

Emergency Management in Schools



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BAY OF PLENTY
EMERGENCY MANAGEMENT

GROUP



Emergency Management in Schools

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Executive Summary

The Emergency Management in schools survey aimed to gain an understanding of the level of preparedness and education at primary and intermediate schools across the Bay of Plenty Region, New Zealand. Schools were surveyed by either personal, postal or phone interview and were asked a range of questions to assess current teaching and emergency practices within the school and whether the resources available are adequate. This study will help both local district Emergency Management and school principals and staff to improve Emergency Management education and preparedness in schools, creating more aware and resilient communities.

The results of this survey show a range of preparedness levels between schools. Almost 90 percent of schools incorporate Emergency Management education into the children's education, often within health and physical education topics. Site specific information is focussed on in over 65 percent of these schools. Fire and earthquakes are the most widely taught hazards, followed by pandemic and tsunami. Regular updates of procedures and materials occurs in almost 90 percent of schools. Lack of time is the main reason 10 percent of schools do not include Emergency Management education in their teaching programmes.

Practice drills are carried out in all schools, with fire and earthquake being most common. A wide range of resources are used for Emergency Management education including visits from Emergency Management professionals and information available from local district Emergency Management. Almost 80 percent of schools are satisfied with the resources available to them. Links to parents/caregivers and community initiatives are observed in 67.3 and 37.5 percent of schools respectively. Communication between school leadership, staff and parents is essential for planning emergency procedures and varies between schools. 60 percent of schools hold some form of food or water on site that can be utilised in an emergency situation.

Part 1: Introduction

Emergency Management education is an important aspect of society's preparedness and response to a disaster event. The purpose of this study was to gain an understanding of the provision of emergency management education offered at primary and intermediate schools in the Bay of Plenty region in order to allow Civil Defence Emergency Management personnel to help schools deliver effective Emergency Management education programmes. This study enables an evaluation of the level of emergency management education, as well as providing an insight into schools appreciation and awareness of hazards that could influence them.

Children, youth and families are especially vulnerable to the affects of hazards. New Zealand is especially prone to natural disasters and it is important for inhabitants to be appropriately educated from a young age.

The Bay of Plenty Region is subject to a range of hazards. Flooding, earthquakes and volcanic ash fall have the potential to affect all areas of the region. Coastal zones are in danger from tsunami and erosion, while geothermal activity affects the Rotorua district. Anthropogenic hazards such as fire, pandemic, power failure, gas leaks and chemical spills also pose a threat.

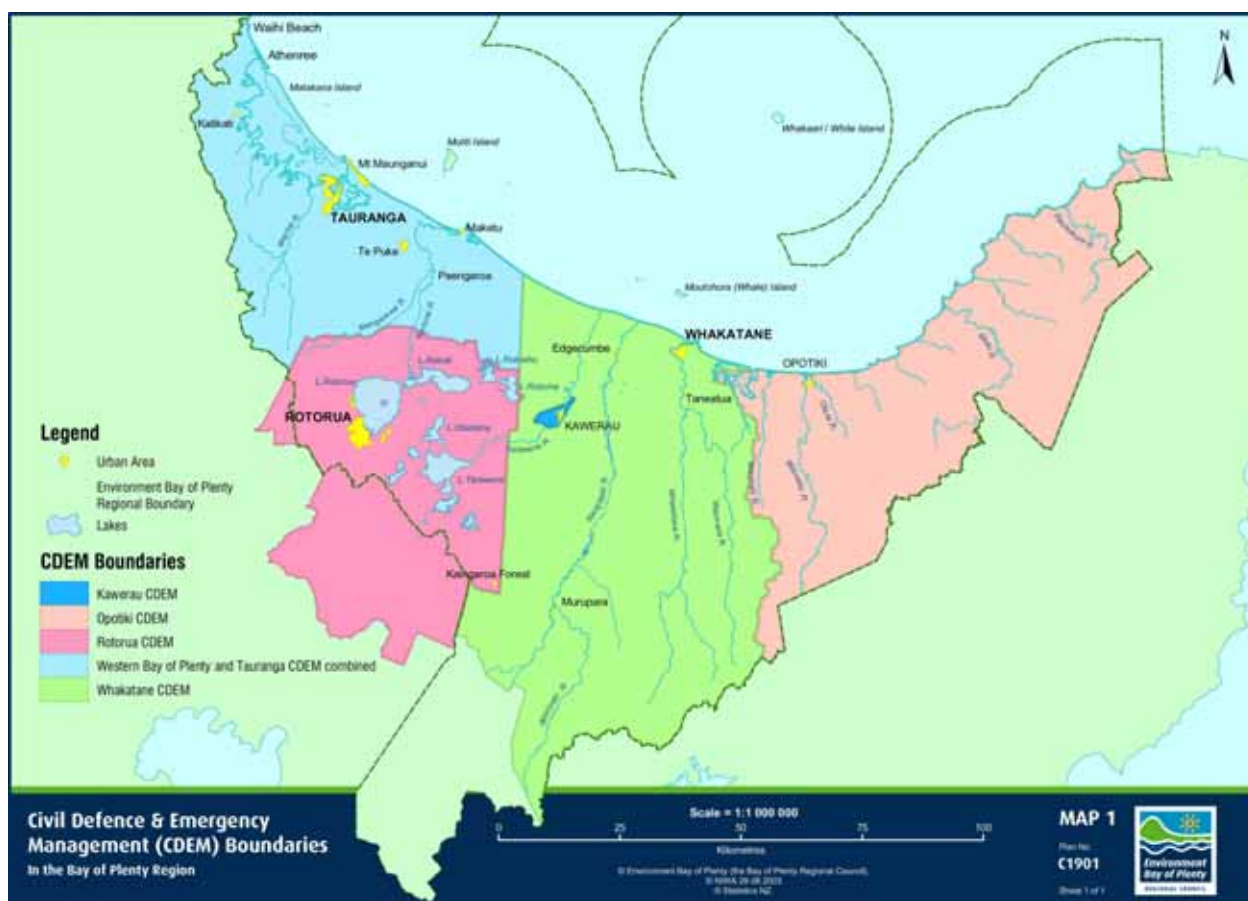


Figure 1 **Map of the Bay of Plenty Region**

For this study, the Bay of Plenty region has been divided into three areas: Western Bay of Plenty (including Tauranga City and Western Bay of Plenty districts), Rotorua, and the Eastern Bay of Plenty (which includes Kaverau, Whakatane and Opotiki districts).

Part 2: Methods

There are 137 primary and intermediate schools in the Bay of Plenty Region. The target was to survey at least 30% of these schools by interview and postal methods. In order to select schools for interviewing, the schools were numbered in alphabetical order and 65 were selected using a random number generator. Of the total schools, 58 were successfully surveyed reaching the target of at least 30%.

GNS have previously completed an Emergency Management in Schools survey in the Wellington region that we had access to. In order to gain comparable results, the GNS survey was only slightly modified for the Bay of Plenty region. Changes involved the rewording of one or two questions and the compaction of similar questions. The GNS cover letter for posted surveys was also modified to apply to our area.

Once the survey was finalised, appointments were made with principals of the schools selected for interview. Following this, a number of days were spent travelling between schools to speak to the principals. Meanwhile, surveys, cover letters, 'Get ready, get thru' brochures and pre-paid return envelopes were sent out to the remaining schools. In the event that an appointment could not be made with one of the schools selected for interview, a survey would be sent out to them as an alternative.

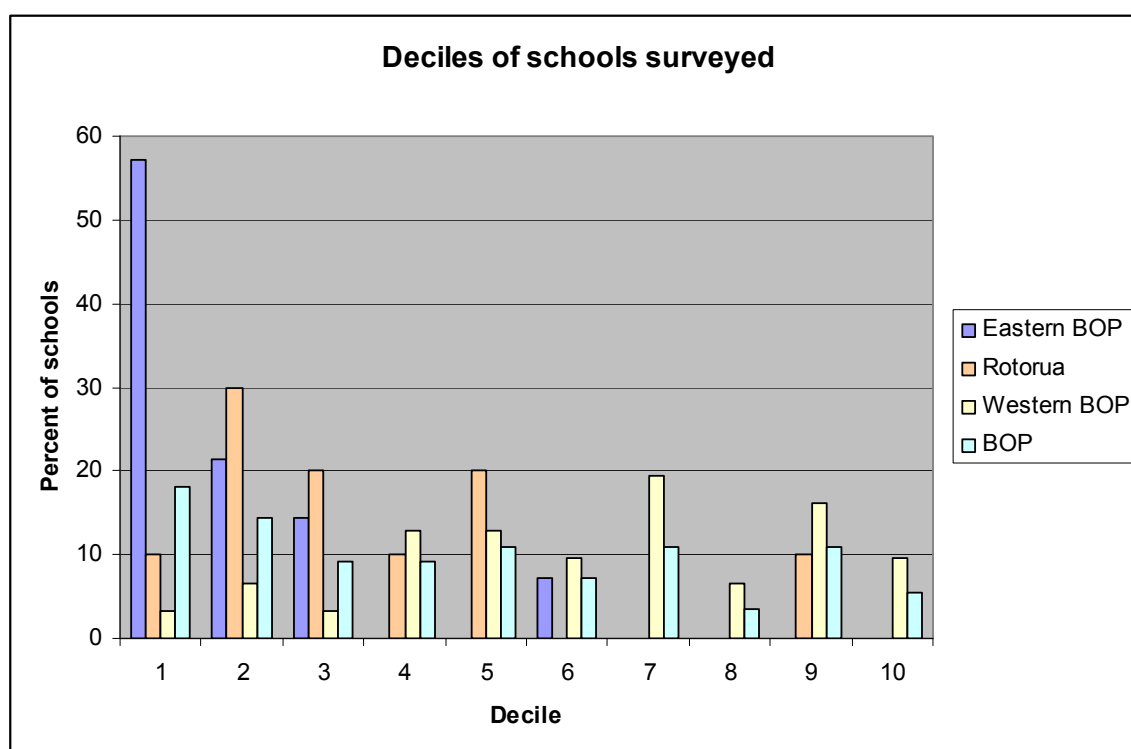


Figure 2 Deciles of schools surveyed

Figure 2 is an indication of school deciles of the completed surveys. There is a relatively even spread across deciles for the Bay of Plenty region as a whole, with the spread being skewed for the different areas within the region, in particular for the Eastern Bay of Plenty.

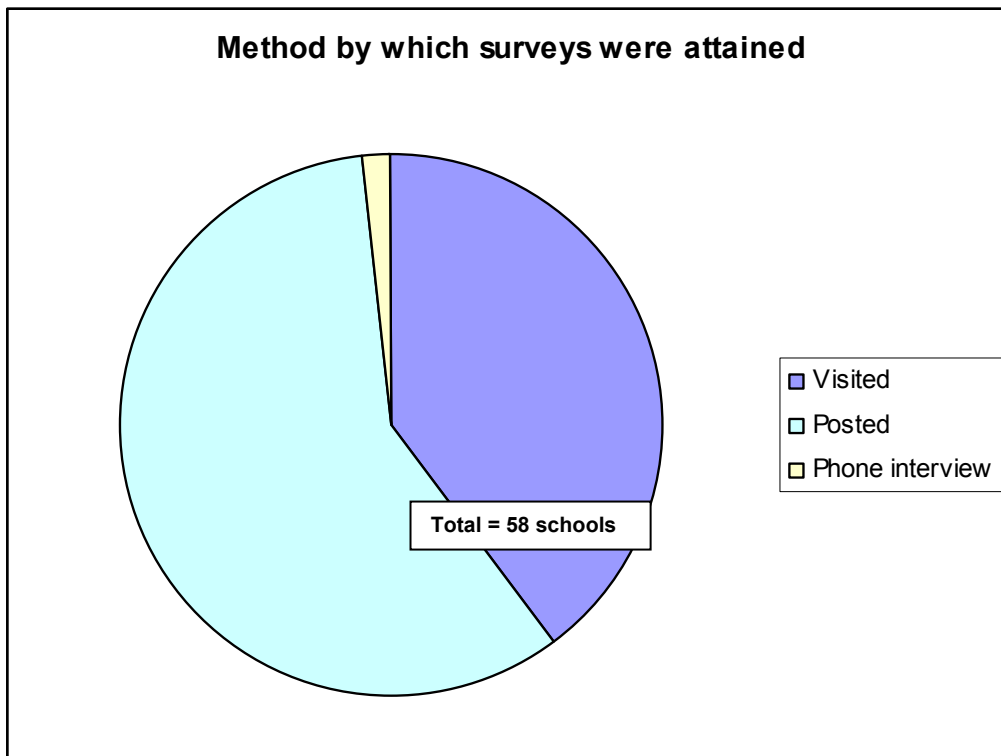


Figure 3 Method of which surveys were attained

The next stage of the study would involve incorporating the results into the study undertaken in the Wellington region to compare the areas.

