



Contents lists available at [ScienceDirect](http://www.sciencedirect.com)

# International Journal of Educational Development

journal homepage: [www.elsevier.com/locate/ijedudev](http://www.elsevier.com/locate/ijedudev)



## The role of schools in disaster settings: Learning from the 2010–2011 New Zealand earthquakes

Carol Mutch\*

*Critical Studies in Education, Faculty of Education, Epsom Campus, The University of Auckland, Private Bag 92601, Symonds St., Auckland 1150, New Zealand*

### ARTICLE INFO

*Keywords:*

Natural disasters  
Disaster recovery  
Educational leadership  
Community development

### ABSTRACT

This article draws from detailed qualitative case studies of five schools as they responded to the devastating earthquakes in Christchurch, New Zealand throughout 2010 and 2011. Three key themes emerged from a cross-case analysis. The first theme is the place of the school in a community's disaster response and recovery. The second is the leadership role of principals and teachers in disaster response and recovery. The final theme is how schools support the emotional recovery of staff and students. The article concludes with recommendations for wider recognition of the potential that schools hold for disaster response and recovery.

© 2014 Elsevier Ltd. All rights reserved.

### 1. Background

On September 4, 2010, a 7.1 magnitude earthquake hit the Canterbury region of New Zealand causing widespread damage to the city of Christchurch and surrounding districts. The earthquake was to be followed by over 12,000 aftershocks over the next three years, including several over magnitude 6. The most destructive was on February 22, 2011, which was centred closer to the city of Christchurch and with an upthrust of twice the force of gravity. It demolished the city's business district, killing 185 people and injuring thousands more ([Canterbury Earthquakes Royal Commission, 2012](#)). All educational institutions, from early childhood centres to universities, were closed for several weeks following both the two major earthquakes of September 2010 and February 2011 ([Education Review Office, 2013](#)). As the region came to terms with the death and destruction, getting schools up and running again became a government priority. This meant that schools, many of which were already being used as temporary community response centres, were thrust into significant disaster recovery roles for which they were largely unprepared. Principals and teachers took up the challenge despite the loss or damage they faced in their own lives. This article draws on qualitative research funded by UNESCO and the University of Auckland in which five primary schools were followed over a period 18–24 months from

early 2012. The study provides an insight into how schools undertook their disaster response and recovery roles. Three themes from the cross-case analysis of the five schools are shared in this article. These themes explore the place of the school as a community hub for disaster response, the role of principals and teachers in disaster response and recovery, and the centrality of the school in supporting the emotional recovery of staff, students and their families. The lessons learned contribute to a growing understanding of the role of schools in disaster response and recovery.

While large-scale disasters have often been seen as the domain of developing countries or generally located in the Asia-Pacific region ([Ferris and Petz, 2012](#); [Smawfield, 2013](#)), climate change has increased the likelihood of extreme weather events across the world, impacting on all continents and including highly developed nations ([Back et al., 2009](#); [Gibbs et al., 2013](#); [Lee, 2013](#)). The Brookings Institution, for example, reported on the costly disasters of 2011 (earthquakes in New Zealand, floods in Australia, the triple earthquake/tsunami/nuclear disaster in Japan and a series of severe weather-related events in the US). They titled their report as *The year that shook the rich* ([Ferris and Petz, 2012](#)) signalling that the economic status of countries does not provide immunity from disaster.

Definitions of disasters abound. Some definitions focus on the causes of disasters. [Ferris and Petz \(2012, p. XIX\)](#) state that disasters are: "... the consequences of events triggered by natural hazards that overwhelm local response capacity and seriously affect the social and economic development of a region." Other

\* Tel.: +64 9 623 8899, mobile: +64 27 836 5150.  
E-mail address: [c.mutch@auckland.ac.nz](mailto:c.mutch@auckland.ac.nz)

definitions focus more on the effects of the disaster. Bonanno et al. (2010, p. 5) state that: “Disasters cause harm, destroy property, and disrupt survivors’ lives in myriad ways.” Common themes across definitions are the suddenness, unexpectedness, lack of preparedness, size of the event and ensuing damage, inability of existing systems to cope, large-scale death or dislocation, and often lack of immediate access to food, water, shelter and medical aid (Cahill et al., 2010; Ferris and Petz, 2012; Ferris et al., 2013; Smawfield, 2013; Winkworth, 2007). A feature of disasters is also the way in which they change the lives of those most affected, both individually and collectively. Winkworth (2007) talks of “. . . the sense that a group of people make of the event – a shared identity that they have, together, been affected by a major catastrophe” (p. 17).

The disaster that is the focus of this article is a series of earthquakes. What differentiates earthquakes from many other disasters caused by natural hazards is that there is no warning, as there would be with a storm, for example (Ferris, 2010). Although in an earthquake-prone country, it had been many years since Canterbury had experienced serious damage and with the known major fault lines hundreds of kilometres away, the inhabitants were not attuned to large earthquakes as a possibility (Canterbury Earthquakes Royal Commission, 2012).

