



Analysing data with youth: A guide to conducting thematic analysis



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INTRODUCTION

This manual is a practical guide for people who want to involve participants, youth in particular, in analysing research data. It draws on our experience doing research with Aboriginal youth in Eastern Canada for the Spaces & Places research project (www.resilienceresearch.org). In this manual we outline a step by step process for doing participatory thematic analysis, including sample activities and facilitation tips. This manual is not intended to be a definitive guide to doing participatory data analysis. Nor is it designed to

For an up-close view of what participatory data analysis looks like, watch the companion video to this manual at <http://www.resilienceresearch.org>

teach researchers about thematic analysis. A lot has been written about both these topics, and there are excellent publications available focused on both. Rather, in describing the process that we undertook, we hope that you will be able to use or adapt some of the activities to your own work. We hope that reading this manual will inspire you to custom-design a process that is tailored to the setting of your own research and the participants who you are working with.

Why do participatory data analysis?

What does participatory data analysis offer us that researcher-driven data analysis can't?

- ⇒ Participatory analysis ensures that the data we collect is interpreted in a way that more accurately reflects the realities of participant's lives. This means that whatever action/applications come out of the research, they should be of greater benefit to young people and their communities.*
- ⇒ When we actively engage people, especially those who are marginalized and/or silenced, throughout the research process, the research process has the capacity to enhance a community or population's agency and communication skills. These skills, combined with data ownership, mean that marginalised communities and populations are better able to advocate for*

resources, policy change, or rights. Participatory analysis challenges inequitable power dynamics between participants and researchers, recognizing both participants and researchers as experts with valuable insight and skills to contribute to the knowledge production process. It also challenges power dynamics between other groups with pre-existing power inequities, such as youth and adults.

Consequently, the benefits of participatory data analysis are particularly relevant for researchers working within a transformative and/or anti-oppressive research paradigm.

But aren't participants simply generating more data, not analysing existing data?

Although it may seem that activities like the body maps were another way to generate data, we intentionally crafted an iterative process of reflection, establishing an opportunity for participants to engage with the research question from different angles. The process allowed participants to bring their experiences together, and develop themes by attaching codes to these experiences.

What is the Spaces & Places research project?

Spaces & Places is a multi-site, visual methods study that explores what spaces are available to youth that establish a sense of community and cultural connection when facing higher than normal risks. The goal is to understand how these spaces facilitate a sense of cultural and civic engagement in youth, in turn fostering good social and health outcomes for youth. Our hope is to provide communities with practical information on how they can support positive life outcomes for youth. The project was designed in close collaboration with community partners so the study meets both community and academic goals.

The experiences that we include in this manual, come from the research that has taken place in the three Aboriginal communities that participated in the

research. Youth invited to the study were seen by community advisors as having something important to say about growing up well in their respective communities. The young people who worked on the project were between the ages of 12-18.

Specifically, each youth in the study was filmed for as much of a day in their life as possible. They also each took photographs of the spaces and places in their community that make them feel like they belong; and the spaces and places in their community that make them feel like they don't belong. Individual elicitation interviews were then conducted with each youth. Interviews ordinarily occurred over two sessions: one focusing on the youth's photographs and one focusing on a 30 minute compilation of their video data. Following this a focus group interview was conducted with all participants within that particular community. This process was repeated twice in each community allowing for a longitudinal understanding of the ways in which young people interact with their environment.

After each set of data gathering (i.e. individual and focus group interviews), the research team worked with youth to analyse the data. The data analysis process took place over a few consecutive days – usually a weekend -- in a workshop-style format where we used *thematic analysis* to identify the themes in the data. We also used participatory dissemination methods to share our findings. See the companion manual “A guide to disseminating research findings with youth” (www.resilienceresearch.org) for more information on the dissemination process.

What is thematic analysis?

Thematic analysis is a way to systematically condense a large amount of information into a set of



important themes, helping the research team describe the phenomenon under study. Thematic analysis involves looking at the data and creating codes that reflect the data, recognizing reoccurring patterns (or themes) among the codes, and then using those themes as categories for further analysis of the data, resulting in detailed or rich descriptions.

What are themes?

Themes provide an understanding of the "big picture". They are patterns seen across data sets that help describe a phenomenon, or answer a research question.

