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The New Zealand earthquakes and the role of schools in engaging children in emotional processing of disaster experiences

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The earthquakes that rocked the city of Christchurch and surrounding districts in Canterbury, New Zealand, were to take their toll on families, schools and communities. The places that had once represented safety and security for most children were literally and figuratively turned upside down. Rather than reinforce the trauma and continue to frame children as passive victims, the study reported here aimed to help children reframe their experiences through active engagement in participatory research projects. This article reports on three schools drawn from a UNESCO-funded project in which schools recorded their earthquake stories. While children were the centre of each of the school's earthquake stories, schools engaged children to different extents in their chosen projects. These three schools exemplify different places along a continuum of children's engagement in research on their own experiences. In one school, children, families, teachers and the principal all contributed to an illustrated book of their experiences. In another school, children created a series of mosaic panels to record the community's story before, during and after the earthquakes. In the third school, children became documentary makers and interviewed other children about their earthquake experiences. In all cases, children found their projects positive and helpful activities, enabling them to put their experiences into a broader context. This article argues that schools have an important role to play in providing emotional processing activities which help children gain perspective and distance as part of their recovery from large-scale disaster events.

Keywords: children's participation; disaster-related research; emotional processing; disaster response and recovery; the role of schools

Introduction

In 2010 and 2011, the city of Christchurch and surrounding districts of Canterbury, New Zealand, were hit by a series of large earthquakes. The first, in September 2010, measured Magnitude 7.1 on the Richter scale. The most destructive, in February 2011, measured 6.3 and killed 185 people. Two more large earthquakes (over Magnitude 6) in 2011 and a further 12,000 aftershocks contributed to the 40 billion dollars worth of damage. Following the earthquakes, children throughout the region discussed, wrote about, drew and re-enacted their earthquake stories many times at home and school. Little of this, however, was captured formally. The authors, both Christchurch residents working at two different tertiary institutions, saw the importance of capturing these and other stories for historical as well as informative purposes. We also wanted to document

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the role that schools played in the disaster response and recovery process. This article reports on only one aspect of the larger UNESCO-funded project—that of the role of schools in supporting children’s response and recovery through emotional processing activities. The researchers in the wider team brought many years of work in schools, participatory research, community psychology and theatre education to the task and were committed to ensuring that children were not exposed to further trauma in the process.

The larger research project had three main purposes and the part involving children was underpinned by a further two key principles. The three overarching purposes were: (a) to provide schools with a permanent record of their experiences; (b) to make the school experiences available to UNESCO (the funder) for dissemination and to Archives New Zealand for historians and researchers to access; and (c) to enable the researchers to undertake a cross-case analysis in order to contribute to increased understanding of the role of schools in disaster response and recovery.

The two key principles when involving children were, firstly, the importance of providing of safe opportunities for children to process their experiences and, secondly, the belief that children have a right to participate in decision-making that concerns them. Disasters take their toll on children’s academic, social and emotional development (Cahill, Beadle, Mitch, Coffey, & Crofts, 2010; La Greca, 2006). Following disasters, many adults want to protect children from further trauma (Borrell & Boulet, 2009). For this reason, the adults responsible for children’s well-being often avoid their involvement in revisiting their experiences or retelling their stories. Yet, research on helping children adjust after trauma suggests that emotional processing, especially through arts-based activities, is an important post-trauma activity (Cahill et al., 2010; Prinstein, La Geca, Vernberg, & Silverman, 1996). Emotional processing is defined as ‘a diverse set of physical, cognitive and affective actions that lead to absorption of emotional disturbances ...’ (Prinstein et al., 1996, p. 464). Without appropriate absorption, reminders of the event can interfere with normal functioning resulting in nightmares, distress or listlessness. Controlled and repeated exposure through relevant conversations, calm rehearsals, drawing, play or drama can contribute to appropriate absorption. Cahill et al. (2010) suggest a focus on metaphor, analogy, dance and story ‘can be used to provide a form of protective distancing and function as motifs through which to explore concepts of resilience and integrity in the face of adversity’ (p. 22). As we were educators rather than counsellors, our approach to emotional processing was to get children to engage in educational or arts-based activities that enabled them to take a step back from their experiences in order to put them into a wider context. Hence children were asked to explain their experiences to children in Australia who had lost their homes to bushfires, to draw a picture that would explain the event to someone who was not there or to suggest how we could use the opportunity to build a new and better city. We avoided questions that asked them directly what they had lost or how they felt. As Gordon (2004a) suggests, we aimed to find ways that they could begin to normalize their experience through forms of representation and begin to make it part of their personal and social history.

