants. Do not rely on written and visual materials alone.

WHY?

Verbal instructions ensures information is perceptible regardless of a person's sensory or cognitive abilities.

When the message is consistent across multiple modes of communication, it is reinforced for people with cognitive impairments.

PLAN AROUND

Plan around participants' time-tables and schedules; some participants may require several sessions to complete the activity.

WHY?

Many people with disabilities face unique time-related constraints linked to transportation barriers. Relatedly, everyday tasks can be draining and some people may have limited energy to expend on an activity.

For people who identify as autistic, consistent daily routines are important for self-regulation. Planned activities may not align with availability of support staff.

TIPS

BE FLEXIBLE

Be open and flexible with expectations.

WHY?

Some participants might be able to do more than others during an activity due to the reasons stated above.

Quantity is not the goal; rather it is about the quality of the information. Be open to what they are willing to share. Show them dignity and respect in capturing all of what they need/want to share. Allow them to express related emotional reactions.

Consider activating trauma-informed practice since experiences of people with disability can be traumatic for them.

PURPOSE

Introduce the purpose of the activity at the outset. Highlight how the information gatheredwill be used.

WHY?

Introducing the purpose at the outset is a critical ethical step.

As a sign of respect and dignity, every participate should understand why they are participating and what their information will be used for.

It is essential that participants understand the activity before making a decision to participate. This is also important for building trust and rapport.

TIPS

EXPLAIN

Provide, explain and walk through examples to show exactly what is expected (an example of completed bubble diagrams or user journey map).

Break down the activity into its elemental stages or steps. Make sure the example is clear and simple steps and remind them to think of their own experiences.

Why?

For neurodivergent individuals, understanding the “why” and “how” of an activity reduces uncertainty and anxiety.

INVOLVE

Involve assistants, sign language interpreters and proxies in the activity. A proxy is a trusted individuals either family or friends or someone who works with them.

As someone who understands them and can bridge any misunderstandings or awkwardness. Make sure they are made to feel welcome and their participation is meaningful.

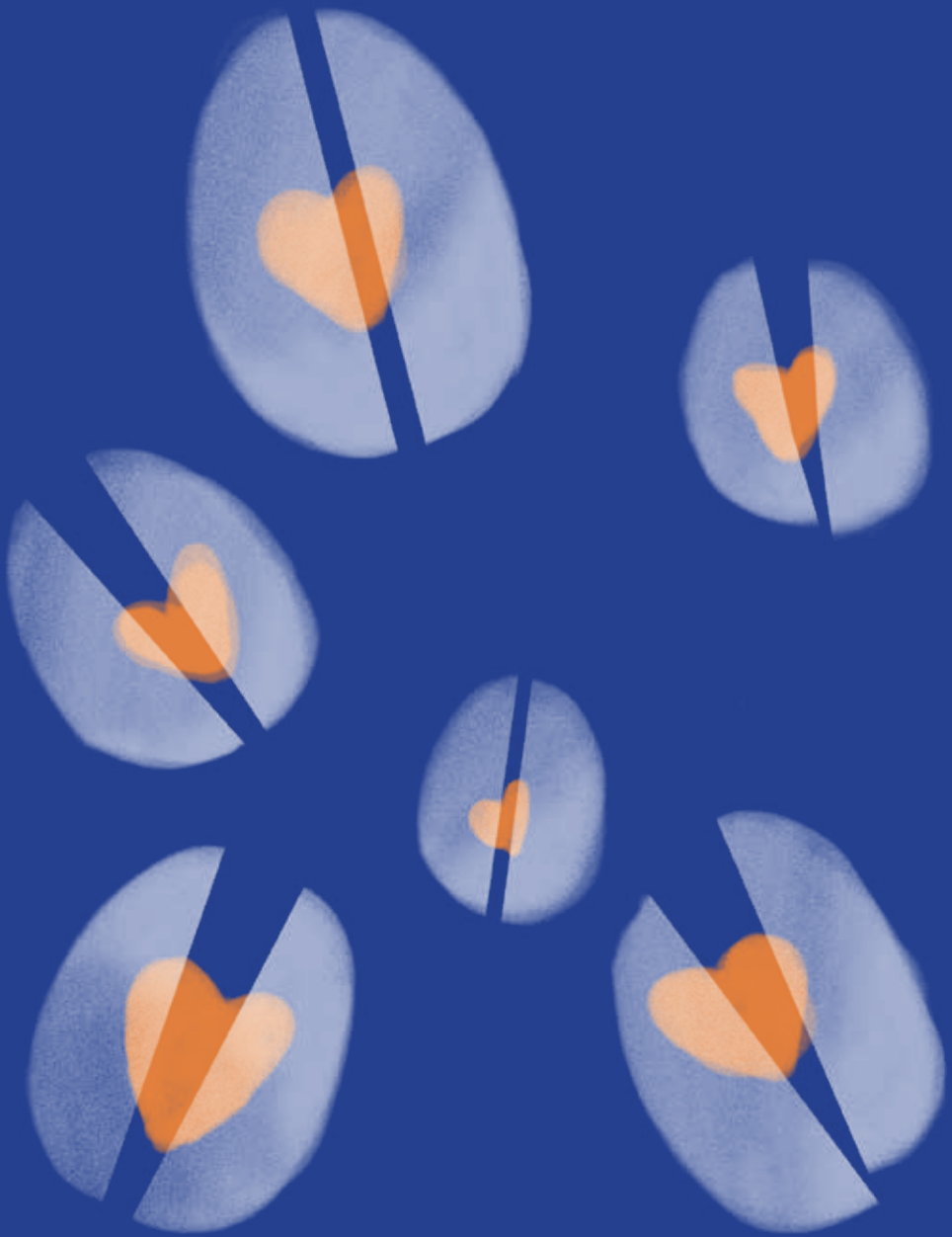
Why?

