

RESEARCH ARTICLE

Continuity and Change in Disaster Education in Japan

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Abstract

This article aims to describe post-war continuity and change in Disaster Education in Japan. Preparedness for natural disasters has been a continuous agenda in Japan for geographical and meteorological reasons, and Disaster Education has been practised in both formal and informal settings. Post-war disaster management and education have taken a follow-up approach, which means that clusters of measures have been developed after critical national-scale disasters have occurred. Following this clustering, with a minor amendment, the article discusses continuity and change of Disaster Education, looking at the different versions of the national curriculum (the Course of Study) at the compulsory school level. It is argued that Disaster Education has always been delivered at school in post-war Japan – this is the continuity – however, its treatment in the curriculum has changed over the years, from the scientific knowledge model, to the civic participation model, to the multi-hazard model, to the every-day life model within broader economic, political and social contexts – this is the change. Through this historical description, the article sheds light on the complexity of the field ‘Disaster Education’, particularly its two-dimensional, namely, ‘the science of disasters’ on the one hand, and ‘life skills for disasters’ on the other. Currently, these two dimensions are addressed within the policy framework of School Safety. It is argued, however, that this complexity has been a challenge in the positioning of DE in the Japanese system. The article concludes by exploring the direction that Disaster Education has been taking since the Tohoku earthquake and tsunami of 2011.

Keywords: Disaster Education, School Safety, preparedness, Japan

Introduction

Disaster preparedness has become increasingly critical to many national governments, although the emphasis given to natural disasters such as floods and earthquakes, and manmade disasters caused by terrorism or infrastructure failure, varies with a country's geographical, political and economic circumstances.¹ In the case of Japan, the country

... is located in the Circum-Pacific Mobile Belt where seismic and volcanic activities occur constantly. Although the country covers only 0.25% of the land area on the planet, the number of earthquakes and active volcanoes is quite high... [and] the country is subject to frequent natural hazards such as typhoons, torrential rains and heavy snow.²

The development of coping strategies for such natural disasters has been essential to the country's protection and development, and the education for disaster [bosai kyoiku] has been practised in both formal and informal settings as part of disaster preparedness.³ Particularly after the Hanshin/Awaji Earthquake (Hanshin earthquake) of 1995, a shared understanding has been developed that the damage caused by a disaster can be reduced, although the disaster itself cannot be stopped. In 2003 the Cabinet Office⁴ set the goal to reduce damage by 50 percent in predicted large-scale earthquakes and in recent years, preparedness has become even more critical because Japan has entered into the quake-active period. This was evidenced by the Great East Japan Earthquake (Tohoku earthquake and tsunami) of 2011. Both the government and the population's interest towards Disaster Education (DE) has significantly increased.

¹ This is evidenced from the findings from the research project, *Critical Infrastructure Failure and Mass Population Response*.

² Cabinet Office, *Disaster Management in Japan* (Tokyo: Cabinet Office, Government of Japan, 2011), 1.

³ Hideyuki Shiroshita and Yoshiaki Kawata, ‘Institutional Problems in Disaster Education in Compulsory Schooling Analyzed from the Historical Transition of the Course of Study (Japanese national curriculum)’, *Journal of Japan Society for Natural Disaster Science* 26, no. 2 (2007); Eiichiro Yoshida, ‘History and View of Safety Education in Japan – A Look at a System’, *Research in Safety Education* 1(1), (2001).

⁴ *Ibid.*, 27.

With this background, this article offers an analysis of the history of DE in Japan, focusing on the post-war period with the following threefold purpose. First, tracing the post-war DE policy in compulsory (Elementary and Junior High School) education, the article discusses what has remained the same and what has changed about the policy. The focus of the article is natural disasters (hereafter ‘disasters’), however, manmade disasters are also discussed to a certain extent in order to contextualise DE. The associated topics of disaster management, preparedness and volunteering are discussed at the generic level in analysing the historical transition of DE. The article recognises some linkages between those areas and DE but does not intend to claim any causal relationships between those areas and DE. Second, through this historical description, the article sheds light on the dual nature of DE – disaster as ‘scientific knowledge’ and disaster as ‘life skills’ – and explores when and why one is emphasised and the other is not. Characterising the changes is also attempted. Third, the article considers which direction DE has been taking since Tohoku earthquake and tsunami. The noticeable effort to further the learning and teaching of ‘living *with* disaster’ is addressed. Through achieving these purposes, it is hoped to contribute to the further understanding of the post-war development of DE in Japan, and also more broadly, to the discussion of current challenges that the field of DE is facing.

The term ‘Disaster Education’ derives from the current multi-hazard policy framework ‘School Safety’, which addresses safety agendas at school including ‘Disaster Safety’. ‘Disaster Education’ comes under Disaster Safety and is divided into two dimensions: ‘Disaster Learning’ taught through subjects such as Social Studies and Science, and ‘Disaster Guidance’ delivered in extra-curricular activities.⁵ The article refers to DE to encompass both dimensions.

The main argument of this study is that DE has always been delivered at school in post-war Japan – this is the continuity – however, reflecting an emphasis on scientific knowledge in the period, and also being influenced by the development of the conception of ‘School Safety’, the treatment of DE in the curriculum has shifted over the years – this is the change. Shedding light on the two-sided nature of DE (‘Disaster Learning’ or ‘the science of disasters’, and ‘Disaster Guidance’ or ‘life skills for disasters’), the study also argues that the legal, policy and conceptual positioning of DE has been challenging, and this has also contributed to the change. In parallel, the study proposes that the change can be associated with the shift from the scientific knowledge model, to the civic participation model, to the multi-hazard model and to the everyday-life model.

The article is structured in the following way. The next section looks at the legal, policy and conceptual positioning of DE within school education. This is followed by a consideration of methodological issues within the study. The remaining part of the article examines the continuity and change in DE in post-war Japan, dividing it into seven periods. The article concludes by elaborating the arguments, and also offers an account of the direction that DE is taking since the 2011 disaster.

Complexity of Disaster Education

This section explains the legal and policy framework of DE in Japan to highlight the complexity of DE as a field of education. The complexity stems from the fact that first, DE involves different areas of laws, second, DE is two-dimensional, and third, DE is positioned within a compound framework of the School Safety policy.

⁵ MEXT, *Development of Disaster Education that Fosters ‘Zest for Living’ at School [‘ikiru chikara’ o hagukumu bosai kyoiku no tenkai]* (Tokyo: MEXT, 2013), 5-6.

In terms of laws, there are three major laws that are related to DE.⁶ The first is the Disaster Countermeasures Basic Act, which requires designated public organisations to write Disaster Management Operation Plans, and prefectural and municipal governments to produce Local Disaster Management Plans. In the Ministry of Education, Culture, Sports, Science and Technology's (MEXT) Disaster Management Operation Plan,⁷ their role is defined in relation to DE. MEXT must 1) organise expert meetings to gain information for developing DE policies, 2) make decisions about the inclusion of DE within the Course of Study, 3) create guidance and teaching materials and distribute them to schools, and 4) provide teachers with leadership training on disaster knowledge and skills.⁸ The act obliges prefectural and municipal governments to include education and training for disaster preparedness in their Local Disaster Management Plans. The Boards of Education at the prefectural and municipal levels then instruct schools on how to provide pupils with DE.⁹

The second law is the School Education Act, which establishes the system of school education in Japan. It is stipulated in this law that school subjects are regulated through the national curriculum, 'the Course of Study (CoS)', for which MEXT is responsible. In discussing school curriculum policy in Japan, one has to examine the CoS to which all schools must adhere.¹⁰ How the CoS has developed in Japan requires some explanation. When World War II ended, a new national curriculum was developed under the instruction of the General Headquarters, the Supreme Commander for the Allied Powers (GHQ) and introduced in 1947. Since then, the CoS has been revised seven times as an outcome of each educational reform: 1951, 1958, 1968 (Elementary School)/1969 (Junior High School), 1977, 1989, 1998, 2008. The implementation of each CoS has taken place a few years after the enforcement to allow time for preparation. For example, the most recent 2008 CoS was implemented in 2011. Another important point to mention with regard to the CoS is that DE has never been an independent subject defined in the CoS, although making DE an independent subject has been debated particularly since the 2011 disaster.¹¹

DE comes under the School Health and Safety Act,¹² which is the third law to be discussed. The act stipulates a multi-hazard policy framework called 'School Safety'. 'Safety' is regarded as an overarching ethos that school is expected to develop through whole activities. The act obliges every school, with guidance from MEXT, to develop and implement a School Safety Plan, responding to the school's needs.

