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# Youth Creating Disaster Recovery and Resilience: A Multi-Site Arts-Based Youth Engagement Research Project

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## Abstract

Youth have historically been understudied in disaster research and largely excluded in practice. Yet, a growing body of evidence suggests that they want to be actively engaged, and when they are, can contribute in myriad ways to disaster preparedness, response, and recovery processes. This field report describes the Youth Creating Disaster Recovery and Resilience (YCDR<sup>2</sup>) project—a Canadian-United States applied research initiative aimed at learning from and with youth ages 13-22 about their disaster experiences. The project used creative and arts-based methods to engage youth in participatory workshops held in disaster-affected communities. Key findings, research and implementation challenges, successes, and lessons learned are discussed.

Keywords: disaster recovery, resilience, youth engagement, arts-based methods

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149

## Introduction

Best estimates suggest that children and youth<sup>1</sup> make up about half of those who are affected by disasters around the world (UNICEF, 2014). These young people are coming of age in increasingly turbulent environments, as climate change is already leading to more frequent and severe weather-related disasters (Van Alast, 2006). This means that every year, more children and youth are exposed to flooding, heat waves, droughts, windstorms, and other climatological extremes (see Fothergill & Peek, 2015).

How do children and youth who are exposed to disaster recover? What do they need? On whom do they rely during times of loss and suffering? What roles do they play in enhancing their own recovery and resilience? Youth Creating Disaster Recovery and Resilience (YCDR<sup>2</sup>) is a Canadian-United States collaborative research project aimed at engaging with youth to explore and answer these and other questions. The project was established by co-investigators Dr. Robin S. Cox and Dr. Lori Peek in 2012, with funding from the Social Sciences and Humanities Research Council (SSHRC) of Canada and subsequent support from the Canadian Red Cross.

Upon its creation, the specific goals of the project were to develop a flexible, artsbased workshop methodology to: 1) inform socio-ecological theorizing about disaster recovery from a youth-centric perspective; 2) establish a physical and virtual space in which youth could engage and share their experiences of postdisaster recovery with peers; and 3) support participating youth as agents of change to inform and influence the recovery practices and rebuilding processes in their families and local communities. The project goals thus ranged from theoretical and empirical to highly participatory and practice-oriented.

## **Initial Engagement and Youth Recruitment**

The YCDR<sup>2</sup> project involved field-work and engagement in four focal communities. All of these communities were in the midst of ongoing recovery from major disasters that included an EF-5 tornado in Joplin, Missouri (2011), a large interface fire in Slave Lake, Alberta (2011), and a major flood in Calgary and High River, Alberta (2013). These communities were selected for a variety of reasons, including (1) exposure to one or more natural disaster events; (2) length of time since the event (i.e. 6-18 months post-event, to allow for a better understanding of emergent and ongoing recovery processes); (3) expressed early commitment on the part of adult community leaders and youth to invest in youth-informed recovery activities; (4) effects of the disaster on youth-oriented institutions, spaces, and environments (such as schools, parks, playgrounds, recreation centers, etc.); and (5) researcher proximity to the community and/or existing connections within the community.

In each of the four communities, we conducted formal and informal interviews with adult leaders including elected officials, school administrators and teachers, hospital administrators and mental health experts, representatives from local chambers of

<sup>&</sup>lt;sup>1</sup> The United Nations Convention on the Rights of a Child defines a "child" as "a person below the age of 18, unless the laws of a particular country set the legal age for adulthood younger." For the purposes of this project, "youth" was defined as young adults, age 18-25.

commerce, leaders of various community-based organizations, youth pastors and lead pastors of churches, and many other trusted community members. These individuals were identified through personal contacts, Internet searches, news media articles, and recommendations from community informants. During this initial phase we also met formally and informally with some youth to learn more about their interests in and thoughts about the proposed research activities. These interviews with both adults and youth helped us learn about community dynamics, establish rapport and trust, and refine our youth recruitment strategies. See Table 1 for a summary of the settings and number of adult and youth participants engaged in each focal community.