Support persons are essential because they enhance the accuracy of communication, reduce the cognitive load allowing participants to focus on the activity and provide psychological safety and increased autonomy.

NOTES



START EXPLORING



How Do We Explore?

We explore by investigating real life problem situations and carefully documenting user experiences.
Activities used for exploration can vary significantly in terms of tasks, materials and formats.

QUESTIONS : What

What type of communication does the activity allow for?

Are participants writing? Drawing? Talking?

What notes, drawings or stories will be documented?

What physical abilities does the activity demand?

QUESTIONS : How

How might we need to adapt or modify the activity?

How might we need to accommodate individuals?

How much time is involved in each task?

NOTES



CONSIDERATIONS



Provide Multiple Modes of Communication

Offer multiple means of expression to accommodate all kinds of communicators. Variety offers flexibility and fosters a sense of agency by allowing participants to express their thoughts and feelings in a way that works for them. Make available as many materials as possible to participants. When communicating with individuals who are blind or have low vision you may need to provide written material in accessible formats, such as computer recordings or someone to read the materials aloud.



Ensure participants have the support needed to express their thoughts and feelings.

Certain activities may benefit from having multiple facilitators and/or assistants on hand. Professional services may be necessary in this regard; for example, trained sign language interpreters. Allow participants to use their own assistive technology and/or a proxy (such as a caregiver) to assist in completing the activities.



CONSIDERATIONS



Acknowledge the Time and Energy Demands of Activities

Be conscious of the time it takes to complete a task as participants can experience fatigue. Be aware of what participants need to recharge or take a break.

Also understand that some content may be emotionally charged and so it is important to be mindful when asking about personal experience. Be mindful that some inquiries may bring about strong emotional responses. Providing engagement tools, such as fidget toys, lego, or other materials can help participants focus.

Utilizing skilled facilitators with training in trauma-informed practice is also advised.



Provide Guiding Examples

Provide examples or other prompts to help give direction and expectations. Knowing what is asked can alleviate stress and boosts participant confidence in completing the task.

TIPS

ADEQUATE SPACE

If planning a group exercise, acquire a room with adequate space for participants with mobility devices to move around and for assistants and interpreters who need proximity to participants and may need to move around participants; adequate individual workspaces for participants to create, including adjustable tables and chairs; environmental controls such as adjustable lighting and temperature; appropriate acoustics some participants; some participants might rely significantly on hearing for information sharing which a space with minimal background noise is optimal.

WHY?

An inadequate space creates physical barriers that can limit participants' participation and the overall effectiveness of the activity.

Sign language interpreters require a clear line of sight. For neurodivergent participants, physical crowding can trigger sensory overstimulation.



TIPS

USE ASSISTANTS

Provide assistants who can help out with the activity.

WHY?

Participants may need varying levels of assistance depending upon their dexterity. Providing assistants can help facilitate the modification of activities on the fly. It can allow caregivers or proxies such as family members to take a break from their role.