There are six phases or steps to thematic analysis:

- (1) Familiarization with data,
- (2) Generating initial codes,
- (3) Identifying themes that reflect collections of codes,
- (4) Reviewing data to understand and explain the meaning and dynamics of themes,
- (5) Maintaining rigour through inter-coder agreement, and
- (6) Producing the final report.

PARTICIPATORY DATA ANALYSIS: A STEP-BY-STEP PROCESS

Generally, participatory data analysis works better in groups. Although facilitating groups comes with its own set of considerations and challenges, groups give us access to a broader range of perspectives at once, and enrich the anal-

ysis through a group dialogue that integrates several perspectives. Many classic facilitation tools can be easily adapted for data analysis. See the section below on Facilitation Tips for general suggestions on how to work with groups.

What are codes?

Codes are a means of organizing data. They can best be thought of as labels or identifiers that are attached to the segments of data they represent. Understanding the connections between codes, helps us develop themes.

Pre-analysis: Preparing the data

Depending on the methods of data collection you used, you will be left with various data products (for example, interview or focus group transcripts,

Asking good questions

Because participants most often don't come to data analysis with formal training, finding quick and accessible ways to pull out/extract/distill relevant codes and themes is essential. Good questions are important in data collection, but given the group setting and the goal of translating a multitude of participant experiences into an organized set of findings, they are also essential for data analysis. A good data analysis question is:

- *Short and specific:* Asks one thing at a time, and can be clarified easily.
- *Broad:* Can apply to the experiences of most participants.
- *Simple:* Phrased without jargon or difficult words, and is easy to answer.
- *Elicitive:* Using words like look, feel and sound ("what does a safe community feel like?") can elicit rich responses. Using metaphors and symbols can also encourage lateral thinking and be culturally tailored to the community.

video footage, photos, drawings, and clay artefacts). The first step is to familiarize the participants with all the data collected. However, this presents some challenges—participants may not have the time or patience to read all the transcripts, sift through all the video footage, and so forth. There may also be issues around literacy and/or confidentiality, especially if participants shared sensitive information in the data collection phase.

Because of this, it's useful to do some initial 'distilling' or reducing of the data before it goes to participants. For example, from our 30-minute day-in-the-life video compilations, the research team asked each participant to select portions that could be shared with the larger research group. We also asked youth, at the end of their individual interviews, to select 2 or 3 photographs that could be shared. Based on your research question, another distillation method is to review interview transcripts and create a list of relevant items mentioned by participants - in our case these were items like people, activities, organizations, or locations. This list can then be used as framework for youth to review and adapt as part of the analysis.

Once data has been distilled and/or prepared for inclusion in the analysis process, it is time to begin with the group work!

1. Familiarize participants with the data

The first step is to familiarize the participants with all the data that has been collected. This is particularly important if some of the data collection has occurred with participants on more of an individual basis (for example in our project, where individual interviews were conducted with participants about their own video footage and photographs). A focus group discussion based on visual data is one way to do this. In our project, we played the video clips that each participant selected, and then provided a space for that participant to explain why they had selected this footage, and why they felt it was important to the research question. We then gave the larger group an opportunity to ask questions about the footage and its meaning to the participant, and offer their own thoughts on the data.

Similarly, each participant presented the photographs they had se-

Harvesting is a basic and very commonly used facilitation tool that can be a simple way to generate codes. As participants brainstorm or share their small group work, a scribe synthesizes each comment and writes it down on a flip chart. When participants shared the contents of their small-group maps, we were for example able to create a master list of places and activities in their communities that were important to them as well as what doing well looks like and requires. Working in a large group also provides a good opportunity to ask for clarification and tease out differences of interpretation.



Attach photo here	My name is
	My favourite space in my community is
	Being Mi'kmaq means
	Eskasoni is my
Because of this study I now ...	
The craziest thing I realised through this study is ...	
The best part of this study has been ...	
The weirdest part of this study has been ...	

Maps—geographical maps, mind maps, body maps—are all great ways to distil data because there is limited space for text. They also help us to start describing how codes are connected to each other in various ways. How close is the school to the rec center? In your body map of a young person, what symbols do you put in the head or under the feet? Maps also encourage the participation of youth who are more comfortable expressing themselves with their hands than their words, or for youth with low literacy.

lected, discussing their value to the research, and then opening the discussion up to the larger group.