An earthquake is also not a single event but rather one or more major jolts followed by aftershocks decreasing in magnitude over several years but with the constant possibility of another major tremor. In Canterbury, there were five major earthquakes over a period of sixteen months (September 2010, December 2010, February, 2011, June 2011 and December 2011) (Canterbury Earthquakes Royal Commission, 2012). Aftershocks have continued into 2014. The on-going nature and unpredictability of earthquake aftershocks increases the likelihood of further damage and keeps people in states of hyper-alertness or anxiety, which are not psychologically healthy for prolonged periods (Lazarus et al., 2003b). The other factor that makes earthquakes different is that there is no clearly defined endpoint. In the case of the Canterbury earthquakes, this made long term decision making very difficult. Insurance claims and rebuilding programmes have been delayed increasing anxiety and dislocation.

The longevity of the earthquake sequence and the strength of the vertical thrust, make the Canterbury earthquakes unusual (Canterbury Earthquakes Royal Commission, 2012). Another unusual factor was the prevalence of liquefaction following each major jolt (sand, silt and sludge, often mixed with sewage from broken pipes, forced up through cracks in the ground by the force of the earthquake, which spreads quickly and re-solidifies) (Canterbury Earthquakes Royal Commission, 2012). These factors sit alongside the huge physical, social, emotional and psychological toll that any major disaster takes on its victims. It was in this context that the research described in this article was undertaken.

## 2. Literature review

The literature on the role of schools in disaster settings can be grouped into three categories.<sup>1</sup> First, there is the largest body of literature which focuses on the role of schools in disaster risk reduction and readiness. Much of this literature is instructive, in that it tells schools what they *should* do, although there are also descriptive case studies of what schools are doing. Second, there is a much smaller body of literature that describes the role of schools in disaster response situations. This literature consists mainly of case studies and narratives of how schools have coped with disasters that have hit them or their communities. The final set of literature is the smallest and focuses on the school’s role in disaster recovery. There is, however, a large related body of literature from

the field of psychology, which deals with trauma-related symptoms and how schools can support students’ psychological recovery. To keep the review relevant to this article, only the disaster response and recovery literature is discussed here.

### 2.1. Schools and disaster response

As schools are located in centres of population, large and small, a disaster affecting a community will impact on local schools. Not only might schools be affected by a natural disaster along with the rest of the community, they are now the site of school-centred tragedies, such as shootings or bombings. US school psychologists, Lazarus et al. (2003a) have written extensively on how schools can prepare to respond to different crises. They note that children look to significant adults for guidance on how to respond to a crisis, during and after the event. A calm approach in a stable environment can help children adjust and even “transform a frightening event into a learning experience” (p. 1).

Much of the literature in the school disaster response category features descriptive accounts of how schools coped with unexpected disasters. In 2008, for example, a group of New Zealand school students and their instructor were swept away and drowned in a flooded river. The principal needed to deal with multiple priorities. Details of what happened came though in a haphazard and fragmented way. He had to liaise with police, families, media, the Ministry of Education and his own staff. He needed to draw on his skills as a leader and the trust, respect and relationships that he had already established to bring his school through this tragic time (Tarrant, 2011a,b). Similarly, school psychologists in Israel, following suicide bombings in 1996, needed set up an information hotline, accompany victim’s families to the morgue, liaise with schools where students or staff might be related to the victims in some way and help teachers plan how to debrief the situation when students returned to school (Stein, 1997).

Many vivid accounts have come out of the 2011 triple disaster in Japan, which hit on a school day. As the Japanese are used to earthquakes and their buildings are built to relevant specifications, despite the size of the earthquake off the coast of Japan on March 11, 2011 (magnitude 9), there were no reported school fatalities that were related to the earthquake (Parmenter, 2012). The tsunami that followed, however, was to test school leaders as never before. They needed to decide whether to evacuate to the highest level of their building, to go to an evacuation centre, or to leave the school and go to higher ground. In most cases, they made life-saving decisions. Many of the 500 children who died in the tsunami had already gone, or were on their way, home from school. Parmenter (2012) describes the teacher’s role in the following days with those who survived: “Teachers looked after cold, hungry, frightened children in schools where there was no food, no electricity, no heating, and no water until family members came to get them” (p. 10).

Other accounts tell similar stories. A teacher at Ogatsu Primary School tells of how students responded well to the earthquake, taking refuge under their desks and later assembling in the schoolyard. The tsunami alarm then sounded and the decision was made to head for the shrine on the hills behind the school. From there they sheltered in a waste disposal plant using cardboard to make beds on the floor. They encouraged the children to sing songs to keep their spirits up. The next day they found their way down the hill to find their town completely destroyed (Ema, 2013). At Ishinomaki Special Needs School, staff needed to remain at the school to look after students who were unable to return home, as well as members of the local community who were dislocated by the tsunami. They were even asked to look after twenty frail elderly people whose beds in the local hospital were needed for emergency patients. All this in freezing temperatures with limited

<sup>1</sup> An expanded literature review can be found in Mutch (2014).

Download English Version:

<https://daneshyari.com/en/article/6841283>

Download Persian Version:

<https://daneshyari.com/article/6841283>

[Daneshyari.com](https://daneshyari.com)