BE ATTENTIVE

Be attentive to the linearity of the activity.

WHY?

For neurodivergent individuals this may or may not be a suitable structure for cognitive and emotional regulation. It might appeal to a linear thinker but present barriers to other types of thinking and expression.

TIPS

VARIETY

Provide a variety of materials of various sizes, scales, types and honour requests for additional or alternative formats.



WHY?

It is important to recognize that people have diverse functional needs. The size of the page might make a difference for the ability for the participant to comfortably visualize and navigate.

For people with low vision, materials with high colour contrast help distinguish boundaries and materials with different textures provide tactile feedback. Even paper is a challenging medium for many: hard to decipher what is on it by people with low vision, hard to manipulate by people with poor dexterity, hard to use as medium to record information, hard to reach if falls on floor or is out of range.

TIPS

SUPPORT

If desired, support collaboration among participants.

WHY?

Participants may feel more safe and comfortable working in pairs or small groups.

It can reduce isolation and increase socialization. It can promote peer support and mutual learning.

PURPOSE

Consider issues of privacy and honor requests by participants for alternative formats that might respect confidentiality.

WHY?

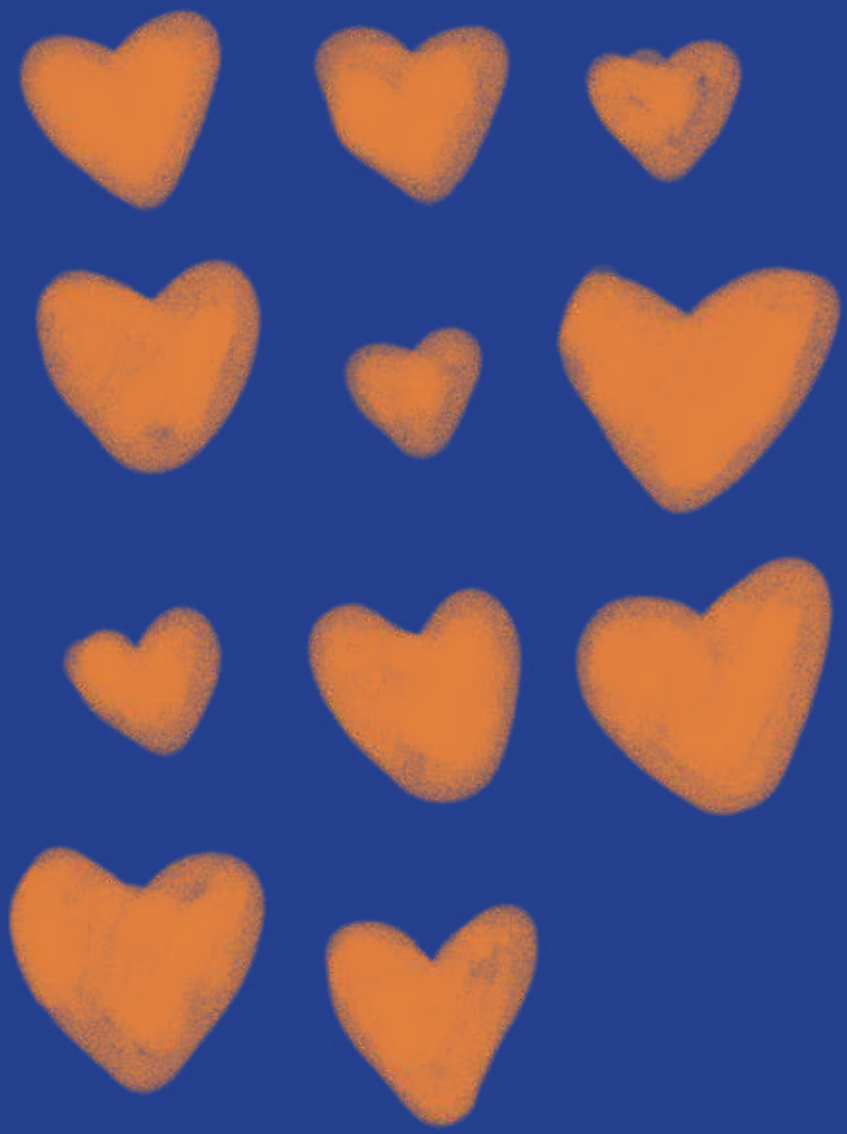
This is essential for building trust and safety.

