# Arts-Based and Participatory Action Research with Recycling Cooperatives

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# 41.1 Introduction: Contextualization and Methodological Framework

This chapter discusses experiences in arts-based research (ABR) and participatory action research (PAR) undertaken with organized and informal recyclers (catadores/catadoras) in the metropolitan region of São Paulo, Brazil. We introduce the concept of informal and cooperative recycling as forms of selective waste collection and separation for reuse and recycling as it is widely practised by low-income individuals worldwide. The Participatory Sustainable Waste Management (PSWM) programme has worked with recycling cooperatives and local governments for six years to consolidate selective waste collection and to develop inclusive policies in municipal solid waste management (for more information, see Gutberlet, 2016, 2015). This programme provides the umbrella under which the case studies we present further were developed. We also describe our methodological framework, which is best described as PAR (Arieli, Friedman, & Agbaria, 2009; Brandão, 1987; Kindon, Pain, & Kesby, 2007; Reason & Bradbury, 2008), and

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ABR (Butterwick & Dawson, 2005; Clover, 2011; Leavy, 2009; McNiff, 2008) grounded in transformative learning theory (Mezirow, 2000; O'Sullivan, 1999). Finally, we describe two case studies conducted under the PSWM programme.

# Informal Recycling in the Global South

In many poor neighbourhoods in cities of the global South, waste is not properly collected and accounts for serious health and sanitation problems. Parallel to formal waste management, an extensive and diversified informal sector makes a living from collecting, separating, and selling recyclable materials; these people are called recyclers in the South. The work of these recyclers, whether informal or organized in associations and cooperatives, is mostly unrecognized. Yet, without them, more valuable resources would be lost in landfills. The International Solid Waste Association (ISWA) recognizes that the informal sector and micro-enterprise recycling, reuse, and repair systems achieve significant recycling rates, with 20-30% in low-income countries, an activity which saves local authorities approximately 20% or more of what they would otherwise need to spend on waste management, representing many millions of dollars every year for large cities (ISWA, 2012). Research suggests that these activities generate work and employment for approximately 1% of the urban population globally (Gutberlet, 2008, 2012, 2013, 2016; Scheinberg, Wilson, & Rodic, 2010; Wilson, Rodic, Scheinberg, Velis, & Alabaster, 2012).

In Brazil, as in many other parts of the world, recyclers have been organized into recycling cooperatives and sometimes in regional networks and national movements for collaboration and collective action. In developing countries, some of these organizations have achieved significant political influence (Ahmed & Ali, 2004; Gutberlet, 2008, 2015). The collaborative approach of organizations generates different opportunities for capacity building and human development of recyclers, giving them a stronger political voice, besides real possibilities for improving the working conditions, occupational health, and income. Organized recycling also contributes to social cohesion in the community, where recyclers do household collection (Tremblay, Gutberlet, & Peredo, 2010).

Cooperatives provide opportunities for training and education through programmes run by the government, universities, and non-governmental organizations. These experiences have contributed to building leadership and to empowering the recyclers, opening avenues for social development and collective action (Tremblay & Gutberlet, 2011). Cooperative members participate in decision-making, and leaders negotiate with government or business and contribute to public events, conferences, and exhibitions. The collective work in the cooperative helps expand social cohesion amongst the members and those with whom they interact. The recyclers' contact with community members represents an opportunity to increase environmental and social consciousness, acting as hands-on disseminators of information regarding waste reduction and resource recovery, creating stronger communities (Couto, 2012).

# PARTICIPATORY ACTION RESEARCH (PAR) AND ARTS-41.2 Based Research (ABR): Co-creating Knowledge

PAR promotes mutual involvement, personal growth, and empowerment of participants through the research process. Researcher and participants are actively involved in developing the goals and methods for collection and data analysis, as well as implementation of the results that will promote social change (Kidd & Kral, 2005). Methods within PAR are formed over time during a process of action and reflection, referred to as reflexivity, aiming to spark participants' critical thinking with the ultimate goal of positive social transformation.

PAR is based on Critical Social Theory and radical pedagogies that are committed to provoking social and political change (Brandão, 1987; Santoro Franco, 2005; Thiollent, 2008) through meaningful dialogue. PAR is built on Kurt Lewin's social psychology applications, and it is a type of "social research with empirical basis that is conceived and carried out in close association with an action or with the resolution of a collective problem and in which researchers and participants representative of the situation or problem are involved in a cooperative or participatory mode" (Thiollent, 1986, p. 14).

