7 STEPS FOR QUALITATIVE DATA COLLECTION, ANALYSIS AND REPORTING

AN ARBOR DAY FOUNDATION ENVIRONMENTAL JUSTICE TRAINING RESOURCE

HOW TO USE THIS RESOURCE:

Below is a checklist of seven steps for collecting, analyzing, and reporting findings from qualitative research (i.e. people's words and experiences). You can use this resource to ensure that you are doing each step, in the order listed below, to maximize success of your qualitative research efforts in historically disinvested and low tree canopy neighborhoods.

WHAT IS QUALITATIVE DATA?

Qualitative data is information that is not easily reduced to numbers. Qualitative data answers questions about the "what," "how," and "why" of a phenomenon, rather than questions of "how many."

YOUR CHECKLIST!

STEP 1:

IS QUALITATIVE DATA RIGHT FOR YOU?

First, decide what questions you want to answer using qualitative data, and confirm that this type of data will help you answer the questions.

Examples of questions answered with qualitative data include:

How have you seen your neighborhood change over time?

What types of trees would you be interested in receiving for your front yard? Why?

Which group would you like to plant trees with? (e.g. my church group)

Why did you choose to plant (or not plant) a tree in your yard?

Where would you like to see more trees in your community?

Who should be involved in tree plantings in your community?

How do you feel you have benefitted from this tree-planting (or stewardship) program?

What kind of support would you need to care for your new tree?

Put the questions you want to ask residents in a separate document, which you will refer back to once you decide how you will gather data (i.e. through interviews, focus groups, surveys, or observations).

If you want to make sure you gather enough feedback from people with certain characteristics (e.g. renters, people from a particular neighborhood, youth, etc..), include a list of screening questions at the beginning of your instrument(s) to ensure you gather feedback from the right people.

STEP 2:

DESIGN YOUR DATA COLLECTION METHODS

Next, you need to determine *how* you will collect qualitative data, and from *whom*.

List the different types of groups you want to collect information from, and why.

- This can be an individual or team activity, if several people or departments in your organization could benefit from the qualitative data collected (e.g. Fundraising team, Community Engagement staff, Outreach and Education Program staff, Green Infrastructure department).

- Some examples of groups you may want to collect information from include:

   - Residents in particular neighborhoods, such as low canopy areas

   - Homeowners and renters in certain neighborhoods

   - Youth, adults, and/or elderly residents

   - First time and/or returning volunteers

   - Leaders of community-based organizations, like neighborhood associations, churches, and block clubs

   - Park users and/or residents near parks where you hope to plant trees

For each group you want to collect data from, list all of your *existing* contact points with them. For example, do you interact with these people and groups during volunteer tree-planting and stewardship events? Or tree giveaways? Perhaps at community meetings? Are they signed up for your e-newsletter or are they on your mailing list?

- If you do not have existing contact points with them, list ways you *could* connect with them to ask questions (e.g. getting on the agenda of a local community meeting).

Determine at what point during these in-person interactions you could ask questions to collect qualitative information.

- For example, you may want to interview people at the beginning of an event to better understand their motivations for attending, or at the end of an event to assess whether the experience was positive, negative, or neutral and why.

Decide on ways to document their perspectives.

- Some ways to document qualitative data are provided in the table below (Column 1) with "pros and cons" of each (Column 2):

Ways to document feedback	Pros and cons of this method
Audio-recorded interviews	Pros: – Capture exact quotes easily – Lots of rich, detailed information that is more accurate and comprehensive than if you just took notes on a person's responses –You can ask follow-up and clarifying questions

Ways to document feedback	Pros and cons of this method
Audio-recorded interviews	Pros: – Gives more voice and power back to residents, allowing for more meaningful involvement in a program – Can be more comfortable for shy or introverted people, compared to focus group discussions Cons: – Can be resource-intensive, requiring time and money to transcribe audio-recorded interviews and then analyze the entire interview for themes – Audio-capture method can make people uncomfortable and refuse to participate
Audio-recorded focus groups	Pros: – Capture exact quotes easily – Lots of rich, detailed information that is more accurate and comprehensive than note-taking – You can ask follow-up and clarifying questions – Gives voice and power back to residents, allowing for more meaningful involvement in a program – Gather information from several people at a time Cons: – You will not get as detailed of a response from everyone involved as you would from a one-on-one interview – Shy and introverted people may be less comfortable participating in a group discussion – Can be resource-intensive, requiring time and money to transcribe audio-recorded interviews and then analyze the entire interview for themes – People may not feel comfortable with being audio-recorded and refuse to participate in this method
Artifacts from focus groups, like any post-it notes you asked people to brainstorm on, or flip-chart paper where you recorded their ideas.	Pros: – It is a good alternative to audio-recording, if people refuse to be audio-recorded – You have the data already written down to analyze, saving time and money on transcribing an audio recording of the dialogue – Photos of people's written words and ideas can be used in plans to show accountability to residents and how you integrated their feedback – The processes you use to gather these artifacts, like post-it notes, allow participants to leave the meeting with facilitation skills they can use in their community afterwards Cons: – You cannot gather exact quotes for the entire dialogue, only the words people wrote down – Not everyone is comfortable or able to write things down or participate in group activities, and only want to verbalize (you can get around this issue by offering to write ideas down for them)