The second principle was related to viewing children as participatory citizens rather than treating them as passive victims (Gibbs, Mutch, O’Connor, & MacDougall, 2013). The United Nations Convention on the Rights of the Child (UNCRC, 1989) states that every child, as well as the right to a life that is safe, healthy and socially connected, should have a voice in matters that concern them. Much child-related research is adult-centric in both determining the problems and the solutions (Christensen & James,

2000). It is important to advocate for children's participation in relation to disaster preparedness, response and recovery (Cahill et al., 2010; Save the Children, 2006). In our research we wanted to acknowledge the child as an expert or co-researcher who could guide us through the activities, helping to direct both the content of the discussion, and, where possible, the research activity itself (Gibbs et al., 2013; Kirk, 2007). We, therefore, aimed to conduct research that would give children the opportunity to engage in carefully facilitated emotional processing and which would give expression to their voices and perspectives.

Through ongoing and sensitive engagement with a group of willing schools, this research project enabled children to find ways to retell their stories for themselves, their schools, their communities and their nation. Throughout the project, the researchers supported principals, teachers, school support staff, children and parents to tell their stories. Each school had control over how their own project would proceed, who would be involved, how it would be undertaken and what the final format might be. This article discusses the engagement of children from three different schools in their school projects. The schools chose to record their stories in different ways and, in doing so, engaged the children in different aspects and to different extents. The three schools in this article were chosen because they exemplify different levels of engagement.

Before sharing the ways in which the three schools engaged their students, we synthesize relevant literature to set the context for what we already know about children and disasters and the place of schools in disaster response and recovery. The article then introduces a way of conceptualizing children's engagement in disaster-related research before concluding with a discussion of what can be learned about the role of schools in enhancing children's engagement to support their recovery.

Literature review

Smawfield (2013, p. 2) defines disasters as 'sudden and calamitous events producing great material damage, loss and distress.' Disasters do not spread themselves equally across the globe with the Asia-Pacific region having the highest mortality rate (Cahill et al., 2010; Smawfield, 2013). Within the regions affected, the impact is greater on some societies than on others. In general, those with higher median incomes, higher educational attainment, stronger financial systems and less bureaucratic government experience fewer losses (Smawfield, 2013), although the recent events in Japan put a different perspective on these earlier conclusions (Japan Red Cross Society, 2013). Similarly, the sectors in the affected societies with less financial, political and social capital are the hardest hit and take the longest to recover (Tierney, 2013). Women and children are often the most vulnerable populations in disaster situations, especially those in lower socio-economic communities (Cahill et al., 2010; UNDP, 2010) but again in the 2011 Japanese earthquake and tsunami these generalizations were challenged. A higher proportion of elderly people died (70% of the total), as they were unable to make higher ground quickly or because of post-disaster exhaustion (Japanese Red Cross Society, 2013).

Children and adolescents represent a large, but under recognized or ignored population group in disaster research (Cahill et al., 2010; Gibbs et al., 2013; La Greca, 2006; Save the Children, 2006). As Cahill et al. suggest (2010, p. 6), 'Caught between the perceptions that infants are the most vulnerable and adults are the most capable, there can be a tendency to overlook their needs.' Children are most often conceptualized as passive victims who are excluded from contributing to disaster response and recovery.

The focus is most often on their mental health risks, including lessening their exposure to the potential of post-traumatic stress disorder (Cahill et al., 2010; Sagy & Braun-Levensohn, 2009).

There is a plethora of research that concludes that natural disasters have serious impacts on mental health and social functioning (Bonanno, Brewin, Kaniasty, & La Greca, 2010; Norris et al., 2002). Mental health and wellbeing impacts may be manifested in different ways, for different age groups, and can have a delayed onset (McFarlane, 1987; Norris et al., 2002; Peek, 2008). Children and adolescents may have particular vulnerabilities in relation to psychological impacts (Anderson, 2005; Caruana, 2010; Hawe, 2009; Peek, 2008). Their sense of safety and security, their ongoing development and their social relationships may all be compromised (Gordon, 2002; McDermott & Palmer, 2002; McDermott, Lee, Judd, & Gibbon, 2005). Young people who survive disasters report that the loss of loved ones and places, order and opportunity upsets their sense of a predictable and hopeful future (Betancourt & Kahn, 2008). Researchers note behaviour changes such as depression and anxiety, irritability, poor impulse control and heightened aggression (Marsee, 2008; Prinstein et al., 1996).