Beside the fact that DE is positioned within these three laws, how it is conceptualised adds even more complexity to the field. As Figure 1 shows, there are three domains in School

⁶ Training targeting specific disasters, such as fire, landslide, flood and tsunami is stipulated in specific acts such as the Fire Service Act and the Flood Protection Act, but the point here is the Disaster Countermeasures Basic Act is the overarching disaster act that defines the disaster management and education system.

⁷ MEXT, 'Disaster Management Operation Plan [bosai gyomu keikaku]', http://www.mext.go.jp/a_menu/shisetu/gyoumu/1329040.htm (accessed 20 August, 2014).

⁸ Aiko Sakurai, 'A Preliminary Study on Disaster Education in Japan: From a Perspective of Disaster Risk Management', *Journal of International Cooperation Studies* 20, no. 2-3 (2013): 147-169.

⁹ e-gov, 'Disaster Countermeasures Basic Act [saigai taisaku kihon ho]', <http://law.e-gov.go.jp/htldata/S36/S36HO223.html> (accessed 20 August, 2014).

¹⁰ Shiroshita and Kawata, 'Institutional Problems in Disaster Education in Compulsory Schooling Analyzed from the Historical Transition of the Course of Study (Japanese national curriculum)':165.

¹¹ The Expert Committee to Discuss Disaster Education and Management Considering the Lessons Learnt From the Great East Japan Earthquake [higashinihon daishinsai o uketa bosaikyoiku/bosaikanri ni kansuru yushikisha kaigi], 'The Expert Committee to Discuss Disaster Education and Management Considering the Lessons Learnt From the Great East Japan Earthquake', Final Report ['higashinihon daishinsai o uketa bosaikyoiku/bosaikanri ni kansuru yushikisha kaigi' saishu hokoku]', http://www.mext.go.jp/b_menu/shingi/chousa/sports/012/toushin/1324017.htm (accessed 22 August, 2014).

¹² e-Gov, 'School Health and Safety Act [gakko hoken ho]', <http://law.e-gov.go.jp/htldata/S33/S33HO056.html> (accessed 20 August, 2014).

Safety: ‘Everyday Safety’ (accidents which involve school facilities and equipment, and criminal offense), ‘Traffic Safety’ and ‘Disaster Safety’. Each domain has a sub-structure.

[Figure 1 near here]

Figure 2 is the sub-structure of Disaster Safety, which comprises ‘Disaster Education’, ‘Disaster Management’ and ‘Coordinated Activities’. Disaster Education is then divided into ‘Disaster Learning’ and ‘Disaster Guidance’. The former aims to enhance understanding of disasters through curriculum subjects such as Physical and Health Education, Social Studies and Science; the latter aims to foster ‘appropriate judgement and behaviour’¹³ towards disasters through Extra-curricular Activities or as school events. The reason for the reference to Moral Education is its high relevance to DE, represented in the themes such as respect for life and public duty.¹⁴ The suggestion here is that School Safety is not a straightforward policy framework because of the number of concepts it contains that cannot be communicated without further explanation.

[Figure 2 near here]

The complexity of the legal and policy framework of DE has made it particularly challenging for policy-makers, academics and practitioners to deal with DE in the school curriculum, as the historical section below demonstrates. Before that, the next section discusses the methodology of the study, including its strategies for handling the complexity described in this section.

Strategy for researching Disaster Education

Extensive pieces of research have already been undertaken in the area of DE in Japan, but there are very few longitudinal studies on the field itself. Some key features of the publications can be summarised as follows. First, a number of studies aim to develop ‘tools’ for disaster prevention and mitigation (for example, Katada et al.¹⁵). A reflection on the experience of a particular disaster or an affected area is also common (for example, Sato et al.¹⁶). In terms of historical studies, Shiroshita and Kawata’s¹⁷ provide one of the few longitudinal analyses of national-level DE, examining the post-war transition in its treatment. The quantitative side of their method examined the inclusion of disaster-related terminologies in the subjects in different versions of the CoS. The finding was supplemented by a qualitative in-depth analysis of the learning objectives of the subjects which included disaster contents. Another historical piece is Yoshida’s¹⁸ work which touches upon DE, but the main focus lies on tracing the historical transition of Safety Education, not DE.

The study deploys the following strategy in dealing with the complex nature of DE which was discussed in the previous section. First, MEXT’s terminology for the two dimensions of DE – ‘Disaster Learning’ and ‘Disaster Guidance’ – is replaced with ‘the science of disasters’

¹³ The literal translation ‘practical attitudes and abilities [jissenteki na taido ya noryoku]’; MEXT, *Development of Disaster Education that Fosters ‘Zest for Living’ at School [‘ikiru chikara’ o hagukumu bosai kyoiku no tenkai]*, 6.

¹⁴ *Ibid.*, 5-6.

¹⁵ Toshitaka Katada et al., ‘Disaster Education For Owase Citizen By Using Tsunami Senario Simulater and Evaluation of That Method’, *Research Journal of Social Engineering* 2 (2004): 199-208.

¹⁶ Takeshi Sato et al., ‘Survey of the Damage of and the Measures Undertaken at Schools at the Time of the Great East Japan Earthquake’, *Safety Education Research* 12, no. 1 (2013): n. p.

¹⁷ Shiroshita and Kawata, ‘Institutional Problems in Disaster Education in Compulsory Schooling Analyzed from the Historical Transition of the Course of Study (Japanese national curriculum)’: 163-176.

¹⁸ Yoshida, ‘History and View of Safety Education in Japan – A Look at a System’: 3-17.

and ‘life skills for disasters’ respectively to clarify what exactly DE indicates. Second, the study looks out for in each CoS 1) the volume of teaching content of DE, and 2) in which subjects DE was taught. Third, in parallel, the development of DE as ‘safety’ is examined because of the current School Safety framework.

This study is mainly a documentary analysis, and its data comprises the following. DE and Safety School policy, and related laws and archival data on disasters are obtained from Japanese government’s official websites. A narrative is constructed on the basis of interrogating existing literature and the data from expert interviews and seminars. Online resources such as newspaper articles are used to fill the gaps in constructing the narrative.

The article now moves on to look at the transition of DE.

Post-war continuity and change in Disaster Education

It is a widely accepted view that post-war disaster management and education have taken a follow-up approach, which means that measures have been developed in clusters after critical national scale disasters have occurred.¹⁹ Following this clustering, although with a minor amendment, the study discusses continuity and change in DE, looking at the different versions of the CoS at the Elementary and Junior High School level. Table 1 summarises the seven periods.

[Table 1 near here]

1945-1951: Systematising Disaster Education with an emphasis on experience

Large-scale disasters struck Japan before, during and after World War II, each of which resulted in more than 1,000 dead and missing. Seven earthquakes over Magnitude 6 were recorded between 1923 and 1948, with the Kanto Great Earthquake of 1923 being the largest, destroying Tokyo and causing more than 100,000 fatalities.²⁰ Moreover, the devastation of the land caused by the war meant it was vulnerable to floods and landslides.²¹ Under such circumstances, disaster management was a prioritised agenda in tandem with the post-war reconstruction of the nation. The two decades after the war were focused on the development of a legal framework for post-disaster emergency measures.²² The first major act was the Disaster Relief Act of 1947. In the following year, the Fire Services Act and the Flood Control Act were decreed. In the same year, a Magnitude 7.1 earthquake struck the city of Fukui where post-war recovery was underway. 79 percent of the affected buildings in the city collapsed totally. The earthquake revealed the vulnerability of old buildings and weaknesses in architectural regulations. In response to this experience, in 1950, the Building Standard Law was introduced. Other laws relating to disaster prevention, such as the Forest Act 1951, the Seashore Act 1956, the Landslide Prevention Act 1958 and the Act on Special Measures for Prevention in Typhoon-prone Areas 1958, followed one after another.²³

Under the GHQ control, education was considered important in cultivating the new principles of democracy and humanism in the population of Japan. The Basic Act on

¹⁹ MEXT, ‘About School Safety Policy in Japan [nihon no anzen shisaku ni tsuite]’, (2013), a document given at the research interview.

²⁰ Cabinet Office, *Disaster Management in Japan*, 3.

²¹ Kazama (2002) cited in Norio Maki, ‘Proposal for Disaster Management Act in High Seismicity Decades: All Hazards, All Disciplines, and Response to Mega-Disaster’, (2009), *Journal of the Association of Regional Safety [Chiiki Anzen Gakkai Kaishi]*, 11, p.1.

²² Maki, ‘Proposal for Disaster Management Act in High Seismicity Decades: All Hazards, All Disciplines, and Response to Mega-Disaster’, p.2.

