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Participatory Health Communication Research
Four Tools to Complement the Interview

Karen Greiner

"You're not in the medical field, are you?" asked Glenn Buzzelli, a registered nurse (RN) at the Veterans' Hospital in Pittsburgh. His question came after showing me something I had never seen before and thus had no name for – some grey wires that looked to me like a short extension cord. The "grey wires" were, in fact, Electrocardiogram (EKG) lead wires used to help detect and monitor heart conditions. Glenn showed them to me during the guided visit he was giving me of the Veterans' Hospital. This "guided visit," in research terminology, can also be called an ethnographic "go-along," a term proposed by sociologist Margarethe Kusenbach (2003, p. 462) to describe a tool that complements two common ethnographic methods, participant observation and the "sit down" interview.

On Glenn's "go-along," he was in charge: he decided where we would go and, to a large extent, what would be discussed. He led me to different rooms, pointing out different items of equipment, especially hard-to-clean surfaces, and explaining at each destination how Intensive Care personnel were fighting hospital-acquired infections. My questions were mostly reactive: "What is the importance of these EKG lead wires?" "Can you explain how and why you began ordering these EKG lead wires instead of the ones you used before?" The utility of the go-along is the increase in visual information it offers. On a go-along, the researcher can be exposed to the unknown, to things one might not have thought to ask about for lack of awareness or vocabulary. Moving through different spaces while talking, the researcher and research participant come across a variety of sights and situations that would not normally occur in a fixed-place interview. A defining characteristic of the go-along, and of each tool I will discuss in this chapter, is that it is visual and participatory: it offers an increase in visual stimuli and it invites the research participant to take the lead in generating and interpreting information.

Participatory Research Approaches

We can trace participatory approaches to health communication research to their roots in the fields of agriculture and rural development where practitioners first began developing participatory approaches for the collection, analysis, and dissemination of data (De Koning and Martin, 1996). Participatory research emerged as scholars and practitioners began recognizing that the use of nonparticipatory research methods resulted in a great power imbalance between researchers and respondents: researchers decided which issues to study, which questions to ask, and which analyses would be included in research reports and publications. Participatory research methods were developed to shift this imbalance in power by expanding the role of community members. Participatory research advocates De Koning and Martin (1996) write that participatory research emphasizes the generation of knowledge "from the perspective not only of the researchers but also of the researched" (p. 1). In agriculture and rural development researchers and practitioners employ a variety of participatory methodologies, including "participatory rural appraisal" (PRA), "rapid rural appraisal" (RRA), and "participatory action research" (PAR). Participatory methodology expert Robert Chambers (1992) describes the difference between Rapid Rural Appraisal (RRA) and Participatory Rural Appraisal (PRA) in this way:

> An RRA is intended for learning by outsiders. A PRA is intended to enable local people to conduct their own analysis, and often to plan and take action (p. 13).

While RRA, as described by Chambers, is "extractive" and designed to elicit information for the benefit of outsiders, PRA is meant to be empowering to local community members who conduct their own researcher with only the guidance of outsiders who serve as facilitators (See Chambers, 1992, p. 14; 1997, p. 206). Both RRA and PRA borrow from methodological tools used originally in the analysis of agro-ecosystems in including "transect walks" (systematic walks and observation), mapping, diagramming (seasonal calendars, flow and causal diagrams, bar charts, Venn diagrams, etc.).[1] While RRA and PRA are forms of inquiry, Participatory Action Research (PAR) can be described as both inquiry and intervention. Colombian sociologist Orlando Fals-Borda (1987) suggests that PAR is a combination of research, education and "political action" (p. 330). With PAR, inquiry is designed to lead to action, and inquiry, according to Fals-Borda (1987), should allow community members to "articulate and systematize knowledge … in such a way that they can become protagonists in the advancement of their society" (p. 330). Placed on a continuum of community engagement, the three approaches described above could be illustrated as shown in Figure 17.1.

The idea of placing community engagement in participatory processes along a continuum is not a new one. Two scholars, writing 30 years apart, have offered a "typology" (or "ladder") of participation in acknowledgement that the word "participation" can mean everything from attending a meeting (a low level of engagement) to having decision-making power (a much higher level of engagement). Sherry Arnstein's (1969) classic "ladder of citizen participation" had eight "rungs," which ranged from "manipulative nonparticipation" whereby citizens are convoked and "informed" under the guise of
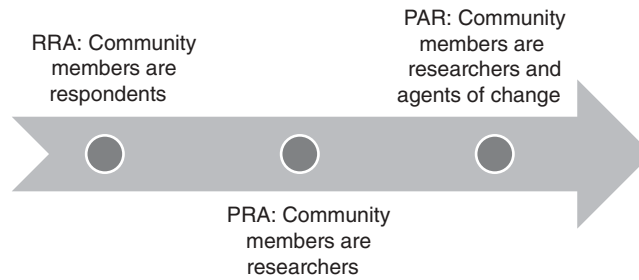
Figure 17.1 Increasing levels of community engagement along a continuum.
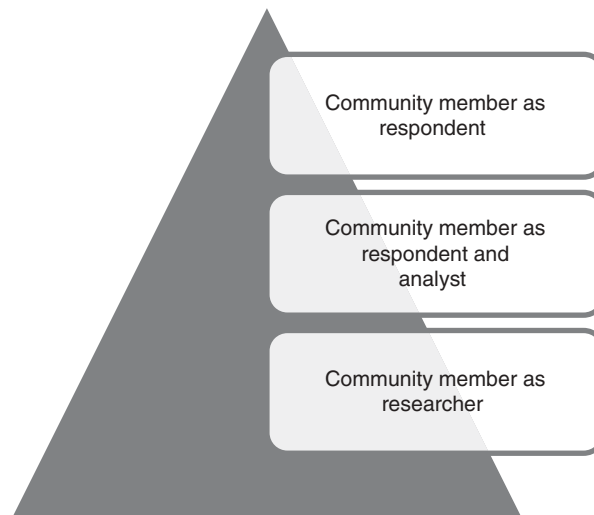

Figure 17.2 Role of community member in the interview process, from less to more control.

participation, to "citizen control" which involves citizens being involved as equals in the decision-making process (see p. 217, Figure 2).

Describing the challenges to women's engagement in participatory processes in India, Bina Argawal (2001, p. 1625) created a typology of participation that focused on the "extent of activeness." At the less active end of the continuum were group membership and passive acceptance of group decisions, and at the most active end was "interactive participation," defined as "having voice and influence in the group's decisions" (p. 1624). Inspired by these two typologies, I offer my typology of participation in the interview process. Figure 17.2 outlines the various roles community members can take, ranging from having less control to more control, in descending order.

In most research contexts involving interviews, the role of community members is limited to that of respondent: researchers ask questions and community members respond. Fixed-choice surveys or questionnaires that give the respondent a series of pre-determined answers to choose from give the respondent the least amount of control, for they can alter neither the question nor the response, they can only choose from available

choices or not respond. Open-ended questions give the respondent more freedom in crafting their response. A life-history interview might include the question: "Tell me about your childhood," the response to which could last anywhere from minutes to hours. The tools I describe in this chapter place community members in the role of respondent and analyst. The answers provided by community members are analyzed first by community members themselves. This analysis can help the researcher gain a deeper understanding of the community members' responses and also help the researcher gauge which issues are deemed most important. Here the researcher need not engage in guess-work because respondents take the lead in explaining the answers to each question. The cases I describe in this chapter involved questions conceived by researchers who were external to the community and thus community members do not take full control as would be the case in the "community member as researcher" role described in Figure 17.2 above. I make this distinction because of the wide number of meanings attached to the word "participatory." I feel it is important to situate the research described in this chapter within this typology to illustrate that, in this instance, community members participate first as respondents to open-ended questions posed by external researchers and second as analysts of their own responses, which in these cases take the form of (1) drawings, (2) guided walks, (3) network maps, and (4) life maps.

