



Disaster Resilience Education: Young Australians for a disaster resilient future

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Disaster risk reduction and resilience

Natural hazards are part of the Australian landscape; a potential threat to the personal, natural, cultural and economic resources which support communities to thrive. In the past ten years, bushfires, floods and cyclones have claimed hundreds of Australian lives. As cities and communities grow and evolve, and weather patterns become more extreme, young Australians can anticipate increasing exposure to hazards, including prolonged heatwaves, severe storms, floods and bushfires.

The reality of increasing disaster risk in Australia is not yet acknowledged in formal education. The lack of a shared vision and overarching strategy for disaster resilience education (DRE) contributes to the vulnerability of children and young people and represents a significant gap in our national efforts to “enhance Australia’s capacity to withstand and recover from emergencies and disasters” (Commonwealth of Australia, 2011).

To develop skilled and resilient communities, young learners need to understand the nature of risk in their local environment and their role in reducing exposure and vulnerability to harm. DRE equips young Australians with the skills and confidence to take protective action before, during and after an emergency or disaster.

Our Vision

DRE offers a vision of young Australians who are empowered to participate as active members in skilled and resilient communities, working to reduce the risk of disaster.

Disaster resilient young people:

- recognise specific hazards and understand risks in their local environment
- learn from the experiences, knowledge, skills and cultural wisdom of others
- demonstrate skills and strategies for staying safe, seeking help and helping others

- practise protective strategies for mental health and personal resilience
- are connected and active in their local community
- respect the environment and make sustainable choices
- consider the needs of others and collaborate to achieve shared goals
- design solutions to prevent hazard events from becoming disasters
- share their learning, opinions and ideas with decision-makers
- participate in actions for recovery in the aftermath of a disaster or other traumatic incident.

Disaster resilient schools:

- are safe and secure environments with effective emergency management arrangements
- are supported to protect, empower and enable the participation of children, before, during and after an emergency event or disaster
- are recognised in their special role as centres of learning, culture, wellbeing and connection for young people, families, educators and staff in diverse communities.

Guiding Frameworks

International, national and local frameworks identify priority actions for disaster risk reduction and resilience. Disaster resilience education is recognised as a key priority in these frameworks.

In a connected world, DRE empowers young Australians as global citizens, acting locally.

Table 1: Key frameworks for Disaster Risk Reduction and Resilience

Document title	Focus
Sendai Framework for Disaster Risk Reduction 2015 – 2030 (UNISDR, 2015)	<p>Priority 1: Understanding disaster risk</p> <p>Policies and practices for disaster risk management should be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment.</p> <p>To achieve this, it is important to promote the incorporation of disaster risk knowledge, including disaster prevention, mitigation, preparedness, response, recovery and rehabilitation, in formal and non-formal education.</p>
Comprehensive School Safety Framework (GADRRRES, 2017)	<p>Pillar 3. Risk Reduction and Resilience Education</p> <p>Address all dimensions of risk reduction education:</p> <ul style="list-style-type: none"> • conducting multi-hazard risk analysis (including those with natural and human causes); • understanding risk drivers and risk mitigation measures; • identifying and disseminating key messages for safety and preparedness; • building community risk reduction capacity; • and developing social cohesion, and a culture of safety and resilience.
National Strategy for Disaster Resilience (Commonwealth of Australia, 2011)	<p>3.2 Understanding Risks</p> <p>Priority outcome: Risk reduction knowledge is included in relevant education and training programs, such as enterprise training programs, professional education packages, schools and institutions of higher education.</p>

The Research

Over the past decade, empirical research from around the world has demonstrated that DRE can deliver a wide range of benefits for young people and their families, including increased awareness of local hazards and disaster risks, increased levels of household planning and preparedness, increased capacity for effective emergency response, and reduced hazard-related worries and fears (Amri et al., 2017; Gibbs et al., 2018; Johnson et al., 2014; Ronan et al., 2016; Ronan & Towers, 2014; Towers et al., 2018). Recent research has also found that quality DRE is associated with a range of beneficial personal development outcomes, including increased confidence and enhanced leadership and communication skills (Towers et al., 2018). Importantly, the existing research further indicates that students highly value the learning opportunities that DRE can provide, with teachers reporting a high level of student engagement in DRE activities (Ronan et al., 2016; Towers et al., 2018).

Disaster Resilient Australia New Zealand School Education Network (DRANZSEN)

The Disaster Resilient Australia New Zealand School Education Network (DRANZSEN) consists of representatives from the education and emergency services sectors, non-government organisations, universities, local government and community groups. This network exists to support and promote action-oriented, collaborative DRE initiatives which reduce disaster risk and strengthen resilience in our communities.