Along with PAR, ABR has been used worldwide as an alternative way of qualifying the unquantifiable and a better way of addressing research questions in a holistic and engaged way (Huss & Cwikel, 2005; Leavy, 2009). From this perspective, ABR opens up new spaces and discourses that uncover power structures that perpetuate the status quo. Empowerment is a key concern in our research and challenging social and political change, a desired outcome.

Since we are interested in learning, particularly in the process of social and transformative learning, ABR is useful because a variety of creative tools can be applied to collecting data, to describing, exploring, discovering, and to capturing the research process. We combine PAR and ABR in this study because it is through the process of making art in a participatory manner that dialogue is generated, and thereby new knowledge is co-created.

### Two Examples from Our Work with Organized 41.3 RECYCLERS

In this section, we present two case studies to illustrate our arts-based and participatory action-oriented projects conducted with members of organized recyclers involved in the PSWM programme. In these case studies, we introduce participants from the 32 recycling cooperatives from São Paulo that were affiliated with the PSWM programme (Gutberlet, 2015). The following excerpts and individuals we present were neither chosen randomly, nor are more important than the others, but they illustrate the claims we make in this chapter.

#### Popular Art (Gossip Circle) 41.3.1

This is the story of Helô and Bahia. They are a lively couple in their fifties. They have been married for many years and met each other whilst working as recyclers

on the streets of São Paulo. Although they no longer act as recyclers, their work is intimately linked to a recycling cooperative because they are now community leaders at União de Vila Nova, a low-income community in the outskirts of São Paulo. As community leaders, they keep their community informed about the political decisions that are made by the City that affect people's well-being.

At União de Vila Nova, Helô and Bahia run a sewing studio that was established by the City to train anyone who is interested in the fashion industry. They also facilitate numerous sewing workshops, and most of the materials they use during the workshops are provided by a recycling cooperative. They, in turn, use all these materials to create art pieces to be sold at a local market, fairs, and conventions.

Helô and Bahia have also participated in our arts-based workshops. There were ten participants in the art studio, with Bahia being the only man. For the purpose of this chapter, however, we focus only on what Helô and Bahia have to say. It is important to highlight that the episode we present next unfolded just a few weeks prior to the elections for São Paulo City Councillors. We invite readers to observe how these protagonists negotiate their perceptions in and around a women's circle in the sewing studio, and, through a feminist lens, we will make sense of what they are saying to explore how their conversation can contribute to the literature on ABR and PAR.

1	Bahia	I quit the course. That one led by the women, because
2		they would arrive here, and instead of sitting on a
3		sewing machine and think of something to do.
4		You know what I mean, have a thought, say something
5		like, look, create something and show it to their
6		peers, but they don't. They start gossiping.
7		Real gossip.
8	Helô	Yes, because in every women circle
9		is like that.
10	Bahia	We have the time to work and the time
11		to sit and articulate. We both and our group like to chat.
12	Helô	To have ideas.
13	Bahia	Yeah! To have ideas. That is where
14		good things come from. It is when we sit around and
15		have a good dialogue.
16	Helô	With no disagreements
17	Bahia	Otherwise—Looking into other people's lives. Let's
18		look into our own lives.
19	Helô	Well. This is how I think. I had one—I had one
20		experience with the women Bahia is talking about. We
21		were a little bit separate, because we were not just
22		involved with crafts making. We were involved with
23		politics as well.
24	Bruno	What do you mean by politics, Helô?
25	Helô	Politics? I am always involved with it during the elections. I give my support to
26		a candidate for our community. I work for him, why? Because I am a
27		community leader () and as a community leader I try to find out about our
28		community needs.

Bahia starts out by arguing that he quit the course in which he was enrolled due to the fact that women who were also enrolled in that same course would not sit at the sewing machines. Rather, they would engage in something else that later he describes as gossiping. It is clear in Bahia's opening speech that the gossip the women were engaged in most likely did not involve him in the conversations and was not about their craftwork because they (women) did not have a complete or a physical piece to show to their peers. Neither was it anything thoughtful, meaning, intellectual ("have a thought"—line 4). In other words, according to Bahia, the women in that circle were just minding other people's business. Hence, for Bahia, the conversation the women were having was useless talk, because it was not relevant to the course. Bahia ends his opening speech by confirming that the women were indeed gossiping (line 7). At this point, it is clear the male-dominant discourse that places the conversations the women have as just gossip, devaluing not only just what they have to say but also reducing the importance "gossip" holds in PAR. A hierarchical status is established in their discourse in which the man is placed in a higher or more intellectual position than the women. This is evident when Bahia states that whilst the women were gossiping, he was the only one in the room who was producing something tangible to show to his peers. The fact that the women were gossiping upset him so much that he did not complete the course, and "women's gossip" was the only reason he presented for quitting.

