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Emergency Preparedness and Response in New Zealand Schools

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Abstract

International disaster risk reduction efforts prioritise school safety. Providing a safe learning environment for students and ensuring their continued access to education after an emergency has a positive influence on student, family, and community resilience. Existing school-based emergency management literature is limited. The project aimed to investigate current emergency preparedness and response activities in New Zealand schools, and identify key practices that support efforts to keep students safe during emergencies. A multiphase mixed methods research design, underpinned by a pragmatic philosophical approach, was employed to conduct three separate but linked studies that investigated: Emergency preparedness in schools (Study 1); Emergency management requirements and expectations of schools (Study 2); and Emergency response in schools (Study 3).

Study 1 employed a survey to collect quantitative (n=355) and qualitative (n=514) data from schools throughout New Zealand about their experiences participating in the nationwide 2012 New Zealand ShakeOut earthquake drill, and the types of emergency preparedness activities undertaken. Findings identified lessons learned, and presented ways in which drills can be linked to other aspects of school preparedness. Schools were also found to undertake a range of preparedness activities (e.g., develop emergency plans, conduct frequent drills, and provide students with hazards education). However, differences in preparedness levels were identified, suggesting that some schools may be under-prepared to keep students safe in emergencies. A lack of clarity in the legislative requirements for school-based emergency management was proposed as a possible reason for differences in preparedness.

Study 2 combined interviews of three emergency management practitioners with a review of New Zealand legislation, policy, and guidelines to identify the preparedness activities New Zealand schools are required to undertake to ensure the safety of the students in their care. The legislation was found to be generic, at times ambiguous, and schools were not provided with clear guidance. As a result, it was recommended that preparedness benchmarks be established and that standard operating procedures for core emergency response actions (i.e., shelter-in-place, lockdown, building evacuation, relocation, and family reunification) be developed to provide a consistent approach to school-based preparedness efforts.

Studies 1 and 2 discussed emergency preparedness in New Zealand schools. However, there remained a need to investigate the link between preparing for and responding to emergencies by investigating how schools responded to real emergency events. Study 3 used three case studies to explore how three schools responded in a range of emergency events. Findings included the identification of generic, recurring response activities across a selection of emergency types, which were used to develop a six-stage school-based emergency response model. The lessons learned from participant's first hand experiences of various emergency events enabled the identification of factors that contribute to an effective emergency response, including activities undertaken before, during, and after an emergency.

Research exploring emergency management in New Zealand schools is still in its infancy. This project has contributed significant knowledge to understanding how New Zealand schools prepare for and respond to emergencies to keep their students safe. Findings from the research may also have relevance for an international audience.

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To my fellow PhD students, staff in the JCDR and School of Psychology, thank you for your unstinting kindness and assistance.

To my long suffering family, thank you for the laughter and tears that have helped me get to the end of what has been a very challenging journey.

Finally, to my most ardent supporter and biggest cheerleader, thanks Mum, I couldn't have done it without you.

This thesis is dedicated to Gerard Neilson (1947 – 2017)

A wonderful parent, inspiration, and friend.

Personal Statement

Before you begin reading this thesis, it seems appropriate to shed some light on what this research experience was like for me. In hindsight, my thesis topic was simply a natural progression of the path I was already following. I have always had an interest in earth sciences demonstrated by a BSc in Geography, and a MSc in Physical Geography. Therefore, an investigation of hazards and disasters made sense. Between my BSc and MSc, I trained as a secondary school teacher and spent a few years teaching geography. This experience as a teacher provided me with insights into how schools operate and what factors they need to consider to keep students safe when at school or on field trips. Therefore, schools provided a relevant and appropriate setting for my research. As a consequence of the 2010 Darfield and 2011 Christchurch earthquakes, I was able to assume a newly created role as an emergency management advisor within the Wellington City Council. A major component of this role was assisting schools in preparing for emergencies and disasters. As a result, I became familiar with the type of information and support that schools consistently requested, such as advice on developing emergency plans and conducting response drills. Therefore, an investigation of emergency preparedness and response in schools seemed fitting. As with all researchers, my background influenced my approach to the project by helping me identify what I wanted to achieve with the research, which was to create practical outputs for schools, government, researchers, and practitioners, to enhance emergency preparedness and response efforts in schools. However, knowing what I wanted to investigate was only the first step in a challenging but fulfilling adventure.

My natural instinct was to stand back and view the research process as something totally independent of myself. This has meant that I have avoided including a first person account of the research process within the thesis. Such an approach may suggest that perhaps I did not engage fully with the research process in a way that would allow me to develop as a researcher. However, this was not the case. Throughout the research literature, especially within the qualitative methodologies, there is discussion of how research is a reflexive process. Often this reflexivity takes the form of a research journal, or in my case a notebook, in which I recorded notes from discussions with my supervisors, lists of to do tasks, questions to follow up as I progressed through the project, ideas from workshops I attended, and feedback from presentations of my research findings. While my approach to reflexivity was not

undertaken as formally as some of the literature recommends, it still resulted in my research improving as I progressed, both in how I was conducting my studies and also in the outputs produced.