Health communication researchers stand to gain from research methods that enable community members to participate in the interpretation and analysis of research findings. The meaning of "health" may vary between and even within communities; thus, inviting respondents to explain and interpret their own forms of expression ensures that the first layer of analysis is from the local community members' perspective. Health communication scholar Collins Airhihenbuwa (1995) argues that too often efforts to understand and promote health do not adequately respect local perspectives. He notes that public health practitioners and researchers alike only pay "lip service" to local community members' understanding of health and illness, an understanding rooted in a "cultural framework" that may be unknown to or misunderstood by the researcher (see pp. x–7). Designing research studies to include the perspectives and analyses of community members ensures that the values and interpretations of external researchers do not drown out local perspectives.

In this chapter I draw on four health communication case studies in community and health care settings to describe and discuss four different participatory research tools: (1) sketching, (2) the ethnographic go-along, (3) network mapping, and (4) life mapping. Each case includes a brief introduction to the research study, a discussion of the use of one research tool, a section on practical issues that may arise while using the tool, and finally the potential utility of each tool for health communication researchers.

Some of these tools have been described elsewhere. The ethnographic go-along, for example, has been amply and ably discussed by Kusenbach (2003), who coined the term. Scholars have also paid attention to participatory sketching as a research method, which has been used in a variety of international settings and contexts (Singhal and Rattine-Flaherty, 2006; Greiner, Singhal, and Hurlburt, 2007; Singhal and Dura, 2010). The other two tools I discuss in this chapter, life mapping and network mapping, are being introduced here.[2] I present the four tools together to illustrate, in very practical terms, how these visual, participatory methods can contribute to health communication research.

Each tool has its strength. Participatory sketching enables research participants to identify and depict the topics that are most salient for them. The detailed illustrations and the explanation that accompanies them can help the researcher understand a small slice of the world as seen by the participants themselves. The ethnographic go-along is an ideal tool for accessing information that is space-specific. If one wants to understand what happens in a hospital, for instance, it is useful to move *through* the hospital accompanied by individuals who can explain objects or phenomena that are unfamiliar to the researcher. Network mapping helps make relationships visible. It is a tool that provides structure during an interview: once relationships are made visible they can be more easily discussed. Asking research participants to create life maps is a way to access how they see their life and how they want their life to be seen. The life map, like the network map, can become a recurrent reference during an interview. Once relationships and life moments are charted, they can be returned to again and again. They can be elaborated upon, corrected, and used as a basis for a new, related topic. These tools share the same limitation, which is that they yield information that is specific to each participant and thus nonreplicable and nongeneralizable. The results of a sketching exercise in Khartoum, Sudan, for instance, are limited to that context. The symbols and colors used in participants' sketches are bound by culture and experience, and each sketch represents the unique perspective of its creator. The limitations of these tools can be tempered by making limited claims. When using tools that do not allow generalization, I advise making specific, context-specific claims. In my discussion of the life map tool, for instance, I gained understanding about the effect of a breast cancer diagnosis on the life of *one* woman. I tell Tammi's story, based on what I learned from her during our interview and our discussion of her map. The life map exercise gave Tammi the first opportunity to interpret her story. As with the other tools, the life map accesses subjective experience and perspectives and makes them visible. Once visible, subjective experience and perspectives can be easily referred to and discussed.

Radio Dramas and Female Genital Cutting (FGC) in Sudan: The Role of Participatory Sketching

Asking adults to draw is not easy. Asking through an interpreter adds another layer of difficulty. To overcome this difficulty in a hot, airless room in Khartoum, Sudan in the summer of 2006, my colleagues and I resorted to an American classic: Coca Cola. We encouraged our research participants with sugar. And when everyone had cooled down a bit and smiles began replacing the skeptical scowls that had appeared when we first mentioned sketching, we explained, again through the interpreter, that, indeed, what we wanted was an answer to the question we had just posed in the form of a *drawing*. We were conducting an evaluation of a radio soap opera called *Ashreat al Amal*, which had storylines that focused on health and, in particular, female reproductive health.[3] We had asked participants to give us a summary of what the soap opera was about. This question was somewhat of a "warm-up": it was meant to get the participants, all faithful listeners of the soap opera, thinking about the story lines and to help them become more comfortable expressing themselves visually, through sketching.

What happened next illustrates our first mistake. We had not sufficiently explained the methodology to the interpreters. Our one-minute English explanation became a six-minute explanation in Arabic as the interpreters added to our deliberately brief explanation with what they imagined to be helpful examples. If "do-overs" were possible, we would sit down with interpreters beforehand to explain that during a participatory sketching exercise, it is best to not provide examples because it can influence what participants choose to draw. Instead, the participants should fill the blank page with their own interpretations and preferences – images of their own choosing. Unlike a survey questionnaire, which asks respondents to select from among set of pre-established answers, participatory sketching enables research participants to craft an answer that is unanticipated by the researcher. Further, a participatory sketching exercise allows the research participant to provide the first layer of interpretation: when the drawings are finished and participants explain what they have drawn to the researchers they interpret their own drawings and reveal what different symbols and colors mean for them.

Our first round of questions with research participants in Sudan led to many drawings with scenes of hospitals and doctors, a result, I believe, of the interpreter having provided this example to participants. Our second question, however, led to very surprising responses. We asked participants: "As a listener, which scene from the radio soap opera was most meaningful to you?" We were familiar with the storylines of the soap opera, one involved drug use and many more related to female reproductive health, birth spacing, and so on. My colleagues and I were working in three teams, two female researchers, each with a female interpreter, with sets of 8–10 female listeners and one male researcher, with two male interpreters and 12 male listeners. Since we were working separately, it was not until the end of the day that we realized that the stories we had each heard separately had one major theme in common.

Figure 17.3 was created in one of the women's groups. The creator of the sketch, Ibtisam, explained her drawing to the group:

> I drew my two daughters. One of them was circumcised before the radio program. She is sad and depressed – also she bled a lot after the operation. But my other daughter was not circumcised. She's always happy and in good health. I drew our village, the nature, the fields and our houses.