At this moment, two things happen in Bahia's discourse. He first brings forth the subject of gossip to the conversation, which later sparks Helô to provide a counter-narrative, where she is able to articulate her previous knowledge about women's circles. Second, Bahia overlooks the power of gossiping in women's circle that may evolve in art-making environments. However, "gossip plays a key role in human society" (Jelasity, 2011, p. 9) and is not a new topic of research in the Social Sciences (Besnier, 1989; Gluckman, 1963; Haviland, 1977; Levin & Arluke, 1985; Loudon, 1961; Stirling, 1956). Historically, gossip has been perceived as just individuals minding other people's business with, most likely, no confirmation of evidences. However, in the case we presented earlier, there is more depth in gossip. For Helô, political articulations were taking place. Some research (Foster, 2004) argues that gossip is a valuable and, sometimes, essential part of communications in order to function efficiently in a complex social environment. Humans require information about those around them, therefore they gossip.

Following, Helô confirms that the women were indeed gossiping, and she goes on by explaining to Bahia that this is a normal behaviour for that group of women since, according to her, "every women circle is like that" (lines 8 and 9). Helo's statement at this point of their conversation illustrates the importance of informal women's circles, because according to Hooks (1994), in times and places where women do not have access to women's studies classes or even feminist literature, "individual women learn about feminism in groups" or through "word-of-mouth" (p. 19). According to Freire (1970), moments like this (e.g., women's circle) spark liberation and emancipation because learning happens freely, informally, and incidentally through the sharing of stories and through each other's personal experiences.

Next, Bahia picks up on what Helô previously said by confirming that they do have time to work as well as time for chatting. Bahia perceives the work they perform in the sewing studio as something different from the conversations women were having in the room so much so, he allocates different times for each activity (e.g., time to chat and time to work). This positioning devalues conversation because it is not part of the job itself. Hence, any discourse that may emerge in the art studio, if not directly related to the work itself, is not relevant. If we persist with this perspective, we risk neglecting the richness of women's circle and shut potential windows for dialogue, thus ignoring possibilities for teaching and learning in an environment like this.

Bahia does not detail the kind of discussions the women were having. He simply identifies it as gossip. However, Helô explains to Bahia that through conversation, individuals can gather new ideas. In doing so, Helô begins to provide her counter-narrative to what Bahia refers to as gossip. For her, the women were sharing their stories, learning from each other, and generating ideas. Bahia does affirm that conversation is important because it allows brainstorming amongst participants. In other words, for Bahia, it is through articulation and chat that good ideas come to the surface and not through gossiping. Here, Bahia makes a distinction between gossip and something else that he calls articulation/chat, in which the former should not be encouraged in the workplace because it is useless talk, whereas the latter generates good dialogue. This is evident when Bahia explains that these women should focus on their own lives. Helô's counter-narrative is prefaced by explaining that she is focusing on her perspective and her own previous experiences ("This is how I think"—line 19). This is a key feature in gossip conversation because gossip is based on the individual's knowledge of the topic. She explains that they were not only just taking sewing classes but also talking about politics.

Following, Bruno asks Helô to further articulate what she means by politics. Helô connects her response to her work in governmental politics. She describes her work during the elections as a community leader, rallying for a specific candidate. This type of work is common amongst community leaders during elections in Brazil. Here, Helô talks about the upcoming elections for São Paulo City Councillor. Helô explains that it is her duty as a leader to uncover the needs of her community and to pass that information on to the candidate. Helô's counter-narrative brings forth a different perspective on gossiping. According to her, the women from that sewing workshop were indeed engaged in some kind of conversation that was not directly related to the workshop *per se*, but were talking about politics.

In sum, this conversation offers evidence of the male-dominant discourse that establishes a hierarchy amongst men and women, where the conversations that occur within women's circles are deemed inconsequential. Indeed, according to Foster (2004), gossip is *idle talk* or *chitchat* about one's ordinary daily life. Dunbar (2004) extends the definition by broadly defining gossip as conversations about social and personal topics. Etymologically speaking, gossip is attributed to women, and it is often used as synonymous to "girl talk" or "women talk." On the other hand, it is culturally accepted, especially in

Latin countries, that men instead, just "kill some time together" or "shoot the breeze" (Fine & Rosnow, 1978). These definitions do not use the term talk when referring to men's conversations, reinforcing the idea that men do not talk about people's lives—they are doing something else when they are gathered together. Further, there is no specific terminology to describe men's gossiping in the literature, reinforcing the idea that men do not gossip. Culturally, there is a distinction between female and male conversation, where women's talk is trivialized compared to men's conversation. However, in reality, both genders engage in some forms of gossip, and it is indeed from these relaxed conversations that learning takes place, because it is a co-construction of individual stories and people's previous knowledge about the topic they share.