All data requires interpretation and this is especially so within qualitative research, as it reflects the values, biases, and judgements of the researcher. By recognising and acknowledging my own background, potential biases, those of my participants, and limitations of the research methods employed, the trustworthiness of the research and robustness of the research process is increased.

Now here I am at the end of this journey, about to share with you, the reader, the details and results of my adventure, and I ponder what I learnt about myself. Before this process I had always seen myself as a teacher, others did the research and I helped share it with people (whether children or adults). But I now see myself as both a researcher and a teacher. Furthermore, I have learnt that I have a perspective of my field of research that is both valid and valued. So if I had to do this all again (god forbid!) would I change anything? Yes, I would perhaps I would make different decisions about some aspects of the research like how many case study schools or whether I should have included more questions in my survey to get additional details about school preparedness activities. However, for the most part, I am pleased with the research I conducted, and proud of the difference that my research can make in keeping students safe in school-based emergencies both in New Zealand and internationally. And as a researcher, I can't ask for more than that.

Karlene

Table of Contents

Abstract	i
Acknowledgements	iii
Personal Statement	iv
Table of Contents	vi
List of Figures	xi
List of Tables	xii
List of Appendices	xii
Chapter 1. Introduction and Overview	1
1.1. Schools in Disasters and Emergencies	1
1.2. Definition of Key Terms	4
1.3. Thesis Structure	5
Chapter 2. School Preparedness and Response Literature Review	7
2.1. School Safety in Emergencies	7
2.1.1. School safety in New Zealand	10
2.2. Emergency Preparedness in Schools	12
2.2.1. Plans and procedures	13
2.2.2. Hazards education and response training	17
2.2.3. Evaluation of preparedness efforts	20
2.2.4. Stakeholder engagement	21
2.2.5. New Zealand school preparedness research	22
2.2.6. Overview of the emergency preparedness literature	24
2.3. Emergency Drills in Schools	25
2.4. Learning Lessons: Emergency Experience and Response in Schools	28
2.5. Limitations of Previous Research	31
2.6. Summary of Research Gaps and Future Directions	33

Chapter 3. Research Design	35
3.1. Project Aim and Research Questions	35
3.2. Theoretical Framework	36
3.2.1. The Strengthening Systems 4R Prevention model.....	37
3.2.2. Comprehensive School Safety framework	40
3.2.3. Theoretical Rationale	42
3.3. Mixed Methods Research	43
3.3.1. Pragmatism research philosophy.....	45
3.3.2. Project design.....	46
3.4. Method	50
3.4.1. Study 1: New Zealand ShakeOut school participation survey (Paper 1 and Paper 2).....	50
3.4.2. Study 2: Legislative requirements and practitioners expectations of emergency management in New Zealand schools (Paper 3)	59
3.4.3. Study 3: Emergency response experiences in schools (Paper 4).....	62
3.5. Integration of Mixed Methods Research.....	66
3.6. Link to Paper 1 (Chapter 4).....	67
Chapter 4. Paper 1: New Zealand ShakeOut exercise: Lessons learned by schools	68
Abstract.....	68
4.1. 2012 NZ ShakeOut Earthquake Drill	70
4.2. Method	71
4.2.1. Participants.....	71
4.2.2. Questionnaire	71
4.2.3. Procedure.....	72
4.2.4. Analysis.....	72
4.3. Results and Discussion.....	72
4.3.1. ‘Drop, cover, hold’ practice	73
4.3.2. Building evacuation.....	74
4.3.3. Participants in school drills.....	77

4.3.4.	Linking drills to education and preparedness	78
4.3.5.	ShakeOut resources	78
4.3.6.	Evaluating the ShakeOut exercise	79
4.3.7.	The influence of emergency experience and preparedness research	80
4.4.	Conclusions	82
4.5.	Recommendations.....	82
4.6.	Future Research	84
	References.....	84
4.7.	Link to Paper 2 (Chapter 5).....	88
Chapter 5. Paper 2: Are you ready? Emergency preparedness in New Zealand schools.....		89
5.1.	Introduction	89
5.1.1.	Emergency management in New Zealand schools	92
5.1.2.	Research questions	93
5.2.	Method.....	94
5.2.1.	Background to the present study	94
5.2.2.	Participants.....	94
5.2.3.	Questionnaire – New Zealand Shakeout school participation survey	95
5.2.4.	Procedure	95
5.2.5.	Analysis	95
5.3.	Results.....	96
5.3.1.	Types of emergencies experienced in schools.....	96
5.3.2.	Emergency preparedness activities undertaken in schools	97
5.3.3.	Methods used to evaluate school emergency preparedness.....	101
5.3.4.	Stakeholder engagement to assist school emergency preparedness ...	102
5.4.	Discussion	104
5.4.1.	Types of emergencies experienced in schools.....	104
5.4.2.	Emergency preparedness activities undertaken in schools	105
5.4.3.	Methods used to evaluate school emergency preparedness.....	108