City and Disaster Timeline	Adult Participants	Youth Participants
Calgary, Alberta, Canada (Flooding, 2013)	20	9
High River, Alberta, Canada (Flooding, 2013)	9	9
Joplin, Missouri, U.S. (Tornado, 2011)	58	15
Slave Lake, Alberta, Canada (Wildfire, 2011)	22	6

## Table 1. Research setting, disaster timeline, and distribution of participants

Although we met with school leaders in the focal communities, we did not recruit youth to the study directly through schools or classrooms. Rather, youth were recruited through a variety of means including emails, posts on electronic forums, project flyers, and traditional "word of mouth" strategies. In each disaster-affected community, we worked with community partners to identify youth to engage as research participants. We also worked directly with youth leaders, identified by community partners in initial consultations, to assist us in recruiting youth to attend specific workshops. The recruitment process was different in each community, but in all cases we attempted to respect the interests and desires of those partners with whom we met. Ultimately, the research sample size varied in each community based on a variety of factors, including availability of youth, interest of youth, and endorsement of local leaders.

## Workshop Design

In each community, we engaged youth between the ages of 13-22 years in experiential workshops that employed trust- and team-building activities and a range of creative and expressive methods. The goal of each workshop was to explore youths' recovery experiences and to consider how they had contributed, or wanted to contribute, to ongoing recovery efforts in their community. Using art to tell stories can enhance critical reflection, challenge routine thinking, and facilitate the development of creative problem-solving skills while also supporting empowerment, action, and knowledge mobilization within and beyond research communities (Leavy, 2009).

In addition to engaging young people in telling their own stories through creative means, the group element of the participatory workshops was exceptionally important. Prior research has shown that group-based creative activities generate new learning through the shared and individual act of creation and the conversations and emotional responses that are evoked in response to what is created (McNiff, 2004).

Throughout the workshops, we facilitated formal (e.g., focus groups and interviews) and informal (e.g., conversation circles) discussions in which the youth explored the effects of the disaster, the factors that helped or hindered the recovery process, and the ways they were personally able to contribute to the recovery of their peers, families, and communities. They also discussed how youth might contribute to the ongoing and future resilience of their communities. We define community disaster resilience as the "capability of a community to anticipate and reduce risks and vulnerabilities and increase adaptive capacity and the potential for transformative learning in the face of disasters and other major changes" (Cox & Hamlen, 2014, p. 2).

Each workshop session was audio and video recorded and later transcribed verbatim. Additional data included: (1) photographs of workshop activities; (2) visual, graphic depictions drawn in real time as well as narrative summaries; and (3) participant observation notes focused on general impressions, process observations, and emergent themes in workshop conversations.

## **Workshop and Research Activities**

In each of the four communities, youth participated in one- to four-day workshops. In keeping with theories of group development (Tuckman & Jensen, 1977), each workshop began with activities designed to build trust, group coherence and commitment, and clarify the goals of the work ahead. Many of these activities engaged researchers and youth participants in games that required physical intimacy and imagination, collective decision-making, and a willingness to risk being silly and awkward. As such, they were designed to not only build trust and a stronger sense of community, but also to defuse or diminish the inherent power imbalance between the research team and youth.

Specific activities included a group process of setting shared rules or norms for the workshop; a name game ball toss designed to support everyone learning each others' names in a fun way; and a unity circle (see Currie & Heykoop, 2011). This latter activity, as an example, is focused on trust building and engages participants by having them all hold onto a rope circle, lean back, and sit and stand together by using the tension of the rope to balance and coordinate (see Figure 1).

In addition to establishing a sense of trust and rapport, the debriefing from some of these activities also generated some initial data about recovery. The Magic Carpet Ride (see Currie & Heykoop, 2011), for example, was an activity that required all participants to stand on a tarp and to imagine it flying over their community (Figure 2). As they were *flying*, they had to turn the carpet over without anyone falling off. This activity sparked reflections on many of the collaborative aspects of recovery

and the way that the "whole community" was forced to come together to begin the process of recovery.