The Role of Gossip in Our Research Methods In our work, we do not take gossiping for granted but rather explore its potential for dialogue and knowledge co-creation. In research terms, we take advantage of Gossip Circles in our practices to explore what people have to say, regardless of what they are gossiping about. Therefore, we have tailored and applied Gossip Circles as workshops to generate dialogue amongst research participants. This activity can be easily adapted to different groups.

The word "gossip" when translated into the Brazilian Portuguese language becomes fuxico. Fuxico in Brazil embodies strong cultural and historical connotations. It can carry the same meaning as in English, which is an informal conversation amongst people. But fuxico also describes a small fabric circle in which its border is basted and furrowed, forming a little pouch, inspiring the creation of decoration pieces and even bigger compositions such as blankets and clothing (Photograph 41.1). Fuxico is a traditional present in all regions of Brazil, and it received such a peculiar name because, according to Brazilian folklore, women, especially from rural and working class, would gather around to sew and also to talk about other people or to gossip. Both fuxico meanings (e.g., gossip and pouch) when interwoven become the starting point for our Gossip Circle workshops, which started as a warm up activity by getting people talking but soon took on a life of their own as a full workshop structure.

Gossip Circle Workshop Structures Here is the basic structure for the workshop:

Time: The time for this workshop is adaptable depending on the goals of the community and facilitator. It can range from 30 minutes (as an icebreaker) and last for hours if the intentions are to further explore what participants

Material: Leftover fabric, string, sewing needles, bottle caps, and scissors.

Method: We cut out a set of fabric circles before the workshops began, in order to save time during the workshop. Each fabric circle was 3 centimetres in diameter. There was no exact number of circles; the more, the better. We often use different colours of fabric, so whatever we created would be colourful, and we worked with only leftover materials. To make the little



**Photograph 41.1** Artwork created by recyclers using the *fuxico* technique

pouches, participants first basted around the borders of the circle with the needle and string. Then, they placed the bottle cap with the flat surface touching the fabric. Holding the fabric and the bottle cap together, we furrowed the basted fabric edges, so the fabric circle would close around the bottle cap. We then sewed the ends shut. Participants would make as many as desired. Once the group had a considerable number of fuxicos, participants started to assemble them, creating much larger pieces.

The Gossip Circle workshop was a participatory- and process-oriented activity, whilst researchers focused on the dialogues that emerged in the sewing studio. This structure offered the potential to highlight the many individual and collective experiences from that community and the challenges they faced. This aspect of arts-informed research is important because it is an effective way to understand communities' social dynamics and inform alternative realities for social change. For instance, looking back at Helô and Bahia's conversation, there are clear unbalanced power relations regarding gender, where there are certain expectations from the women to produce something to show to their peers, or as Bahia articulated "have a thought," meaning that the "gossip" women were having amongst themselves was not thoughtful. However, as Helô points out, the women's power in the studio actually involved talking politics.

#### 41.3.2 Participatory Video

The second case study presented here describes a Participatory Video project we conducted with members of the PSWM project between 2009 and 2012. The aim of the project was to facilitate empowerment and strengthen dialogue

and engagement for inclusive public policy with members of the project and local government in the greater metropolitan region of São Paulo. The project provided opportunities for the recyclers to explore video not only as a way to shed light on their livelihood challenges but also as an approach to celebrate, demonstrate, and legitimize the value and significance of their work to local government and society. Working through a participatory approach, 22 leaders from 11 cooperatives were involved in all aspects of the video-making process, from script writing to filming, group editing, and knowledge mobilization. This collaborative approach equitably involved community members and researchers as partners in all aspects of the research process (Israel, Schulz, Parker, & Becker, 1998).

The purpose of the videos was to relay the message that recyclers perform a valuable service to society and through the organization of cooperatives have the capacity to be further supported and integrated into waste management programmes. The videos were used as a tool for communication with government and for community outreach. The project involved several stages including the technical training workshop, in-depth interviews with participating members, and, finally, focus group discussions with local government representatives (see Photograph 41.2).

The weeklong workshop included teaching the technical skills and using communication tools necessary for production and post-production, resulting in four short videos. The final products revealed unique stories, each highlighting the strong capacity of the recycling cooperatives to provide an important environmental and social service to society. The major themes of the videos ranged from occupational health, validation and recognition of service, environmental sustainability and education, private sector development, and gender equality. Each participant had the opportunity to perform a different role in the preparation and production of the videos. Storyboards were collectively developed in each group to identify who would handle the camera, narrate, and give interviews when out in the field. Each group filmed at their respective cooperative, interviewing colleagues and local business owners, demonstrating the process of collection and separation, and local partnerships in the community. The clips reflect the perspectives of the participants, who collectively created the script and storyboard of the video.