DRANZSEN members recognise the potential of young people as learners, innovators and active community members. By shining a light on best practice in DRE, DRANZSEN demonstrates how collaboration between experts, students and community groups can lead to positive action to protect people and places from harm before, during and after an emergency or disaster.

Resilient Australia Awards – Schools Category

The Resilient Australia Awards, sponsored by the Australian Government in partnership with the Australian Institute for Disaster Resilience (AIDR), promote shared responsibility for resilience by celebrating initiatives that help to prepare communities and reduce vulnerability to disaster events and emergencies. From Claymation to coding, previous finalists in the school category have found creative ways to develop knowledge and skills, empowering students to be agents of change in their communities; often in partnership with local emergency services.



Image: St Ives Primary School student



Image: Still image from Claymation video

Case Study One

PROJECT FIRESTORM ST IVES PRIMARY SCHOOL

The 2017 Resilient Australia Award (school category) went to Sydney's St Ives North Public School for *Project FireStorm*, an integrated bushfire education program with a focus on geography and science. Working with the New South Wales Rural Fire Service, students were supported to develop their knowledge of local hazards and risks by experts in fire and emergency management. In response, students applied their own problem-solving and technical skills to design innovative solutions to reduce exposure and vulnerability to hazards in their community, sharing their learning in an exhibition.

https://www.youtube.com/watch?v=LDCFevw9A_o&t=2s

Case Study Two

IF YOU CARE, STAY AWARE, BE PREPARED STRATHEWEN PRIMARY SCHOOL

Strathewen was one of many communities affected by the 2009 Black Saturday bushfires. In 2016, Strathewen Primary School worked with the Arthur's Creek/Strathewen Country Fire Authority (CFA) to deliver a program related to bushfire risk, which focused on helping children to 'love where they live' once again. Part of the CFA's Survive and Thrive program, this project used Claymation video to engage students in learning about fire behaviour, the risks of living in a high fire danger area and identifying opportunities to reduce and manage these risks.

<https://www.youtube.com/watch?v=NC9ELky49gE&t=2s>

The National Child Safe Standards & UN Convention on the Rights of the Child

Recommendation 6.4

All institutions should uphold the rights of the child. Consistent with Article 3 of the United Nations Convention on the Rights of the Child, all institutions should act with the best interests of the child as a primary consideration. In order to achieve this, institutions should implement the Child Safe Standards identified by the Royal Commission.

(Australia, 2017)

First and foremost, DRE seeks to enhance the safety and wellbeing of children. DRE supports schools and community organisations to uphold the National Child Safe Standards and related state and territory child safety legislation. DRE is informed by the Convention on the Rights of the Child (United Nations, 1989), especially the child's right to participate in decision-making which affects them.



Wheel of Child Safety

(Australian Human Rights Commission, 2017)

Learning Priorities for Young Australians: The Australian Curriculum

The Australian Curriculum is designed to develop successful learners, confident and creative individuals, and active and informed citizens, through a three-dimensional structure:



Image: Australian Curriculum, Assessment and Reporting Authority [ACARA], (2014)

Across several Learning Areas, Cross-curriculum Priorities and General Capabilities, the Australian Curriculum promotes learning about risk, safety, responsibility, community, hazards, impact, emergencies, disasters, sustainability, wellbeing and resilience. DRE links all three dimensions of the Australian Curriculum, providing opportunities for authentic student inquiry, drawing on contemporary knowledge and technology from research, government, industry and community sectors. Beyond inquiry, DRE empowers learners to act for change in their local community.

Through Growth to Achievement: Report into the Review to Achieve Educational Excellence in Australian Schools



Priority two

Equip every child to be a creative, connected and engaged learner in a rapidly changing world

(Commonwealth of Australia, 2018)

DRE, with its focus on authentic, collaborative action for risk reduction and community resilience, aligns strongly with the key priorities and recommendations of this document.

Optimising STEM industry-school partnerships: inspiring Australia's next generation.



Recommendation 6

Governments and industry should work together to focus the narrative for primary and secondary students on how STEM skills and knowledge can solve real world problems.

(Education Services Australia, 2018)

Supported by DRANZSEN, DRE offers a powerful opportunity for schools to work in partnership with a range of stakeholders, developing STEM-based solutions to reduce risk, informed by current research and practice, particularly in science and engineering.

Sustainable Development Goals



Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable

Target: By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards ... resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels.



Goal 13: Take urgent action to combat climate change and its impacts

Target: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

(United Nations Sustainable Development, 2015)

DRE supports Australia to meet our international obligations for sustainable development, particularly as they relate to Goals 11 and 13.

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