Like many other participants, Ibtisam highlighted the female circumcision storyline as being most important to her. Also, like many other participants, she said that the radio soap opera was the reason her family ceased the practice. After Ibtisam explained the meaning of her drawing, many conversations broke out between group members, only some of which were translated by the interpreter: "They are sharing similar stories," I was told, without further details. This phenomenon of bursts of conversation after narrated drawings occurred several times during the day. Although I lamented the content I was missing because of having to work through an interpreter, I was glad that the women were sharing their stories as a group. We had deliberately worked in groups to create opportunities for exchange between participants. Our research design included ample time for participants' responses and ensuing discussion.
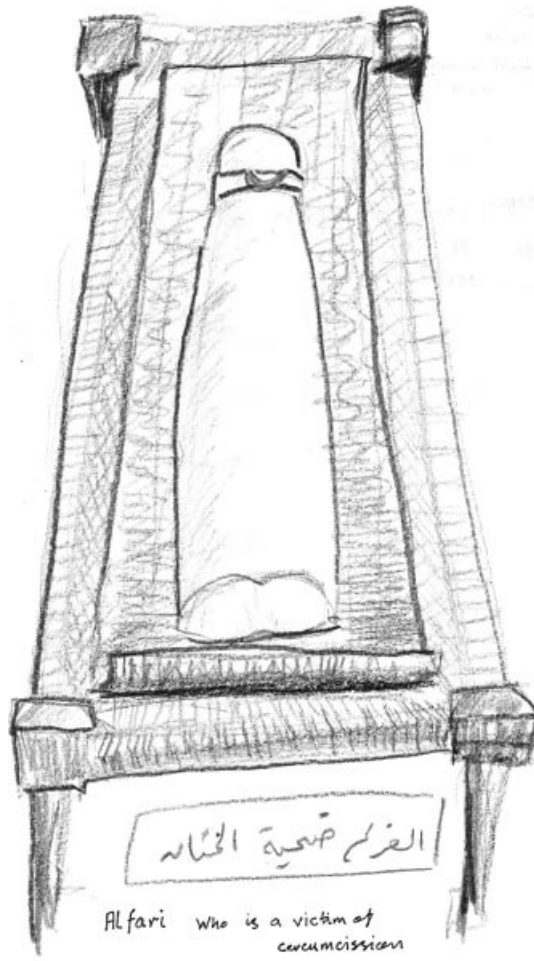
Figure 17.3 Two daughters.

Figure 17.4 A funeral.

The drawing in Figure 17.4 was created in the men's group by a young man named Yaseen. He explained:

> This is a bed on which the dead are carried – the *Alangaraib*. The little girl was a victim of circumcision and died. She was a little girl and her mother insisted that she must be circumcised. I think this scene is representing the whole idea of the program. I added the crescent on the forehead of the girl which is a symbol of circumcision in Sudan.

When my colleagues and I discussed the preponderance of drawings related to "Khitan," as our participants called it, or female genital cutting (FGC) as it is commonly called in English, it came to light that the soap opera story line had coincided with a news item that many of our participants had mentioned, which involved a very young girl who had died from complications of FGC. The news story brought additional attention to an issue being discussed in the radio soap opera, and several research participants explained that when showing their sketches. As foreign researchers, we were not familiar with current events or local customs and thus would not have thought – or dared – to ask about an issue as sensitive as FGC. The sketching exercise, however, brought the issue to light and resulted in many group conversations. Our team of Sudanese interpreters shared with us that they were very surprised to hear the participants talking openly about the issue.

And the end of the day we made arrangements to continue the evaluation with 13 research participants who had volunteered for an additional exercise, this time using participatory photography.[4] As we were leaving the meeting room, I noticed that several research participants were in discussion, gathered around one woman. I asked Diana, one of the interpreters, to inquire about what the group was discussing. Diana explained that the research participant at the center of the group was a journalist: "They're talking with her about what they can do raise more awareness about female circumcision." Two days later, when listening to participants describe the content of the photographs they had taken, we would again witness how explaining a visual object in a group setting can lead to a lively group discussion. I do not know what, if any, follow-up action might have resulted from these group discussions. I do know, however, that the use of participatory sketching had yielded rich accounts on a variety of themes from the soap opera including the unexpected and taboo topic of FGC. Further, as a visual method, the approach resulted in colorful and powerful images to highlight participants' viewpoints in our final report.

Practical issues

Conducting participatory sketching in a group setting has advantages and disadvantages. One advantage is the inevitable outcome of group discussion following the presentation of each individual's sketch to the group. Group discussion can provide insights into other group members' experiences, how they are similar or how they differ, from the individual presenting the sketch. Group discussion can also provide support and reassurance to individuals: when their stories find resonance in others, individuals may feel

validated and less alone. Some disadvantages of the group setting are (1) the time it takes to have each individual present each sketch and discuss each sketch within the group and (2) the possibility that the group setting will lead to "sidebar" discussions, separate conversations between pairs or subgroups, making it more difficult to hear the research participant explain the content of their sketch. To address these disadvantages I recommend (1) allowing ample time for the participatory sketching exercise, keeping in mind that discussion and interpretation will always add considerably to the time required and (2) if "sidebar" discussions pop up, moving away from the featured speaker and positioning yourself at the farthest end of the table thereby forcing the speaker to raise their voice to talk "over" others who may be having separate discussions.

I recommend digitally recording participants' narration of their sketches. If you require an interpreter, the digital recording serves to back up and complement the simultaneous translation. For the sake of time, it is possible to ask the interpreter to provide only the most salient details since you know you will have the digital recording for the full account. Be sure to ask the participant to state their name before they begin narrating their sketch and, once all the narrations are finished, it is important to also ask all the participants to write their name (and age, if desired) on the back of the sketch so that you can match each oral narration with its corresponding sketch. Given the group setting, if research participants have difficulty writing they will most likely ask a neighbor to assist them. It is a good idea to review the sketches to ensure that you have all the identifying information you need. At the end of our sketching exercise in Sudan, for instance, we required the assistant of our interpreters to convert all the names and some words on the drawings from Arabic to Latin script.

The utility of participatory sketching

My experience with participatory sketching in Sudan taught me that a blank page can be a powerful tool. Our research participants filled the pages with their ideas, preferences, and symbols. During their presentation of their sketches to the group, individuals had the opportunity to interpret their own representations and could explain symbols, color choices, and meanings that might not be obvious to all. In Sudan, many of our research participants depicted scenes related to female genital cutting, a theme of the radio soap opera that we had been told was a minor storyline. Our participants' sketches initiated frank discussions on a taboo topic that we would not have asked about in a traditional interview setting. A participatory sketching exercise conducted with listeners of a radio series in the Philippines[5] that had themes also included in the Sudan series including health, family planning, and HIV prevention yielded a different set of images; listeners signaled the domestic violence story line as one of the most relevant to them (Singhal, Rattine-Flaherty, and Mayer, 2010, p. 345). The fact that the same tool used in two contexts to evaluate similar radio series led to very different images is not surprising given the nature of the tool. In each case, research participants are free to depict the issues that matter most to them. Rather than a questionnaire with fixed questions, the radio series listeners were given a blank page, which they filled based on their own preferences, experiences, and worldviews. This tool is very useful for understanding what

research participants understand and what they prefer when they have faithfully listened to (or watched) an entertainment-education series. Participatory sketching is also useful when the aim is to gain a better understanding of the everyday life of research participants. I once asked university students in Barranquilla, Colombia[6] to draw "a typical day in the life of a university student" and got very rich results. Here, when I write "very rich results" I mean that before the sketching exercise I knew nothing about the life of university students in Barranquilla and after the exercise I had images and accompanying narratives that explained, in great detail, what it meant to be a student, from the students' own perspectives.

The participatory sketching tool provides a great amount of freedom to the research participant. It invites the participant to share their ideas, understanding, and preferences through sketches they produce and then again, through the explanation of those sketches. An advantage of this tool is that it allows the researcher to report the participants' own interpretations and explanations when writing up the results of the exercise. The broad questions and blank pages initiating the participatory sketching exercise invite research participants to depict and describe their world, when their thought process is completely unknown to and unsuspected by the researcher.