Part 3: Results

Emergency Management is incorporated into children's education at almost 90 percent of primary and intermediate schools in the Bay of Plenty. For those schools that do not include Emergency Management in their teaching courses, lack of time is the main prevention as seen in Figure 4 below. Other reasons include lack of knowledgeable personnel, lack of funds and lack of relation to units being taught.

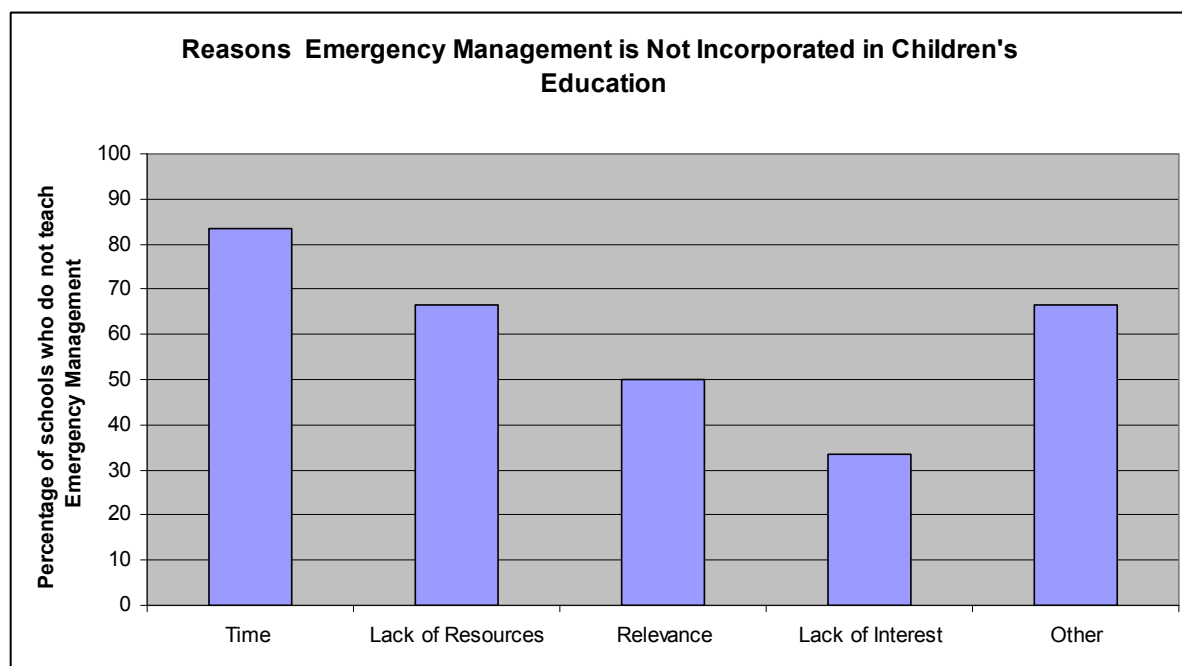


Figure 4 Reasons Emergency Management is not incorporated into children's education

To be encouraged to incorporate Emergency Management into teaching programmes within their school many principals require relevance to units and to the curriculum. Teachers appear to be pressed for time to meet the curriculum standards and do not have time for extras. Topical events and current affairs would initiate more interest in this area for some. The interest and enthusiasm of individual teachers also influences how much emphasis is put on Emergency Management in the classroom.

The hazards taught in Bay of Plenty schools and in areas within the region are shown in Figure 5. Fire and earthquake are the two most popular aspects covered, followed by pandemic and tsunami. It was mentioned by some schools that pandemic education became more important during the swine flu scare in 2009.

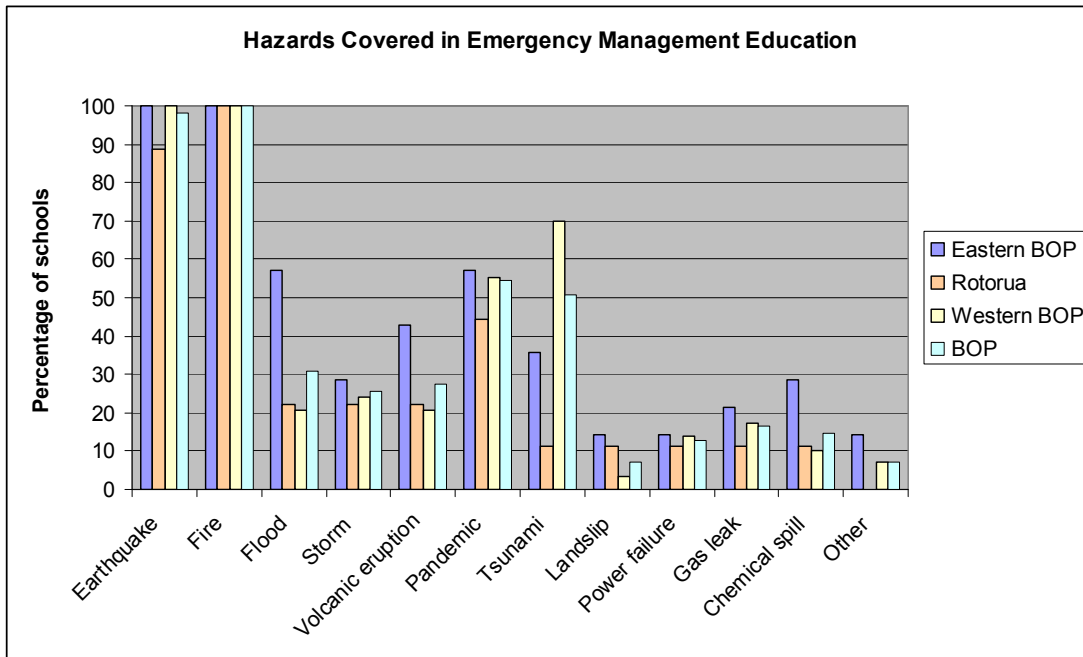


Figure 5 Hazards covered in Emergency Management education

Figure 6 indicates which subjects Emergency Management education is incorporated into. health and physical education and social studies are the major subjects that include Emergency Management education. A significant amount of schools integrate Emergency Management into the curriculum.

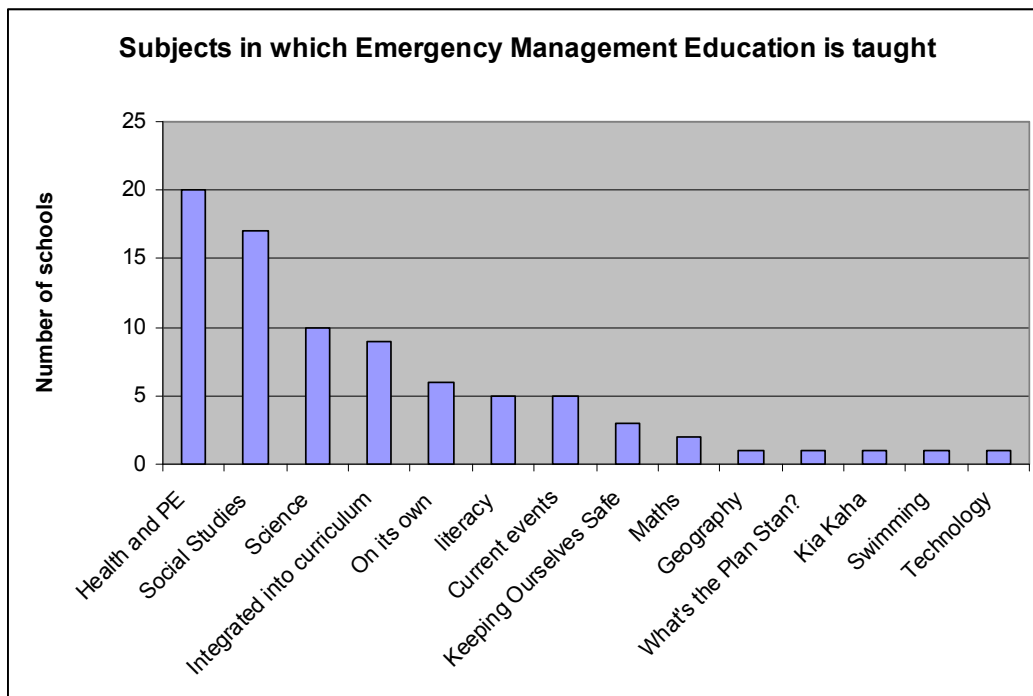


Figure 6 Subjects in which Emergency Management education is taught

In 98 percent of schools, Emergency Management education is aimed at the whole school rather than particular year levels, with the depth of education and aspects covered differing to cater to particular age groups. Follow up activities, such as those provided in the What's the Plan Stan provide an extra reminder and consolidate what children have learnt. Figure 7 shows that follow up activities are provided at over 70 percent of schools surveyed.

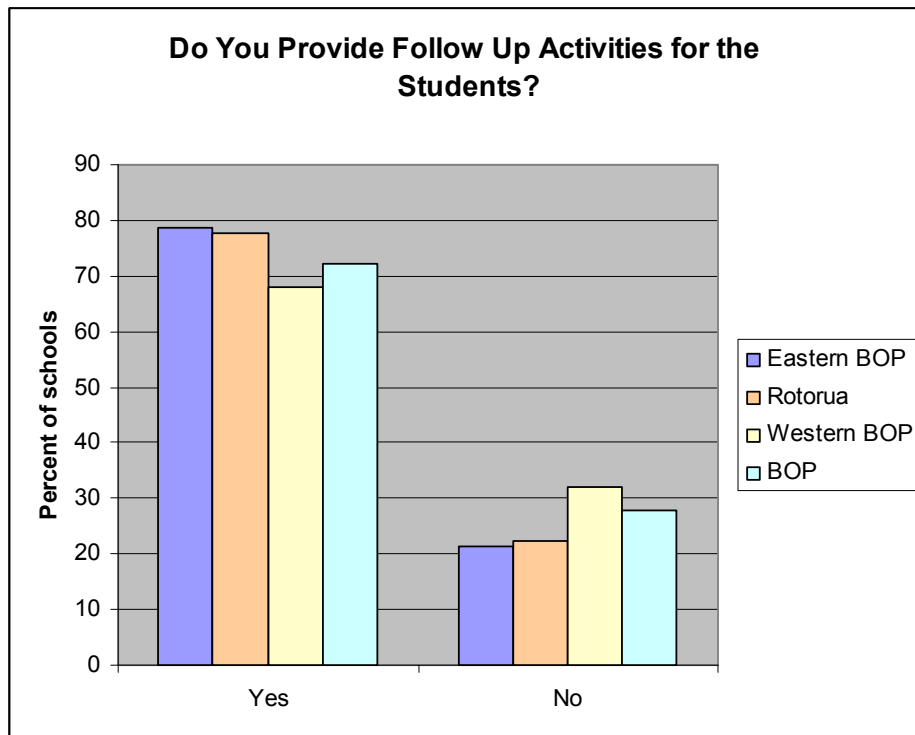


Figure 7 Do you provide follow up activities for the students

Despite Emergency Management not being part of the education programme at 10 percent of schools, 100 percent of the schools surveyed discuss emergency procedures with children and practice fire drills. Drills and evacuations for hazards other than fire are practiced less regularly in schools. Figure 8, below, indicates the regularity of practice drills and evacuations in schools each year. The majority of schools in all areas of the region carry out practice exercises once per term.