²³ Shiroshita and Kawata, ‘Institutional Problems in Disaster Education in Compulsory Schooling Analyzed from the Historical Transition of the Course of Study (Japanese national curriculum)’, 5.

Education²⁴ and the School Education Act²⁵ were enacted in 1947 to establish the foundation of the new education system. The former emphasised the pursuance of Pacifism, humanity and democracy stipulated in the new Constitution of Japan through education.²⁶ The latter established the 6-3-3-4 system,²⁷ compulsory schooling and a national curriculum. The act also brought the notion of ‘safety’ into school education by stating the aim of education as developing pupils’ ‘healthy, safe and happy life’.²⁸

Within this legal framework, the CoS – the first national curriculum – was introduced as a trial in 1947. New subjects of Social Studies and Domestic Science were introduced with the underpinning principles of democracy and experientialism which emphasised problem-solving ability and the connection between pupils’ livelihood and learning at school.²⁹ DE was positioned within Social Studies and envisaged a range of topics, such as perseverance, responsibility and empathy, as well as scientific understanding and development of scientific measures in overcoming disasters. As Shiroshita and Kawata indicate,³⁰ DE in the very first national curriculum was content-rich and well-balanced between ‘scientific knowledge’ and ‘life skills’. Such preparedness for pupils was considered necessary after experiencing a number of disasters prior to, during and shortly after the war.

Following the introduction of the trial CoS, in 1949 the provision of education for health and safety began for Junior High School as part of Health and Physical Education, addressing different types of accidents and the prevention of them.³¹ Some practical skills for First Aid were taught as well, which demonstrated experientialism in the curriculum. However, at this stage, ‘safety’ was not necessarily associated with ‘disaster’.

1951-1959: Shifting from experience-base to knowledge-base

In 1951, the trial CoS was revised to improve linkages between subjects but retained as a non-compulsory guideline. It was still based on the same principles of experientialism and humanism, but the treatment of DE was gradually changing. The content of DE was reduced in Junior High School Social Studies to prioritise other aspects that were thought more necessary. DE was then moved to Science, which indicates the emphasis shifting from social to scientific understanding of disasters.³²

A more significant shift came in the 1958 CoS, the implementation of which was made compulsory. This CoS was a response to the criticism towards experientialism which was blamed for declining academic standards. The CoS emphasised a discipline-based approach that stressed academic abilities and science and technology in order to foster intelligent and healthy Japanese citizens who could be respected in the world.³³ DE was considered less

²⁴ e-Gov, ‘The Basic Act on Education [kyoiku kihon ho]’,

<http://law.e-gov.go.jp/htmldata/H18/H18HO120.html> (accessed 18 August, 2014).

²⁵ e-Gov, ‘School Education Act [gakko kyoiku ho]’.

²⁶ MEXT, ‘Comparison of the revised (2006) and original (1947) versions of the Basic Act on Education [shinkyu kyoiku kihon ho hikaku]’, http://www.mext.go.jp/b_menu/kihon/data/07080117.htm (accessed 18 August, 2014).

²⁷ Six years’ elementary school, three years’ junior high school, three years’ high school and four years’ university.

²⁸ e-Gov, ‘School Education Act [gakko kyoiku ho]’.

²⁹ Shiroshita and Kawata, ‘Institutional Problems in Disaster Education in Compulsory Schooling Analyzed from the Historical Transition of the Course of Study (Japanese national curriculum)’, 169-70.

³⁰ *Ibid.*, 168-9.

³¹ Yoshida, ‘History and View of Safety Education in Japan – A Look at a System’, 5-6.

³² Shiroshita and Kawata, ‘Institutional Problems in Disaster Education in Compulsory Schooling Analyzed from the Historical Transition of the Course of Study (Japanese national curriculum)’, 169.

³³ MEXT, ‘The Process of the Revisions of the Courses of Study [gakushushidooryo no kaitei no keika]’. Available online, http://www.mext.go.jp/a_menu/shotou/new-cs/idea/1304372.htm (accessed 13 August, 2014).

significant in such a curriculum. A geographical understanding of Japan as a disaster-prone country was included as a learning objective, but discussing judgement and behaviour was not. The 1958 CoS was the basis for the present CoS in terms of its subject-based approach and compulsory nature.³⁴

On the other hand, the concept of ‘School Safety’ was developing. For the first time in the 1958 CoS, Physical Education for Elementary School addressed safety knowledge such as the First Aid. For Junior High School, Health Education included a topic about the prevention of accidents and disasters.³⁵ In the following year, the Japan School Safety Council Act clarified that School Safety comprised ‘Safety Education’ and ‘Safety Management’ and that the then Ministry of Education was responsible for its administration. However, it was not until 1975 that the definition of and the approach to School Safety was detailed.³⁶

In the mid-1950s, Japan entered into the high economic growth period, in which academic and technical knowledge was highly valued. The 1958 CoS responded to such needs, keeping the scientific knowledge of disasters, but omitting broader learning ‘for’ disaster. Meanwhile, with an emphasis on developing the healthier and stronger population who contribute to national growth, health and safety was also appreciated, which led to the formation of the new School Safety framework.

1959-1977: Ise Bay Typhoon followed by a focus on science and technology

The next critical disaster was the Ise Bay Typhoon of 1959, which claimed 5,000 victims. Prior to the typhoon, 150 special measures had been enacted following various other disasters. The Ise Bay Typhoon revealed a need for a unified system, and thus the Disaster Countermeasures Basic Act came into force in 1961.³⁷ The Central Disaster Management Council was established, and the Basic Disaster Management Plan was endorsed. As mentioned earlier, the act also required designated administrative and business organisations, as well as prefectural and municipal governments to produce plans. The aim of the act was not only to build the system for the management of disasters, but also to promote education and research.³⁸ The act greatly contributed to the advancement of disaster management by clarifying stakeholders and responsibilities and enhancing coherence amongst existing laws.³⁹ Moreover, it was in this act that the significance of DE was highlighted and involvement in DE at all national, prefectural, municipal and organisational levels was obliged.

Meanwhile, between the second half of the 1950s and the beginning of the 1970s, Japan experienced a period of high economic growth. During this period, education held two aims: ‘modernisation’ which referred to effectiveness in schooling and careful selection of educational contents, and ‘unity and harmony’ which targeted national identity formation. The revised CoS, which reflected those aims, was issued in 1968 (Elementary) and 1969 (Junior High). In this version, the shift from experience-based to knowledge-based was completed and school hours were at their highest, leading the approach to be referred to as ‘cramming education’.⁴⁰

In such a curriculum, which focused on academic knowledge, DE did not have space in core academic subjects, i.e. Social Studies and Science. However, it can be claimed there was a lesson learnt from the experience of the Ise Bay Typhoon, and that there was an effort to

³⁴ Shiroshita and Kawata, ‘Institutional Problems in Disaster Education in Compulsory Schooling Analyzed from the Historical Transition of the Course of Study (Japanese national curriculum)’, 172.

³⁵ Yoshida, ‘History and View of Safety Education in Japan – A Look at a System’, 7-8.

³⁶ *Ibid.*, 4-5.

³⁷ University of the Air, ‘History of Disaster Prevention in Japan’, broadcasted on 27 March, 2013.

³⁸ Cabinet Office, *Disaster Management in Japan*, 8-11.

³⁹ University of the Air, ‘History of Disaster Prevention in Japan’.

⁴⁰ Shiroshita and Kawata, ‘Institutional Problems in Disaster Education in Compulsory Schooling Analyzed from the Historical Transition of the Course of Study (Japanese national curriculum)’, 169.

include DE across non-academic subjects. Substantial ‘disaster and safety’ content appeared in the Health Education syllabus in the 1968/69 CoS.⁴¹ ‘Education for physical and psychological health’ was also redefined to encompass broader health and safety issues and to be instructed across all subject areas. Another development was a new subject, Extra-curricular Activities, which aimed at ‘the safety of pupils’ lives, and the enhancement of pupils’ health’.⁴² These subjects became an excellent place for delivering holistic Safety Education and DE.