Infection Control at the Pittsburgh VA Hospital: Learning by "Going Along"

The ethnographic go-along with Glenn Buzelli that I described in the opening paragraphs of this chapter took place during one of a series of visits to the Veterans' Hospital in Pittsburgh Pennsylvania (VAHPS) in 2006–2007. Invited by the VAHPS along with Dr. Arvind Singhal of the University of Texas El Paso, we conducted research on the VA Hospital's successful efforts to reduce hospital acquired infections (HAIs), with a particular focus the communication practices that led to a steep reduction in antibiotic-resistant staph infections (MRSA). The hospital had implemented two different strategies[7] over a four-year period that had resulted in a 64 percent hospital-wide reduction in the incidence of MRSA (Singhal and Greiner, 2007, p. 11). The VA Hospital had data to demonstrate the success of their infection control practices and they wanted further research to help document the "who and the how" behind those practices.

The ethnographic go-along was a key tool in our research design. We did conduct several "sit-down" interviews in offices and conference rooms in the VA Hospital, but the majority of our interviews were "on the go," moving through different spaces throughout the hospital. Each space we moved through generally corresponded with the work area of a staff member who was leading us while explaining their work. For instance, the physical therapists showed us the physical therapy room and explained how patients were transferred there from several different units. They discussed how, as a result of being included in the infection control effort, they were able to point out that patients that were in isolation rooms due to MRSA infection were often mixed with MRSA-free patients during physical therapy sessions. Orderlies took us to the areas where long-term-care MRSA-infected patients might interact with MRSA-free patients, such as the outdoor smoking area or the pottery workshop. Physicians showed us the

Figures 17.5 Items assisting infection control pointed out by staff during a hospital "go along."

red, "dedicated" stethoscopes in patient rooms. Rather than bringing the same stethoscope from room to room, which increased the possibility of germ transfer, the room of each MRSA-infected patient was equipped with its own stethoscope. Staff members decided that each stethoscope should be red to remind physicians to "stop" before removing the dedicated stethoscope from the room. Cleaning staff took us on a tour of patient rooms and pointed out staff-created signs on doors and the strategic placement of cleaning products in highly visible locations to encourage other hospital staff members to assist them in reducing germs on room surfaces (see Figure 17.5). A registered nurse showed us an innovation she came up with for reducing germs on her unit's emergency equipment cart – the "crash cart" as she called it. She explained how she noticed that the keyboards on the technical equipment quickly became worn-out due to repeated cleaning, which resulted in her designing a protective plastic cover for the cart, wisely reasoning that it was easier and more cost effective to clean and replace the plastic cover than to clean and replace the equipment.

Each go-along brought us into a new world. As nonmedical professionals, we had no previous experience with crash carts, dedicated stethoscopes, and the challenges of keeping patient room surfaces germ-free. As we moved through the hospital, we came across dozens of people, spaces, and objects that served as a catalyst for follow-up questions. Each new question led to detailed discussions about the "who and how" of infection control. We learned about the work and daily routines of staff members (the "who") and we learned the exact nature of their efforts to combat infections in the hospital (the "how"). Without the visual stimuli encountered on each go-along, it is doubtful that our conversations with staff members would have been so rich in details.

Practical issues

The ethnographic go-along is not ideal for digitally recording conversations with research participants. The presence of the digital recorder converts a casual stroll into a formal interview, which can lead to research participants being overly concerned with saying "the right thing." I found that writing notes in a small notebook during pauses in the go-along and taking photographs (when permitted) of key objects and spaces provided sufficient detail to document the salient information gleaned during the go-alongs. I was also able to ask staff members follow-up questions once we returned to a stationary position, making reference to things we had seen on the go-along. For example, I could ask cleaning staff: "Do you remember when you made reference to the lift in one of the empty patient rooms? Can you explain to me again what that piece of equipment does and why it is difficult to clean?" In the case of the ethnographic go-along, the ignorance of the researcher is not necessarily a disadvantage: a lack of understanding is fertile terrain for in-depth questioning. "What is this?" "What does this machine do?" "Why did you place the sign on *this* door?" "How do patients go from their room to physical therapy?" "Who orders the gowns and gloves?" "Where are they stored?" Each question can lead to an extension of the go-along, a trip to the storage room, a walk down the hallway to the physical therapy room, a visit to the pottery workshop. Each new destination is likely to lead to new questions and explanations.

As with any form of interview, it is always a good practice to verify your understanding and quoted statements with research participants. Our account of infection control practices at the VA Hospital in Pittsburgh, the people behind them and the details surrounding them was read by multiple staff members at the hospital, including administrators, prior to finalizing our report. We were able to correct the spelling of names, add precision to technical information we had included, and make corrections to terminology we had misunderstood or processes we had inaccurately described. Having recognized the importance of accuracy in research in general and of research in health care settings in particular, we were grateful for the thorough review of our work by VA Hospital staff members.[8]

The utility of the ethnographic go-along

The strength of the ethnographic go-along is the visual and spatial complement it provides to the traditional "sit down" interview. Led through different spaces by research participants, the researcher is consistently confronted with new objects,

people, and situations, each of which can be a subject for further inquiry. A member of the cleaning staff who describes his duties while walking the route he normally takes on an average workday is more likely to speak of context-specific details than if sitting in a conference room. Why? Because he may not think of the details until he *sees* them. And, likewise, the researcher is more likely to ask context-specific questions when confronted with an unfamiliar sight. A researcher cannot ask "How do you clean *this* machine?" if they do not see the equipment found in patients' rooms. Like the participatory sketching exercise, the ethnographic go-along serves to make *visible* the unknown and unimaginable. Once information or issues are rendered visible, they make further inquiry possible. The photos taken during a go-along also provide visual evidence to complement research participants' observations and other data to be included in the final research report. Kusenbach (2003) signals two strengths of the ethnographic go-along that address the limitations of other ethnographic methods such as observation and the interview. It overcomes the static and stimulus-poor nature of the "sit down" interview (p. 462) and it allows research participants to express their perceptions and interpretations of spaces and events, something which is lacking in observation situations when the researcher is alone (p. 461). The go-along allows the researcher to encounter new objects and situations while moving through space, and it includes a local guide.

Learning about Collaborators in an HIV Prevention Intervention through Network Mapping

How does one make relationships *visible*? This was the challenge I sought to address as I prepared for five weeks of field research in Senegal in late 2007. On my desk sat a pile of books on social network analysis. I read about the sophisticated statistical analyses made possible through network analysis: I learned that I could measure frequency of contact, the centrality and prestige of members of a network – or "nodes" in technical language (Wasserman and Faust, 1994, p. 169). Flipping through the pages, I thought to myself: "This is much more than I need." I wanted to understand more about the members of a network of individuals and organizations implementing the biannual Scenarios from Africa scriptwriting contest, an HIV prevention and awareness-raising intervention that was entering its seventh edition in Senegal. The contest was a complex several-month-long process involving dozens of organizations and individuals. There were organizations that provided HIV-related information to would-be contestants, organizations that distributed and collected submission forms, individuals who served as script-writing mentors and jury members who read and evaluated contestant submissions. I wanted to understand the extent of this "Scenarios" network. I was interested in learning who worked with whom and in what capacity. I did not intend to make claims about the centrality, prestige, or degree of connectedness of network members. In essence, I wanted to map rather than measure. For this reason, I call this tool "network mapping" rather than "network analysis." June Holley[9], a colleague well versed in social network analysis, including the latest available software, proposed a solution:

> Why not map the members of the network manually – that is, ask participants to draw nodes and connections on a piece of paper, rather than having them answer the lengthy electronic questionnaire that would be required to perform more sophisticated analyses? … After creating maps manually, you can use software to create a visual depiction of the network. You can create an image that makes relationships visible without using measurement indicators and performing statistical analyses. Ask people to depict the group of people they work with when implementing the contest.