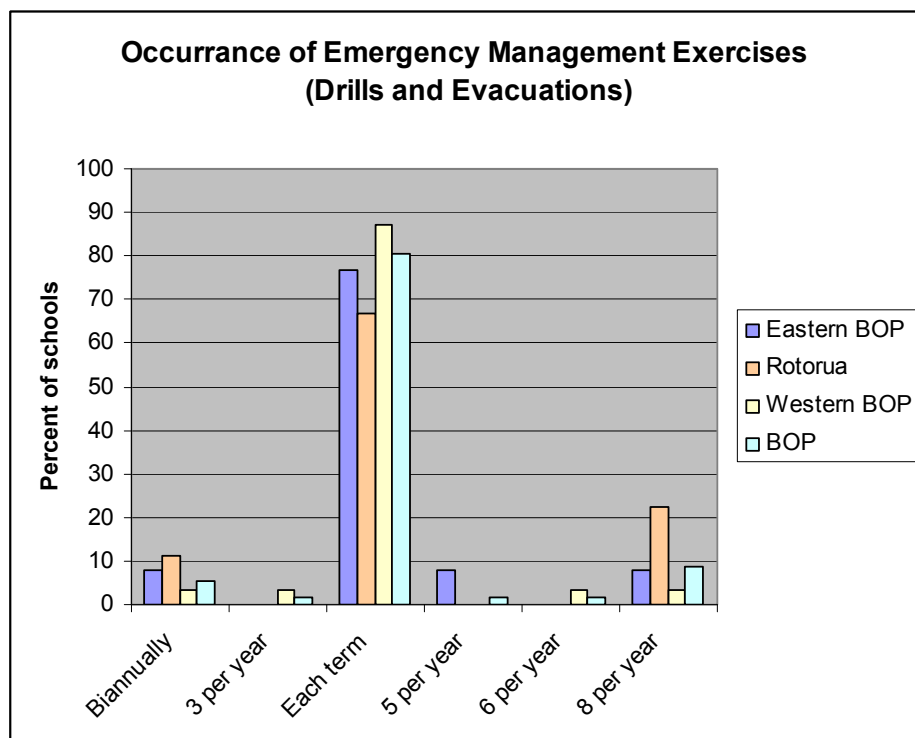


Figure 8 Occurrence of Emergency Management education

A range of resources are used in schools by both staff and students for Emergency Management education, as demonstrated in Figure 9. The internet is a popular source that provides an abundance of information, while Civil Defence Emergency Management is also a well used resource. Over 90 percent of the regions schools have a copy of 'What's the Plan Stan?' and it is in use in 63 percent of schools. Other resources mentioned were people and local knowledge, school trips, Firewise and Dan the Puppet Man, a Tauranga local who performs with puppets, teaching children about road safety and values.

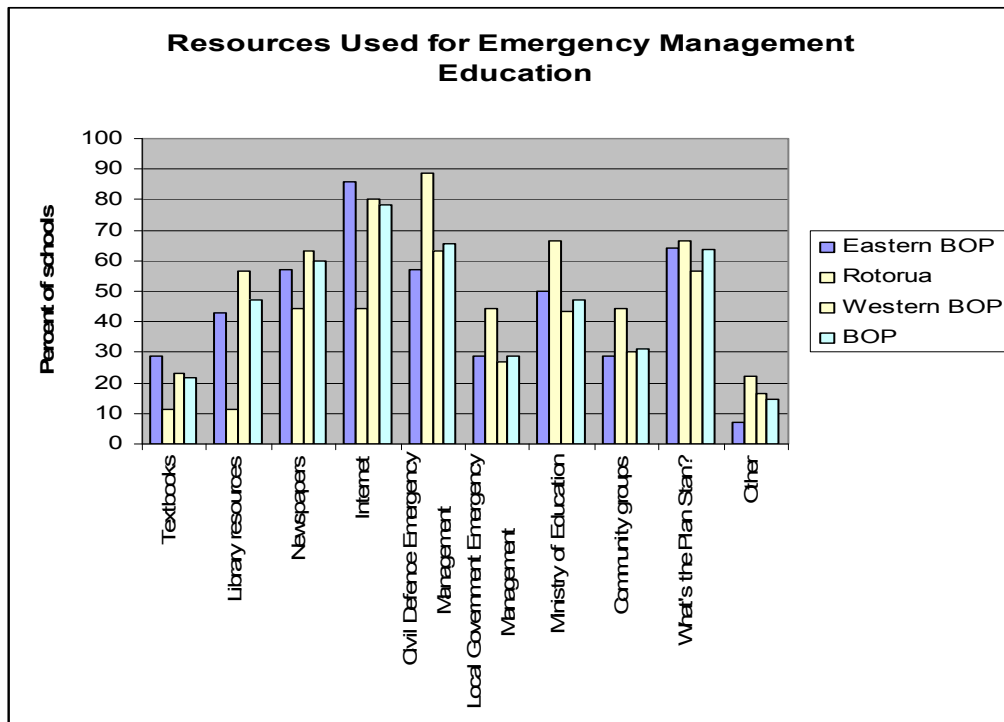


Figure 9 Resources used for Emergency Management education

Figures 10 and 11 provide information on whether schools invite Emergency Services (such as police, fire and ambulance services) to visit, and if so, how often this occurs. 61.8 percent of schools invite Emergency Services in to visit, compared with 42.6 percent of schools who seek information from Local District Emergency Management. Figures 12 and 13 illustrate how many schools contact Local District Emergency Management for information, and if so, how often.

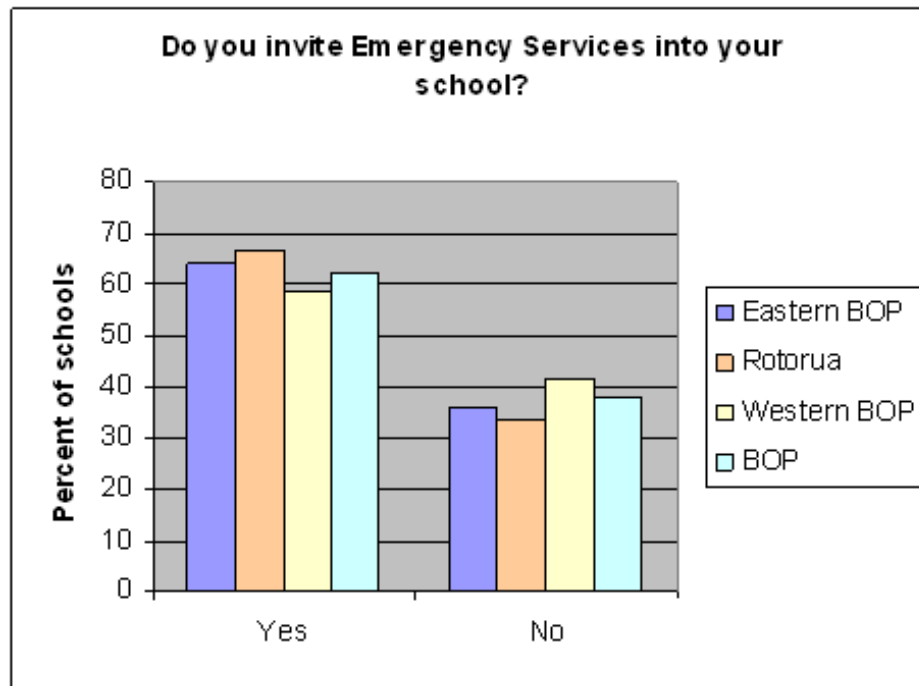


Figure 10 Do you invite Emergency Services into your school?

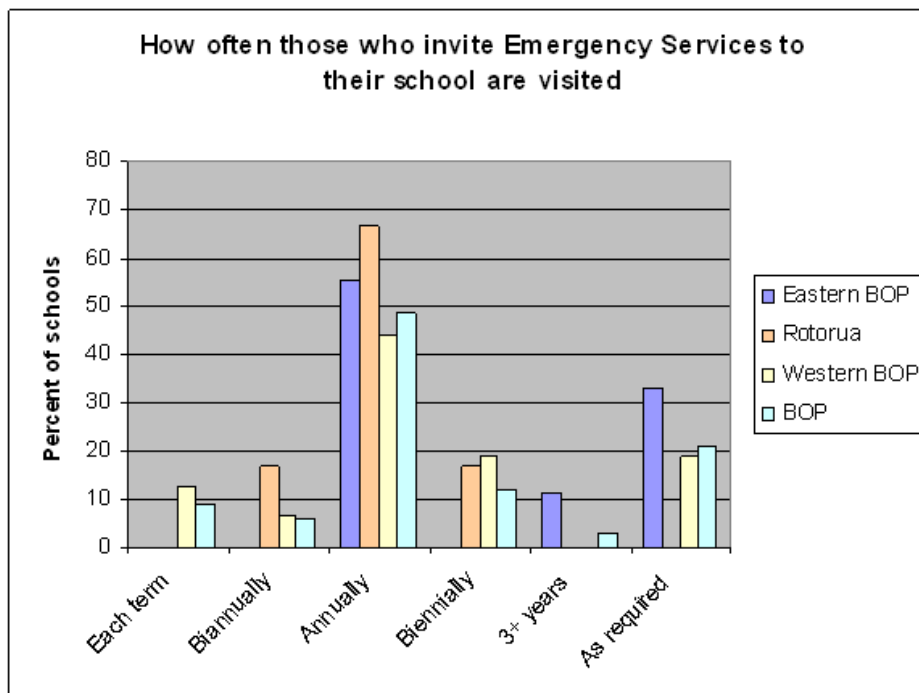


Figure 11 How often those who invite Emergency Services into their school are visited

Over 60 percent of schools invite Emergency Services in to visit. There is a range in frequency of Emergency Services visiting schools, with the most common being annually.

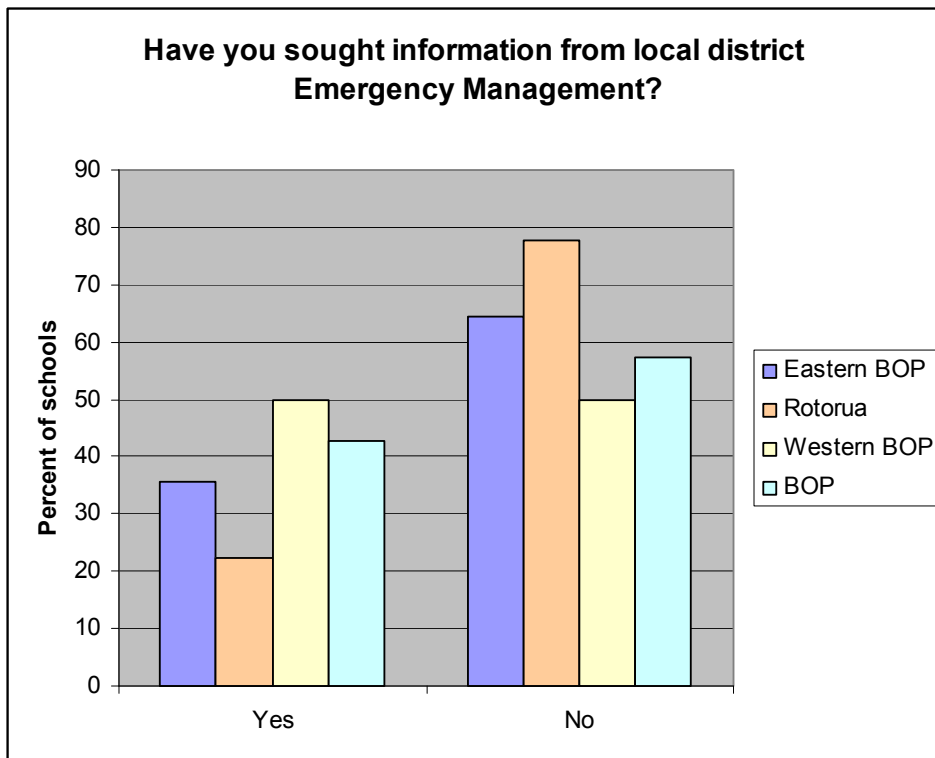


Figure 12 Have you sought information from local district Emergency Management?