Classic visual facilitation tools such as flip charts, diagrams and sticky notes can be especially useful to map out the data and maintain focus throughout the process. To promote engagement with the process, and encourage reflection throughout the data analysis weekend, we made use of individual 'Facebook walls' (pieces of flip chart paper, with outlines for various 'profile' activities, such as personal information – including a photograph of the participant – space for selected data photographs, and spaces for comments and reflection notes). After setting up their own pages at the start of the focus group discussion, each participant added their selected photographs. We then walked from page to page as a group, discussing the various images. Over the course of the weekend, participants could 'post' comments and questions on each other's walls, as well as responses, using post-it notes.

2. Generate initial codes

Once participants are familiar with the general content of the data, you can lead them through a process of generating codes. Codes are short descriptive words or phrases that 1) mark a piece of data as significant in relation to your research question and 2) identify data segments as belonging to a particular group. To generate codes, we worked together on various activities to develop collective understandings of recurring ideas. If you've been using interactive ways of familiarizing the group with the data—such as writing questions and answers on their Facebook walls—you have already started to gener-

ate codes. Possibly, different participants will ask some of the same questions, and writing the answers down starts to create a textual record that can be translated into codes by the participants and the research team.

In our study, we asked participants to create a series of quick community maps individually and in small groups, based on the data they were now familiar with. We gave participants 60 seconds to create community maps on their own, and then in small groups, asked them to create three maps on three different themes in three minutes each. With each iteration, it became clearer what the key codes were for this group, and when the groups shared their maps with each other, we could identify the overlaps and the differences.



We then repeated this process using body maps, asking youth to draw on their data to highlight what a young person looks like that is doing well. We then discussed the various body and community maps as a large group, 'harvesting' codes as they emerged. This exercise also allowed us to see how the codes sorted into themes, leading us into our next step.

3. Identify themes

Once you've generated as comprehensive a list of codes as possible, you can then start to organize them into themes. This process helps to identify overarching patterns in the data, and can often be translated directly into a set of findings. The process of developing themes will also draw out important relationships and contextual considerations in the data.

We used a 'code card game' to identify themes with youth. The code card game mirrors the methods commonly used by researchers but facilitated as if it were play. Each code generated through the coding activities, was written on an index card. We shuffled the cards and dealt them out equally to par-

family members' houses

parents

elders

Grandparents

other houses in Eskasoni

visiting family

hanging out with family

lookout

A collection of colorful sticky notes with various activities and locations written on them, scattered on a wooden surface. The notes include:

- Reading (pink)
- Snacks (pink)
- Snacks (orange)
- Streetball (yellow)
- Watching Hockey (pink)
- Ball Field (light blue)
- Goat Island (light blue)
- Kevin's Basketball Court (pink)
- Volleyball (pink)
- Hugh's Basketball Court (yellow)
- Trails (light blue)
- Walking (light blue)
- Judo (yellow)
- Dojos (light blue)
- Tae Kwon Do (light blue)
- Swimming (yellow)

Once you have a list of preliminary themes, it's important to determine whether these themes accurately reflect the data you collected, and can therefore give you a full picture of the question under study. To achieve this, youth worked "backwards" through the process. Working in small groups, youth wrote a single theme on a flip chart page and then added photographs and codes that reflect the theme, creating "theme posters". Codes and theme pages from each group were then compared to assess inter-coder agreement (you can read more about maintaining rigour at point 5 below).

