Teaching for disaster mitigation in a time of terrorism: Can the lessons from natural disasters be applied to the New World Order?

John Lidstone suggests a broader approach to education in light of the a new terrorist-initiated environment

Abstract

Over the past 20 years or so, we have gained a great deal of knowledge and experience in both public education as a whole, and that part of public education that can be achieved through the school curriculum. However, while there has been a considerable number of terrorist acts around the world, although fortunately none in Australia, we seem to have little to guide us on the nature of effective public education in terrorist-induced disasters. In this paper, I attempt to draw some lessons from our previous experience in "natural" disaster public education, both generally and at school level and suggest that a terrorist-initiated disaster is qualitatively different from natural and accidentally human-induced disasters. I conclude that to achieve its aim of mitigating such disasters, and to maintain credibility with the public, the disaster management community may have to broaden its approach to school education, distance itself from its political masters and itself become more politically aware.

What do we already know about public education and response to disaster warnings for disaster mitigation?

In 1989, the International Ad Hoc Group of Experts established by the Secretary General of the United Nations to advise on the creation of the International Decade for Natural Disaster Reduction, stated "Knowledgeable and involved people are critical to building a safe society" (Press, 1989). Indeed, the Rationale for the Decade (National Academy of Sciences, 1989) reminded us (para. 51) that successful implementation would require the involvement of all levels of the community, from world-wide to the local

level. That aim was achieved particularly effectively in the school context and much good work emerged in preparing students, not only in the prevention of, preparation for, response to and recovery from disastrous extreme natural events, but also in helping them to appreciate their roles as citizens in creating safer societies. This has been noted earlier (Lidstone, 1996) and more recently observed during the evaluation of the "Blazer to the Rescue" intervention where the majority of young children appear to be exceptionally knowledgeable and involved about the dangers of fire (Lidstone, 2003 forthcoming). However, anecdotally appears to be also true for young children's appreciation of potential dangers from cyclones and other severe storms.

In the context of hazards resulting at the interface of social and natural environments, it has long been accepted the prime objective of public education efforts is to reduce potential loss of life and property and it may seem logical to claim initially that this is precisely the purpose in the case of socio-political hazards. The series of seminars organised by EMA early in 2003 on lessons learned from the 9/11 events in the United States explicitly stated they would focus solely on the management of the disaster itself and would not consider its causes. While this stance may have been appropriate for the intended audience, I should like to suggest that focusing on terrorist events as if they are not part of the global socio-political scene may be perceived as inappropriate as portraying "natural disasters" solely the result of natural events divorced from their social context.

However, before exploring that idea further, I should like to explore the parallels between public education for the mitigation of disasters resulting from natural (and accidentally human induced) and socio-political events. Whatever the basic hazard, the logical approach to public education is for hazard managers to determine those actions by the general populace most likely to mitigate a disaster and then to promote such actions through all available means. These may include public

drills, advertising and, most frequently, pamphlets, posters and even fridge magnets.

A brief survey of such pamphlets for extreme natural events showed they are reassuringly similar wherever their origins and regardless of the hazard being addressed. Pamphlets informing people on appropriate behaviours in the event of earthquakes from California, New Zealand and Australia remind people to stay away from tall buildings if outside and, if inside, not to run outside but to seek safety in bathrooms or beneath doorways and to avoid tall bookcases. Pamphlets concerning cyclones, bushfires or wildfires are similar.

In addition to lists of instructions on appropriate behaviour, many civil defence and similar organisations have tried to increase public understanding of physical processes that may become hazardous. The *Earthquake Awareness for Australians* pamphlet produced by the former Natural Disasters Organisation is a good example. Of the eight pages, six are devoted to information about earthquakes in general and in Australia, the Newcastle event and risk and epicentre maps of Australia. The remaining two give 'duck-and-cover' advice. Previous research (Lidstone, 1994, 1995) has shown that a similar pattern occurs in many geography textbooks used in schools.

In terms of public response to disaster warnings, we may return to the series *Disaster Prevention and Mitigation: A compendium of current knowledge* published by the United Nations in the 1980s. In Volume 12 entitled *Social and Sociological Aspects* (UNDRO, 1986,

p. 41), 23 factors influencing response to disaster warnings are tabulated. Of the 23 factors, those listed in Table 1 seem to be particularly relevant.

The factors listed in Table 1 may be summarised as follows.

People tend to believe and act upon repeated authoritative warnings that come from a demonstrably reputable source, that are consistent with their previous and current experiences, and that provide information they can discuss within their family group. Most people will not take defensive action if they have previously received warnings and had no hazard materialise or when there is little observable evidence of danger.