There is, however, a growing body of research that concludes that while disasters can lead to serious psychological harm, it is only in a minority of exposed individuals and often linked to a combination of pre-existing risk and resilience factors (Bonanno et al., 2010; Cahill et al., 2010; La Greca & Silverman, 2009) or proximity to the disaster and its aftermath (Bonanno et al., 2010). Elevated symptoms are common among children and young people for the first few months but less than one third will exhibit on-going concern and most will recover within a year or two (Bonanno et al., 2010; La Greca & Silverman, 2009). Post-disaster social relationships are important predictors of coping and resilience (Bonanno et al., 2010; Cahill et al., 2010; Gordon, 2004a, 2004b, 2007; Prinstein et al., 1996). Returning to normal roles and routines, distraction, emotional processing and arts-based activities are strategies that support children's recovery (Cahill et al., 2010; Gibbs et al., 2013; Prinstein et al., 1996).

The representation of children as passive victims in research contexts is now well contested and examples are emerging internationally of children's capacity to actively contribute to planning, preparedness, response and recovery efforts, and the apparent positive mental health benefits of this involvement (Anderson, 2005; Duncan & Arnston, 2004; Peek, 2008; Save the Children, 2006). Cahill et al. (2010, p. 13) suggest that:

While on the one hand, it is important to emphasise the vulnerability of children and adolescents and the requirement for protection and assistance, it is equally important to recognize their ability to form and express opinions, participate in decision-making processes and influence directions.

As schools and school children are intimately involved in the aftermath of large-scale disasters, they are logical settings in which to conduct research that explores how children are affected by disasters (La Greca, 2006; Smawfield, 2013). Smawfield (2013) suggests that we need to capture improved knowledge on how schools have successfully coped with disasters: 'the challenges they have been confronted with, the roles they have been required to play, how these have been faced and the lessons that can be learnt from this' (p. 9).

Where schools have been used as settings for disaster research, there are both advantages and disadvantages. One of the advantages is that researchers can select from large

representative samples, or interview children in familiar surroundings (Gurwitch, Sitte-rele, Young, & Pfefferbaum, 2002; Prinstein et al., 1996; Silverman & La Greca, 2002). The challenges include that schools themselves might have suffered damage, school staff might be coping with their own home and family issues related to the disaster, communication and transport may be affected and schools might prefer to focus on re-establishing routines or catching students up on missed work (La Greca, 2006; Smawfield, 2013). Getting schools up and functioning again is a top priority. Not only does it provide educational continuity, it is a key psychological factor in contributing to a return to normality, acts as a distraction from the ongoing trauma and complications of disaster recovery (Smawfield, 2013) and supports the re-bonding of communities (Gordon, 2004a, 2004b, 2004c).

In the case of the Canterbury earthquakes, all schools were affected to some degree. From closure for several weeks as city infrastructure, such as power and water was restored, to having their schools demolished, being moved to temporary sites or sharing sites with undamaged schools. At the time of the earthquakes, schools became communication and support hubs for their local communities. School principals and teachers selflessly returned to work despite their own personal tragedies within the city's ongoing struggles. Families came to terms with the events they had witnessed and the resulting disruption to their lives. Children and young people were caught in a 'no-man's land' between the chaos in their home lives and the temporary respite of the school day. Providing emotional processing activities that helped them normalize and gain perspective on the traumatic events and the ongoing recovery efforts became important.

One final finding from disaster-related research gives the period 12–24 months following the main event as being an ideal time to review the experiences of a disaster and make sense of the events in order to contribute to wider understanding and make recommendations for the future (Bornemisza, Griekspoor, Ezard, & Sondorp, 2010). The planning for this project began in early 2012 (18 months after the September 2010 earthquake and 12 months after the February 2011 earthquake). It took five months to get the research proposal through the sponsoring university's ethical approval committee and for the lead researcher to build a relationship with the first school. We are aiming to complete the full project by the end of 2013 .