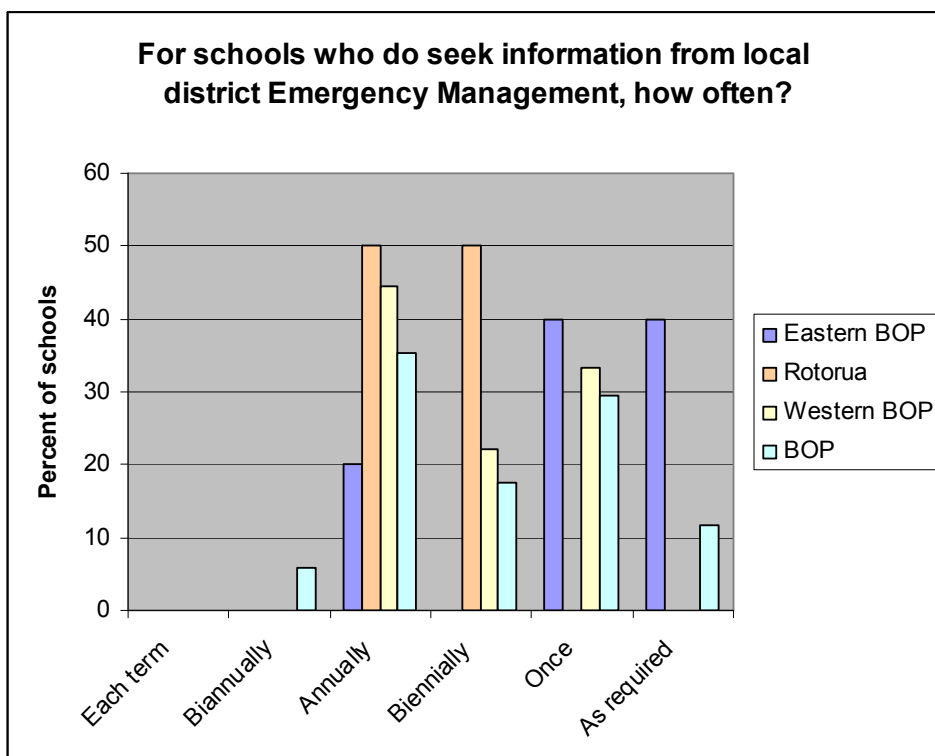


Figure 13 For schools who do seek information from local district Emergency Management, how often?

Only just over 40 percent of schools make use of the information available to them from local district Emergency Management. Most schools who seek information from Local District Emergency Management do so annually. However, quite often when this source is contacted it is as a one-off.

Despite a significant proportion of schools never contacting local district Emergency Management or Emergency Services, a high percentage of schools are satisfied that the resources provided to them are adequate as seen in Figure 14.

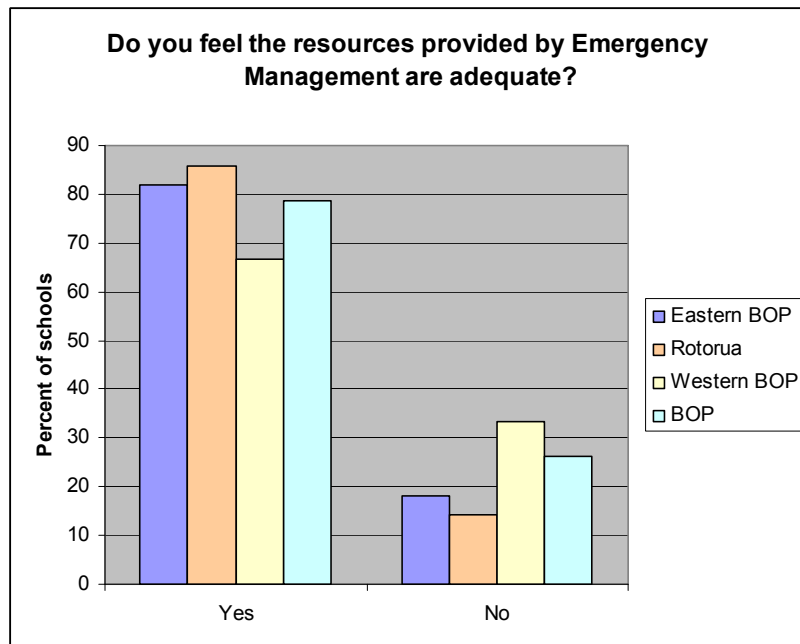


Figure 14 Do you feel the resources provided by Emergency Management are adequate?

It appears from the results presented in Figures 15, 16 and 17 that most schools review their emergency procedures and update material regularly. A number of schools said that they do not update their plans *before* running Emergency Management education programmes and drills, but rather *after* these events. Changes to the school layout due to renovations and new classrooms prompted a review of evacuation routes for a number of schools.

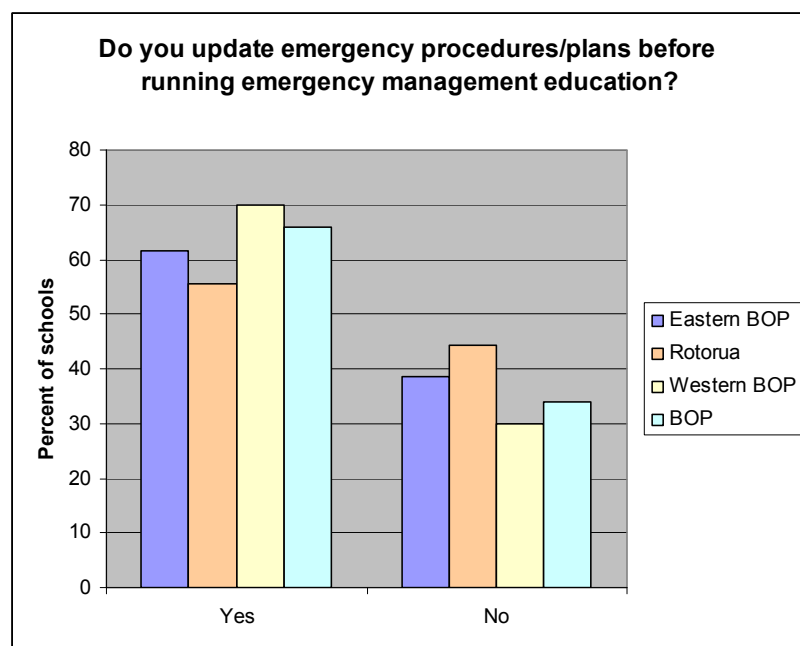


Figure 15 Do you update emergency procedures/plans before running emergency management education?

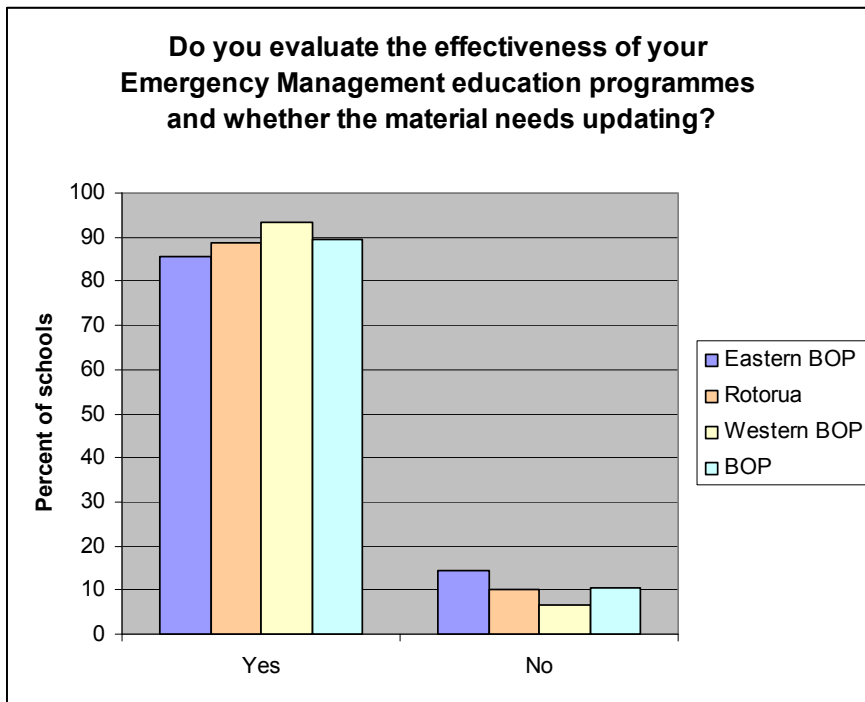


Figure 16 Do you evaluate the effectiveness of your Emergency Management education programmes and whether the material needs updating?

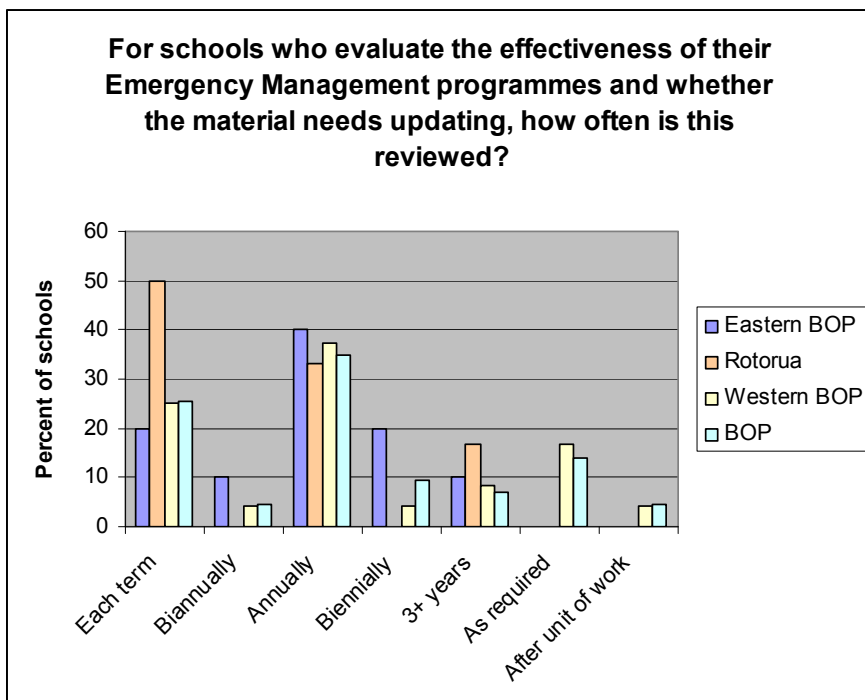


Figure 17 For schools who evaluate the effectiveness of their Emergency Management programmes and whether the material needs updating, how often is this reviewed?

Area specific information is important as it relates to disasters most likely to affect a particular school. 67.3 percent of schools surveyed use information on local hazards when teaching Emergency Management education.

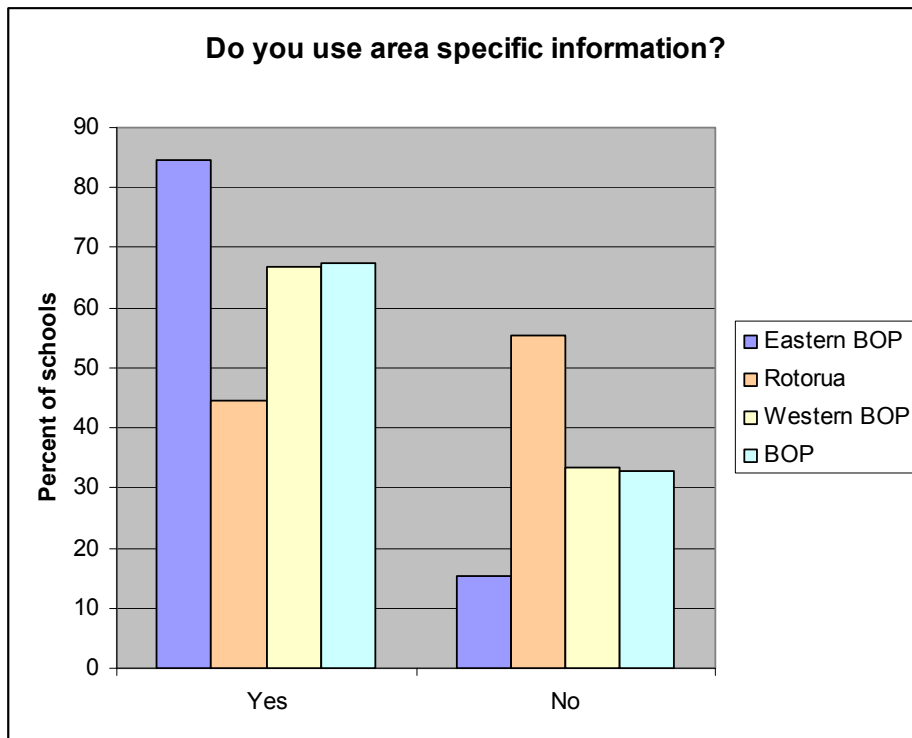


Figure 18 Do you use area specific information

Parent/caregiver participation in Emergency Management education in schools provides increased awareness, preparedness and resilience for the whole community. Figure 19 shows that 67.3 percent of schools involve parents/caregivers in their Emergency Education programmes, while only 37.5 percent of schools get involved with community initiatives.