The content of the videos varied amongst the groups. Two of the groups focused on highlighting the capacity of the recycling cooperatives to perform the service of door-to-door collection, interviewing both the *catadores/as* at the cooperative and residents and business owners in the community participating in the collection service. One of the groups also demonstrated in their video the production of the value-added product *Varal* (washing line), made out of recycled pop bottles that are sold in local supermarkets. The third group decided to perform "the making of a catador/a" by recruiting an informal recycler from the community and inviting him to the cooperative, explaining the benefits of working collectively and asking him to join their group.

The final videos were presented to municipal government representatives

during focus group meetings in the municipalities of Diadema, Mauá, and



Photograph 41.2 Participatory video workshop

Riberão Pires. The focus groups were facilitated by the leaders of the cooperatives, who co-produced the videos, supported by the executive committee of the PSWM project. These focus groups were videotaped and analysed to evaluate the use of the videos as a tool for enhancing dialogue and communication with the government.

Following the focus groups with local government representatives, the recyclers were interviewed about their reflections on various elements of political agency, leadership, and knowledge mobilization. The results of this research demonstrated that Participatory Video was an innovative and powerful vehicle for individuals and communities to both engage in critical self-analysis and political action. Participatory Video can enhance and stimulate new and inclusive forms of communication, by placing the camera in community hands. The images can be revealing and eye opening—it can provide new ways of seeing, challenge existing perceptions, and give opportunity for creative processes. Given the increasingly accessible nature of video technology, this form of representation has enormous potential for widespread, immediate, and powerful impact on how communities are perceived and understood by both community members and outsiders. This approach is recognized as important in yielding and validating community knowledge and understanding to guide

policies and programmes for reducing social disparities (Flicker & Savan, 2006; Ritas, 2003), particularly by improving communication between stakeholders (Hickey & Mohan, 2005; Luckin & Sharp, 2005). The main outcomes of the research and the different ways in which Participatory Video can foster empowerment, mobilize community knowledge, and stimulate inclusive governance are summarized as follows.

Mobilizing and Validating Community Knowledge and Empowerment The Participatory Video process in this research was instrumental in mobilizing community knowledge of the recycling sector, in addition to cultivating empowering outcomes. Similar outcomes are well documented in White's (2003) research on how Participatory Video can be used to encourage change in both attitudes and social behaviour in an effort to solicit the participation of communities who identify development solutions. Media literacy, Criticos (2001) argues, can help facilitate critical citizenship and encourages marginal voices to produce counter-discourses.

Vilma, a recycler from the *Vida Limpa*<sup>1</sup> programme in *Diadema*, for example, expressed her confidence and motivation in recognizing her power to "fight and defend work that is beautiful and important." Others, such as Monica, expressed appreciation for the Participatory Video capacity in revealing recyclers' realities by themselves. Participation has been argued to be the active ingredient for development (Stiglitz, 2002). Since authentic development is driven from within through personal and social transformation, involving the people whose development is being promoted in every aspect of the process is necessary, and in essence the basic principles of PAR.

Participatory Video is a powerful tool for enabling authentic participation. The process enhances self-confidence and communication skills, bringing feelings of pride and ownership in the finished product. This also reflects and reinforces recyclers' consciousness of the value of their own knowledge in addressing societal challenges and influencing policy and ideas in a positive way. This self-fuelling cycle of learning can be the most powerful realization of one's own capacity for change.

Enhancing Communication for Political Change Communication strategies are central to community-based development endeavours because good communication allows people to gain new knowledge, challenge existing oppressive structures, and, above all, gain control over their lives and thus overcome oppression (Melkote & Steeves, 2001). The use of video, guided by principles of community-based participatory research, has become an increasingly effective and creative tool for mobilizing, engaging, and linking communities and government, particularly within the context of development.

The participatory methodology in this project proved to enhance the process of dialogue, by providing an iterative process of visual and communicative

data. The images provided the audience, in this case the government, with a "real-life" picture of the realities of this community, a significant step in challenging pre-conceived perceptions of this community and in documenting their struggles and innovative solutions.