Methodology and ethics

When responding to the funding brief, the lead researcher made it clear that this would not be a one-size-fits-all approach. Each school would be treated as a unique identity and involvement in the research would have reciprocal benefits. The school would have control over what kind of a project they wanted to engage in. It could be as small or as large as they wished (within the funding constraints). Schools could take a lead in the research design or they could follow the advice of the researchers. They could be selective in the number and type of participants or aim for comprehensive and representative coverage. The research design would be primarily qualitative and emergent. There are plenty of precedents for using open-ended and flexible approaches in sensitive situations (Dickson-Swift, James, Kippen, & Liamputtong, 2009; Lee, 1993; Renzetti & Lee, 1993; Watts, 2008). Data gathering methods that were available to the schools would be guided by the type of format through which they wanted to disseminate their completed story—website, book, photo essay, audio recording, video recording, art work or theatrical production. The researchers would be data gatherers for the larger study but also facilitators of each school's unique project. Where the researchers or school personnel

did not have the necessary skills, we would contract in the help we needed. Examples of this were using the university's video production team, a web designer, a trainee film director and a mosaic artist.

The first hurdle was getting ethical clearance from the Human Participants Ethics Committee of the lead researcher's university. The literature on researching sensitive topics reminds researchers 'to be more acutely aware of their ethical responsibilities to research participants' in these contexts (Lee, 1993, p. 2). An open-ended study in an emotionally charged setting which aimed to engage children as participatory researchers appeared to pose many ethical problems. Getting the first school to agree to support the project helped alleviate these concerns, as did the fact that the lead researcher had herself been through the earthquakes and understood the ongoing difficulties schools faced.

The second hurdle was getting other schools to come on board. Some schools were simply too exhausted or more focused on returning to normalcy. Other schools were suspicious of a study conducted by researchers from another part of the country who might not fully understand their circumstances. And yet other schools felt that their students were 'over the earthquakes'. Gaining the support of the local principals association helped legitimize the study and gradually other schools began to show interest. We still proceeded with care. Building relationships is a guiding principle of sensitive research (Lee, 1993). We took the time we needed to build authentic relationships with the schools through a sensitively staged approach—usually a phone call to the principal, followed by emailing through the research brief, then a personal visit, attendance at a staff and/or parent meeting, and so on—until the school finally felt it was ready and was making the choice in a free and informed manner.

Once a school agreed to participate in the study, the final hurdle for the researchers was encouraging schools to allow children to have a more significant role within the design, data collection, synthesis and presentation of the school's story. It is understandable that schools and parents felt they needed to be protective of their children, and they were concerned that reliving these experiences might cause distress. We provided research evidence that showed that creative ways of sharing stories could be an emotionally and psychologically healthy activity for children who were not exhibiting high levels of post-disaster trauma. In the end, we still gave schools the final say on how they wished to proceed.

Gibbs et al. (2013) and Dickson-Swift et al., (2009) discuss the importance of such work being undertaken by experienced researchers. Not only were we researchers with many years' experience, we had been involved in wide ranging activities with children and young people. We also worked in pairs in a non-threatening manner using warm-up activities and a conversational tone to put children at ease. Having two researchers also meant that one could lead while the other kept an eye on children's emotional responses to ensure children were not pushed too far. Self-care of researchers in sensitive research contexts is also stressed in literature (Dickson-Swift et al., 2009; Lee, 1993; Watts, 2008). Facilitating such emotionally intense data gathering was draining on the researchers and, by alternating the leading of the sessions, the researchers could restore their own equilibrium and take a little time to observe and reflect on the emerging direction of the discussions.

The data gathering sessions did involve moments of tension and tears but with sensitive handling the children were able to recover composure and work through their emotions and reach a more comfortable space. We even had moments of laughter. This highlighted to us the ability of children to display their resilience and agency as they gained a broader perspective on their experiences. At the end of the sessions, we gently

debriefed the children with the aim of having them feel their participation was worthwhile (Lee, 1993; Watts, 2008). That we achieved this was later confirmed by teachers and parents who reported noting the immediate benefits of the children's involvement.

The schools

The three schools chosen as examples in this article—Hillview, Riverside and Beachlands (not their real names) are all state-funded co-educational primary schools but they represent differing geographical locations and socio-economic communities, and thus, differing earthquake damage, response and recovery experiences. More detail about the preliminary findings drawn from the children's earthquake experiences can be found in Mutch (2013a) and O'Connor (2013). Despite the differences, there were many commonalities (see Mutch, 2013b). One difference was, however, the extent to which children were given agency to engage in or determine the direction of each school's project.