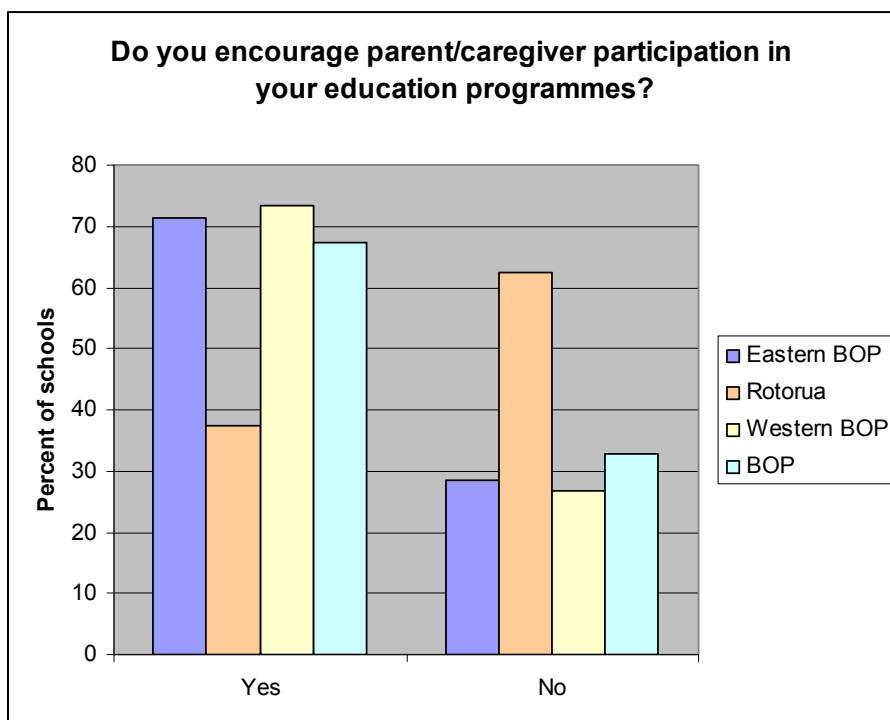


Figure 19 Do you encourage parent/caregiver participation in your education programmes?

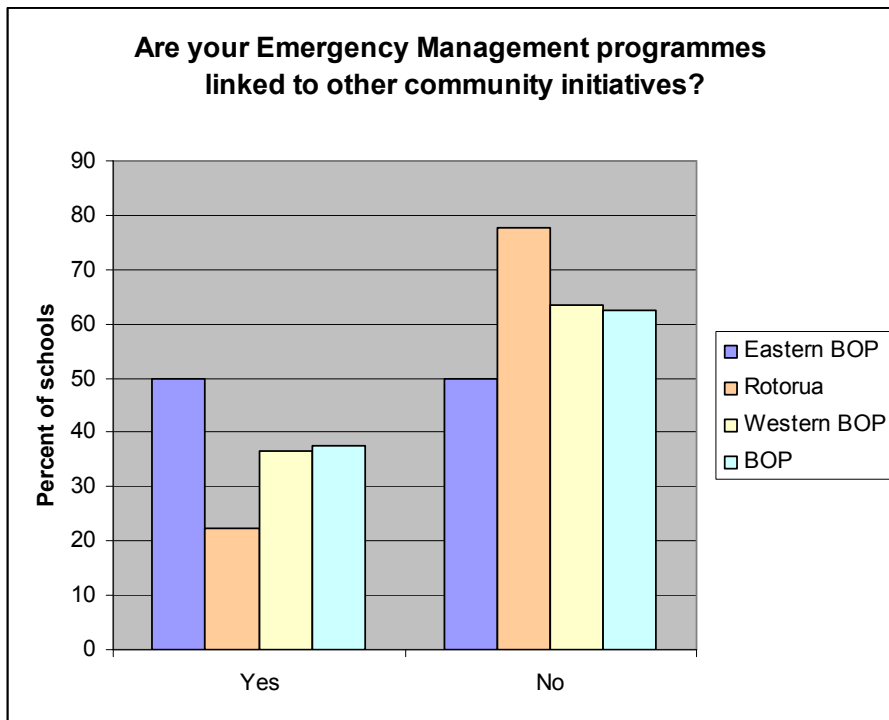


Figure 20 Are your Emergency Management programmes linked to other community initiatives?

Clear communication between school leadership, staff and parents/caregivers helps with disaster preparedness. The following Figures 21-24 display results on discussions between these groups, and ways in which contact information is kept up to date.

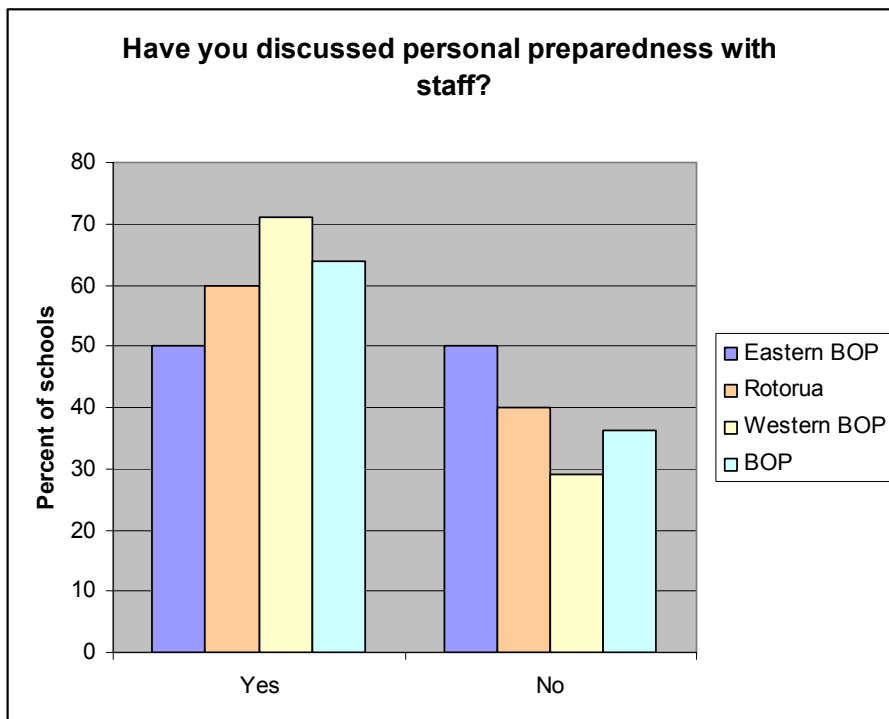


Figure 21 Have you discussed personal preparedness with staff?

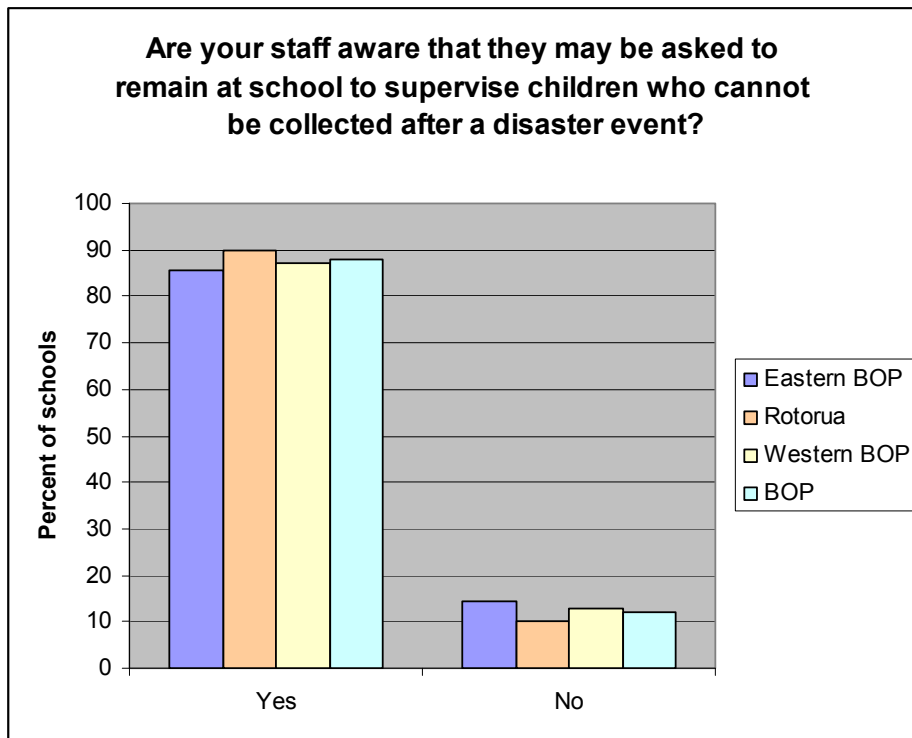


Figure 22 Are your staff aware that they may be asked to remain at school to supervise children who cannot be collected after a disaster event?

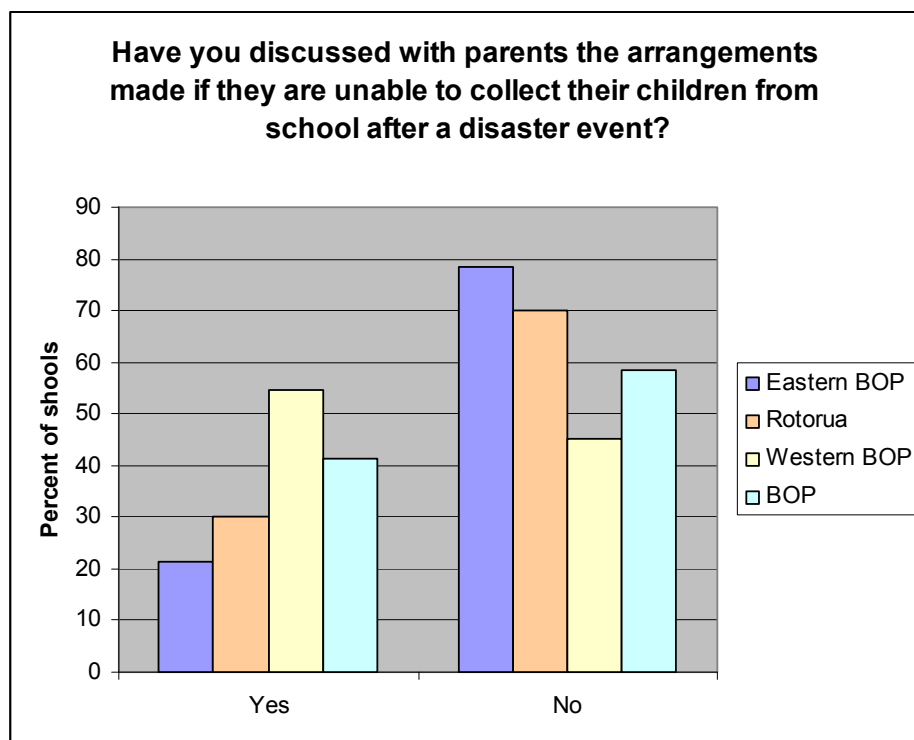


Figure 23 Have you discussed with parents the arrangements made if they are unable to collect their children from school after a disaster event?