In this light, response to warnings is best seen as a decision-making process through which people attempt to rationally determine whether or not they are at risk and on that basis decide what course of action to take.

I would assert the various disaster management agencies in Australia are viewed by most people as offering advice with high levels of integrity and consistency—certainly regarding extreme natural events and generally when faced with accidentally human induced hazards. However, when the same agencies are faced with a potential socio-political hazard, the messages received by the public may well become both less authoritative and inconsistent as a direct result of the political nature of the hazard. I will turn to a recent international study that may shed some light on the potential reactions of young people to warnings related to socio-political (terrorist) hazards.

Table 1. Selected factors influencing response to disaster warnings (after UNDRO, 1986)	
1.	Any warning messages broadcasted, especially the early ones, will be accepted at face value only by a minority of the recipients. Most will engage in confirmation efforts for a time.
3.	The closer a person is to the target area of a warning, the higher the incidence of face-to-face communication and the larger the number of sources used in confirmation.
4.	Warnings from official sources (police, fire department etc) are more likely to be believed.
5.	Message content per se influences belief. The more accurate and consistent the content across several messages, the greater is the belief.
8.	The recipient's sense of the sender's certainty about the message is important to belief.
9.	Message credibility is related to what happens in the confirmation process. The response of official sources to questions which call for validation, corroboration, or refutation helps determine believability.
10.	A person is more likely to believe a warning of impending danger to the extent that perceived changes in his physical environment support the contents of the message.
12.	Past experience may render current warnings less credible if disaster is not part of that experience.
15.	As warning messages increase in their accuracy, and/or information about survival choices, and/or consistency with other warnings, and/or clarity about the nature of the threat, the probability of positive response increases.
17.	Evacuation tends to be a family phenomenon. The best way to accomplish evacuation appears to be repeated authoritative messages over broadcast media which stimulate discussion within the family and lead to evacuation (if it is going to happen at all).
23.	Regardless of the content of a warning message, people tend to define some potential impact in terms of prior experience with that specific disaster agent.

Table 2. Australian students' concept of conventional citizenship

An adult who is a good citizen	Totally Unimportant %	Fairly Unimportant %	Fairly Important %	Very Important %
Votes in every election	3	8	34	55
Joins a political party	42	41	12	5
Knows about the country's history	15	30	40	15
Follows political issues in the newspaper, radio or TV	16	34	42	8
Shows respect for government representatives	9	24	49	18
Engages in political discussions	18	48	27	7

(Table 6.1 in Mellor et al. 2001)

Students' perceptions of politicians and political structures in Australia

These comments are based on an international study conducted under the auspices of The International Association for Educational Achievement from 1996–2000 (Torney-Purta, Lehmann, Oswald, & Schulz, 2001), and an analysis of the responses of Australian young people (Mellor, Kennedy, & Greenwood, 2001). The Australian report confirms that the legitimacy of democratic governments depends on the trust of citizens and that 14-year-olds are already members of a political culture. They found that internationally, student responses demonstrated levels of trust and concepts of the responsibilities of government that largely correspond with those of adults as found in other research and that students are moderately trusting of their government institutions. The courts and the police are trusted the most, followed by national and local governments, while political parties are trusted the least.

This is probably good news for Australia where in most disaster plans, the senior police officer present is in charge and disaster management is generally in the hands of local government departments. We might hope that if warnings are given to the public by a member of the police force and advice on appropriate behaviour comes from respected organisations—and the state emergency services appear to command such respect, then there will be a general willingness on the part of the public to act accordingly.

However, it appears young Australians are less trusting of the political system than those of many other countries, and where they do express a level of trust, this trust is usually less enthusiastic than elsewhere. Table 2 represents Australian students' concept of conventional citizenship as recorded by Mellor et al. (ibid, p. 111).

Mellor et al. (ibid p. 112) suggest that young people's view of political engagement as relatively unimportant is further indicated by two thirds rating a citizen engaging in political discussions as unimportant. Presumably this means two thirds of young Australians think you can be a good citizen and not take part in any political discussions. Just half of the Australian students believe a good citizen knows about the country's history, and follows political issues in the press. It seems for Australian students, a good citizen does not have to subsequently discuss these opinions with fellow citizens, or anyone else. Furthermore, the Australian students only positively endorse two of the items on the scale. They believe a good citizen votes and shows respect for government representatives. However, even this is a minimalist position, and Australian youth register significantly below the international mean.