In my notebook, I drew a simple diagram that had the research participant (RP) at the center and additional circles representing relationships.

Thinking aloud, I shared with June my understanding of how I could use network maps in Senegal. "I can ask research participants to map their "Scenarios" network – to draw all the people that they work with when implementing the Scenarios scriptwriting contest – placing themselves or their organization at the center."

"Yes, it's that simple," June confirmed.

And it was simple: simple and incredibly rewarding. Sitting in June Holley's kitchen, learning about the manual mapping of networks, I did not know that this research tool would yield much more than I had hoped. With the network-mapping exercise, not only was I able to make relationships visible, which was my main aim, but I was also able to ask detailed questions about the nature and genesis of network member relationships. "So, you met this person here (pointing to a node on the network map) while serving as a jury member?" "And have you worked with the person since then in a different context?" With questions like these I discovered that individuals who met each other while implementing the contest in some cases continued collaborating long after the contest was over. I also learned the extent to which the contest served as a bridge between organizations that were working in the same city or village and often knew one another, but had not previously collaborated. The contest, I learned, often provided the occasion for individuals and organizations to get to know one another and eventually to even help one another professionally. The map below depicts a network featuring a relationship of this nature.

The network map shown in Figure 17.7 was created by Abdoulaye Konaty, a Program Associate with Africa Consultants International, a nongovernmental organization (NGO)
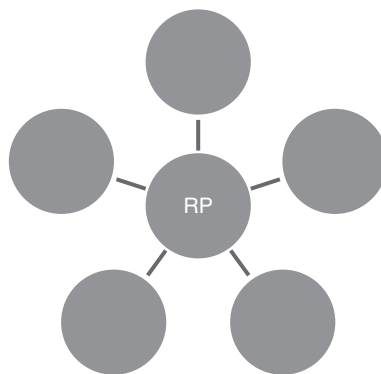

Figure 17.6 The research participant at the center of his or her "Scenarios" network.
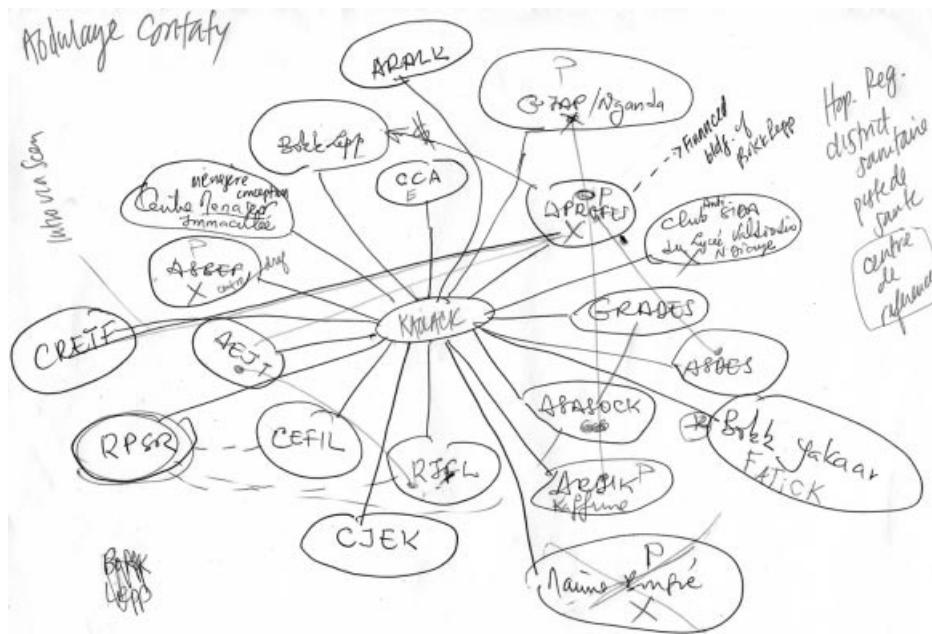
Figure 17.7 Hand-drawn network map.

based in Dakar, Senegal, which has helped to implement the Scenarios contest since its inception in 1997. As he drew his map, Abdoulaye described the relationships he had formed with organizations in Kaolack, the city he worked in most often when not in the capital. After he drew the nodes representing the organizations he worked with on the Scenarios contest, I asked him: "And were any of these organizations already in contact with one another prior to implementing the Scenarios contest?" On his map, he drew lines between several of the circles, each circle representing an organization, and each connecting line representing an existing relationship. As Abdoulaye discussed the organizations on his network map, I was glad to have the visual reference on the paper in front of us given the sheer number of organizations he mentioned and the complexity of the different types of relationships he described.

One question I asked Abdoulaye was whether organizations had begun collaborating with one another as a result of organizing the Scenarios contest. His response highlighted the strength and also the weakness of the network-mapping tool. He said:

> This organization here, a women's association, financed the construction of a new office for this other organization here, Bokk Lepp, an association of people living with HIV/AIDS. I do not know if they knew each other before the contest, but I do know that, as a result of getting to know one another during the contest, the women's association has invested in Bokk Lepp.

The strength of the network-mapping tool is the exercise of making relationships visible and then having a reference point for discussions and further comments about those

relationships. The weakness of the tool is that a network map is only as complete and precise as the memory and awareness of its creator. For example, to know whether the women's association and Bokk Lepp knew one another prior to the Scenarios contest, I would need to ask follow-up questions with those organizations. Because I had chosen not to pursue or triangulate chronological details, I was limited in the claims I could make about causality or the precise sequence of events in many cases. As with other network-mapping exercises I conducted with research participants in Senegal, having a visual referent was a great asset during interview. Research participants often returned to the map to add or clarify information as our conversation continued. When the interviews were all completed, I used Smart Network Analyzer[10] software to create a "master" network map of organizations and individuals involved in implementing the Scenarios contest in Senegal (see Figure 17.8).

Practical issues

When I asked research participants to map their Scenarios-related networks, I began by demonstrating what a map might look like by drawing an example. I said:

> For example, if I was mapping my own personal network of the people I interact with in a given week, I would draw a circle in the center, like this (*I draw a circle and put my name in the middle of it*), and then I would add circles for each person or group of people I come into contact with on a weekly basis. So I might have a circle for my family, and then a circle for people at my office, etc. And each circle is connected to me with a line, like this (*I connect each circle to the circle with my name in it at the center*).