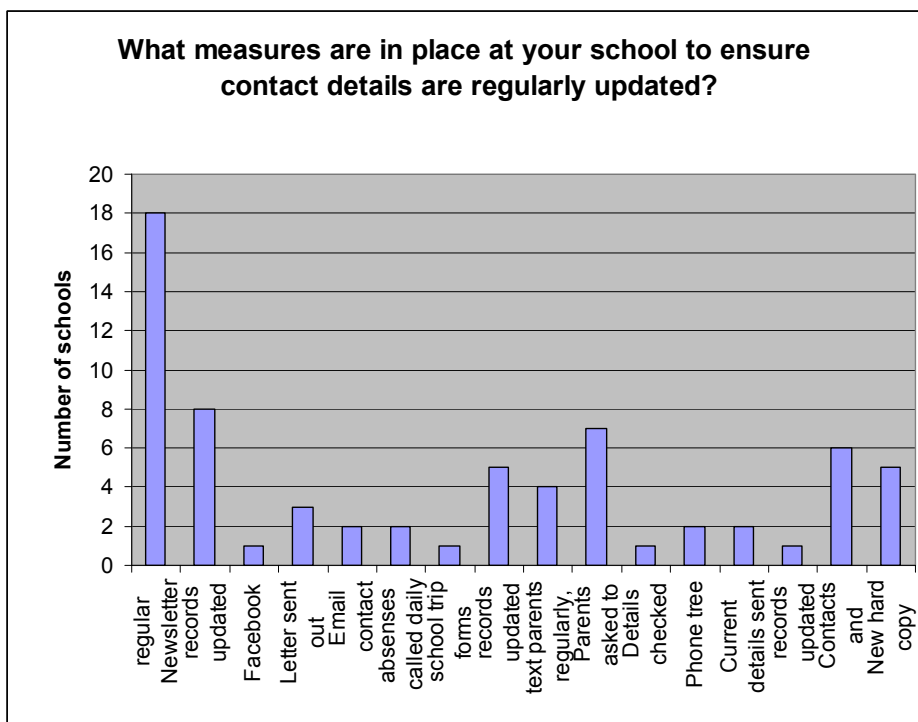


Figure 24 What measures are in place at your school to ensure contact details are regularly updated?

Up to date contact details is an issue that many schools struggle with as it is ultimately up to the parent/caregiver to provide the school with new information if there has been any change. This becomes especially difficult in low decile areas where parents/caregivers are often quite mobile.

In a disaster event some staff and students may be forced to remain on site. Schools were asked if they held any food and water on the premises in case of an emergency. Results are displayed in Figure 25.

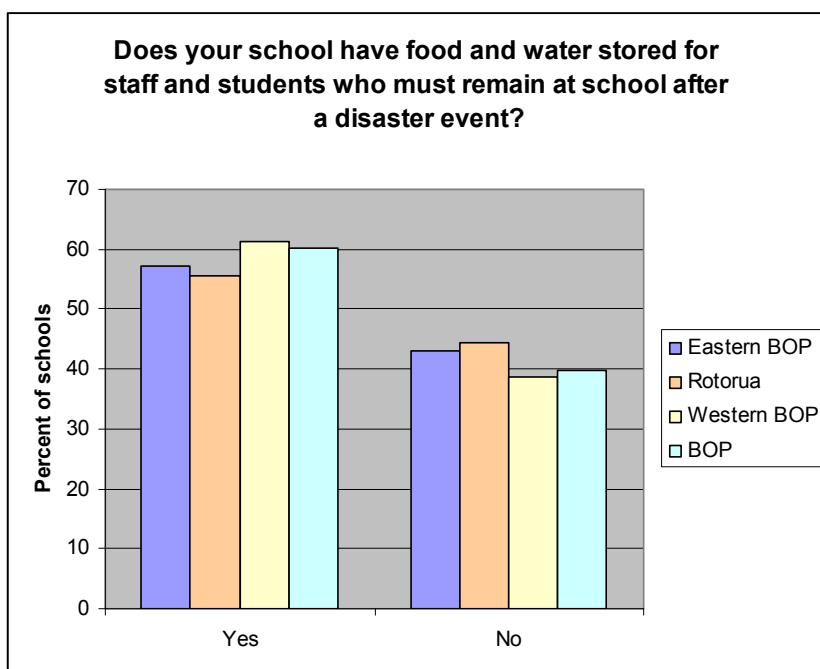


Figure 25 Does your school have food and water stored for staff and students who must remain at school after a disaster event?

Part 4: Discussion

A more enlightened view of emergency education was gained from personal interviews with school principals. Discussions with principals provided greater awareness of the situation at their particular school than surveys sent by post which sometimes had vague responses and questions not fully answered.

In general, it appears that rural schools are better prepared to be resilient in a disaster event. Often they have to deal with issues such as power failure on a semi-regular basis and they are more likely to have an alternative water supply from the town supply which contributes to their ability to look after themselves in an emergency. Small communities seem more flexible about allowing students to be picked up from school by adults other than their parents as most people know each other and often some of the students are related.

There were obviously differing attitudes between schools. For example, a principal who was involved in the 1987 Edgecumbe Earthquake seemed to put an emphasis on community preparedness and emergency management education, including working with the local Civil Defence Emergency Management Group to create a Community Emergency Plan. In comparison, another principal who does not incorporate emergency management into the children's education at his school said that it would take a near-by disaster for him to be motivated to put more focus into emergency preparedness and education. He admitted the recent Canterbury Earthquake was not close enough to prompt action on his part. A Tauranga school set a good example by requesting each child bring a non-perishable can of food and a sealed 2 litre bottle of water to school at the beginning of term one. The supplies are stored in each classroom throughout the year and donated to the food bank at the end of the year so as to keep stocks updated.

Although it appears from the data that over 60 percent of schools surveyed have food and water stored that may be used by students and staff after a disaster event, this is a very optimistic view. The majority of schools who answered yes to this question had nowhere near the 3 litres of water per person per day plus food requirements recommended by Civil Defence Emergency Management. The food or water a lot of schools referred to was excess food in the school canteen and water from the hot water cylinder or the pool. However a few schools, mostly rural, are very well prepared.

The majority of schools surveyed were aware of the importance of Emergency Management education and preparedness. Despite some schools not including Emergency Management in the curriculum, fire drills are practiced in 100 percent of schools surveyed (due to this being a legal requirement) and over 90 percent participate in earthquake drills. Fire and earthquakes are the two hazards most popularly taught in schools and perhaps not enough focus is placed on other hazards in some cases. It would have been interesting to not only question schools as to how often they have practice drills or evacuations but also what event the practice was aimed at. It is likely that some schools *only* practice fire drills and are not so well prepared for other events. One principal stated that a few weeks after practicing an earthquake drill, their school had a fire drill. This resulted in confusion amongst the younger children who started crawling underneath their desks rather than assembling outside. It is important to cover different types of drills so that children are aware of what to do in different circumstances.

Hazard types taught in schools differ according to location. There are significantly less schools teaching about tsunami in Rotorua than in the Eastern and Western Bay of Plenty due to its inland location. The Eastern Bay of Plenty is especially prone to flooding, and this is where a higher percentage of schools incorporate flooding into the children's education. This is a positive sign as it is important to focus on local aspects and proves that schools are prioritising teaching hazards that could affect their location.

Due to the busy curriculum, the best method of educating children about Emergency Management seems to be integrating this into curriculum subjects. This is what the updated version of What's the Plan Stan? has aimed to achieve. Although over 90 percent of schools have a copy of What's the Plan Stan, it is not in use in almost a third of these schools.

A range of resources are used by both staff and students in gaining a heightened understanding of hazard management with the internet being the most widely used. Emergency Management professionals are invited into over 60 percent of schools but it seems many schools are not taking advantage of information available from local district Emergency Management. Almost 80 percent of schools who answered this question are satisfied with resources available to them, although a number of schools were unsure.

Although the target of 30 percent of Bay of Plenty schools responding to this survey was reached, a greater participation level may have been attained at an earlier time in the school year. Many Principals said they were too busy at this time of year to make a survey appointment. With a small number of respondents in Rotorua, the results shown may not necessarily be an accurate representation of this area.

Most schools update their programmes and materials regularly. It is important to be aware of up to date information and new resources which can be of aid to teaching programmes.

Almost 70 percent of schools encourage parent/caregiver participation in their Emergency Management education programmes, but there is much less involvement with community initiatives. Heightened parent/caregiver and community association would contribute to the greater preparedness and resilience of the wider community. Involving parents in their children's homework, is an easy way to start spreading the message through a community. This should be emphasised to teachers in order to gain heightened community effects from the education programme.

Personal preparedness of staff is discussed in over 60 percent of schools, and almost 90 percent of schools have made staff aware that they may be required to remain at school in a disaster event to look after children who cannot be collected.

Only 41.4 percent of schools have discussed arrangements with parents for their children to be collected after a disaster event. This is a statistic that needs improving as it is important for there to be communication between schools and parent/caregivers as to what procedures will occur in an emergency. For example, if a school is evacuated, parents should be aware prior to the event where their children will be evacuated to and therefore where to collect them when safe to do so. Or in other cases, parents should be aware of emergency plans regarding school bus transportation. Knowledge of a school's preparedness may help to reduce parents panicking during an event. Discussion about alternatives if a parent or caregiver cannot collect their child after an event will encourage both staff and parent/caregivers to consider different options.

Many schools struggle to maintain accurate parent/caregiver contact information. The most popular method of updating records is by including a reminder in the school newsletter. It is important for contact information to be accurate in any case, but especially if parents need to be contacted surrounding an emergency event.

This survey has enabled a greater insight into Emergency Management education in schools in the Bay of Plenty region. With this knowledge it is hoped that school and community preparedness can be further improved by creating heightened awareness across the region.

Part 5: Conclusion

The survey was aimed at a number of aspects regarding Emergency Management in Schools including education of students, the preparedness of the school to cope with an emergency and integrated planning with parents and therefore the community.

The majority of schools surveyed understand the importance of Emergency Management education and preparedness for students when at school and at home. However, the level of education devoted to emergency management, whether through hazard studies or preparedness messages, varies greatly from school to school.

It is vital that schools are prepared to respond during an emergency as there is every likelihood that they will be responsible for the care of the students for some time until they are able to be reunited with their parents and caregivers. The view of most schools is that they have adequate provisions of food and water to cope with an emergency but this is an optimistic view as there have not historically been many emergencies in New Zealand where schools have needed to be responsible for the students over an extended duration.

Personal preparedness of staff features in the planning of more than half the schools in the region and most teaching staff are aware they may have to remain at school to care for students. The connection between knowing that staff may be required to remain and personal preparedness needs to be strengthened as staff will only be available to remain if they are confident their own families can get by without them.

The connection between schools and parents regarding emergency management seems to have been missed by many schools with less than half the schools surveyed discussing arrangements with parents. Parents need to be aware of the schools plans and processes during an emergency and understand that their children will be looked after even if they are unable to get to them. This connection with parents has the ability to indirectly increase the resilience of the wider community.

Part 6: Recommendations

6.1 Schools

- Parent/caregiver input needs to be increased, especially via homework, in order to promote greater community resilience.
- The main focus should be on local hazards when teaching emergency management. If time allows, other hazards could also be covered, but it is important to educate children about hazards that are most likely to affect them.
- Schools should not only practice compulsory fire drills, but also responses to other hazards.
- School management needs to place emphasis on the personal preparedness of staff. This relates to their availability and duty to stay at school during and after a disaster event to supervise children who cannot be collected. Staff need to prepare for a disaster event by ensuring their own family will be able to cope without them until they are able to return home.
- In order to maintain accurate contact details, a copy of recorded details could be sent home annually for parents to confirm and return to school. This could be in addition to usual reminders.
- All schools should have a hard copy of the daily register available every day to ensure electronic registers are not relied upon.
- Schools need to realistically consider how long their water and food supplies would last in an emergency. Viable options such as storing food and water in each classroom or keeping left over stock from school camps need be discussed
- Schools could follow the example of the Tauranga school which requests children bring a 2 litre bottle of water and a can of food to school at the beginning of each year to be stored in the classroom in case of an emergency.