HELP YOUTH DO WELL IN THEIR COMMUNITY CULTURAL ACTIVITIES

purposefully
invite youth
to activities

We'll I kind of decided and I figured it would have been like kind of hard too for him to take me with him. 'Cause like you usually have to go along rough terrain on the way (Female, 12)

Unlike my dad, I never had to do it before, like cut wood for heat and everything. Mostly now we have oil furnaces (Male, 14)

parents
experience
of culture is
different

helps to escape the
reality of daily life

It's a way to connect with your family. And just get away from any stresses there might be in the community or at your house. Or you might be bored and decide that you want to go out and have some fun. (Male, 17)

pass on
knowledge
so youth can
pass it on

I want to hear their stories of what they did; how they lived and how they hunted because it's something that they used to do that I wants to do. It's part of my tradition. I got to learn it to other people. (Male, 17)

Include culture in

everything we do

This information was collected for the Spaces and Places project in two communities in Labrador. For more information visit: www.resilienceresearch.org

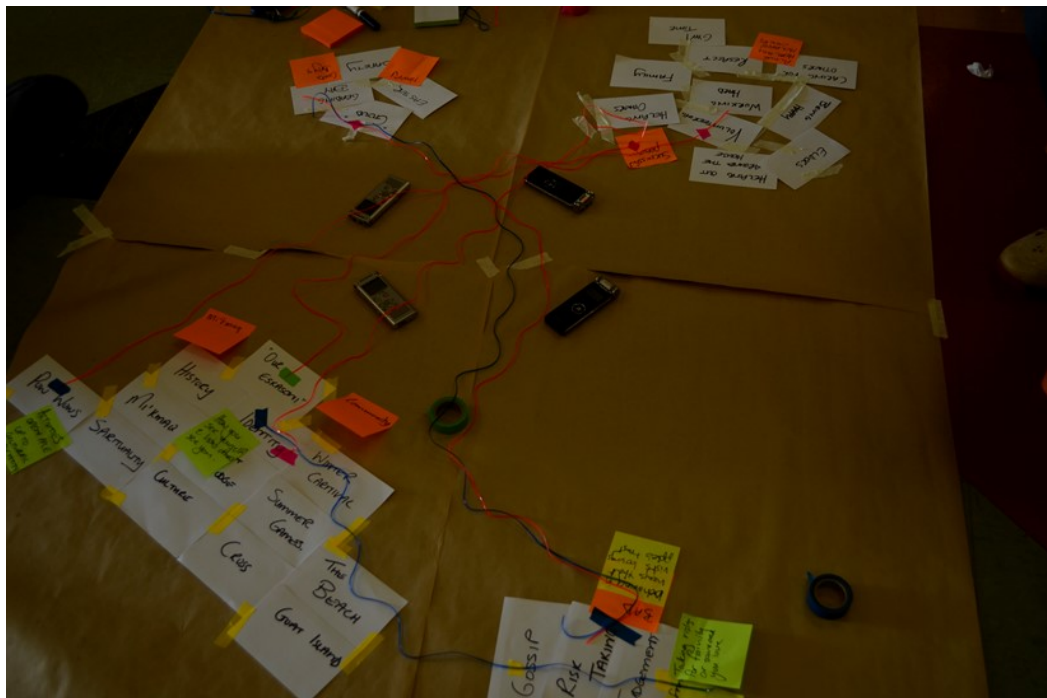
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4. Identify relationships between codes and themes

Theory is developed when we understand the relationships between codes, and how they explain themes, as well as when we understand the relationships between themes themselves. The process of coding and generating themes described above, provides a lot of information about the relationships between codes and how they interact to form a theme. The next step then is about understanding the relationships between themes, and how the groups of codes inform these relationships. Put simply, we want to understand how pieces of the data, represented by codes and/or themes, affect each other? Which correlate, and how? Visual exercises are particularly helpful to support participants here, as you attempt to create a thematic map of your data.



To do this, we taped the groups of code cards and related theme post-it notes to large sheets of brown paper. With the research team and youth participants gathered around these themes and their related code clusters, we began discussing how the themes related to one another. Prompts for youth were developed from statements that had been made during all the preceding

The research team could use statements made by youth in the discussion of activities like the body mapping and community mapping to 1) generate additional discussion amongst youth on various codes and themes, and 2) to encourage youth to reflect more deeply in the analysis process.

exercises (i.e. mapping, face booking, code card games and theme posters). As youth discussed the relationships between themes, coloured string was used to connect themes to each other. Where necessary specific codes were also connected with each other. The various colours of the strings were used to represent different types of relationships (i.e. causal, correlations, tensions, contradictions).