## Figures 1 and 2. Trust- and rapport-building activities



In the Web of Recovery (Cook & Currie, 2006), participants blew up balloons and decorated them to represent themselves and youth in the community. Then, sitting in a circle, participants responded to facilitator-generated questions by answering the question, then tossing a ball of yarn to another person to answer the question (Figures 3 and 4). Questions such as, "What helped youth in the recovery process thus far?" and "What gaps or barriers have you experienced in accessing the support or resources you needed?" guided this exercise. As each question was asked, and as the yarn was tossed around the circle, a web was created and eventually the youths' balloons were tossed onto the web.

## Figure 3 and 4. Web of recovery



As shown in Figure 4, some of the balloons were supported by the web, while others fell to the floor. This provided a visual metaphor that facilitated a group discussion of the recovery process. The differences in sizes, shapes, colors, and decorations of the balloons illustrated the diversity of youths' experiences. Places where the web was dense became a metaphor for the ways in which networks of support and resources supported youth, whereas holes in the web illustrated how gaps in

resources and support created vulnerabilities for youth.

## **Visual Storytelling Activities**

Following these initial warm-up activities, we engaged with youth in a range of visual storytelling activities designed to further unpack their recovery experiences by exploring four key questions: (1) Who has been important to your recovery? (2) What places have been important to your recovery? (3) What activities have been important to your recovery? (4) What is the most important way you think youth have contributed or could contribute to recovery in your community?

The specific activities described in the sections below varied by community and were selected based in part on the space we were using, the length/duration of the specific workshop, and the insights and input from youth and our community partners as to what might work best. The risk-taking aspects of the activities contributed to community building, and the debriefing that followed each activity was critical to shared sense-making among both youth and researchers. These activities, along with others, also generated additional textual and visual data for the project.

## Visual Explorer

One of the activities used a tool called Visual Explorer (Center for Creative Leadership, n.d.). Visual Explorer is a pre-made set of over 200 photographs designed to generate reflective conversations. The activity began by asking the youth participants: "What does it mean to be youth in your community?" After the question was posed, the youth participants were asked to think about the question and then to silently walk around the room, where the photos were strewn about, and choose a photograph that represented his or her response to the question. Youth then shared their reflections about their selections, initially in dyads and then in larger groups, reflecting on what the photo represented (concretely, metaphorically, abstractly, and/or intuitively) (see Figure 5). This activity introduced visual storytelling as both a concept and an experience. It also provided a *soft* entry into the discussion of the disaster and its impacts on youth, their families and the larger community.

## Figure 5. Visual Explorer



#### Photostory

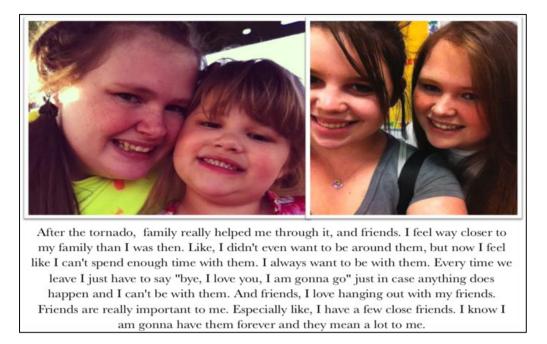
A parallel activity involved participants taking cameras (their smart phones; in case youth did not have phones available, we brought iPod Touches for them to use) out into the community taking photographs/videos to represent stories about disaster recovery that reflected the focus of the research questions. Upon returning from this field work, youth engaged in a selection process whereby they reviewed and winnowed down their selections and generated "stories" or captions to accompany each selection (Figure 6).



#### Figure 6. Sharing a Photostory

In another version of the photo story activity, youth were invited to bring in existing photographs of places in their communities that, from their perspectives, told a story of recovery (see Figure 7).

## Figure 7. Photostory- "Family & Friends" – created by Joplin youth, age 17



In yet another iteration of the photo story activity, youth either took new photos or brought in existing ones. Then, to stimulate discussion, and situate themselves in relation to their recovery and that of their community's, they painted these photos onto each other's faces. Following this, participants photographed their faces, superimposed them onto the original image of the place and offered story captions that framed the images. In some cases this evolved to generate a bricolage of image, words, and paint to create a story (see Figures 8 and 9).