6.2 Emergency management

- The response rate for this study was 42 percent. The study should be repeated in 2-3 years at an earlier and quieter time of the school year in order to gain a higher response rate and compare the results from this study as a way to evaluate any improvements based on the results of this study.
- In order to increase the number of schools that take advantage of information available from local district Emergency Management, it is recommended that schools be approached by local district Emergency Management annually, offering their services and assistance.
- Emergency Management could provide personal preparedness workshops for school staff in order to ensure staff are able to remain at school and supervise children in an emergency.
- A brochure could be created highlighting recommendations and best practice for schools regarding incorporating Emergency Management in the children's education as well as school and staff preparedness. During a repeat study, the interviewer should discuss these recommendations with principals and the brochures could be included with the posted surveys.

- Posters could be made for teachers to put up in their classrooms, reminding children about emergency procedures for different events. A competition could be held for school children to create a design for the posters which would increase awareness.
- A further study could incorporate secondary schools as well as primary and intermediate schools.

References

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Appendix 1 – Results Raw Data

Q.1. *Is Emergency Management incorporated into the children's education at your school?*

	Yes		No	
	Count	Percent	Count	Percent
Eastern BOP N = 14	14	100	0	0
Rotorua N = 10	9	90	1	10
Western BOP N = 31	26	83.9	5	16.1
BOP N=58	52	89.7	6	10.3

Q.2. *If NO, why not?*

	Time		Lack of Resources		Relevance		Lack of Interest	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Eastern BOP N = 0	0	0	0	0	0	0	0	0
Rotorua N = 1	1	100	1	100	1	100	0	0
Western BOP N = 5	4	80	1	20	2	40	1	20
BOP N = 6	5	83.3	4	66.7	3	50	2	33.3

	Other	
	Count	Percent
Eastern BOP	0	0
Rotorua	1	100
Western BOP	1	20
BOP N = 6	4	66.7

Q.3. *What would encourage you to incorporate hazard education into what you teach?*

- If a nearby disaster occurred (Canterbury earthquakes not close enough)
- If it was part of the curriculum
- Current events
- Time, resources, personnel
- Depends on topics covered during term and up to teachers if they think it is relevant
- If it was a result of an event or aspect of study at the time (service - helping others in time of need)
- Mainly relevance to the programmes
- Time and decent resources from the ministry of education
- Topical events e.g. Canterbury earthquake
- Animal safety
- Extra funding

Q.4. *If Emergency Management is incorporated into what you teach, then what aspects/hazards do you cover?*

	Earthquake		Fire		Flood		Storm	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Eastern BOP N = 14	14	100	14	100	8	57.1	4	28.6
Rotorua N = 9	8	88.9	9	100	2	22.2	2	22.2
Western BOP N = 29	29	100	29	100	6	20.7	7	24.1
BOP N = 55	54	98.2	55	100	17	30.9	14	25.5

	Volcanic eruption		Pandemic		Tsunami		Landslip	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Eastern BOP N = 14	6	42.9	8	57.1	5	35.7	2	14.3
Rotorua N = 9	2	22.2	4	44.4	1	11.1	1	11.1
Western BOP N = 29	6	20.7	16	55.2	20	70	1	3.4
BOP N = 55	15	27.3	30	54.5	28	50.9	4	7.3

	Power failure		Gas leak		Chemical spill		Other	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Eastern BOP N = 14	2	14.3	3	21.4	4	28.6	2	14.3
Rotorua N = 9	1	11.1	1	11.1	1	11.1	0	0
Western BOP N = 29	4	13.8	5	17.2	3	10.3	2	7
BOP N = 55	7	12.7	9	16.4	8	14.5	4	7.3

Q.5 *Do you target the whole school or particular year levels?*

	Whole school		Levels	
	Count	Percent	Count	Percent
Eastern BOP N = 14	14	100	0	0
Rotorua N = 9	9	100	0	0
Western BOP N = 30	29	96.6	1	3.4
BOP N = 56	55	98.2	1	1.8

Q.6. Do you update emergency procedures/plans before running emergency management education?

	Yes		No	
	Count	Percent	Count	Percent
Eastern BOP N = 13	8	61.5	5	38.5
Rotorua N = 9	5	55.6	4	44.4
Western BOP N = 30	21	70	9	30
BOP N = 53	35	66	18	34

Q.7. In what subjects do you incorporate Emergency Management education?

- Social Studies (17)
- Science (10)
- Health and Physical Education (20)
- Maths (2)
- Geography (1)
- On its own (6)
- Integrated into the curriculum (9)
- Literacy (5)
- What's the Plan Stan? (1)
- Keeping ourselves safe (3)
- Current events (5)
- Kia Kaha (1)
- Swimming (1)
- Technology (1)

Q.8. Does your school have a copy of 'What's the Plan Stan?'

	Yes		No	
	Count	Percent	Count	Percent
Eastern BOP N = 11	9	81.8	2	18.1
Rotorua N = 9	7	77.8	2	22.2
Western BOP N = 31	30	96.8	1	3.2
BOP N = 54	49	90.7	5	9.3

Q.9. Which resources do you use?

	Textbooks		Library resources		Newspapers		Internet	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Eastern BOP N = 14	4	28.6	6	42.9	8	57.1	12	85.7
Rotorua N = 9	1	11.1	1	11.1	4	44.4	4	44.4
Western BOP N = 30	7	23.3	17	56.7	19	63.3	24	80
BOP N = 55	12	21.8	26	47.3	33	60	43	78.2

	Civil Defence Emergency Management		Local Government Emergency Management		Ministry of Education		Community groups	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Eastern BOP N = 14	8	57.1	4	28.6	7	50	4	28.6
Rotorua N = 9	8	88.9	4	44.4	6	66.7	4	44.4
Western BOP N = 30	19	63.3	8	26.7	13	43.3	9	30
BOP N = 55	36	65.5	16	29	26	47.3	17	30.9

	What's the Plan Stan?		Other	
	Count	Percent	Count	Percent
Eastern BOP N = 14	9	64.3	1	7.1
Rotorua N = 9	6	66.7	2	22.2
Western BOP N = 30	17	56.7	5	16.7
BOP N = 55	35	63.6	8	14.5

Q.10. Do you use area specific information (e.g., information on local hazards and a list of useful preparedness measures that schools, youth and families can undertake)?

	Yes		No	
	Count	Percent	Count	Percent
Eastern BOP N = 13	11	84.6	2	15.4
Rotorua N = 9	4	44.4	5	55.5
Western BOP N = 30	20	66.7	10	33.3
BOP N = 55	37	67.3	18	32.7

Q.11. Do you discuss emergency procedures with your students?

	Yes		No	
	Count	Percent	Count	Percent
Eastern BOP N = 14	14	100	0	0
Rotorua N = 9	9	100	0	0
Western BOP N = 30	30	100	0	0
BOP N = 56	56	100	0	0

Q.12 Do you encourage parent/caregiver participation in your education programmes?

	Yes		No	
	Count	Percent	Count	Percent
Eastern BOP N = 14	10	71.4	4	28.6
Rotorua N = 8	3	37.5	5	62.5
Western BOP N = 30	22	73.3	8	26.7
BOP N = 55	37	67.3	18	32.7

Q.13. Are your Emergency Management programmes linked to other community initiatives?

	Yes		No	
	Count	Percent	Count	Percent
Eastern BOP N = 14	7	50	7	50
Rotorua N = 9	2	22.2	7	77.8
Western BOP N = 30	11	36.7	19	63.3
BOP N = 56	21	37.5	35	62.5

Q.14. Do you provide follow up activities for the students?

	Yes		No	
	Count	Percent	Count	Percent
Eastern BOP N = 14	11	78.6	3	21.4
Rotorua N = 9	7	77.8	2	22.2
Western BOP N = 28	19	67.9	9	32.1
BOP N = 54	39	72.2	15	27.8

Q.15. Do you evaluate the effectiveness of your Emergency Management education programmes and whether the material needs updating?

	Yes		No	
	Count	Percent	Count	Percent
Eastern BOP N = 14	12	85.7	2	14.3
Rotorua N = 9	8	88.9	1	10.1
Western BOP N = 30	28	93.3	2	6.7
BOP N = 56	50	89.3	6	10.7

If yes, how often?

	Each term		Biannually		Annually		Biennially	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Eastern BOP N = 10	2	20	1	10	4	40	2	20
Rotorua N = 6	3	50	0	0	2	33.3	0	0
Western BOP N = 24	6	25	1	4.2	9	37.5	1	4.2
BOP N = 43	11	25.6	2	4.7	15	34.9	4	9.3

	3+ years		As required		After unit of work	
	Count	Percent	Count	Percent	Count	Percent
Eastern BOP N = 10	1	10	0	0	0	0
Rotorua N = 6	1	16.7	0	0	0	0
Western BOP N = 24	2	8.3	4	16.7	1	4.2
BOP N = 43	3	7	6	14	2	4.7

Q.16. Do you invite Emergency Management Professionals into your school?

	Yes		No	
	Count	Percent	Count	Percent
Eastern BOP N = 14	9	64.3	5	35.7
Rotorua N = 9	6	66.7	3	33.3
Western BOP N = 29	17	58.6	12	41.4
BOP N = 55	34	61.8	21	38.2

If yes, how often?

	Each term		Biannually		Annually		Biennially	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Eastern BOP N = 9	0	0	0	0	5	55.6	0	0
Rotorua N = 6	0	0	1	16.7	4	66.7	1	16.7
Western BOP N = 16	2	12.5	1	6.3	7	43.8	3	18.8
BOP N = 33	3	9.1	2	6.1	16	48.5	4	12.1

	3+years		As required	
	Count	Percent	Count	Percent
Eastern BOP N = 9	1	11.1	3	33.3
Rotorua N = 6	0	0	0	0
Western BOP N = 16	0	0	3	18.8
BOP N = 32	1	3	7	21.2

Q.17. Have you sought information from local district Emergency Management?

	Yes		No	
	Count	Percent	Count	Percent
Eastern BOP N = 14	5	35.7	9	64.3
Rotorua N = 9	2	22.2	7	77.8
Western BOP N = 28	14	50	14	50
BOP N = 54	23	42.6	31	57.4

If yes, how often?

	Each term		Biannually		Annually		Biennially	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Eastern BOP N = 5	0	0	0	0	1	20	0	0
Rotorua N = 2	0	0	0	0	1	50	1	50
Western BOP N = 9	0	0	0	0	4	44.4	2	22.2
BOP N = 17	0	0	1	5.9	6	35.3	3	17.6

	Once		As required	
	Count	Percent	Count	Percent
Eastern BOP N = 5	2	40	2	40
Rotorua N = 2	0	0	0	0
Western BOP N = 9	3	33.3	0	0
BOP N = 17	5	29.4	2	11.8

Q.18. Do you feel the resources provided by Emergency Management are adequate?

	Yes		No	
	Count	Percent	Count	Percent
Eastern BOP N = 11	9	81.8	2	18.2
Rotorua N = 7	6	85.7	1	14.3
Western BOP N = 24	16	66.7	8	33.3
BOP N = 42	33	78.6	11	26.2

Q.19. Does your school undertake Emergency Management exercises (e.g. earthquake drills,

	Yes		No	
	Count	Percent	Count	Percent
Eastern BOP N = 14	14	100	0	0
Rotorua N = 10	10	100	0	0
Western BOP N = 31	31	100	0	0
BOP N = 58	58	100	0	0

If yes, how often?