When research participants began drawing, they often began narrating details about each relationship. I digitally recorded the mapping exercise so that I could keep a good record of the details of each relationship discussed. The maps tended to be most complete when I did not ask questions while the research participants were drawing their initial maps. When the person stopped and seemed prepared to set the pen down, I often asked clarification questions or requested more detail. For example, Abdoulaye Konaty used many acronyms for organizations I was not familiar with. I asked him to say the full name of each organization so I could listen to the digital recording afterward and make note of each full name. I also asked questions about the nature of relationships. For example, "Were any of these organizations already in contact with one another prior to implementing the Scenarios contest?" as discussed earlier. In the early stages of my research, when I asked clarification or "nature of relationship" questions while the research participants were still mapping, I perceived that my questions were distracting. When I did not interrupt the initial mapping process, I felt that the conversations flowed more easily. Beyond not interrupting with questions, I was also careful to provide research participants with ample time to think before asking any questions. My silence was often rewarded when research participants added to their maps after long periods of reflection. On some occasions, I asked the research participants if they minded if I made notes directly on their maps. In the case of Abdoulaye Konaty's map, for example, I drew an arrow connecting the women's association with the association of people living with
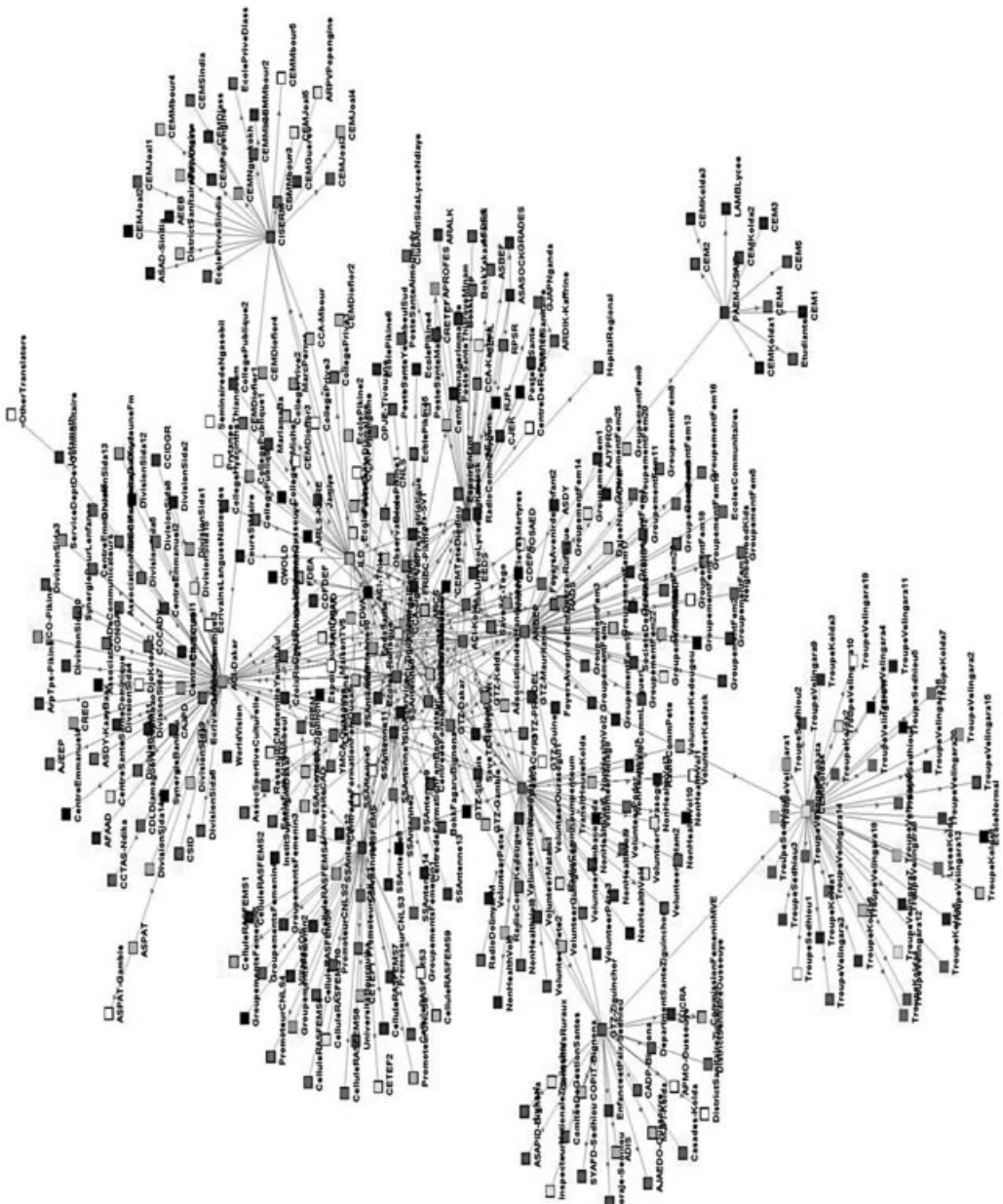
Figure 17.8 Network maps, compiled and entered in "Smart Network Analyzer" software.

HIV/AIDS, together with a dollar sign (a very North American symbol) to signal the relationship between the two organizations that had emerged as a result of collaborating on the Scenarios contest. If I had made note of this in a notebook rather than on the map directly, I would later have to match my separate notes with the network map and also the digital recording to recall the full story.

The utility of network mapping

Network mapping is useful both as a visual record and also as a tool to get more detailed information about relationships. In other words, network mapping is useful as both product and process. The map itself can be used as a visual display in a research report or article; it can also be combined with other maps to depict a larger network; and it can serve as an ongoing visual reference during an interview to access in-depth information about relationships among members of a network. Network mapping is appropriate when the object of research is to learn about the extent of a given network, but is not sufficient if the object is to measure and quantify relationships between network members. During the mapping exercise, the researcher can ask questions about the nature of a relationship but the responses will be qualitative and descriptive in nature. A standardized questionnaire would be required if the object of the study is to measure and perform statistical analyses on the relationships between members of a network. The network-mapping tool is ideal for learning about relationships or the size and nature of a network. In addition, the mapping exercise yields visual documentation that can supplement the written research report or article. Network mapping is ideal for understanding the extent and composition of relationship networks. The tool has great potential for understanding processes that involve multiple actors working in a decentralized fashion.

Life Mapping

I learned about the life-mapping tool in an informal meeting with Jerry and Monique Sternin, founders of the Positive Deviance Initiative, an organization that specializes in community inquiry for social change.[11] I had told Monique that I was beginning a study about health among women in Appalachia and was seeking a very open-ended interview protocol based on some study design advice I had received. I told Monique: "A colleague suggested to me that if I ask about health I will find out *only* about health.[12] I am thus seeking to broaden my approach, to 'cast a wider net' to see if health is a topic of interest and relevance to research participants themselves." Monique suggested life-history interviews.[13] She explained that by asking women broad questions about their life I would discover whether or not health issues were deemed central by participants. She added: "And you can begin each interview with a life map." I had never heard of a life map and so I asked Monique for more details. She began drawing an example on a napkin. As she drew, she explained:

> It's the "map" of a life charted on a very simple graph. You draw a happy face at the top of a vertical axis and sad face at the bottom of a vertical axis. You can also use positive and negative symbols if you prefer. Then you draw a horizontal axis with various points representing
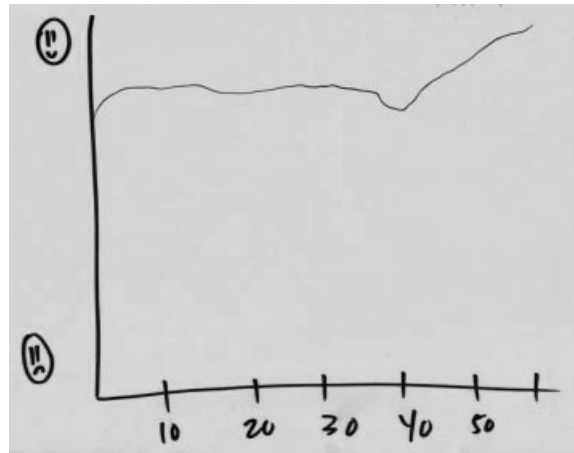
Figure 17.9   Tammi's life map.