The process was influential in making positive change in the community from a grassroots level, in which a participatory structure of communication is central. These creative community media outlets "permit local communities to question the ideologies which depreciate them, select the information which is truly important for them, and project more positive images of themselves" (Servaes, 1999, p. 84). In this way, communities have the opportunity to influence policy in a broader and more collective way. Monica, for example, shared that a supportive political space was enabled through this project that had real community impact on policy, and furthermore that she was influential in that process:

Particularly here in Diadema I believe I have [influence]. I can speak for our community...we recently had a meeting with the mayor and I gave a status report on the program of selective collection and it had a few things that were not legal and he [the Mayor] has totally changed. I expressed arguments to him, I gave him the documents focusing on the problem and we solved it.

The videos were an impetus, a tool, or avenue to create space, opportunity, and enhanced leadership for Monica, and others, to make important change in their lives and the collective benefit of their community.

In this previous excerpt, the local government suggested the use of the videos as tools for communicating with other government departments, the business sector, and for public educational programmes. Overall, the government responses to the videos were positive and sympathetic, despite some of the challenges associated with political agendas and bureaucratic ties (i.e., budget constraints). In each case, there was genuine interest in working with the cooperatives and strengthening their participation and capacity in recycling services. The process helped to build a strong sense of community amongst the recycling cooperatives, an experience of strength as a group to improve their livelihoods.

It is important to note the dynamic nature of empowerment—that it is an ongoing process and not an end state. Individuals become empowered and disempowered as a relation to others and, more importantly, to themselves. The participants in this project voiced their opinions about feeling more empowered than in other situations. Empowerment is not an ultimate state achieved through the Participatory Video experience but rather reflects experienced empowerment in the given context.

## CONCLUDING REMARKS ON PARTICIPATORY 41.4 KNOWLEDGE CREATION

In our chapter, we reveal the great potential of using two different visual methods in PAR. The methods described in the context of the different workshops and meetings aim to strengthen citizen engagement, where people develop greater self-identity, political awareness, collective knowledge, and a greater sense of their rights and agency. These approaches to research not only inspire self-transformation but also translate into effective action for social and political change. Informed and active citizens are the necessary building blocks for participation in decisions that can have broad impacts across many sectors. Participatory approaches to research also "contribute to more pluralistic societies, bringing new voices and issues into the public arena, providing a sense of recognition, social identity and dignity which are important for a sense of inclusion" (Gaventa, 2013, p. 11).

The interactive, collaborative, and participatory approaches applied in our research contribute to generating new knowledge on aspects considered key in the everyday life of recyclers, including health and risks at the workplace, re-creation and reiteration of self-identity and empowerment, and enhancing communication between recyclers, the government, and the general public on inclusive solid waste management.

The Participatory Video project both documents the challenges that this community faces, such as poverty, stigmatization, and social exclusion and highlights the enormous opportunity and key role that recycling cooperatives play in inclusive waste management strategies. The research has demonstrated that through self-reflection, determination, and developing awareness of one's own interests, individuals can draw on their strengths, exercise their citizenship, and make action for change. The results point to clear moments during the process of the Participatory Video project where participants experienced personal transformation. It is imperative, and highlighted in the experiences of the recyclers, that transformative change in the decision-making process needs to be driven by the participants themselves.

The research also highlights Participatory Video as an effective and innovative communication tool for informing public policy that can shift power dynamics for greater inclusivity of community voices. In the context of this work, some case studies revealed immense potential in this area and some very subtle possibilities. In looking towards future research in the area of policy impact and Participatory Video, we would inquire into new ways of measuring this impact (short-term and long-term) and the genesis of what is needed to make real policy change. It is still unclear how much weight community knowledge has in terms of shifting entrenched policies and what longer term changes result from these interactions. As Wheeler (2012) highlights, in her research on citizen engaged policy change, "a single space for debate is not enough, there needs to be ongoing pressure on different fronts" (p. 376). Although the Participatory Video process can be the beginning or impetus in stimulating dialogue, it is insufficient for policy changes without institutional change of the deliberation process.

I am a man. I am a mechanic. I paint cars. I don't know how to sew. (Seu Francisco—a recycler and research participant)

Seu Francisco, a male research participant during the Gossip Circle workshop, uttered these previous sentences repeatedly upfront. He was indeed very reluctant in the beginning of this workshop, not wanting to participate at all. The process of creating the fuxicos perhaps moved people out of their comfort zone, by inviting them to experiment and play with materials that may not be part of their daily lives. Such experimentation may, at first, have sparked anxiety, fear, shyness, weirdness, and uncomfortableness in some participants. However, after its completion, these same participants experienced joy, happiness, peace, sense of belonging, warmth, empowerment, and, most importantly, love. And lots of it. Because they collectively did it. For instance, as the workshop unfolds, Seu Francisco, encouraged by his peers (mostly women), decided to stay and participate in the Gossip Circle and was very proud of his art pieces: "Oh! Look at this one I've just made. So cute, isn't it," Seu Francisco kept saying it as he piled his recently sewn little pouches.