The survey also shows (p. 113) that Australian students (more than young people in most other countries surveyed) hold the joining of a political party in low esteem. It is therefore not surprising that a majority do not expect to join one when an adult and do not expect to be a candidate for any office. However, Mellor et al (ibid) suggest that the results also indicate a disassociation from, and perhaps a disdain for political parties and those who represent them in democratic assemblies. In the context of whether to take action on socio-political hazard warnings that may come from someone overtly in political life, one major factor known to influence potential mitigation behaviour is thus breached.

Trust in government related institutions

Similar attitudes were revealed in the context of trust in institutions (Table 3 below).

Overall, Australian students express trust, albeit in a guarded manner, in most institutions with the exception of political parties who are mistrusted by 70 per cent of students. A total of 59 per cent supported the Government in Canberra, and 60 per cent trusted the National Parliament, although a considerable proportion of students declined to answer these questions and are therefore not included in the percentages shown. The responses to the other three institutions (the police, the courts and local government) showed that a substantially greater proportion trusted them, with many fewer students declining to respond. Additional unscaled items reveal that approximately half of the Australian students trusted the news in the press, the radio and on television most of the time or always, although again they showed significantly lower levels of trust than their international peers.

Mellor et al. suggest (ibid p. 124–5) there is much to ponder in these responses. Trust in the institutions which carry out the democratic procedures of a nation is an essential part of the fabric of a civil society, and some of the institutions do not rate highly with Year 9 Australian students. While in Australia, the greatest trust is placed in the police and the courts, of the rest, the closer to the community is the government institution serving it, the more that government institution is trusted. This is in contrast to the international cohort, where trust in government institutions was much the same regardless of level.

In summary, it appears that Australian youth are not very engaged in their democratic options and certainly not as engaged relative to international peers. While this may be good news for the current cohort of politicians, the picture suggests not only that democracy is somewhat fragile in Australia, but more importantly for the issues of this paper, that the credibility gained by local emergency service organisations in the context of "natural" and other ostensibly "non-political" disasters

such as toxic spills and industrial leakages may well be damaged by closer identification with national politicians who may have a variety of motivations for emphasising or de-emphasising risks from terrorism.

However, all is not negative for the disaster management community. Students' attitudes to conventional citizenship are in contrast to their attitude to what the original study called social movement citizenship. Some 80 per cent of students thought it was important for a good citizen to participate in activities to benefit people, 74 per cent thought the same for taking part in activities to protect the environment and 68 per cent thought citizens should take part in activities promoting human rights. Yet only 57 per cent thought citizens should participate in a peaceful protest against a law believed to be unjust. It seems that Australian students are more inclined to be involved in social movement types of activities than in conventional citizenship activities. This is an important finding since it suggests young people might increasingly look outside the formal structures of governments to find solutions to problems. There is some evidence at the present time to suggest that increasingly young citizens are doing this in the face of globalisation and other trends which they see conventional democratic forces as unable or unwilling to confront, although once again, Australian students are not as engaged as their international peers, although girls score higher than boys on this scale. Despite the efforts of environmental and social educators over at least 20 years, only 24 per cent would engage in that most minimalist political activity of writing a letter to a newspaper about a social or political issues, well below the international mean.

Finally, however, it is possible that the basic thesis of this paper—that a lack of faith in government institutions by the general public (including young people) is potentially damaging to the credibility of the hazard management community, may have been fatally flawed by the findings reported in *The Weekend Australian* of July 26–27 (Stewart, 2003). The paper reported that a survey conducted the previous Tuesday had shown "two-thirds of Australians believe Howard misled them over the reasons for going to war with

Table 3. Australian students' responses to trust in government institutions (Table 6.14 in Mellor, 2001)

How much of the time can you trust each of the following institutions?	Never	Only some of the time	Most of the time	Always
The Commonwealth Government in Canberra	12	29	49	10
The local council or government of your town or city	7	26	56	11
Courts	6	21	53	20
The police	7	15	47	31
Political parties	21	49	25	5
National parliament	12	28	47	13

Iraq—but seem not to care." The writer suggests that, in contrast with the UK and USA where there is talk of Blair and Bush losing the next elections over the issue of trust, "Australians are embracing pragmatism over principle in the war on terror, adopting an attitude that in a dangerous world, the end justifies the means." Exploring reasons for this difference between Australia, the UK and USA, Michael McKinley, an academic from the ANU, is quoted as suggesting "maybe the Australian public just [doesn't] expect much anymore." However, Stewart's article also quotes from a 1997 US congressional report into secrecy and government which stated "Excessive secrecy has significant consequences for the national interest when, as a result, policy makers are not fully informed, government is not fully accountable for its actions and the public cannot engage in informed debate." It is in this context that those responsible for future public education for disaster mitigation, especially as presented through schools, must seek a route between the Scylla of placating their political masters and the Charybdis of losing credibility with their major client group. To move from a classical European to a modern Australian metaphor, they are between a rock and a hard place.