Ways to document feedback	Pros and cons of this method
Surveys with written responses to closed and open-ended questions[1]	**Pros:** – You can gather a lot of information from many people more easily than interviews or focus groups – You can use a survey to verify if the themes you heard in interviews or focus groups are applicable to a broader group of people in the community – You can collect survey feedback in a variety of ways: at in-person events, via mail or email, and anytime you are out and about in the community – You can advertise surveys using QR codes on flyers in the neighborhood, and/or on social media platforms, thereby reaching a broader pool of potential respondents than with interviews or focus groups – Can be more comfortable for shy or introverted people, compared to interviews and focus group discussions – You have the data already written down to analyze, saving time and money on transcribing an audio recording of the dialogue **Cons:** – Not everyone is comfortable or able to write things down (you can get around this issue by offering to write ideas down for them) – You will likely not get as detailed of a response from everyone involved as you would from a one-on-one interview – You cannot ask follow-up or clarifying questions, like you could in an interview or focus group
Observation forms used to document observations of particular issues during events.	This could include observations of interactions between residents and your organization's staff members during tree-planting or other events—were they mostly positive, negative, or neutral interactions? What quotes did you hear that exemplify what you observed in these interactions? **Pros:** – It does not require any additional time or effort from the people and groups you are observing – You can capture real-life dynamics of interactions between people – You can potentially observe an important issue that someone may not tell you about in an interview, focus group, or survey – You can verify issues that people brought up during interviews, surveys, and/or focus groups **Cons:** – You are limited in the type of data collected, since you are not asking the questions, you are simply observing interactions and behaviors.

[1]See the "20 questions for residents" for ideas on questions to ask residents in low canopy neighborhoods

Once you have decided on the method(s) you will use to gather data, it's time to gather qualitative data by answering the questions from Step 1.

- Individually or with your team, review the draft questions and begin to put them into the appropriate format (e.g. an interview guide, focus group agenda and prompts, survey questions, or an observation form).

STEP 3:

PILOT YOUR DATA COLLECTION INSTRUMENT(S)

- Identify 3-5 community members who can help you determine if the questions make sense and whether they are culturally appropriate and sensitive.
- Share your chosen data collection instrument(s) (such as interviews or surveys) with these community members and ask for their feedback on how clear and culturally appropriate it is.
- Revise your data collection instrument(s) based on this feedback, and send the revised version back to the community members for final feedback.

STEP 4:

TRAIN YOUR STAFF

Train your staff and/or volunteers to collect data using your chosen instrument(s) (such as interviews or in-person surveys).

Have the staff members who are being trained to role-play asking questions to those who helped design the instrument(s). Have other staff observe the role play and provide suggestions on how to improve the way questions are asked (e.g. more inviting body language, the order of questions, etc..)

STEP 5:

COLLECT DATA

Create a timeline and schedule for collecting data, based on the data collection methods you outlined in Step 2. I suggest using a shared Google spreadsheet, like this Template Action Plan (or similar) so that each person involved in data collection can update the spreadsheet with details about their progress (such as how many interviews they conducted with which groups of people).

STEP 6:
ANALYZE THE DATA

Organize your data.

- Print (or electronically create folders for) transcripts of interviews, focus groups, and/or open-ended survey questions.
- Gather your notes taken during data collection.
- Group the data as needed (for example, group data by neighborhood if you want to compare data across neighborhoods). If you printed transcripts, put them in labeled piles. If you are working electronically, create different folders for each group you collected data from (e.g. Neighborhood A, B, and C).

Review and explore the data.

- Read through your dataset a few times, noting your thoughts, ideas, or questions.
- You may also highlight data according to predetermined codes you have created, like "barriers to building trust."

Create initial codes

- Use highlighters, notes in the margins, sticky pads, concept maps, or other ways to help you identify and label key themes.

Review codes (themes) and revise or combine them as needed

- Identify recurring themes, language, opinions, and beliefs.
- You can also use the free online software Taguette to code your data, so that you can easily see data coded under particular themes.

STEP 7:

SHARE YOUR FINDINGS

At this point, you will need to present your themes in a cohesive manner to the research participants and other interested stakeholders (e.g. foundations that fund your work).

- Consider the audience(s), and discuss or note the purpose of the research you are doing.
- Determine how you could use the following methods to display your qualitative data in the most engaging and effective ways for your audience(s) and research purpose(s). Examples of each display method are provided in the slide deck for the EJ training session held on April 13, 2023.

If you are not sure which types of displays your audience would like, reach out to them (or a leader within their community) to ask!
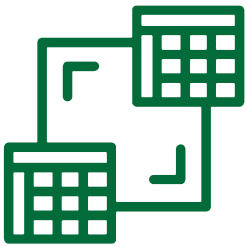
TABLES, LISTS

PARTICIPANT VOICES

GRAPHS, FIGURES

PICTURES

FIELD NOTES

Source (https://youtu.be/tUPccgKmV2o)

THE ARBOR DAY FOUNDATION AND FAIR FORESTS CONSULTING

At the Arbor Day Foundation, we believe everyone should have access to the powerful benefits of trees. To help strengthen our focus on communities that need trees most, we partner with experts like Dr. Christine Carmichael from Fair Forests Consulting. This resource, crafted by Dr. Carmichael, is part of our ongoing commitment to empowering our partners to grow their environmental justice work in urban forestry.

Alliance for Community Tree members have access to our full environmental justice training series in the ACT Member Resource Center. Learn about this network and how to join at arborday.org/ACT.