Hillview is located on a hill overlooking the city. Like all schools, it was closed for several weeks after the September earthquake. The February earthquake was more traumatic for this school as the staff and students gathered on the school field following the lunchtime 6.3 quake and watched in horror as the city crumpled in front of them. Many of the community's houses were badly damaged and the school was traumatized by the death of the mother of two of the school's students. This school understandably took a cautious approach to the research. They wanted the project to be about the experiences of children and their families but to be adult-led so that children were engaged in a gentle and supportive manner.

Riverside is a school located in a small town outside the city of Christchurch. The September earthquake was to have a marked effect on the town, with high levels of liquefaction, slumping and damage, especially to the town's historic buildings. This damage was exacerbated in the February quake. This school wanted to design a memorial seating area, where the school and community could come and contemplate what they had been through and how they had survived. The children would design the area and the adults would support its creation. In this case, the adults and children were co-facilitators of the project.

Beachlands is located in the eastern suburbs of Christchurch, which were some of the most hard-hit communities, especially by repeated liquefaction, flooding and structural damage. Beachlands was adamant that their research was going to be about 'kids talking to kids.' They wanted to capture the interest shown by their final year students in making videos. Students would be the producers, camera operators, interviewers and interviewees. This was to be research for children by children about children.

School 1: Hillview

Hillview chose to compile an illustrated book of their experiences. The book would contain the narratives from interviews with children, parents, the principal and teachers. These narratives would be supplemented with photographs, children's stories and drawings; many completed immediately following the major earthquakes. Because of the school's fear that too much emphasis on children's individual experiences could be upsetting for them, the children were interviewed in a variety of combinations—in small groups from the same class, with their siblings, or with their parents. The research was framed in a way that allowed children to distance themselves a little from the trauma of

their experiences by, for example, asking them to imagine themselves as a grandparent, telling their grandchildren about the earthquakes. Protocols were set in place so that children felt free to talk only as much as they wished and could withdraw from the interviews at any time if they felt uncomfortable. The families have since reported, rather than the children being upset by the interviews, they have been catalysts for families re-telling their stories to each other, and even sharing experiences that families had not told each other before. In the following days, many of these families asked to be included in the study.

School 2: Riverside

The second school, Riverside, wanted the children and their families to all be represented and remembered within their project. They wanted to create something that was both a memorial to mark what happened to their community, yet would also celebrate their resilience and look towards the future. The idea that emerged was to create a garden and seating area within the school grounds populated with plants from the families' gardens, especially where the property had been zoned 'red' (to be demolished). The garden was also to include mosaics that would tell the community's story. When the research began in 2012, students from year eight (aged 11–12), the final year, were chosen to pull together ideas and design mosaic patterns to put on murals surrounding the seating area. The students wanted the mosaic panels to remind people in the future what had happened. The students discussed lost buildings and icons, both in their town and the city of Christchurch. They came up with pre and post-earthquake symbols and representations which would form the basis of a set of four panels. The first panel is their town in early times, the second represents their town in modern times, the third their town being torn apart by the earthquakes and the fourth identifies their hopes for the future. The local river is a motif that connects all four panels. The local community has already planted the garden around the seating area. In 2013, the school has been working with a mosaic artist to turn the designs into an artwork that will stand in the school grounds for many years to come.

School 3: Beachlands

Beachlands School wanted children to steer their project using the skills their senior students had shown in video-making. We brought in a trainee film director to mentor the students on the basics on filming, directing, interviewing and editing. The production team honed their skills on telling their own stories before filming the interviews with children from across the school. The student interviewers designed the interview protocol and showed remarkable maturity in adapting the questions to suit the age of the students they interviewed or for the flow of the story. The students who were interviewed chose the setting for their interview, often where they were when the February earthquake happened—in the library, in the playground, by the school garden shed or on a school trip to the beach. As the students' stories unfolded they talked of where they were, how they felt and what they had learned from the earthquakes. The retelling of their stories as part of a video production conducted by their peers enabled the interviewees to gain a measure of distance as they selected their personal highlights and framed their stories in ways over which they had a measure of control.