Group activities can inadvertently disclose personal information or “out” a participant’s disability to peers. For example, assistants may be provided by an organization and participants may have concerns about sharing or verbalizing information in front of staff.

NOTES



START LEARNING



How Do We Learn?

Learning involves developing deeper understandings, through synthesis and reflection, that can serve as the basis for identifying user needs and connecting these to design requirements. Learning can go by many different names including debriefing and reporting back.

QUESTIONS

Does the information we have gathered adequately represent user experiences and needs?

Have we covered all possible aspects?

Did we accomplish what we set out to achieve?

CONSIDERATIONS



Represent Diversity

Cultivate multiple ways of knowing by ensuring a diversity of perspectives are reflected in the information that is gathered.



Be Aware Of Your Own Biases

Reflect on the use of language and symbols and critical questions about whether any stereotypes or bias is present.



CONSIDERATIONS



Validate Knowledge

Confirm with participants that you have correctly connected past experiences and current needs.



Involve Peer Reviewers

Subject information to the scrutiny of experts-by-experience to identify flaws, biases, or inconsistencies.



TIPS

USE SCRIBES

Consider the involvement of scribes who can take notes.

WHY?

Using scribes can lessen the cognitive load on participants and assistants. As a result participants can focus on active engagement.

People with hearing impairments who rely on interpreters or captioning cannot look down to take notes.

People with limited dexterity of hands may find notetaking or writing for long periods difficult. Finally, trained notetakers can capture detail and nuances of discussion that might be missed.

UNDERSTAND

Ask clarifying questions and provide feedback to show one understands.

WHY?

This is a core component of active listening which recognizes the dignity of participants, builds trust and rapport, and avoids problematic assumptions and misunderstandings.



NOTES





Acknowledgements

First and foremost we wish to acknowledge the community members who participated in the research activities that laid the foundation for this toolkit. Your knowledge, experience and suggestions were immensely valuable and have shaped this toolkit in innumerable ways.

We acknowledge and thank our project advisory group: Mark Iantkow (Expert by Lived Experience), Zachary Weeks (Expert by Lived Experience), Jonathan Rockliff (Professional Architect, Dialog), Adam Arsenault (Homebuilder, No Limits Collective), Nicole Wilke (Community Housing, Civida), Sam Mason (Disability Advocate).

Your wisdom, recommendations and support were incredibly helpful in the creation of this resource.

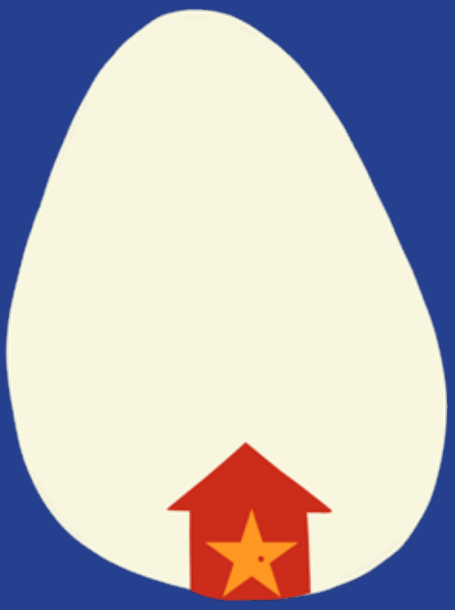
The Alberta Real Estate Foundation (AREF) provided funding to the University of Alberta for research on equity and inclusion in housing design and the development of this toolkit. We thank the AREF for its generous funding and continued support over the course of our project.

Text ©Copyright by Joshua Evans 2026
Illustration ©Copyright by Suzuanne Burwash 2026
This work is licensed under Attribution-NonCommercial 4.0 International.

You are free to: Share, copy and redistribute the material in any medium or format.
You can adapt, remix, transform, and build upon the text material. Illustrations are not to be modified and used for any purpose other than within the parameters of this text. The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:
ATTRIBUTION –You must give appropriate credit, provide a link to the license , and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.
NONCOMMERCIAL– You may not use the material for commercial purposes. No additional restrictions –You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.

Notices: You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation.
No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material.



“Meaningfully involved means listening and collaborating to build something that is truly what people who have disabilities need.”



AUTHORSHIP:

Joshua Evans
Mark Iantkow
Lara Pinchbeck
Lauren Slevinsky
Suzuanne Burwash

AFFORDABLE HOUSING SOLUTIONS LAB

Alberta Real Estate Foundation