While natural disasters continued to hit Japan, from the 1970s, the country saw, through scientific research, a steep rise in the understanding of the mechanisms of disasters and the realisation of damage reduction. There were two volcanic eruptions in the first half of the 1970s. Mt. Sakurajima situated in southern Japan re-entered an eruptive phase in 1972, and in the following year, Mt. Asamayama in the middle part of Japan experienced pyroclastic flows which lasted for several months. These events led to the introduction of the Act on Special Measures for Active Volcanoes, which regulated arrangements for emergency evacuation spaces and ash fall removal, and also promoted research on volcanic phenomena. In 1976, a presentation was made in the Seismological Society of Japan, which predicted a large-scale earthquake in the region of Tokai. Responding to this research, the Act on Special Measures Concerning Countermeasures for Large-Scale Earthquakes and the Act on Special Financial Measures for Urgent Earthquake Countermeasure Improvement Projects in Areas of Intensified Measures were introduced in 1978 and 1980 respectively. Another important piece of research was on the seismic adequacy of buildings. The two earthquakes that struck the offshore Tohoku region in 1968 and 1978 destroyed most of the concrete buildings built prior to the war. Seismic adequacy was reviewed in the Act on Promotion of Seismic Retrofitting of Buildings of 1971, and the Building Standard Law was amended in 1981.⁴³

Such new initiatives based on science resulted in positive statistics that demonstrated a reduction in the levels of damages and fatalities caused by disasters, although the number of disasters remained unchanged.⁴⁴ Confidence grew in Japan that continuous endeavours to enhance countermeasures for disasters and DE were bearing fruit.

1977-1995: School Safety within Yutori education

1977 was not a year in which an influential disaster occurred, and therefore it is not common to split the period of 1959-1995 in two. However, this study takes the view that the period 1977 to 1995 has a significance for the following two reasons. The first is the fundamental shift in education policy from ‘cramming education’ to ‘yutori kyoiku [relaxed education]’ that began with the 1977 CoS.⁴⁵ This shift was a response to the increasing educational problems deriving from the cramming education of the 1950s and the 1960s, which focused on meritocracy based on academic achievement.⁴⁶ A new principle termed ‘yutori’, which literally means ‘room to grow’, became the central educational ‘policy’ and a reduction of school hours and increased school autonomy were indicated in the 1977 CoS. This study suggests that DE was suited well to the principles of yutori education. However, it should be remembered that the implementation of the yutori curriculum began four years’ later, that the cramming curriculum continued until the beginning of the 1980s.

⁴¹ Yoshida, ‘History and View of Safety Education in Japan – A Look at a System’, 7-8.

⁴² *Ibid.*, 9.

⁴³ Cabinet Office, *Disaster Management in Japan*, 3-5.

⁴⁴ *Ibid.*, 2.

⁴⁵ MEXT, ‘The Process of the Revisions of the Courses of Study [*gakushushidooryo no kaitei no keika*]’.

⁴⁶ Okumoto (Kitagawa), K. *Lifelong Learning in England and Japan: A Comparative Analysis* (Saarbrücken: LAP Academic Publishing, 2010).

The second reason for the separation of the period 1977-1995 is the visible development in the School Safety policy. Following the promotion of cross-curricular provision of DE in the 1968/69 CoS, the then Ministry of Education published the first handbook on School Safety in 1972 for the Elementary level and in 1975 for the Junior High level.⁴⁷ The revision of the School Health Act followed in 1978. School was made responsible for the delivery of ‘school safety’, as well as ‘school health’. The act also compelled every school to create a plan for health and safety.⁴⁸

The handbook was revised in 1983/4 and 1993/4. Yoshida⁴⁹ indicates that the 1983/4 version established the foundation of the School Safety policy, with a clear vision and objectives. The emphasis was put on a balanced Safety Education which addressed personal, moral, and physical development, as well as knowledge and skills of safety. Hence, Safety Education was to be provided throughout all educational activities at school. The pillar of yutori education was ‘the development as a whole person’ and such safety agendas could comfortably sit with it. In the version of 1993/4, ‘Disaster Safety’ was made independent from Everyday Safety, and thus the policy framework of Everyday, Traffic and Disaster Safety within School Safety was completed.

Yutori education continued to develop throughout the 1980s. The 1989 CoS emphasised the importance of ‘autonomy’ and ‘creativity’ in pupils, rather than subject knowledge.⁵⁰ As Kariya puts it, the shift from ‘cramming’ to ‘yutori’ curriculum was as dramatic as ‘a pendulum’ swing.⁵¹ Within this fundamental education reform, Safety Education, which emphasised a whole-person approach, was well suited and an environment for implementation of holistic DE was present. It should be noted that a number of scholars including Kariya later criticised yutori education arguing it resulted in the decline of young people’s academic achievement.⁵² However, the point to be made here is despite the widely held view that the policy development and implementation of DE was almost non-existence until 1995 in Japan,⁵³ there was an environment to enable holistic DE at the policy level.

1995-2001: Great Hanshin-Awaji Earthquake, the watershed

In January 1995, the fifth largest city of Japan, Kobe, was hit by a Magnitude 7.3 earthquake. The Great Hanshin-Awaji Earthquake (Hanshin earthquake) brought total chaos to the city and surrounding areas: 6,437 were declared dead or missing, nearly 250,000 buildings were totally/partly collapsed and around 15,000 buildings were totally/partly burnt down by fire.

⁴⁷ Yoshida, ‘History and View of Safety Education in Japan – A Look at a System’, 4-5.

⁴⁸ Ibid., 11.

⁴⁹ Ibid., 9-10.

⁵⁰ Shiroshita and Kawata, ‘Institutional Problems in Disaster Education in Compulsory Schooling Analyzed from the Historical Transition of the Course of Study (Japanese national curriculum)’.

⁵¹ Takehiko Kariya, *The Illusion of Educational Reform [kyoiku kaikaku no genso]* (Tokyo: Chikuma Shobo, 2002).

⁵² Christopher Bjork, ‘Imagining Japan’s “Relaxed Education” Curriculum: Continuity or Change?’, *Reimagining Japanese Education: Borders, Transfers, Circulations, and the Comparative*, in eds. David Blake Willis and Jeremy Rappleye (Oxford: Symposium Books, 2011): 147-169; Ryoko Tsuneyoshi, ‘The New Japanese Educational Reforms and the Achievement ‘Crisis’ Debate’, *Educational Policy*, (2004), 18(2): 364-393; Hidenori Fujita, ‘Education Reform and Education Politics in Japan’, *The American Sociologist* (2000), 31(3): 42-57; Tsuneharu Okabe et al. *University Students Who Cannot Solve Calculations With Fractions [bunsu no dekinai daigakusei]*, (Tokyo: Toyokeizaishinposha, 1999).

⁵³ MEXT, ‘About School Safety Policy in Japan [nihon no anzen shisaku ni tsuite]’; Hideyuki Shiroshita, ‘Towards the Actualisation of Collaborative Learning for Disaster Prevention [bosaikyoku no jitsugen ni mukete]’, in *Safety Science for Disaster Prevention and Reduction – A Proposal in Building a Safe and Secure Society [bosai/gensai no tameno shakaianzengaku – anzen/anshin na shakai no kochiku eno teigen]*, Faculty of Safety Science, Kansai University ed. (Kyoto: Mineruva Shobo, 2010): 98-114.

The earthquake had the most devastating impact since the Kanto Great Earthquake of 1923 which left 105,000 fatalities and missing persons.⁵⁴

The Hanshin earthquake has had a significant impact on Japanese society. Until 1995, the belief was that Japan had succeeded in building an effective system for disaster management based on science – a national project since the Ise Bay Typhoon of 1959. This was demonstrated by a dramatic reduction in the numbers of casualties to hundreds rather than thousands,⁵⁵ however, it was also true that a national-scale disaster did not occur between 1959 and 1995. Both the government and academics have recognised that the Hanshin earthquake was a watershed in the field of disaster management and education,⁵⁶ and a number of lessons were learned from the disaster.

Three particular weaknesses were identified in the area of disaster management. The epicentral earthquake occurred in a densely populated city and destroyed a number of wooden houses, resulting in 80 percent of the total fatalities due to death by crushing.⁵⁷ This led to new laws such as the Act on Promotion of the Improvement of Disaster Control Districts in Populated Urban Districts. The issue of quake resistance was once again raised after Kobe experienced severe damage in the certain areas of tenement housing.⁵⁸ Secondly, the damage of the earthquake increased because of the loss of ‘lifeline’.⁵⁹ It was recognised that the restoration of lifeline – roads, railway, gas, electricity, water, telephone – was critical part of disaster relief, which led to the revision of the Disaster Countermeasures Basic Act, the Basic Disaster Management Plan and other related acts. Furthermore, a working group was set up within the Japan Business Federation [Keidanren] to discuss lifesaving methods and business continuity in an emergency scenario.⁶⁰ Thirdly, a lack of clear communication mechanisms was revealed. The Office of the Prime Minister, as well as government agencies, did not have the means to collect the information from the struck region, let alone to aggregate the information sent by local governments and district offices.⁶¹ Legal experts criticised that the emergency decision-making process set out in the Disaster Countermeasures Basic Act should have been applied.⁶² Emergency communication systems within the government were re-established in the following years, including the creation of the Crisis Management Center in the Office of the Prime Minister.⁶³

Similarly in DE, a number of responses were made in the second half of the 1990s.⁶⁴ First, there was a pressing demand to revise DE at school. MEXT organised an expert committee

⁵⁴ Hyogo Prefecture, ‘The Confirmed Damage of the Hanshin/Awaji Earthquake [hanshin awaji daishinsai no kakutei higai ni tsuite] (Confirmed by the Fire Agency on 19 May, 2006)’, http://web.pref.hyogo.lg.jp/pa20/pa20_00000015.html (accessed 20 August, 2014).