The participatory research process highlights the complementary nature of academic knowledge to the local knowledge of the recyclers. Co-generation of knowledge and collective learning provides effective and feasible strategies and resolutions that can help tackle acute social and environmental problems, as discussed in this research. The findings have the capacity to inform models of participatory governance and improved democratic processes in addressing complex urban development challenges, in addition to advancing practices in government accountability and transparency. Democratic processes that inspire and embrace citizenship should therefore provide multiple avenues and spaces for engagement. The methods presented here can be an innovative way to include multiple voices in these arenas, voices of people otherwise left on the margins.

# Note

1. The Vida Limpa (Clean Life) programme was initiated in 2002, as a partnership between Pacto Ambiental, a network of recycling cooperatives, and the Diadema government (municipality from São Paulo) to collect door-to-door recycling materials.

# REFERENCES

Ahmed, S. A., & Ali, M. (2004). Partnerships for solid waste management in developing countries: Linking theories to realities. Habitat International, 28(3), 467-479. Arieli, D., Friedman, V. J., & Agbaria, K. (2009). The paradox of participation in action research. Action Research, 7(3), 263-290.

- Besnier, N. (1989). Information withholding as a manipulative and collusive strategy in Nukulaelae gossip. Language in Society, 18, 315-341.
- Brandão, C. R. (1987). Pesquisar-Participar. In C. R. Brandão (Ed.), Repensando a pesquisa participante (3rd ed., pp. 7-14). São Paulo, Brazil: Brasiliense.
- Butterwick, S., & Dawson, J. (2005). Adult education and the arts. In T. Fenwick, T. Nesbit, & B. Spencer (Eds.), Context of adult education: Canadian perspectives (pp. 281–289). Toronto, ON: Thompson Educational Publishing.
- Clover, D. E. (2011). Successes and challenges of feminist arts-based participatory methodologies with homeless/street-involved women in Victoria. Action Research, 9(1), 12–26.
- Couto, G. A. (2012). Aprendizagem social e formação humana no trabalhoc Cooperativo de catadores(as) em São Paulo. Masters Thesis, Faculty of Education, University of São Paulo, Brazil.
- Criticos, C. (2001). Media education for a critical citizenry in South Africa. In R. Kubey (Ed.), Media literacy in the Information Age. New Brunswick, NJ: Transaction.
- Dunbar, R. I. M. (2004). Gossip in evolutionary perspective. Review of General Psychology, 8, 100–110.
- Fine, G. A., & Rosnow, R. L. (1978). Gossip, gossipers, gossiping. Personality and Social Psychology Bulletin, 4, 161–168.
- Flicker, S., & Savan, B. (2006). A snapshot of CBR in Canada. Wellesley Institute. https://depts.washington.edu/ccph/pdf\_files/CBR%20snap-Retrieved from shot%20report%20final.pdf
- Foster, E. K. (2004). Research on Gossip: Taxonomy, methods, and future directions. Review of General Psychology, 8(2), 78–79.
- Freire, P. (1970). Pedagogy of the oppressed. New York: Herder and Herder.
- Gaventa, J. (2013). From development to transformation: Citizen engagement for social and cognitive justice. Remarks by John Gaventa CASAE/CASID Conference University of Victoria, June 5, 2013. Retrieved from http://www.coady.stfx.ca/ tinroom/assets/file/GaventaCASIDCASAERemarks2013.pdf
- Gluckman, M. (1963). Gossip and scandal. Current Anthropology, 4, 307-316.
- Gutberlet, J. (2008). Recycling citizenship, recovering resources: Urban poverty reduction in Latin America. Aldershot, UK: Ashgate.
- Gutberlet, J. (2012). Informal and cooperative recycling as a poverty eradication strategy. Geography Compass, 6(1), 19–34.
- Gutberlet, J. (2013). Briefing: Social facets of solid waste: Insights from the global south. Waste and Resource Management, 166(3), 110-113.
- Gutberlet, J. (2015). More inclusive and cleaner cities with waste management coproduction: Insights from participatory epistemologies and methods. Habitat International, 46, 234-243.
- Gutberlet, J. (2016). Urban Recycling Cooperatives: Building Resilient Communities. London, New York: Routledge Taylor & Francis Group. 183 pp.
- Haviland, J. B. (1977). Gossip as competition in Zinacantan. Journal of Communication, *27*, 186–191.
- Hickey, S., & Mohan, G. (2005). Relocating participation within a radical politics of development. Development and Change, 36(2), 237-262.
- Hooks, B. (1994). Teaching to transgress: Education as practice of freedom. New York: Routledge.
- Huss, E., & Cwikel, J. (2005). Researching creations: Applying arts-based research to Bedouin women's drawings. International Journal of Qualitative Methods, 4(4), 44–62.