## Figures 8 and 9. Photostory Bricolage – created by Slave Lake youth, ages 19 and 16, respectively



## **Graphic Recording**

We used graphic recording to enhance the conversations about the visual stories youth shared (see Figures 10 and 11). Graphic recording involves the translation and recording of information shared in conversations and presentations through graphic images, colors, key words, and phrases. The resulting wall-sized mural not only provides a visual recording of the conversations, it can also be used to spark and deepen further conversations. The research team covered a wall with plain white paper and then recorded the conversations through key words and images.

As the recording was happening and as it was nearing completion, participants were given time to offer their insights and reflections on what they were hearing and seeing. These additional insights were then added to the emerging poster. Youth were also invited to add their own drawings to the mural, which then became a "banner" for the workshop that remained on the wall for the duration of the workshop.

## Figures 10 and 11. Graphic recording



## **Digital Storytelling**

Other workshop strategies focused on digital storytelling through the use of stopmotion animation. A professional spoken word artist was hired to teach the participants in Canada how to begin crafting their own stories about their experiences of disaster and recovery. After crafting individual stories, youth formed small groups to develop a shared spoken word story. They then recorded these stories, and in a multi-day workshop process created stop-motion animation videos. Youth created the visuals for the videos using craft supplies, written words, and graphics (See Figures 12 and 13).

#### Figures 12 and 13. Stop Motion Animation video workshop; Still image from stop-motion animation, "Calgary Floods" – created by Calgary youth, age 14



## **Project Outcomes**

While each participant contributed a unique perspective to the project, adding depth to our understanding of the disaster recovery process for youth, there were also many common and powerful threads in the stories we heard. Indeed, after each activity we engaged the youth in debriefing, which focused on their experiences of each activity (e.g., how they felt participating) and also made tentative links

between the activity and their experiences of disaster and disaster recovery. Questions such as "How was this activity like recovery?" and "What did you learn from the challenges of this game?" generated reflections on the factors and resources that influenced the recovery process for youth, their families, and the community as a whole.

Some key messages from youth participants included:

- Youth are affected by disasters in many of the same ways as adults are affected; however, young people also have unique and specific needs for youth-friendly spaces, processes, and opportunities that are often overlooked in the recovery process.
- Youth who live through disasters experience many changes in their lives some difficult, others quite positive. The long-term effects of disasters continue to unfold during the recovery period, but many youth find creative ways to adapt and respond.
- Youth have the capacity to help their community during and after a disaster. They also often desire to help youth in other communities who have experienced a disaster.
- Youth are creative and passionate. It is important to open up spaces for them to express themselves in the ways that are most comfortable for them.

In response to what we learned from the youth participants, and especially the last point identified above, our team worked to ensure that the arts-based products created through the YCDR<sup>2</sup> workshops would be disseminated in the communities engaged in the research and beyond. In High River, for example, the short animated videos created by youth participants were shared with the mayor and city council and at a number of community events including a community movie night. All the final products from the work in the focal communities, including photostories, poems, music, animated shorts, and drawings, are showcased on the project website (www.ycdr.org) and were shared with participants at the Children & Youth forum at the United Nations World Conference on Disaster Risk Reduction in Sendai, Japan (2015).

These outputs were inspiring to many, and highlighted the importance of working to engage youth in disaster recovery and resilience. In terms of institutional change, this project spurred the development of the ResiliencebyDesign Innovation Research Lab and Network (RbD) at Royal Roads University. RbD is continuing the YCDR<sup>2</sup> research and empowerment work with youth in Southern Alberta. RbD also partners with Alberta-based regional and international youth advisors.

Furthermore, the success of the YCDR<sup>2</sup> project has informed an emerging program of research that focuses on the engagement of youth in disaster recovery, resilience, and social innovation on a wider scale. For example, one of the RbD research streams involves co-developing and piloting a youth-centric social innovation process and resilience innovation skills certificate with participating youth from Southern Alberta. These pilots include a similar combination of research and empowerment with a goal of supporting the development, implementation, and evaluation of youth-designed and -driven disaster resilience initiatives.