⁵⁵ Shiroshita, ‘Towards the Actualisation of Collaborative Learning for Disaster Prevention [bosaikyoiku no jitsugen ni mukete]’, 99.

⁵⁶ *Ibid.*, 98-114.

⁵⁷ Hyogo Prefecture, ‘The Confirmed Damage of the Hanshin/Awaji Earthquake [hanshin awaji daishinsai no kakutei higai ni tsuite] (Confirmed by the Fire Agency on 19 May, 2006)’.

⁵⁸ Cabinet Office, *Disaster Management in Japan*, 5.

⁵⁹ Central Disaster Management Council, ‘Basic Disaster Management Plan [bosai kihon keikaku]’, http://www.bosai.go.jp/taisaku/keikaku/pdf/20111227_basic_plan.pdf (accessed 20 August, 2014).

⁶⁰ Keidanren, ‘Towards Business Continuity Planning – Overview [kigyo no jigyo katsudo no keizokusei kyoka ni mukete – gaiyo]’, (2013), a document given at the research interview.

⁶¹ Cabinet Office/Hyogo Earthquake Memorial 21st Century Research Institute, *Information Pack of the Lessons Learnt from the Great Hanshin/Awaji Earthquake [hanshin awaji daishinsai kyokun joho shiryoshu]*. Available online, http://www.bosai.go.jp/kyoiku/kyokun/hanshin_awaji/outline/index.html#top (accessed 20 August, 2014).

⁶² Susumu Tsukui, *Large-scale Disasters and Laws* (Tokyo: Iwanami Shoten, 2012).

⁶³ Fire and Disaster Management Agency, ‘Crisis Management in the Cabinet [naikakufu no kiki kanri]’, www.fdma.go.jp/html/intro/form/pdf/kokumin_071130_s2-3.pdf (accessed 20 August, 2014).

⁶⁴ Sakurai, ‘A Preliminary Study on Disaster Education in Japan: From a Perspective of Disaster Risk Management’.

and created a guidebook entitled, *Development of Disaster Education that Fosters 'Zest for Living'* in 1998. This was the first reference document targeting DE, which clarified the position of DE within School Safety and outlined learning and teaching activities addressing each disaster cycle. The document was distributed to every school across Japan. This was followed by the issuing of the 1998 CoS, which reintroduced DE contents for the first time since 1977 in Social Studies and Science at both the Elementary and the Junior High School levels.⁶⁵ This CoS was in fact, the peak of relaxed education, in which the concept 'zest for living [ikiru chikara]' was emphasised. First introduced in 1996 in an education white paper as an antithesis of an excessive emphasis on academic achievement, 'zest for living' indicates the harmonised co-development between 'a healthy body', 'well-rounded character' and 'solid academic prowess'.⁶⁶ The concept has been the pillar of school policy until today. Cramming education which focused on subject knowledge during the economic growth period swung to yutori education which stressed 'zest for living', which then allowed more room for the inclusion of DE.

Another important development in this curriculum was the introduction of a new subject called the Integrated Studies [sogoteki gakushu no jikan], of which purpose was to foster in pupils 'the qualities and abilities needed to find their own tasks, to learn and think on their own, to make proactive decisions, and to solve problems better'.⁶⁷ Schools were expected to develop creative learning and teaching activities which cover cross-curricular themes such as international understanding, environment, health and welfare. Collaboration between school, university and local communities was promoted.⁶⁸ The Integrated Studies was ideal for co-ordinated DE.

Furthermore, 1995 has been called 'the start year of volunteering' in Japan, referring to the new phenomenon of civic participation in voluntary activities in relation to disaster preparedness. There was a steep rise in the number of such activities and the setup of not-for-profit organisations.⁶⁹ The earthquake was thus one of the major triggers for the unique Japanese approach to lifelong learning that emphasises volunteering.⁷⁰ There is also a view that the 1995 earthquake initiated the current model of the civil society in Japan.⁷¹ The most affected city, Kobe, led the movement of a moralistic approach to DE which emphasised 'the way of living, the way of being' based on compassion, mutual help and appreciation of life.⁷²

The 1990s in Japan is often referred to as 'a lost decade'. Japan went through political, economic and social upheavals in the decade which started with the Burst of the Bubble

⁶⁵ Shiroshita and Kawata, 'Institutional Problems in Disaster Education in Compulsory Schooling Analyzed from the Historical Transition of the Course of Study (Japanese national curriculum)'.

⁶⁶ MEXT, 'Introduction', *White Paper on Education, Culture, Sports, Science and Technology* (Tokyo: MEXT, 2012), 2.

⁶⁷ MEXT, 'The Period of Integrated Studies, Elementary School Course of Study [sogoteki gakushu no jikan, shogakko gakushushidoyoryo]'. Available online, http://www.mext.go.jp/component/english/_icsFiles/afieldfile/2011/03/17/1303755_012.pdf (accessed 16 August, 2014).

⁶⁸ Ibid.

⁶⁹ Tsukui, *Large-scale Disasters and Laws*.

⁷⁰ Okumoto (Kitagawa), K. *Lifelong Learning in England and Japan: A Comparative Analysis* (Saarbrücken: LAP Academic Publishing, 2010).

⁷¹ Ryosuke Aota et al. 'Urban Disaster Reduction In the Private Sector: Based On the Lessons From Past Disasters', *Research Report of the Urban Safety Research Center, Kobe University* (2008), 12: 177-183; Katsuko Sato ed., *NPOs and Learning in the Participation-model Society: Social Education in the 21st Century [NPO to sankakugata shakai no manabi: 21 seiki no shakai kyoiku]* (Tokyo: Eideru Kenkyusho, 2001); Katsumi Shiraiishi and Masafumi Tanaka eds., *The World of Learning Which is Expanded by 'the Public' ['Min' ga hirogeru gakushuu sekai]* (Tokyo: Gyousei, 2001).

⁷² Sakurai, 'A Preliminary Study on Disaster Education in Japan: From a Perspective of Disaster Risk Management', 150.

Economy. The 1995 disaster was a watershed and has had an impact on various areas of Japanese society as this section has demonstrated. The approach to disaster preparedness was broadened, incorporating ‘hard’ aspects such as levies and quake-resistance buildings, and ‘soft’ aspects such as education and volunteering. This period saw a rise in civic awareness, and the perception of DE came to encompass scientific knowledge, life skills and collaboration, which can be characterised as a civic-participation model.

2001-2011: Ikeda Elementary School incident and a multi-hazard approach

In the early 2000s, evidence of more proactive disaster management and education could be seen. As Kawata and Shiroshita’s⁷³ research showed, some schools were implementing innovative and co-ordinated DE making the most of the hours of Integrated Studies. Voluntary movements were also growing, and volunteers were mobilised when torrential rains and earthquakes of over Magnitude 6 hit different parts of Japan in the 2000s.⁷⁴ While the lessons learnt from the Hanshin experience were utilised at school, a different aspect of School Safety became a focal agenda in 2001 because of one particular incident. At the Ikeda Elementary School Attached to Osaka Kyoiku University⁷⁵ in suburban Osaka, an intruder came into the classroom, indiscriminately stabbed eight pupils to death and injured 13 pupils and two teachers. Such a brutal killing spree had never happened before. The scale of the event and the fact that the stabbings occurred during school hours at the school site attached to a state university of teacher education shocked the whole nation.