Paying attention to the process of creating a thematic map is as important as the final product—the conversations that happen about why a certain code goes here and not there are valuable opportunities to understand the relationships between codes, between themes, and between codes and themes. Relationships can also emerge from additional anecdotes shared by participants as the codes are grouped and themes are identified, and it may be useful to design sets of probing questions to encourage them to share these stories throughout the data analysis process. Because of this we made sure to document the entire data analysis weekend, using digital voice recorders, video recordings and photographs.

5. Maintain rigor through inter-coder agreement

Most academic research teams involve a number of people in the data analysis process to ensure that a reliable consensus is reached about how data is coded and analyzed. Including participants in the data analysis process can complement and enhance inter-coder agreement, ultimately resulting in findings that more accurately reflect the reality of young people's lives.

Many of the activities mentioned here also ensure that rigor is maintained throughout the process. Youth bring the knowledge of their own data (i.e. their photographs, video footage and what they have said in their individual interviews) with them to the analysis process. They then generate codes and

themes as a group, drawing on the various activities to both develop these codes and themes and find agreement with each other on what these codes and themes are, as well as how they relate to one another. Activities like the face book pages promote reflection on the process, and theme posters facilitate consolidation of themes and data.

Importantly, the results of the data analysis weekend provided the research team with a very clear framework to use in additional analysis of the data (for example in more detailed analysis of interview transcripts). Of key importance here is the fact that this framework has been developed by research participants themselves.

The research team could use statements made by youth in the discussion of activities like the body mapping and community mapping to 1) generate additional discussion amongst youth on various codes and themes, and 2) to encourage youth to reflect more deeply in the analysis process.

There are some challenges to note as you move towards articulating your research findings. Particularly if the youth who generated the data are the same youth involved in data analysis, researchers will need to figure out what is missing—what the participants did not say or notice—and what those omissions might mean. Participatory research doesn't ask you as a researcher to let go of your analytical ability or training in the field. Instead, good participatory research values the expertise of both participants and researchers, and integrates them to create the most complete picture of the phenomenon under study, filling the gaps in each

Producing the final report

Given the reality of institutional research reporting and accountability processes, the research team is ultimately responsible for making sure the findings are of a quality and in a format that can be disseminated. That said, it is also our responsibility as researchers to ensure that youth have the last word. By using a participatory ethics and methods in your data analysis, researchers are ethically obligated to create an environment and process where youth perspectives are both respected and privileged; where youth voices are taken seriously.

*Accountability to youth voice can also be done by involving youth in the dissemination of findings. The sequel manual to this one, **A guide to disseminating research findings with youth**, and its companion video, explains how to do participatory dissemination with youth.*

HOW TO DESIGN AND FACILITATE THE ANALYSIS PROCESS

In order to successfully lead a group of youth through a participatory data analysis process, your challenge as a researcher is to bring together the skills of facilitation (how to take youth through a process that fosters/elicits their sharing/participation in the analysis process) and research (how to create a process where the data is rigorously analysed).

If you have little or no experience with facilitation, consider inviting someone to the process who has skills in this area. Alternatively you can take advantage of one of the many training opportunities and/or resources available on the internet. Keep in mind though, that you already have some facilitation skills if you've conducted interviews or focus groups, and the addition of some basic principles of how to sequence and pace the workshop, as well as read the group, can be enough to equip you to lead an effective participatory data analysis process with young people.