	Biannually		3 per year		Each term		5 per year	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Eastern BOP N = 13	1	7.7	0	0	10	76.9	1	7.7
Rotorua N = 9	1	11.1	0	0	6	66.7	0	0
Western BOP N = 31	1	3.2	1	3.2	27	87.1	0	0
BOP N = 56	3	5.4	1	1.8	45	80.4	1	1.8

	6 per year		8 per year	
	Count	Percent	Count	Percent
Eastern BOP	0	0	1	7.7
Rotorua	0	0	2	22.2
Western BOP	1	3.2	1	3.2
BOP N = 56	1	1.8	5	8.9

Q.20. *Have you discussed personal preparedness with staff?*

	Yes		No	
	Count	Percent	Count	Percent
Eastern BOP N = 14	7	50	7	50
Rotorua N = 10	6	60	4	40
Western BOP N = 31	22	71	9	29
BOP N = 58	37	63.8	21	36.2

Q.21. *Are your staff aware that they may be asked to remain at school to supervise children who cannot be collected after a disaster event?*

	Yes		No	
	Count	Percent	Count	Percent
Eastern BOP N = 14	12	85.7	2	14.3
Rotorua N = 10	9	90	1	10
Western BOP N = 31	27	87.1	4	12.9
BOP N = 58	51	88	7	12

Q.22. *Have you discussed with parents the arrangements made if they are unable to collect their children from school after a disaster event?*

	Yes		No	
	Count	Percent	Count	Percent
Eastern BOP N = 14	3	21.4	11	78.6
Rotorua N = 10	3	30	7	70
Western BOP N = 31	17	54.8	14	45.2
BOP N = 58	24	41.4	34	58.6

Q.23. *In a disaster event accurate contact lists are important. What measures are in place at your school to ensure contact details are regularly updated?*

- Regular Newsletter reminders (18)
- Records updated yearly (8)
- Facebook (1)
- Letter sent out (3)
- Email contact (2)
- Absentees called daily (2)
- School trip forms provide updated information (1)
- Records updated termly (5)
- Text parents regularly for notices and absentees (4)
- Parents asked to notify school of any changes (7)
- Details checked whenever parents come in to office (1)
- Phone tree (2)
- Current details sent out to parents to check and confirm annually (2)
- Records updated twice per year (1)

- Contacts and emergency numbers are regularly updated (6)
- New hard copy printed whenever there are changes (5)

Q.24 *Does your school have food and water stored for staff and students who must remain at school after a disaster event?*

	Yes		No	
	Count	Percent	Count	Percent
Eastern BOP N = 14	8	57.1	6	42.9
Rotorua N = 9	5	55.6	4	44.4
Western BOP N = 31	19	61.3	12	38.7
BOP N = 58	35	60.3	23	39.7

Appendix 2 – Survey Questionnaire



SURVEY

Emergency Management in Schools



School: _____

1 Is Emergency Management incorporated into the children's education at your school?

₁ Yes ₂ No

2 If **NO**, why not? (*Tick all that apply*)

- | | |
|--|---|
| <input type="checkbox"/> ₁ Time | <input type="checkbox"/> ₂ Lack of resources |
| <input type="checkbox"/> ₃ Relevance | <input type="checkbox"/> ₄ Lack of interest |
| <input type="checkbox"/> ₅ Other (please state) | |

3 What would encourage you to incorporate hazard education into what you teach?

Go to question 19.

4 If **YES**, then what aspects/ hazards do you cover? (*tick all that apply*)

- | | |
|---|---|
| <input type="checkbox"/> ₁ Earthquake | <input type="checkbox"/> ₇ Tsunami |
| <input type="checkbox"/> ₂ Fire | <input type="checkbox"/> ₈ Landslip |
| <input type="checkbox"/> ₃ Flood | <input type="checkbox"/> ₉ Power failure |
| <input type="checkbox"/> ₄ Storm | <input type="checkbox"/> ₁₀ Gas leak |
| <input type="checkbox"/> ₅ Volcanic eruption | <input type="checkbox"/> ₁₁ Chemical spill |
| <input type="checkbox"/> ₆ Pandemic | |

5 Do you target the whole school or particular year levels?

- ₁ Whole school
- ₂ Levels _____

6 Do you update your emergency procedures/plans before running emergency management education programs?

₁ Yes ₂ No

7 In what subjects do you incorporate Emergency Management education?

8 Does your school have a copy of 'What's the Plan Stan?'

₁ Yes ₂ No

9 Which resources do you use? (*tick all that apply*)

- | | |
|--|---|
| <input type="checkbox"/> ₁ Textbooks | <input type="checkbox"/> ₂ Library resources |
| <input type="checkbox"/> ₃ Newspapers | <input type="checkbox"/> ₄ Internet |
| <input type="checkbox"/> ₅ Civil Defence Emergency Management | <input type="checkbox"/> ₆ Local Government Emergency Management |
| <input type="checkbox"/> ₇ Ministry of Education | <input type="checkbox"/> ₈ Community groups e.g. Red Cross |
| <input type="checkbox"/> ₉ 'What's the Plan Stan?' | <input type="checkbox"/> ₁₀ Other |
-

10 Do you use area specific information (e.g., information on local hazards and a list of useful preparedness measures that schools, youth, and families can undertake)?

₁ Yes ₂ No

Other, please specify: _____

11 Do you discuss emergency procedures with your students?

₁ Yes ₂ No

12 Do you encourage parent/caregiver participation in your education programs?

₁ Yes ₂ No

13 Are your Emergency Management programs linked to other community initiatives?

₁ Yes ₂ No

14 Do you provide follow up activities for the students?

₁ Yes ₂ No

15 Do you evaluate the effectiveness of your Emergency Management education programmes and whether the material needs updating?

₁ Yes ₂ No

If yes, how often? _____

16 Do you invite Emergency Management professionals into your School?

₁Yes ₂No

If yes, how often? _____

17 Have you ever sought information from local district Emergency Management?

₁Yes ₂No

If yes, how often? _____

18 Do you feel the resources provided by Emergency Management are adequate?

₁Yes ₂No

Comments: _____

19 Does your school undertake Emergency Management exercises (e.g. earthquake drills, evacuations)?

₁Yes ₂No

If yes, how often? _____

20 Have you discussed personal preparedness with staff?

₁Yes ₂No

21 Are your staff aware that they may be asked to remain at school to supervise children who cannot be collected after a disaster event?

₁Yes ₂No

22 Have you discussed with parents the arrangements made if they are unable to collect their children from school after a disaster event?

₁Yes ₂No

23 In a disaster event accurate contact lists are important. What measures are in place in your school to ensure contact details are regularly updated?

24 Does your school have food and water stored for staff and students who must remain at school after a disaster event?

₁Yes ₂No



HE TIRO WHĀNUI KI NGĀ WHAKAHAERENGA WĀ OHORERE I ROTO I NGĀ KURA



1 He wāhanga te mātauranga Whakahaerenga Wā Ohorere o tō marautanga?

- ₁ Āe ₂ Kāo

2 Mehemea **Kāo**, he aha ai? (*tohua katoa ngā mea hāngai*)

- ₁ Te wā ₂ Kore rauemi
₃ Hāngaitanga ₄ Kore hiahia
₅ Tētahi atu (kōrerohia mai)
-
-

3 He aha te mea hei whakatenatena i a koe ki te whakauru mātauranga mōrea ki roto i ngā kaupapa e whakaako ana koe?

Haere atu ki te patai 19.

4 Mehemea **Āe**, he wāhanga te Whakahaerenga Wā Ohorere o tō marautanga, he aha ngā āhuatanga/ngā mōrea e kapi ana i a koe? (*tohua ngā mea hāngai*)

- | | |
|--|---|
| <input type="checkbox"/> ₁ Rū whenua | <input type="checkbox"/> ₇ Ngaru inati |
| <input type="checkbox"/> ₂ Ahi | <input type="checkbox"/> ₈ Horo whenua |
| <input type="checkbox"/> ₃ Waipuke | <input type="checkbox"/> ₉ Kore hiko |
| <input type="checkbox"/> ₄ Āwhā | <input type="checkbox"/> ₁₀ Haunga kāhi |
| <input type="checkbox"/> ₅ Hū Puia | <input type="checkbox"/> ₁₁ Rūkenga Matū |
| <input type="checkbox"/> ₆ Matewhānui | |

5 Ka whai koe ki te ako i te katoa o te kura, ki ngā kōeke tau hāngai anake rānei?

- ₁ Kura katoa ₂ Ngā Kōeke _____

6 Ka whakahōu koe i ō mahere wā ohorere i mua i tō whakahaere hōtaka matauranga?

- ₁ Āe ₂ Kāo

7 Ko ēhea kaupapa ako ka whakaurua ai e koe ki te mātauranga Whakahaerenga Wā Ohorere?

8 Kei tau kura he kape o 'He aha te tikanga e stan'?

9 Ko ēhea rauemi ka whakamahia ai e koe? (*tohua ngā mea hāngai*)

- | | | | |
|---------------------------------------|-----------------------------|--|--|
| <input type="checkbox"/> ₁ | Pukapuka Matua | <input type="checkbox"/> ₂ | Rauemi whare pukapuka |
| <input type="checkbox"/> ₃ | Nūpepa | <input type="checkbox"/> ₄ | Ipurangi |
| <input type="checkbox"/> ₅ | Te Whakahaerenga Wā Ohorere | <input type="checkbox"/> ₆ | Whakahaerenga Wā Ohorere
Kāwanatanga ā-Rohe |
| <input type="checkbox"/> ₇ | Tāhuhu Matauranga | <input type="checkbox"/> ₈ | Rōpū Hapori (pērā i a Red Cross) |
| <input type="checkbox"/> ₉ | 'He aha te mea Tanare?' | <input type="checkbox"/> ₁₀ | Ētahi atu |

10 Whakamahia ai e koe ngā mōhiohio tauwhāiti (pērā ki nga mōhiohio mō ngā mōrea ā-rohe)?

- ₁ Āe ₂ Kāo

Ētahi atu (tuhia mai)

11 Kōrerorero ai koe me ō ākongā mō ngā hātepe Wā Ohorere ?

- ₁ Āe ₂ Kāo

12 Whakatenatena ai koe i ngā mātua, kaitiaki rānei kia uru ki ō hōtaka mātauranga?

- ₁ Āe ₂ Kāo

13 Te whai hononga ō hōtaka Whakahaerenga Wā Ohorere ki ētahi atu kaupapa kōkiri a te hapori?

- ₁ Āe ₂ Kāo

14 Whakarato ngohe whaimuri ai koe mō ngā ākongā?

- ₁ Āe ₂ Kāo

15 Arotake ai koe te Whaikikotanga o ō hōtaka mātauranga Whakahaerenga Wā Ohorere? Mehemea me whakahōu ngā papanga?

- ₁ Āe ₂ Kāo

Mēnā āe, e hia wā? _____

- 16 Karanga ai koe i ngā ngaio Whakahaerenga Wā Ohorere?
 ₁ Āe ₂ Kāo
 Mēnā āe, e hia wā? _____
- 17 Kua tonono mōhiohio koe mai i te Whakahaerenga Wā Ohorere?
 ₁ Āe ₂ Kāo
 Mēnā āe, e hia wā? _____
- 18 Kei te pai ki a koe ngā rauemi e whakaratoa ana e te Whakahaerenga Wā Ohorere?
 ₁ Āe ₂ Kāo
 He whakaaro anō: _____

- 19 Whai ai tō kura i ngā mahinga Whakahaerenga Wā Ohorere (pērā ki ngā whakawai rū whenua, ngā mahi whakatahinga)?
 ₁ Āe ₂ Kāo
 Mēnā āe, e hia wā? _____
- 20 Kua kōrero koe me ngā kaimahi mō te takatūtanga whaiaro?
 ₁ Āe ₂ Kāo
- 21 Kei te mārama ō kaimahi tērā pea ka mate rātou ki te noho ki te kura ki te tiaki tamariki kāore e taea te kōhi whaimuri i tētahi kaupapa parekura?
 ₁ Āe ₂ Kāo
- 22 Kua kōrero koe ki ngā mātua mō ngā whakaritenga mehemea kāore e taea e rātou te kohikohi i ā rātou tamariki whaimuri i tētahi āhuatanga parekura?
 ₁ Āe ₂ Kāo
- 23 He mea nui ngā rārangi ingoa whakapānga i ngā wā parekura. He aha ngā huarahi kua whakaritea i roto i tō kura hei āta whakaū ka whakahōungia ngā mokamoka whakapānga?
- 24 Kua whakaputu kai me te wai tō kura mō ngā ākongā ka mate ki te noho ki te kura i ngā wā parekura
 ₁ Āe ₂ Kāo

*Translation by Te Taura Whiri i te Reo Māori – Maori Language Commission