## Reflections

## Challenges

As we developed and implemented the YCDR<sup>2</sup> project, we learned many things along the way. Some of the challenges we encountered related to tensions between funding structures, institutional requirements, and community-based participatory research, particularly in the aftermath of disasters. Grant timelines and institutional research ethics processes do not always align with the expectations or needs of community partners and participants working through the recovery process. The time needed to build relationships with youth and adult community leaders requires extended periods of field-work that are not always feasible within the funding structure or work plans of university-based researchers. Moreover, our geographic distance from the focal communities combined with funding constraints on travel also limited sustained engagement with youth and their adult allies.

Other challenges included navigating the dynamic relationship between the research team, adult allies and youth. In some cases, adults were keen to support the engagement of youth in the project, opening up doors and co-generating possibilities for the research. In other cases, however, adults played more of a gatekeeping role, citing concerns about re-traumatization and a perceived responsibility to protect youth from that possibility. In exploring some of these issues with participating youth, however, they eschewed the need for this kind of protection and spoke of how having their voices valued in research was empowering, rewarding, and exciting. Ethically balancing these competing perspectives while ensuring the psychological and physical safety of youth in research is important and determined in part by levels and trust and rapport between the research team and the community.

The diversity of the research settings and the assortment of arts-based methods used in these settings, while a strength of the project, also resulted in logistical and methodological challenges. These included challenges related to the coordination and scheduling of activities, the management of relationships with community members and youth, and the analysis of many diverse forms of data. Using qualitative analytic software (NVivo<sup>™</sup>) helped with the latter, but the team still faced an enormous quantity and diversity of data that often was not always comparable across the different research sites.

In spite of these challenges, the project provided youth participants with opportunities to engage in the research, share their experiences, and express themselves in ways that privilege the knowledge and perspectives of youth. YCDR<sup>2</sup> also created a digital record and legacy documenting the perspectives of youth research participants and their recommendations for other communities recovering from disasters.

## Successes

Reflecting on successes in terms of those things that (1) supported data generation and ultimately produced meaningful findings; and (2) provided avenues for engaging disaster-affected youth, the YCDR<sup>2</sup> successes included:

- Working with adult allies and community partnering organizations to build credibility for the project, understand the recovery context, generate avenues for youth recruitment and refine the process to reflect specific opportunities and constraints in each community.
- Working directly with youth in pre-workshop conversations to help frame the importance of the effort, to recruit fellow youth for the project, and to ultimately help refine the efforts in practice.
- Offering multiple modes of arts-based expression and participatory activities, and shaping these to fit the unique interests of the youth and the resources available in each community.
- Working in communities with diverse disaster experiences (flooding, tornado, wildfire) and with multiple effects on the built, natural, social, and economic environments to generate a range of data to inform theory.

The project also demonstrated the value of interdisciplinary and collaborative disaster research in the social sciences. The international team consisted of sociologists, psychologists, a medical anthropologist, an interdisciplinary scholar specializing in child and youth studies, and numerous undergraduate and graduate research assistants from various disciplines. By focusing both on the social construction of disasters, and the impact on the community and individual, the project was able to bring a youth perspective to a trans-disciplinary examination of disaster recovery theorizing (also see: Abramson, Stehling-Ariza, Park, Walsh, & Culp, 2010; Cox & Perry, 2011; Fothergill & Peek, 2015).

The collaborative and iterative approach to the research also engendered a range of data collection and analysis methods that enriched the findings and the possibilities for knowledge translation and mobilization (e.g., videos, photo-stories, peer reviewed papers). This allowed us to extend beyond traditional research approaches to answer the research questions and further empower youth through the research process. The flexibility of our research design allowed us to draw on existing resources in the communities involved (e.g., the skills and equipment of the stop-motion animation facilitators in High River) and created opportunities to support individualized and/or community-relevant capacity-building opportunities for youth participants. The varied types of research outputs created in each community allowed us to tailor the dissemination of findings to different audiences including academics, practitioners, and youth.

## Conclusion

Our experiences in the YCDR<sup>2</sup> project emphasize the value and importance of engaging youth in research related to disaster recovery and community resilience. This project also highlights the potential of arts-based methods to engage youth in both the process of research and in the creation of meaningful outputs that can be broadly disseminated. As we work to generate innovative solutions to address the

160

interrelated challenges posed by disasters and climate change in communities around the world, including youth voices is essential.

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