> decades or half decades, depending on the age of the interviewee. You ask the person to draw
> a line from left to write, starting with childhood and stopping at their current age. They can
> begin anywhere they like along the vertical "happiness" axis, and they should chart the high
> points and low points they have had over the years. The result is a visual rendering of the
> interviewee's own life as they choose to depict it.

After Monique's explanation I thanked her and carefully stored the napkin. I recall thinking: "This is really great but I have no formal reference for this tool. How will I cite this napkin?" When my study on women and health in Appalachia began I decided to put citation concerns aside and give the tool a try. I used it at the end of my interview with Tammi,[14] a woman in her late forties. Tammi had been telling me about various aspects of her life but the topic of health had yet to emerge. What follows is an excerpt of the transcript of one of my first experiences using the life-mapping tool.

> ME: It's called a life map…here's an example…This represents the good times up here
>   (*pointing to a happy face*) and *this* is the represents the bad times…you sort of chart the
>   highs and lows across the years, which run along this axis down here (*pointing to the
>   line marked with decades along the bottom of the page*).

I passed Tammi the paper with the blank graph. She picked up a pen and began to draw. As she drew, Tammi narrated her map.

> TAMMI: I would say that up until here (*pointing to a dip at the 40-year mark*) I had just a
>   little down, and then I'm up. I'm always up. Am I not? (*This last comment was
>   directed to her son, who was sitting nearby*)
> ME: And what does this represent? (*pointing to the dip*)
> TAMMI: When I had cancer…when I found out.
> ME: It's not a very big dip…
> TAMMI: Because I never let it take me down. Did I? (*to her son*) I never let it take me down.

The life-mapping exercise with Tammi taught me that, although I had not asked directly about health, the issue of health, in this case breast cancer, was a major event in her life. The mapping exercise also taught me that Tammi was determined to fight her cancer and maintain a positive attitude. The life map is as much about Tammi's life as it is about the version of her life story that Tammi *wanted* to tell. When she discussed her cancer diagnosis she did so very briefly, and she hastened to stress her optimism. Would Tammi's map have been different if her son had not been in the room? It is hard to tell. The mapping exercise is not designed to access objective, verifiable information: it is designed to allow research participants to share their preferred life story in a visual way. The map is a starting point. Follow-up questions invite further explanation: "What happened here?" "What can you say about this high point here?" The questions are designed to elicit additional details from research participants. They are not designed to challenge or verify the participant's preferred rendering of their life.

I found that the life-mapping exercise richly complemented life-history interviews. Often, the maps contained information that had not already been discussed in the interview. I believe that asking participants to portray their life visually, and only afterwards with words, added texture and depth to their stories. The maps themselves provided a visual record of each participant's preferred life story that complemented their oral accounts. Given the broad, open-ended questions I had asked my research participants I was not surprised that health was only one of many topics they discussed. In that sense, the life-history interview and the life-mapping exercise were not the most direct way to inquire about health. The end result, however, was that when research participants did talk about health, it was because it was a topic that mattered to *them* – a topic they chose to discuss, on their own terms. The life-mapping tool, used in conjunction with any kind of interview, adds a biographical and visual chronology from the perspective of the research participant. This tool, like the network map, is both process and product. Conducting the exercise can lead to rich accounts from research participants and it yields a visual illustration of those accounts.

Practical issues

As with the network-mapping exercise, I found that research participants were more at ease when I did not ask questions while they created their maps. On most occasions, participants finished their maps in less than one minute. I learned to wait, without speaking. I waited until the research participant looked up from their map and I gave them the first opportunity to speak. Many simply asked: "Now what?" Upon which I asked various questions about the points on the map. Others began narrating as soon as they began to draw. Still others finished their maps and explained the highs and lows without prompting from me. All of the maps created by research participants in my study either depicted new information or provided greater detail about previously discussed topics. I was once asked by an acquaintance who knew of my study whether I had done the mapping exercise myself. "You mean, have I done my *own* life map?" I asked. "Yes," they responded. "And if you have not done one, I think it would be a good idea if you did." I agreed and immediately realized how difficult an exercise it

actually is. The deceptively simple "happiness" axis caused me deep pause. When have I been most happy? What about least happy? As my acquaintance waited for me to finish and begin narrating my map I began to feel anxious. Did I know this person well enough to discuss the death of my mother? Should I deliberately ignore that "valley" and stick to a straight line? I recount my own experience with the life-mapping exercise as a cautionary tale. Life maps can get personal. It is therefore important to establish some level of rapport with research participants before beginning and it is equally important to tell them that the exercise is optional. In the case of my own study, none of the participants refused to draw a life map. Without exception, they charted the version of their life they were ready and willing to share.

The utility of life mapping

The life map is a tool that goes nicely with life-history interviews. It can also be used to provide biographical information to complement more specific studies. The map can be tailored to access information about a fixed period in a given life. One can ask about "adolescence," "student years," "life since motherhood," or "life since diagnosis," in the case of a health study. The important thing to remember is that the life map is a tool put in the hands of the research participant: the map they create is their unique and subjective perspective. It is a visual rendering of their own perspective that they have *chosen* to share. Including life map images along with transcriptions of interviews is one way to ensure that research participants get to interpret and illustrate their *own* stories, and that they have the opportunity to convey what events matter most to them. The researcher is then free to add analysis or a different interpretation of what the participant has chosen to share. In the case of my interview with Tammi, it was her narration of her life map that kept me from focusing exclusively on the breast cancer aspect of her story. She chose to minimize its important in her life. What right did I have to make it my focus? Life maps are visual complements to an interview. Including them in research reports ensures that participants' stories, as they themselves tell them, remain present and visible.

In Summary

During my own research experiences, the four tools presented here have performed a "double duty." Each tool led to useful visual evidence, sketches depicting preferred themes in the case of radio listeners, photos of important objects or spaces in the case of the go-along, and charted relationships and life events in the case of the network and life maps. For the studies I describe in this chapter, these tools were at the center of my research design, and each tool complemented traditional "sit down" interviews. On each occasion, I found that both the process of using the tool and the product generated from the tool were extremely useful. Each tool generates a visual reference that can serve as a catalyst for discussion and that visual reference becomes a record that can be included in the research report or article. The question of which tool, or

which combination of tools, should be used depends on the objective of the study and the willingness of research participants to respond to questions in new ways.

For research exploring the subjective experience and preferences of research participants, sketching can be useful. Augusto Boal once asked residents of Lima Peru to respond in photos to the question: "What is exploitation?" (Boal, 1979, p. 125). The photograph-responses demonstrated that each participant, as a result of their own personal experience, had a different vision of exploitation to offer. The question "What is exploitation?" would also work well with sketching. The results would likely be as diverse as the photograph-responses submitted during Boal's exercise. Any question about personal experience or perspective can be fruitfully answered with a sketch. For example: "What is your life like as a University student?" "What was the most important theme, for you, of the radio (or television) soap opera?" "What does happiness look like to you?" "How would you depict a healthy life?" The answers to these questions enable the researcher to learn about the world as seen through the eyes of the research participant. The explanation of the sketch by the research participant ensures that all the elements of a sketch are made clear, such as the use of color or symbols. Further, the narrative accompanying the sketch provides insight into the participant's own interpretation of their image.