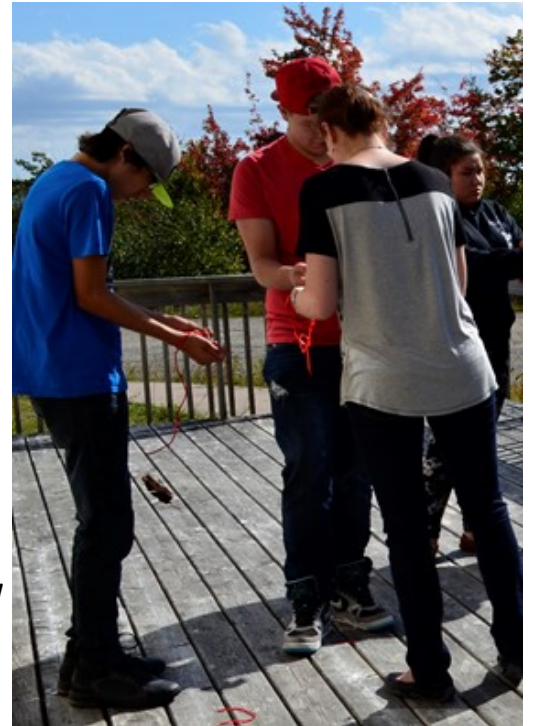
How to choose the right activities

To prepare for the data analysis process in S&P, the research team designed a set of activities based on our initial review of the data, as well as cultural and contextual factors that we had been exposed to through the expertise of a community based advisory committee. We included a lot of visual and kinesthetic exercises and used arts-based activities and metaphors in keeping with indigenous ways of knowing and communicating.

Importantly, once we had a workshop plan, we didn't rigidly stick to the plan. Instead we compiled a loose agenda of activities, more structured at the beginning but looser towards the end, as well as a toolbox of activities that we could take from whenever they were useful. This not only allowed us to do ac-

activities that were most appropriate for the group's energy level and interest from moment to moment, but enabled us to probe into interesting ideas, or clarify confusing concepts, as they emerged.

For example, in one of the community mapping exercises, the instruction was to “draw a map of the places and people in your community that make you feel safe.” Participants had a hard time thinking this through, as was evident from the time it took them to draw the maps and the sparse maps they did create. We knew from the interviews that this was not necessarily due to an outright lack of safe relational and physical spaces. So, before sharing the results of their safety maps with the larger group, we inserted a kinesthetic activity. Using licorice strings, participants “tangled” themselves up in pairs and considered the question, “When you find yourself tangled up or stuck, who or where do you go?” This prompted a discussion about who the ‘safe’ people and places were in their community, but in a different way than could be elicited from a geographical map. When we came back together in the large group and harvested all their ideas, the list we emerged with was much richer.



Facilitation tips

We can't provide a comprehensive set of facilitation techniques here, as there are an infinite number of facilitation tools and exercises that can be adapted effectively for the purpose of data analysis. However, below we include a few things to think about.

- ⇒ Conceptual tools such as the popular education spiral, emergent workshop design, and designing for multiple learning styles (e.g. kinesthetic, auditory, visual) are great tools to help structure a session and keep it interesting.

- ⇒ Group ground rules are controversial among facilitators. On one hand, they allow us to set expectations for a respectful work environment, and help us tell participants what we need from them. For example, a common ground rule is 'no interrupting or side talk'. This is particularly useful when discussions are being audio-recorded and transcribed. However, common ground rules can often be Eurocentric—in many places, normal linguistic practice is for people to overlap when they speak. Ground rules can also be superficial if they are imposed by the facilitator and not created by or fully agreed to by participants. It's always a good idea to discuss the use of ground rules ahead of time with your Advisory Committee.
- ⇒ If you are interested in participatory data analysis because it challenges power dynamics between participants and researchers, you'll also want to pay attention to power dynamics among participants. Throughout the process, pay attention to who participates and who doesn't, and whether that differs depending on the kind of activity or in the large group vs. in pairs. If you can be flexible with your activity design, you can vary these ways of interacting to make sure that all participants are engaged in some way so that their expertise makes it into the findings.
- ⇒ Another way to ensure that all participants are represented in the analysis is to have certain people work together in small groups or pairs. Grouping participants into smaller groups gives youth who are shy a space to speak. Similarly, pairing people who you know will disagree might allow an opportunity for complex discussions to emerge as they debate their points.
- ⇒ Schedule time to hang out and rest. Especially for participants who are not trained in research, some of this work may stretch them beyond their comfort zones. Informal time for participants to chat or go for a walk also helps them to build relationships, which can not only further any community-building goals connected to your participatory project, but can also strengthen the group data analysis process. Providing meals and regular snacks will also help keep the energy up.
- ⇒ Acknowledge participants for their work. Consider it a great honour that participants have agreed to spend time to help you make sense of your data. Compensate them for their time and their expertise, particularly if they

come from marginalized communities where resources, time and energy are stretched. Our project offered participants small stipends for each portion of the data analysis and honours them as authors and/or in acknowledgements on our publications.

We hope this manual has provided some assistance in generating ideas and plans for your own participatory data analysis process; and that you find the experience as rewarding (and as much fun!) as we did!