MEXT and schools had to deal with the safety issues raised. MEXT published a series of guidelines and reference materials. The first was an overall reference document entitled *School Safety that Fosters ‘Zest for Living’*, which was followed by manuals specifically targeting the risk management surrounding intruders at school and the psychological care of pupils who have experienced and survived shocking incidents like the one of 2001.⁷⁶

The emphasis on safety at school was projected onto the 2008 New CoS, which claimed to have met the right balance between cramming and yutori curriculum.⁷⁷ ‘Enrichment of the education of safety’⁷⁸ was made compulsory at every level as one of the curriculum foci for the first time. For example, for the Elementary level, it was stated that the guidance for safety should be provided through the subjects such as Physical Education, Domestic Studies and Extra-curricular Activities,⁷⁹ and that the school, the family and the local community should

⁷³ Kawata and Shiroshita (2005) cited in Shiroshita and Kawata ‘Institutional Problems in Disaster Education in Compulsory Schooling Analyzed from the Historical Transition of the Course of Study (Japanese national curriculum)’, 174.

⁷⁴ Japan Meteorological Agency, ‘Major Earthquakes Occurred In/Near Japan Before/After 2006 [nihon fukin de hasseishita higai jishin]’, Japan Meteorological Agency, <http://www.seisvol.kishou.go.jp/eq/higai/higai1996-new.html> (accessed 20 August, 2014).

⁷⁵ Osaka Kyoiku University, ‘About the Ikeda Elementary School Attacked [fuzoku ikeda shogakko jiken ni kanshite]’, Osaka Kyoiku University, http://osaka-kyoiku.ac.jp/president/ike_message.html (accessed 20 August, 2014).

⁷⁶ Ibid.

⁷⁷ Shiroshita and Kawata, ‘Institutional Problems in Disaster Education in Compulsory Schooling Analyzed from the Historical Transition of the Course of Study (Japanese national curriculum)’.

⁷⁸ MEXT, ‘The Key Points of the Revision of the Course of Study [shochugakko gakushushidoyoryo no kaitei no pointo]’, http://www.mext.go.jp/component/a_menu/education/micro_detail/_icsFiles/fieldfile/2011/03/30/1234773_001.pdf (accessed 20 August, 2014).

⁷⁹ MEXT, ‘Overview of the Elementary School New Course of Study [shingakushushidoyoryo gaiyo]’, http://www.mext.go.jp/a_menu/shotou/new-cs/youryou/syo/sou.htm (accessed 20 August, 2014).

cooperate in support for ‘pupils’ development of the foundation which is necessary to live safely, healthily and actively’.⁸⁰

The introduction of the New CoS was followed by legal restructuring for School Safety. In 2009, the School Health and Safety Act, which was originally enacted in 1958 as the School Health Act, was reintroduced to give a direction for operation measures for emergency scenarios at school. The act also obliged every school to develop and implement a School Safety Plan, which was separated from a School Health and Safety Plan, and to encourage collaboration with stakeholders in the local community in enhancing school safety.⁸¹ To help schools develop their individual plans, the updated version of *School Safety that Fosters ‘Zest for Living’* was redistributed to schools in 2010.⁸² The purpose of the multi-hazard approach was to enable individual schools to develop their own plans in response to local needs, while standardising the core practice. The ratio of the Elementary and Junior High Schools which had created and implemented a School Safety Plan rose from 92.3 to 95.7 percent between 2011 and 2012.⁸³ This was one of the indications that more schools were taking the issues of School Safety seriously.

The Ikeda Elementary School incident was a manmade disaster but it brought as large an impact as the Ise Bay Typhoon and the Hanshin earthquake to safety policy at school. The government responded with the same pattern of follow-up approach, giving guidance and implementing measures after the incident occurred. The conception of ‘safety’ was once again revisited, reaffirmed, and as a consequence, a multi-hazard framework for safety at school was introduced, which addressed every possible risk and hazard at school.

2011 - : In search for effective disaster preparedness after the Tohoku disaster

Japan is still in the midst of the recovery from the Tohoku earthquake and tsunami of 2011. The incident was extraordinary for the following reasons. First, it was a Magnitude 9 earthquake - the largest recorded Japan and affected a wide area.⁸⁴ Second, the tsunami which followed the earthquake was also the largest ever – 39.7m was recorded at the highest point⁸⁵ – and it was the tsunami more than the earthquake that led to 18,800 deaths and missing people.⁸⁶ Third, the tsunami triggered the accident at the Fukushima nuclear power plant, which caused unmeasurable damage. The disaster yet again challenged the expertise and confidence in disaster management and education rebuilt after the Hanshin earthquake of 1995.

Education’s response was again to revise DE policy, and MEXT organised an expert committee. The committee issued a set of recommendations which had two specific emphases. The first was a need to shift from ‘knowledge-based DE’ to ‘the nurturing of the ability to behave independently [shutaiteki ni koudou suru taido]’⁸⁷ so as to make decisions flexibly in

⁸⁰ MEXT, ‘General Provisions, Elementary School New Course of Study’, http://www.mext.go.jp/a_menu/shotou/new-cs/youryou/eiyaku/1261037.htm (accessed 20 August, 2014).

⁸¹ e-Gov, ‘School Health and Safety Act [gakko hoken ho]’.

⁸² MEXT, *School Safety that Fosters ‘Zest for Living’* [‘ikiru chikara’ o hagukumu anzen kyoiku], (Tokyo: MEXT, 2010). Available online, http://www.mext.go.jp/a_menu/kenko/anzen/1289310.htm (accessed 20 August, 2014).

⁸³ MEXT, ‘Survey on the Achievement of School Safety Management [gakko no anzen kanri no torikumi jokyo ni kansuru chosa] (Tokyo: MEXT, 2012), n.p.

⁸⁴ Japan Meteorological Agency, ‘The Great East Japan Earthquake – Portal Site [higashinohon daishinsai – portaru saito]’, <http://www.jma.go.jp/jma/menu/jishin-portal.html> (accessed 20 August, 2014).

⁸⁵ Japan Meteorological Agency, ‘About Tsunami [tsunami nit suite]’, <http://www.jma.go.jp/jma/kishou/known/faq/faq26.html> (accessed 20 August, 2014).

⁸⁶ National Police Agency, ‘The Damage Statistics of the Great East Japan Earthquake and the Police Measures’, <http://www.npa.go.jp/archive/keibi/biki/higaijokyo.pdf> (accessed 20 August, 2014).

⁸⁷ The Expert Committee to Discuss Disaster Education and Management Considering the Lessons Learnt From the Great East Japan Earthquake [higashinohon daishinsai o uketa bosaikyoiku/bosaikanri ni kansuru

facing a disaster. This perspective largely derived from the story of ‘Kamaishi no kiseki’ – ‘the miracle of Kamaishi’ – which has been widely discussed in the media, education professionals and policy-makers after the event. The ‘success’ story refers to the survival rate of 100 percent of the Kamaishi Elementary School which was struck by the tsunami. The DE for the school had been designed and delivered by Professor Katada of Gunma University, who focused on teaching pupils to escape leaving everything behind, even family and friends. The pupils reacted exactly in the way they had been taught, and survived. As Professor Katada argued, the principle behind the pedagogy was in an old saying, ‘Tsunami tendenko’,⁸⁸ of the Tohoku region which had encountered a number of tsunamis in the past.⁸⁹ The old lesson, which stresses saving your own life, was re-evaluated and has become central to tsunami education. The emphasis here is DE as the development of life skills. Policy-makers and academics hope that children develop such ‘independent-mindedness’ and strive to enhance disaster preparedness in the local community.⁹⁰

The other emphasis in the recommendations was the creation of a ‘culture of disaster preparedness [bosai bunka]’.⁹¹ It was reported that 20 percent out of the schools affected by the tsunami had fatalities amongst pupils, and those schools did not have a risk management manual in place and therefore, evacuation routes and areas were not learned by both pupils and staff members.⁹² The lesson was that DE must be incorporated into everyday school activities and become part of the school culture. The recommendations were summarised in a revised version of *Disaster Education that Fosters ‘Zest for Living’*, which was distributed to all schools in 2013. It included a number of examples of effective tools of and designs for DE.

Disaster preparedness indeed has become the top national agenda since 2011. Official sources had already predicted between a 60 and 70 percent probability for Tokai, Tonankai, and Nankai, which cover a large part of the Pacific coastal prefectures, and a Metropolitan Epicentral earthquake in the coming 30 years.⁹³ The largest possible damage from one such event is estimated to be 18,000 fatalities, 360,000 totally collapsed houses and 370 billion pounds [57 trillion yen] in economic damage.⁹⁴ The Tohoku disaster reconfirmed that earthquakes of the similar scale would happen. Furthermore, other disasters are of a concern. There are at the moment, 110 active volcanoes in Japan, some of which are said to have a

yushikisha kaigi], ‘The Expert Committee to Discuss Disaster Education and Management Considering the Lessons Learnt From the Great East Japan Earthquake’, Final Report [‘higashinihon daishinsai o uketa bosaikyoiku/bosaikanri ni kansuru yushikisha kaigi’ saishu hokoku].