The ethnographic go-along is essentially a mobile interview. If a researcher wants to understand the daily activities of someone, and those activities involve movement, a go-along is a perfect tool. For example, to understand what is involved in the work of a letter-carrier, the best way to learn this would be to "go-along" on a mail route. Not only would the letter-carrier explain the ins and outs of delivering mail, but the researcher would experience things for herself: she would feel the rain, walk the distance, see threatening dogs, and listen to the conversations with residents. The objects and places seen by the researcher and participants together become subjects of discussion and further inquiry. In a "sit down" interview, the postal worker may not remember or may not think to comment upon the smaller details of their day to day experience. The go-along allows the researcher and participants to experience and see things together. If the researcher sees something unfamiliar to them, they only need to ask: "What is that?" and they have a local guide on hand to answer.

The network map is useful for documenting and exploring relationships. The initial mapping exercise documents the relationships and the follow-up questions allow the exploration. For example, if I wanted to understand the relationships between workers in an office, I could ask an office worker to draw a map depicting everyone they work with during a typical week. The drawn network can serve as a reference point for a series of follow-up questions, such as: "Who on this map do you work with most often?" "Who is the first person on this map that you would go to if you needed advice?" "Is there anyone that is *not* on your map but you would like them to be?" The answers to these questions will give insight into the working relationships that exist in an office. After doing a series of individual maps one might learn that the accountant is the one person in the office that everyone sees reliably each week or that no one in the office sees the vice-president of the company but several would like to. In any study where relationships and interaction are of interest, the network map can be useful.

The life map is a tool that helps the researcher explore biographical details and events over a given period of time ranging from an entire life to one slice of life. I found that, when used at the end of a life-history interview, the life-mapping tool can provide an additional layer of information that may or may not have emerged during conversation. When participants chart the "highs and lows" of a given period, these points on the map, as well as the participants' perspectives on them, become the subject of further inquiry. For example, when Tammi charted a low point on her map at the age when she was diagnosed with cancer, I remarked to her: "This is not a very big dip." Her response illustrated her optimism in the face of her diagnosis. The life map tool helped me learn about a major event in Tammi's life and also about her desire to portray it as *not* major. Before using the life map tool with others, it is a good idea for researchers to chart their own life. The self-life-mapping experience will help underscore that the tool gives insight into how participants' see and want to portray their life. As philosopher Alfred Korzybski (1995[1941]) once famously said: "The map *is not* the territory it represents" (p. 58). A life map is not a life; it is the research participant's preferred representation of that life.

The best way to learn about the potential of each of these tools is to try them. An easy way for a researcher to begin is to start with their own experience. Think about what you would draw if someone asked you to depict "health." Walk through your workplace or another place you frequent and think about how you would explain it to another person. Which spaces would you point out and which would not merit your attention? Map your relationships. Map your life. Then think about how you would narrate your maps. Next, try the tools out on a friend or colleague. Practice remaining silent as respondents discuss their drawing or map: let the respondent fill the empty space you have created as a silent listener. When designing your next research study consider how the tools discussed in this chapter can complement the standard qualitative interview in the ways shown in Figure 17.1.

Each of these tools allows researchers to gain insight into the subjective experience and perspective of the research participant. Whether moving through space, as with the ethnographic go-along, or using participant sketches and maps as a visual reference and catalyst for discussion, these participatory research tools can be a valuable complement to other qualitative research methods. Their greatest strengths, beyond those listed above, are the freedom they accord respondents in the crafting of their responses and the invitation they extend to respondents to be the first to interpret and analyze what they choose to share with the researcher. When using these tools, the role of the researcher is to listen, and follow, as participants take the lead.

Table 17.1   Four participatory research tools, each with a different strength.

Tool	Strength
Ethnographic go-along	Adds dimensions of space and interaction to interview.
Sketching	Allows respondent to depict and narrate their own perspectives.
Network map	Makes relationships of respondent visible and available for comment and analysis.
Life map	Allows respondent to identify and narrate important moments of their life, both good and bad.

Acknowledgments

Notes

1 This list is adapted from Chambers (1994, p. 965).
2 I describe the life map tool, albeit very briefly, in Greiner (2010).
3 The radio soap opera, *Ashreat Al Amal* (Sails of hope), was implemented by the Population Media Center (PMC) with financial support from the David and Lucille Packard Foundation. Our research team included PMC staff member Sarah Hurlburt and Dr. Arvind Singhal, an expert in the field of Entertainment Education. Our research would not have been possible without the skills and patience of our team of interpreters, Diana William, Walaa Ali Mohamed, Hamid, Abd Alraheim Abusibah, Ibrahim Abd Ulghani Mohammed, Bassam Abubakr, and Amna Ahmed.
4 The use of participatory photography in research has received extensive academic attention and for this reason I do not discuss it in this chapter. For information on this visual method, see: Wang and Burris, 1994; Wang, Burris, and Xiang, 1996; Moss, 1999; Wang, 1999, 2003; Singhal and Devi, 2003.
5 This series, *Sa Pagsikat Ng Araw* (Hope after the dawn), was implemented by Population Media Center with financial support from the United Nations Population Fund (UNFPA). This evaluation was conducted by Dr. Arvind Singhal, Dr. Elizabeth Rattine-Flaherty, and Molly A. Mayer. See http://www.populationmedia.org/where/philippines/
6 Thank you to Professor Jesus Arroyave and his Communication for Social Change masters students at the Universidad del Norte in Barranquilla, Colombia who participated in this exercise. And a special thanks to Professor Jair Vega who showed me that when research participants are asked to draw they can rebel and make a collage/sculpture instead.
7 The VAHPS implemented organizational principles and error reduction measures with a Toyota Production Systems (TPS) intervention, inspired by innovations in manufacturing, complemented subsequently with the Positive Deviance (PD) approach, a process that begins with identifying community members (in this case, hospital staff members) that are already practicing the desired behavior (in this case, effective infection control measures). See http://www.positivedeviance.org/
8 Special thanks VAPHS staff members Dr. Rajiv Jain, Dr. Bob Muder, Dr. Jon Lloyd, Cheryl Creen, Candice Cunningham, Jennifer Scott, Edward Yates, Glen Buzelli, Donna Luck, Kathleen Risa, Dora Gentile, Kathy Hill, Joyce Ewing and Tanice Smith and to Monique Sternin of the Positive Deviance Initiative.
9 June Holley is the founder of the Appalachian Center for Economic Networks (ACEnet), a committed "network weaver," and a generous mentor. I am grateful to June for her assistance and encouragement.

10   Smart Network Analyzer software was developed by June Holley and Valdis Krebs. For more information, see http://www.networkweaver.com/networkservices/index.html
11   See: http://www.positivedeviance.org/
12   I thank Dr. Devika Chawla for this perceptive observation.
13   The life-history (sometimes called "life-story") interview is a biographical approach to inquiry in which the research participant responds to very open-ended questions about their life. For example: "What do you remember about your early childhood years?" Research participants select and recount the moments of their life that are most salient to them. In his book *The Life Story Interview*, Robert Atkinson (1998) describes the life-story interview as a way to learn about how people see themselves and how they want to be seen. For more information on the life-history method in health-related setting, see Goldman *et al.* (2003).
14   "Tammi" is a pseudonym.

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