5.4.4. Stakeholder engagement to assist school emergency preparedness...	110
5.5. Conclusions.....	111
References.....	112
5.6. Link to Chapter 6 (Paper 3).....	120
Chapter 6. Paper 3: Legislative requirements and emergency management practitioner expectations of preparedness in New Zealand schools	122
Abstract.....	122
6.1. Introduction.....	123
6.2. Method	124
6.3. Findings and Discussion	125
6.3.1. Legislation directing emergency management efforts in schools.....	125
6.3.2. School legislative responsibilities.....	127
6.3.3. Monitoring and compliance of school-based emergency management	134
6.4. Conclusions.....	134
References.....	135
6.5. Link to Chapter 7 (Paper 4).....	140
Chapter 7. Paper 4: Learning lessons from experience: Emergency response in schools	142
7.1. Introduction.....	142
7.1.1. Defining ‘Response’.....	143
7.1.2. Learning lessons from response experiences	144
7.2. Method: Case Studies	145
7.2.1. Settings, participants, and emergency types.....	146
7.2.2. Interviews	147
7.2.3. Analysis.....	147
7.3. Findings and Discussion	148
7.3.1. Stages of an emergency response	148
7.3.2. Factors contributing to an effective response.....	154

7.4. Conclusions	165
7.4.1. Limitations and future research	165
References	166
Chapter 8. Conclusions.....	172
8.1. Summary of the Research Undertaken	172
8.1.1. Emergency preparedness in schools (Study 1).....	172
8.1.2. Emergency management requirements and expectations of schools (Study 2).....	175
8.1.3. Emergency response in schools (Study 3).....	177
8.2. Preparedness and Response: A Cyclic Relationship and Recurring Themes....	178
8.2.1. Emergency planning and preparation	178
8.2.2. Emergency drills	179
8.2.3. Evaluation of preparedness and response efforts	179
8.2.4. Engaging with stakeholders	180
8.3. The Contribution of the Research Project to Our Understanding of Emergency Preparedness and Response in Schools	180
8.3.1. The field of school-based emergency management.....	180
8.3.2. The SS4R Prevention model.....	182
8.4. Recommendations.....	183
8.4.1. Recommendations for New Zealand schools	183
8.4.2. Recommendations for Practitioners and Researchers	184
8.5. Limitations and Opportunities for Future Research	185
References	187
Appendices	203

List of Figures

Figure 3.1 Conceptual diagram of the Strengthening Systems 4R Prevention model, developed from Ronan and Johnston (2005). Shaded areas represent those concepts deemed to have a direct, or potential, relationship to school-based emergency management.	39
Figure 3.2 Comprehensive School Safety framework. Source: GADRRRES (Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector), 2017.	41
Figure 3.3 Multiphase mixed methods research strategy. Adapted from Creswell (2009), <i>Research design: Qualitative, quantitative, and mixed methods approaches</i> . Notations included in the figure have been developed within the field of mixed methods research: ‘Quan’ and ‘Qual’ stand for qualitative and quantitative, respectively; capitalisation indicates the weighting or priority given to the type of data to be collected; the black arrows represent the sequence in which data will be collected; and the vertical grey lines link each phase of the project with its related data collection and analysis methods.....	49
Figure 3.4 School types of participants in Study 1 (Part 1 and Part 2).	56
Figure 3.5 School decile ratings of participants in Study 1 (Part 1 and Part 2).	57
Figure 3.6 Geographic location of schools in Study 1 (Part 1 and Part 2).	58
Figure 5.1 Types of emergencies experienced in all schools, and in individual schools by type (2010-2012).	97
Figure 5.2 Emergency drill types practised annually in schools.	101
Figure 5.3 Methods for evaluating school preparedness.	102
Figure 6.1 Students and staff receive hazards education and emergency response training so they understand what to do in an emergency. Image: David Johnston.	132
Figure 6.2 School children practice the ‘turtle’ as an alternative safety behaviour for when they cannot ‘drop, cover, [hold]’. Image: David Johnston.	133
Figure 7.1 Six-stage model of a school-based emergency response.	149
Figure 7.2 An overview of factors that contribute to an effective school emergency response.	155
Figure 8.1 Overview of the relationship between the three studies and the research papers.	173

List of Tables

Table 2.1	New Zealand’s progress implementing Hyogo Framework for Action education sector priorities	11
Table 3.1	Survey questions, topics and analysis overview.....	53
Table 3.2	Overview of case study schools, participants, and emergency types investigated	64
Table 5.1	Emergency preparedness activities undertaken in total and by school type	98
Table 5.2	Types of stakeholder engagement in school emergency preparedness .	103
Table 6.1	Emergency management legislation and requirements of schools	125
Table 7.1	Overview of Case Study Schools, Participants, and Emergency Types Examined.....	147

List of Appendices

Appendix 1:	Study 1 – Emergency Preparedness in Schools	204
Appendix 2:	Study 2 – Emergency management requirements and expectations of schools	214
Appendix 3:	Study 3 – Emergency response in schools	226
Appendix 4:	Statement of Contribution sheets for submitted journal papers	260
Appendix 5:	Additional relevant reports	265