⁸⁸ ‘Tendenko’ literally means ‘on your own’. The old saying preaches that you must evacuate on your own without thinking about others in order to save your own life. It depends on the understanding and strong trust within the family that other family members are also evacuating to save their own lives, so you are not leaving them behind.

⁸⁹ Yoshinobu Tsuji, ‘99.8 Percent Survival Rate, The Miracle of Kamaishi – The Effectiveness of “Tsunami tendenko” [99.8% no seizonritsu, Kamaishi no kiseki – ‘Tsunami tendenko’ no oshie no tadashisa], Sankei News, 10 March, 2014, <http://sankei.jp.msn.com/science/news/140310/scn14031009350003-n1.htm> (accessed 16 August, 2014).

⁹⁰ The Expert Committee to Discuss Disaster Education and Management Considering the Lessons Learnt From the Great East Japan Earthquake, ‘The Final Report of the Expert Committee to Discuss Disaster Education and Management Considering the Lessons Learnt From the Great East Japan Earthquake’, 7.

⁹¹ Ibid.

⁹² Ibid.

⁹³ Earthquake Research Promotion Office, ‘A Long-term Evaluation of the Earthquake Activities of Nankai Trough, Second Edition [nankai torafu jishin katsudo no choki hyoka dainihan]’, http://www.jishin.go.jp/main/chousa/13may_nankai/nankai_gaiyou.pdf (accessed 20 August, 2014).

⁹⁴ Ryota Aota et al., ‘Urban Disaster Reduction in the Private Sector: Based on the Lessons from Past Disasters’, Research Report of the Urban Safety Research Center, Kobe University, no. 12 (2008): 177-183.

possibility for a large-scale eruption at any time;⁹⁵ and typhoons and torrential rains which lead to landslides have been causing infrastructure damages and fatalities in recent years.⁹⁶

The government has been developing and implementing preparedness measures against such possible disasters. The Abe Administration has introduced a notion of ‘Disaster Resilience’ within a comprehensive policy, ‘National Resilience’, in building ‘stronger’ Japan. The policy encompasses resilience in the fields of the economy, the national infrastructure, energy, and housing, as well as disaster. In building resilience in all these areas, it is proclaimed that the approach has to be ‘all Japan’.⁹⁷ In December 2013, the Basic Law of National Resilience was passed. Article One clearly states that the purpose of the law is to develop resilience in Japan in preparing for national-scale disasters, particularly the predicted mega earthquakes.⁹⁸ The report emphasised that multiple stakeholders must collaborate together in reducing damage and enabling the quickest possible recovery. ‘All Japan’ was emphasised by the education minister as well, who persuaded citizens to engage in learning about and preparing for forthcoming mega earthquakes for the sake of effective preparedness which could only be achieved through the commitment from the whole population.⁹⁹

In tandem with ‘all Japan’, which is essentially a policy slogan, ‘kyojo’ has been widely used since 2011 as a policy term aiming at a new approach to disaster preparedness. ‘Kyojo’, which literary means ‘helping each other’, is part of the four forms of aid: *kojo*, *jijo*, *gojo* and *kyojo*. The common word ‘jo’ at the end means ‘aid’. ‘Kojo’ is aid provided by governments, both central and local, and ‘jijo’ is self-help. ‘Gojo’ and ‘kyojo’ refer to mutual help, and often they are used as synonyms. Strictly speaking, however, the former happens within the community you live in, and amongst family and friends, whereas the latter is ‘philanthropic’ or ‘humanistic’ help to whom you do not necessarily know, which can be in a form of volunteering and charitable activities.¹⁰⁰ Murosaki emphasises that this difference matters because philanthropic aid had not been well developed in Japan and that such aid has to be mobilised in preventing and mitigating foreseen large-scale disasters.¹⁰¹ Thus, both ‘all Japan’ and ‘kyojo’ stress the population’s commitment and cooperation.

A search for effective ways of ‘kyojo’ has been rigorous, and a number of positive efforts based on *kyojo* can be identified. For example, universities have developed programmes for disaster science and safety science in collaboration with local governments and businesses.¹⁰² However, there are sceptics who question the aid framework of *kyojo*, *kojo* and *jijo*. Shiroshita¹⁰³, for instance, argues that it only increases the division of roles, so that

⁹⁵ Japan Meteorological Agency, ‘What is Active Volcanos [katsukazan towa]’, http://www.data.jma.go.jp/svd/vois/data/tokyo/STOCK/kaisetsu/katsukazan_toha/katsukazan_toha.html (accessed 22 August, 2014).

⁹⁶ Japanese Government Public Relations Office, ‘The Landslides Happening All over Japan [nihon zenkoku de hasseishiteiru dosha saigai]’, <http://www.gov-online.go.jp/useful/article/201106/2.html> (accessed 22 August, 2014).

⁹⁷ Cabinet Secretariat, ‘National Resilience Discussion Group [nashonaru rejiriansu kondankai]’, www.cas.go.jp/jp/seisaku/resilience/index.html (accessed 20 August, 2014).

⁹⁸ Cabinet Secretariat, ‘Basic Law on National Resilience [kokudo kyojinka kihon ho]’, http://www.cas.go.jp/jp/seisaku/kokudo_kyojinka/index.html (accessed 22 August, 2014).

⁹⁹ Hirofumi Shimomura, ‘Interview of the MEXT Minister’, Association of Disaster Prevention, <http://www.jbk.jp.net/about.html> (accessed 22 August, 2014).

¹⁰⁰ Masuteru Murosaki, ‘The Current Situation of Disaster Prevention, Volunteering and Kyojo, and Future Expectations [bosai to borantia to kyojo no genjo, soshite kongo eno kitai]’, Keynote Lecture, Disaster Prevention by All in Kobe – Expanding the Network of Kyojo Meeting, organised by the Cabinet Office, 27 January 2013. Available online, <http://www.bosai-vol.go.jp/kyojo/murosaki.pdf>.

¹⁰¹ Ibid.

¹⁰² Examples include the ‘Disaster Science that Protects Life [inochi o mamoru bosaigaku]’ module delivered at Kagoshima University; Safety Science degree programmes offered at Kansai University.

¹⁰³ Shiroshita, ‘Towards the Actualisation of Collaborative Learning for Disaster Prevention [bosaikyoiuku no jitsugen ni mukete]’.

engagement and collaboration do not necessarily develop in society. He argues that a problem with DE has been the hierarchical relationship between ‘experts’ - the leader - and the general public - the follower. Instead, he advocates a different form of DE, ‘collaborative learning [kyoiku]’, which promotes mutual learning.

Conclusion

This final section returns to the three aims of this article. First, the post-war transition in DE policy in compulsory education was outlined. It is argued that DE has been continuously delivered through the seven versions of the CoS, although in which subjects and to what extent has varied. Taking the view that DE has been developed through two strands, one being mainstream curriculum subjects such as Social Studies and Science, and the other being the health and safety policy framework, the study has shown when DE was emphasised or not. One important finding was that during the period of rapid economic growth which overlaps with the cramming curriculum between 1950s and 1970s, the focus lay on scientific knowledge, but the health and safety of pupils was also stressed to build a strong population, and thus DE was taught. By including the analysis of Disaster Safety, this study was able to identify the continuity, disputing the usual view that DE had not existed until 1995, including Shiroshita and Kawata¹⁰⁴ who concluded their study by suggesting MEXT had not been successful in promoting ‘a holistic approach to DE through the post-war period. When the system shifted to yutori, its principle of school autonomy and the emphasis on life skills allowed schools to develop integrated approaches to DE, although to what degree schools actually took up such DE will have to be researched properly. It is acknowledged that the above historical depiction can be further strengthened, but for the purpose of this article, the analysis was able to detect ‘continuity’ and ‘change’.

Secondly, the article has attempted to unpack the two-sidedness of DE. The argument is that DE comprises ‘scientific knowledge’ of disasters and ‘life skills’ for disasters, and this duality has challenged the legal, policy and conceptual framing of DE. MEXT has recognised the importance of holistic provision to encompass both sides, but that has not necessarily been straightforward for schools to achieve through the CoS. The provision of DE has been inconsistent in the post-war period, and this study focused on demonstrating the impact of catastrophic disasters, both natural and manmade, and an economic boom and burst on the shifts in the treatment of DE in the CoS. Other domestic and international contexts have certainly been part of the policy-making process, which would be a large-scale study to increase a historical understanding of DE. The study then aimed to characterise different approaches to DE following periodical clusters. Since the very first CoS in which the two sides had a good balance, DE shifted to the scientific knowledge model in the high economic growth period, to the civic participation model after the Hanshin earthquake of 1995 and to the multi-hazard model after the 2001 Ikeda Elementary School incident. Since the Tohoku disaster of 2011, the current development can be referred to as the everyday-life model, which was the topic of the third purpose of this article.