- Israel, B., Schulz, A., Parker, E., & Becker, A. (1998). Review of community-based research: Assessing partnership approaches to improve public health. Annual Review of Public Health, 19, 173-202.
- ISWA (International Solid Waste Association), (2012). Globalization and waste management. Phase 1: Concepts and facts. ISWA. Retrieved from http://www.iswa.org
- Jelasity, M. (2011). Gossip. In G. D. M. Serugendo, M.-P. Gleizes, & A. Karageorgos (Eds.), Self-organising software: From natural to artificial adaptation (Natural computing series, pp. 139-162). New York: Springer. doi:10.1007/978-3-642-17348-6\_7.
- Kidd, S. A., & Kral, M. J. (2005). Practicing participatory action research. Journal of Counselling Psychology, 52(2), 187–195.
- Kindon, S. L., Pain, R., & Kesby, M. (Eds.). (2007). Participatory action research approaches and methods: Connecting people, participation and places. London: Routledge.
- Leavy, P. (2009). Method meets art: Arts-based research practice. New York: The Guilford Press.
- Levin, J., & Arluke, A. (1985). An exploratory analysis of sex differences in gossip. Sex Roles, 12, 281-286.
- Loudon, J. (1961). Kinship and crisis in South Wales. British Journal of Sociology, 12, 333-350.
- Luckin, D., & Sharp, L. (2005). Exploring the community waste sector: Are sustainable development and social capital useful concepts for project-level research. Development Journal, 40(1), 62-75.
- McNiff, S. (2008). Arts-based research. In J. Knowles & A. Cole (Eds.), Handbook of the arts in qualitative research (pp. 29–40). Thousand Oaks, CA: Sage.
- Melkote, S. R., & Steeves, H. L. (2001). Communication for development in the third world: Theory and practice for empowerment (2nd ed.). London: Sage.
- Mezirow, J. (2000). Learning as transformation: Critical perspectives on a theory in progress. San Francisco: Jossey Bass.
- O'Sullivan, E. (1999). Transformative learning: Educational vision for the 21st century. Toronto, ON: OISE-University of Toronto.
- Reason, P., & Bradbury, H. (Eds.). (2008). The Sage handbook of action research: Participative inquiry and practice. London: Sage.
- Ritas, C. (2003). Speaking truth, creating power: A guide to policy work for communitybased participatory research practitioners. University of Washington.
- Santoro Franco, M. A. (2005). Pedagogia da pesquisa-ação (Pedagogy of actionresearch). Educação e Pesquisa, 31, 483-502.
- Scheinberg, A., Wilson, D. C., & Rodic, L. (2010). Solid waste management in the world's cities (3rd ed.). UN-Habitat's state of water, UN Human Settlements Programme.
- Servaes, J. (1999). Communication for development: One world, multiple cultures. Cresskill, NJ/New York: Hampton Press.
- Stiglitz, J. E. (2002). Participation and development: Perspectives from the comprehensive development paradigm. Review of Development Economics, 6(2), 163-182.
- Stirling, R. B. (1956). Some psychological mechanisms operative in gossip. Social Forces, 34, 262-267.
- Thiollent, M. (2008). Metodologia da Pesquisa-Ação (Action-research methodology) (16th ed.). São Paulo, Brazil: Cortez.

- Tremblay, C., & Gutberlet, J. (2011). Empowerment through participation: Assessing the voices of leaders from recycling cooperatives in São Paulo, Brazil. Community Development Journal, 46(3), 1–21.
- Tremblay, C., Gutberlet, J., & Peredo, A. M. (2010). United we can: Resource recovery, place and social enterprise. *Resources, Conservation & Recycling*, 54(7), 422–428.
- Wheeler, J. (2012). Using participatory video to engage in policy processes: Representation, power and knowledge in public screenings. In E. J. Milne, C. Mitchell, & N. de Lange (Eds.), Handbook of participatory video. Lanham, MD: Alta Mira Press.
- White, S. (2003). Participatory video: Images that transform and empower. Thousand Oaks, CA: Sage.
- Wilson, D., Rodic, L., Scheinberg, A., Velis, C., & Alabaster, G. (2012). Comparative analysis of solid waste management in 20 cities. Waste Management and Research, *30*(3), 237–254.