What are the curriculum implications for those who wish to promote disaster mitigation in times of terrorism through the school curriculum?

Curriculum implications can be examined at a number of scales, but to begin at the national scale, I would hope that few people in Australia today are happy with the picture of young Australians' attitudes to participating in the processes of democracy presented by the international survey nor of McKinley's explanation for public lack of concern for the truth behind so many incidents in recent years. If we are to enhance the abilities of our young people to deal with what Lambert (1999) has called a "supercomplex world", and compared with the issues involved with bushfires or cyclones, the fuzzy boundaries between potential and actual terrorist attacks must surely be regarded as supercomplex, then the most important aim of our education system must be to address issues of citizenship. A major report in the UK (*Qualifications and Curriculum Authority* (QCA) UK, 1998) highlighted three strands of education for citizenship that include:

• social and moral responsibility;
• political literacy; and
• community involvement.

Lambert & Machon (2001, p. 187) point out that if the first two of these are to be addressed, then students must be required to question, communicate and evaluate difficult and complex issues which involve power relationships and the distribution of responsibilities

as well as rights and so on. Lambert (1999, p. 14) argues that it is *morally careless* for teachers to teach complex (geographical) issues as if there were "clear cut" answers on the one hand, or, on the other, "no right answers" which can imply to students that "anything goes" and encourage a "who cares?" approach to serious matters. He says "If students were never to experience uncertainties or handle the ambiguities which are part and parcel of searching for a good personal response to supercomplex issues, then their education would fail to contribute effectively to their moral development." Perhaps prescient of the findings on Australian young people's concept of good citizenship, Lambert (1997) characterised morally careful education as "education for conversation", thus identifying communication skills as critical in promoting a capacity to make worthwhile attachments and meaningful distinctions. "Effective communication is the goal of good conversation – with other people but also with data, information technology and images – and good conversation is a method available to us to expose falseness and inaccuracy" (p. 3).

While it may be argued that encouraging such conversations is the precise intention of the Studies of Society and Environment key learning area, created as part of the push towards a national curriculum in the 1990s, I believe that international experience shows such courses lead to an overemphasis on parochial issues as unique rather than enabling students to see larger (and preferably international) pictures. In order to hold conversations that cross cultural and national boundaries, there is a need for commonly agreed forms of language, and these are commonly recognised as the academic disciplines.

Haggett (1990), writing in the context of geography, but of equal relevance to history, reminded us that scholarship consists in a focus on the structure, grammar and syntax of forms observed.

While terrorist-initiated disasters may be studied in a wide range of disciplinary areas, I will suggest some ways in which they might be considered spatially—for instance, through geography. Students may develop conversations on the spatial distribution of various disenfranchised groups, how they come to be disenfranchised, their characteristics, and their responses to those seen as the cause of their disenfranchisement. Various acts of terrorism around the world (both localised and cross-border as well as "brutish" and more subtle forms such as electronic terrorism) and their effects on specific communities may be differentiated and described in terms of spatial distribution of origins and effects.

These discussions can then lead to further conversations on alternatives to terrorism for the perpetrators and alternatives to victim hood for those who are targeted.

Finally, students can engage in conversations on how various societies respond to what has been presented as a global threat, how we can make ourselves less vulnerable to terrorist activities and what can be done to protect ourselves from potential attack while we develop strategies to reduce their probability.

Conclusion

It may appear that such concerns go far beyond the brief of the disaster management community and may expect strong opposition from government functionaries who want to keep control of the national political agenda. However, while the 'duck-and-cover' advice so long regarded as the epitome of natural disaster education may have done sterling service before being replaced by more inclusive citizenship-oriented public education, I do not believe that such approaches have any potential in preparing our young citizens for the situation that has developed post 9/11. The hazard management community has to enter the broader curriculum debate on citizenship, and if it is to do so and retain credibility, it may have to distance itself from its paymasters in both state and national government.

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As a high school geography teacher, John Lidstone had always been interested in hazards and disasters and their management. An invitation to the public education and disaster management conference at Mount Macedon in 1984 cemented the interest, and in his then new role as a lecturer in Education at one of the forebears of the Queensland University of Technology Faculty of Education, he proceeded to write curriculum materials to encourage students to come to terms with hazards in their environment and to research further improvements in disaster management education, especially for young people. His most recent publishing effort is International Perspectives on Natural Disasters published by Kluwer in 2004, with Joseph Stoltman and Lisa DeChano. He regrets that the book is too expensive for most teachers in developing countries – for whom it was originally intended – to afford.

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