In the period since 2011, Japan has been in search for more effective DE. The everyday-life model, which can also be termed as the ‘living together [kyozon]’ model, is more than DE based on ‘kyojo’ which promotes ‘helping each other’. The concept of ‘kyozon’ derives from that the population live *with* disasters in Japan, whether in Tokyo Metropolitan which is said to be hit by mega-earthquake soon, or in Kagoshima Prefecture where an active volcano Mt Sakurajima is situated. In this light, disasters are no longer consider as ‘emergencies’ in

¹⁰⁴ Shiroshita and Kawata, ‘Institutional Problems in Disaster Education in Compulsory Schooling Analyzed from the Historical Transition of the Course of Study (Japanese national curriculum)’.

Japan.¹⁰⁵ Both kyojo and kyozon had been talked about before the 2011 disaster, but the argument is that those concepts have become central to disaster policy. Katada, who taught the school pupils of Kamaishi the essential life skill to survival the tsunami, offers a helpful explanation of kyozon; that is, DE must begin with the story of ‘the blessing of the sea’, and move to teach an awe of nature. Starting from the science of the disaster, e.g. why a tsunami occurs, is not recommended because it would only bring fear to the pupils. Such approach is supported by Yamori,¹⁰⁶ who differentiates ‘education *through* disaster preparedness’ as opposed to ‘education *of* disaster preparedness’: the former is the kyozon model which values the relationship between human beings and nature. The study concludes by echoing their point that disaster preparedness needs to be extended beyond the framework of School Safety to be ‘built-in’¹⁰⁷ within daily life. Thus, currently in Japan, both the government and the experts recognise a need to develop a culture of ‘everyday preparedness [seikatsu bosai]’.¹⁰⁸ How this leads to is yet to be seen.

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¹⁰⁵ John Preston, Charlotte Chadderton and Kaori Kitagawa, ‘The “State of Exception” and Disaster Education: A Multi-level Conceptual Framework with Implications for Social Justice’, *Globalisation, Societies and Education*, 12(4) (2014): 437-456.

¹⁰⁶ Katsuya Yamori, ‘Disaster Information and Disaster Education [saigai joho to bosai kyoiku]’, The Record of Memorial Symposium, 14th Conference of the Japan Society of Disaster Information, 28 October, 2012.

¹⁰⁷ Katsuya Yamori, ‘The Current State and Prospects of Disaster Education – 15 Years Since the Hanshin/Awaji Earthquake’, *Journal of Japanese Natural Disaster Science* 29, no. 3 (2010): 291-302.

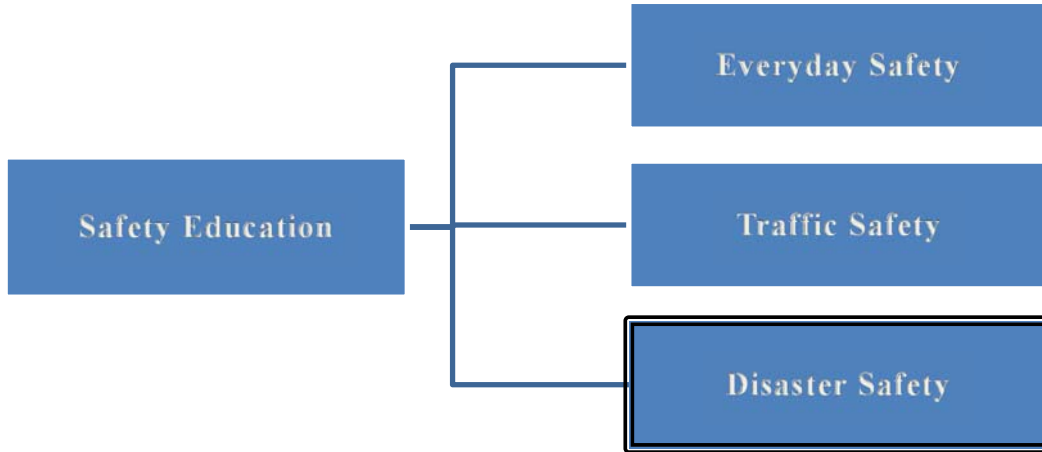
¹⁰⁸ Katsuya Yamori, ‘The Great East Japan Earthquake and “Everyday Preparedness” [higashinihondaishinsai to “seikatsu bosai”]’, Building Maintenance, and Management Center, *Journal Re*, no. 175 (2012): n. p.

Table 1: Post-war transition of Disaster Education

PERIOD AND INFLUENTIAL DISASTER	WIDER CONTEXTS	CHARACTERISTICS OF DISASTER EDUCATION
1945-1951 A NUMBER OF DISASTERS	GHQ instruction based on democratic and experiential values	DE rich in its contents and a good balance between scientific knowledge and life skills
1951-1959	Start of high economic growth	Towards scientific understanding of DE Scientific knowledge model
1959-1977 ISE BAY TYPHOON	High economic growth Advancement of science and technology	DE undermined by cramming education Scientific knowledge model
1977-1995	Recognition of societal problems derived from cramming education Beginning of relaxed education	Potential for DE as life skills through relaxed education Scientific knowledge model
1995-2001 HANSHIN EARTHQUAKE	Impact on various aspects of society Emergence of civil society movements	Revision of DE DE as life skills promoted through relaxed education Civic participation model
2001-2011 IKEDA SCHOOL INCIDENT	Emphasis shifted towards safety	Reorganisation of Safety Education as a multi-hazard subject Multi-hazard model
2011- TOHOKU EARTHQUAKE AND TSUNAMI	Building national resilience by ‘all Japan’	Towards embedded-ness of DE in everyday life Collaborative preparedness Every-day model

(Source: Author)

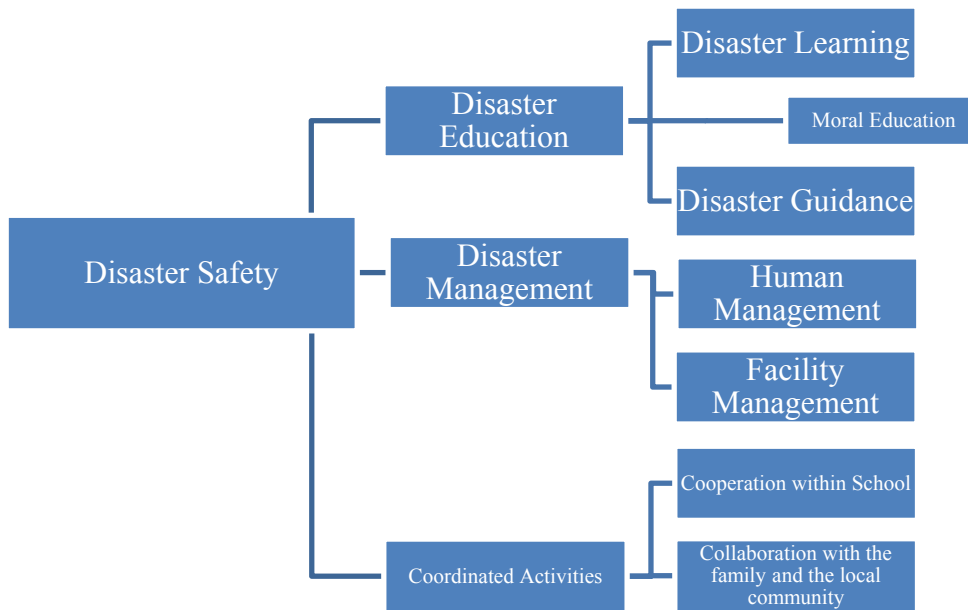
Figure 1: Domains of Safety Education



(Source: MEXT¹⁰⁹)

¹⁰⁹ MEXT, *Development of Disaster Education that Fosters 'Zest for Living' at School* [*'ikiru chikara' o hagukumu bosai kyoiku no tenkai*].

Figure 2: Structure of Disaster Safety



(Source: MEXT¹¹⁰)

¹¹⁰ MEXT, *Development of Disaster Education that Fosters 'Zest for Living' at School* [*'ikiru chikara' o hagukumu bosai kyoiku no tenkai*].