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Disasters and Learning

This book is about learning that aims to help keep people safe and minimise damage in disasters. Drawing on evidence from a range of sources, it provides guidance on how to tailor disaster-related learning to local communities.

The book offers a bridge between academic theory and research, and disaster learning practice. It enables practitioners to prepare effective disaster learning plans, programmes, and activities.

Prior to commencing discussion, it is important to define some key terms used throughout the book.

1.1 Hazard

According to the United Nations Office for Disaster Risk Reduction (2017), a hazard is a ‘process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation’.

Hazards include biological (e.g. diseases, mosquitoes carrying disease-causing agents), environmental (e.g. chemical, natural, and biological hazards), geological (e.g. earthquakes, volcanoes, landslides), hydrometeorological (e.g. tropical cyclones/hurricanes/typhoons, floods, droughts, heatwaves, wildfires), and technological processes and phenomena (e.g. transport accidents, dam failures, factory explosions, and nuclear radiation). Some hazard typologies also include terrorist attacks and human conflict.

More broadly, hazards can be classified as ‘natural’ or ‘anthropogenic’. However, some ‘natural’ hazards can be augmented by human activities (Kelman 2018). For example, a levee built to mitigate flood hazard may exacerbate flood depths and velocities elsewhere. This book focuses mainly on natural hazards.
1.2 Disaster

There are numerous definitions of ‘disaster’ in the literature, although most involve the concept of a community impacted by a hazard (or multiple hazards) not being able to cope by itself and requiring external assistance to recover.

The United Nations Office for Disaster Risk Reduction (2017) defines a disaster as ‘a serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts’.

‘Emergencies’ differ from disasters in that they relate to ‘hazardous events that do not result in the serious disruption of the functioning of a community or society’ (United Nations Office for Disaster Risk Reduction 2017).

Countries and jurisdictions within countries around the world have different criteria for declaring disasters and these can be influenced by political considerations. An analysis of global disasters between 1998 and 2017 (Centre for Research on the Epidemiology of Disasters 2018) found the following:

- Climate-related (hydrometeorological) and geophysical disasters killed 1.3 million people and left a further 4.4 billion injured, homeless, displaced, or in need of emergency assistance.
- While the majority of fatalities were due to geophysical events, mostly earthquakes and tsunamis, 91% of all disasters were caused by floods, storms, droughts, heatwaves, and other extreme weather events.
- In 1998–2017, disaster-hit countries reported direct economic losses valued at US$2908 billion. This has increased from 68% (US$895 billion) of losses (US$1313 billion) reported between 1978 and 1997.

1.3 Disasters Are Socially Constructed

Disaster research shows that the idiom ‘it was a disaster waiting to happen’ rings true. For many years it has been accepted that disasters are caused by underlying societal issues such as vulnerabilities and inequalities, and not by an ‘Act of God’ hazard. As Tierney (2014) states, ‘the origins of disaster lie not in nature, and not in technology, but rather in the ordinary everyday workings of society itself’.

After the destructive 1755 Lisbon earthquakes, in a letter young French philosopher Jean-Jacques Rousseau challenged the great French philosopher Voltaire’s view that the event was how God showed His power, glory, and might. Rousseau noted that nature did not construct thousands of buildings and houses of six to
seven storeys that collapsed in the earthquakes. Some academics claim that Rousseau’s letter to Voltaire symbolised the beginning of the shift in thinking leading to the socially-constructed interpretation of disaster events.

In 1976, O’Keefe et al. used empirical global economic loss data to show that social-economic and not natural factors should be seen as responsible for both the loss of many lives and the loss/damages of assets in the developing world. Since then, numerous researchers (e.g. Burton et al. 1993; Wisner et al. 2004; Bankoff et al. 2007) have demonstrated this interpretation. The United Nations International Strategy for Disaster Reduction (2018) has adopted the critical approach to disasters by suggesting that ‘there is no such thing as a “natural” disaster, only natural hazards’.

1.4 Disasters and Communities

If disasters are socially constructed, then the role of people and their communities should be prominent. ‘Without humans and their pertinent societal spheres, hazards are simply natural events and thus irrelevant; hence much attention should be paid by concerned institutions to people and communities and their capacity to engage with nature, both as a resource and as a hazard’ (Haque and Etkin 2012).

What do we mean by ‘community’ in the disaster context? The term tends to be ambiguous; it is not necessarily only designated by a group of interacting people sharing the same place and similar understandings, values, or life practices. As Oliver-Smith (2005) points out, ‘community’ is a cultural field with a complex of symbols and, as such, possesses an identity and is capable of acting on its behalf or on behalf of those who have a claim on that identity. In that sense, community is not clearly defined and cannot be easily measured.

Titz et al. (2018) argue that ‘community’ is elusive because ‘it either escapes clear definitions or is described by too many, and it is deceiving because it has become so popular in (disaster) research and action that barely anyone bothers to question its legitimacy and usefulness’. These authors contend that ‘community’ should be replaced by more precise concepts such as neighbourhoods or social networks, e.g. a religious or ethnic group.

To support this argument, in this book general reference is made to ‘community education’ with ‘community’ used as a synonym with ‘social’, ‘civic’, or ‘public’ (each of which are used across the world in this sense). In Chapter 11, the community is broken down into community sectors for the purpose of targeting disaster learning. Elsewhere, the community discussed is clearly defined, e.g. a population at risk to a certain probability of flooding.
1.5 Learning

Given that disasters are socially constructed and the role of at-risk people and their communities in disasters is critical, then learning by these people and their communities before, during, and after a disaster is paramount. This contention is supported by the Sendai Framework for Disaster Risk Reduction 2015–2030 (United Nations 2015), endorsed by countries across the world, which in several instances promotes the need for disaster-related learning in its actions, including ‘to promote national strategies to strengthen public education and awareness in disaster risk reduction, including disaster risk information and knowledge, through campaigns, social media and community mobilization, taking into account specific audiences and their needs’.

This book examines the nature of disaster learning and how it can be made most effective.

A major challenge in disaster-related learning is that in comparison to other forms of personal civic learning (e.g. road safety, health, waste management, financial management), a disaster (or even an emergency) may never occur in one’s lifetime. On the other hand, people learn to manage money on a regular basis, to be constantly wary of road and other transport hazards, and to be aware of lifelong risks to their health.

References