Theorizing children's engagement

In theorizing children's engagement in disaster-related research, one of the authors of this article, Carol Mutch, compiled a continuum of engagement (see Figure 1). This article provides the first opportunity to articulate this conceptual tool and seek feedback on its resonance with, and applicability to, other situations. Each of the schools in this article represents a different place on the continuum.

None of the schools featured in this article, nor indeed in the wider project, conducted research for or on behalf of children without engaging them in some way. The disaster literature, however, does include descriptive observations of children's responses that have been compiled by adults or statistical analyses of data, which did not engage children other than as passive research subjects (see, for example, Tarazona & Gallegos, 2011). That is not to say that those researchers did not have the highest of motives in gathering their data in the way that they did. Their focus would still have been on important outcomes for children. This continuum highlights instead the level of *engagement* of children in research that is about them, drawn from our work in this disaster situation. We have categorized research that is done by adults to inform disaster policies or programmes but that does *not* involve children's views or perspectives as *child-related* research; or research that is *for* children.

Hillview School invited us to conduct research where the children's stories were the main focus. Children were free to tell their stories in ways that they wished, although we were fully aware that because of our status as external researchers that they might tell us what they thought we wanted to hear. To mitigate this possibility we used a range of strategies that encouraged them to reframe their stories in different ways. We also played slightly different roles. As insiders (people who had been through the earthquakes themselves), two of the researchers could show empathy in the way that they connected with the specifics of the earthquakes, whereas our co-researchers and video crew (who had not experienced the earthquakes) could play the naive outsiders. The school had asked that the children be interviewed in small groups. This also helped break down barriers as the children added to, interrupted and commented on each other's stories. This supported our triangulation of events and added to the depth and variety of responses. In Mutch (2013a) are many examples of the vividness of the details they remembered and wanted to share—sights, sounds, smells and feelings. The resultant video and audio footage covers the gamut of emotions and provides a poignant insight into children's stories, perspectives and opinions. The final editing of the video clips was done by the video team and the researchers transcribed and wrote up the school's earthquake story. This was *child-focused* research; research that was *on* and *about* children.

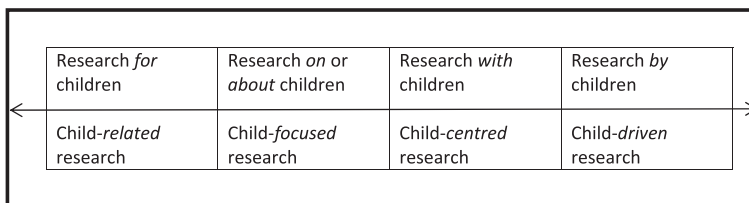


Figure 1. Continuum of engagement of children in research.

Riverside's project required children and adults to work together. The community had already embraced the memorial garden and seating idea, and had prepared the site and planted shrubs rescued from red-zoned properties. Two researchers facilitated the brainstorming of initial ideas and shaped these into working diagrams. One researcher used his arts-based skills to draw out possible ideas using analogy and metaphor to help children visualize the possibilities. The other researcher took the children's ideas and put them together in a way that would assist a visual artist to turn them into mosaic designs. We checked back in with the children at the end of the brainstorming session and again a week later when the initial sketches had been shaped into four panels. The researchers have now arranged for a local artist to work with the school to cut and fit the tiles and into the mosaic panels. The hope is that the garden will be opened by the end of the year and will be a focal point for the third anniversary of the February earthquake in 2014. This project gave children the upper hand in creating the ideas, designing the panels and completing the mosaic. The role of adults was to take children's ideas and make them workable, but children always had the final say. This fits best along the continuum in the category of *child-centred* research; research *with* children.

In the Beachlands School experience, adults took a supporting role to the children's leading role. The trainee film producer was chosen carefully. Not only did he have the skills that the children needed, he was young and less of an authority figure than the teacher with oversight of the project or the external researcher. While the teacher or researcher were always nearby, the importance of the children building a rapport with an adult who worked alongside but not in charge of them was significant in the project's success. After several days of learning to use the equipment and practicing the roles of camera operator, producer, interviewer and interviewee using their own stories, the four children who comprised the production team were ready to begin their task in earnest. To set the scene for each story, the interviewees could select a backdrop that was relevant to them. This even included taking the school van to the beach where a group of students had been involved in a 'Face your fears' challenge in response to the September earthquake when the February earthquake struck. Regardless of their particular experiences, the children were remarkably candid. They talked of expecting life to flash before their eyes, of their anxieties for their immediate families and pets, of the drama of the earthquake's physical upheaval and of the range of human responses and emotions they observed. Interestingly, the experience of being interviewed by their peers also provided insights as interviewees told their peers that they now felt brave enough to tell their story or that it was alright to tell a happy story about the earthquake. These comments reveal how adults may have intentionally or unintentionally kept children inside the passive victim role. When children talked to their peers, they felt as if they could be themselves, and take more control of how they framed their own stories. This project exemplifies *child-driven* research; research *by* children.

The role of schools in supporting children's emotional processing of disaster events

Two important messages are emerging from this aspect of the project. Firstly, with careful facilitation, children not exhibiting high levels of anxiety can draw on their personal experiences of traumatic circumstances as they engage in emotional processing activities. It is important to reiterate that the researchers were not setting out to be counsellors providing therapy. Nor were the strategies focused on unhelpful rumination of past events. Each activity was designed to increase the distance between the actual event and the child's description of it (Cahill et al., 2010).

At Hillview, the children explained to imaginary bushfire children in Australia what an earthquake was like, what they wanted to tell their grandchildren that they were most proud of or how the city could be rebuilt better than before. Each of these retellings or ideas put their stories into a much larger context. Their story or idea was contributing to something far beyond their own personal experience. These careful rehearsals and structured conversations (Prinstein et al., 1996) supported their psychological absorption and journey to a new normalcy.

At Riverside, the children were placing the events into a historical timeline—their town in its early days and then before, during and after the earthquakes. Using an arts-based format (designing the mosaic panels) they explored key ideas through symbols, motifs, metaphors and analogies (Cahill et al., 2010). Telling their stories in this way was not only emotionally powerful but supported their ability to gain perspective on the events and their place in them. They also acted as participatory citizens who were creating something of worth not just for themselves but for their whole community, now and in the future.

At Beachlands, the activity benefitted not only the four children who produced the school's documentary, but each of the children who participated. This was not a simple recollection of events; it was a staged re-creation according to each interviewee's wishes. As the interviewees chose their location, discussed the way they wanted to tell their story and rehearsed parts of it, they were able to take agency for the way in which it would be framed and recorded for posterity. Once the camera started rolling, they became storytellers, not just of their stories, but of the story of one of the cast of many thousands of people who were all part of the larger story of the Canterbury earthquakes.

The second important message is that schools have a role to play in providing opportunities for this emotional processing and can engage children in research about the event in a range of ways that supports this processing. The literature highlights three important strategies for supporting children's recovery—returning to normal routines, providing distraction from rumination and emotional processing (Tarazona & Gallegos, 2011; Cahill et al., 2010; Prinstein et al., 1996). Schools in Canterbury applied the first two strategies really well. Despite the odds, schools were up and running in several weeks, whether on their own sites, in temporary locations or on shared sites. The children told us how important it was to get back to school to see their friends and teachers, and do normal things. They were also aware that their teachers provided opportunities to do more 'fun' things that kept them occupied. While children did write and draw accounts of the earthquakes not long after they happened, these activities became less frequent. Our experience was not that children were 'over the earthquakes' but that they were ready to move to a new level of awareness, understanding and engagement—and the projects we facilitated allowed them to do that.

In summary, this article has provided three examples of ways in which schools have assisted children's emotional processing through varying degrees of engagement in disaster-related research. While there are cautions around the ethics and practicalities of involvement in such endeavours (see Tarazona & Gallegos, 2011, for example) we would encourage school communities within the optimal 12–24 month period (Borne-misza, Griekspoor, Ezard, & Sondorp, 2010) to consider how engagement in collaborative and participatory projects might assist their students in the recovery process while creating something significant and long-lasting for their communities.

As researchers, we too have benefitted from this emotional processing. We had moments of laughter and moments of tears. We heard stories of courage and stories of fear. We saw pictures of shattered buildings and ones with light and hope. We were con-

stantly struck by children's candour, creativity and thoughtfulness. Their descriptions were vivid and their insights powerful. That we were able to help them represent their stories in ways that will become part of their personal and community histories was a privilege. One boy drew a picture of a boat. When asked what it represented, he said it was 'sailing through a river of emotions' and where was it going—'to calmer seas'. And our wish is that Christchurch's long journey of recovery also finds calmer seas and a brighter future.

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