

COMMUNICATING RISK

DISASTROUS DOCTORATES 2017

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QuakeCoRE
NZ Centre for Earthquake Resilience



Research is funded by the Earthquake Commission of New Zealand, and a new research cluster called QuakeCoRE

MY ROLE TODAY:

- ✓ Facilitator
- ✓ Background in geology and education
- ✓ Sharing risk communication resources
 - ✓ All resources we will encounter today is available online via:
riskcommresources.strikingly.com
 - ✓ Please share widely!
 - ✓ The resources are for educational and research use only.

Geoscience education researcher

Postdoctoral Fellow at Victoria University of Wellington

My research: https://www.researchgate.net/profile/Jacqueline_Dohaney

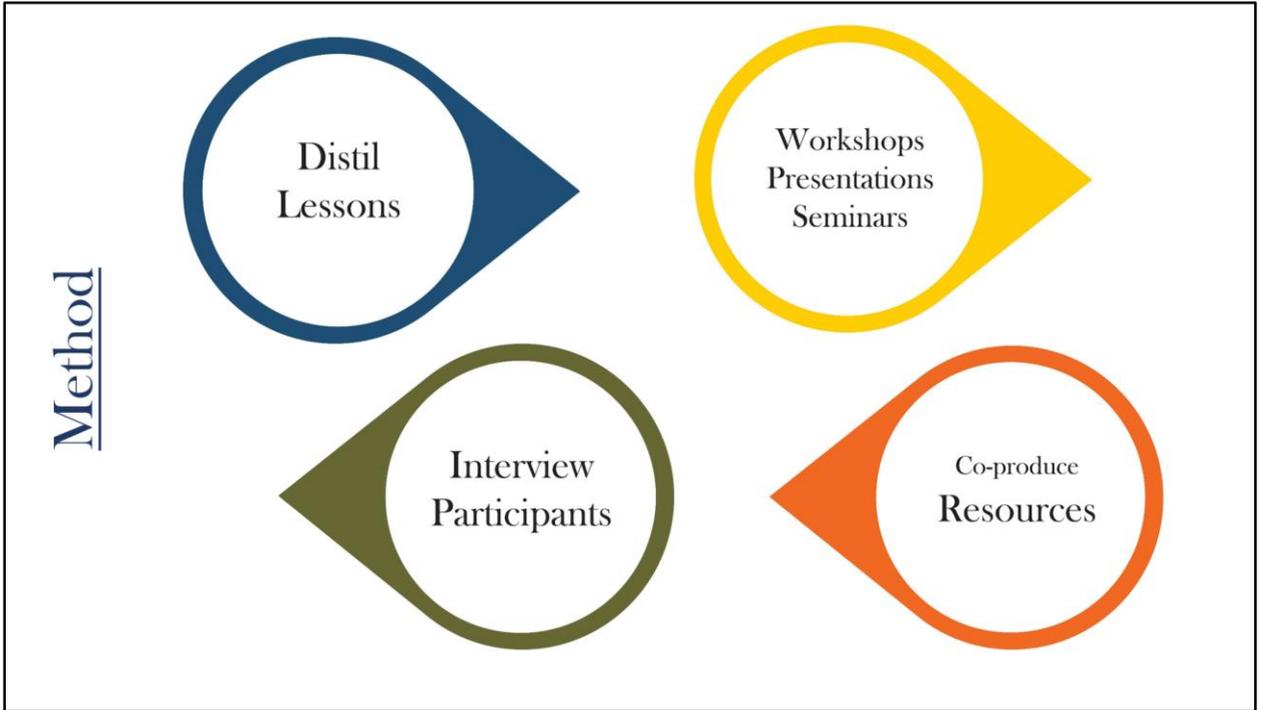
RESEARCH PROJECT GOALS:

- ✓ **Engage** with professionals in geology, emergency management, and engineering sectors within New Zealand.
 - ✓ People responsible for communicating natural hazards science to the public.
 - ✓ Risk & crisis communication.
- ✓ **Share our experiences** with communication training.
- ✓ **Raise awareness** of value of role-play & training exercises.

6 month project which aims to engage professionals in risk and crisis communication best practice.

Focus is on risk and crisis communication in natural hazards professionals.

Aim to improve communication in the sector



Participatory approach to engagement.
Partnering with professionals
Understanding what their communication needs are
Develop customised engagement based on their needs
Create shared resources

Interviews with professionals

- **Participatory** engagement approach
- **Professionals** (n=20) in geology, emergency management, and engineering sectors within New Zealand
 - Aim was to interview a range of professionals
 - People currently active in risk and crisis communication
- **Snowball** sampling approach
- Interview protocol designed to **identify specific communication needs** and styles of engagement which is suited to the professionals

In stage 2 of the project, we interviewed professionals across a range of science organisations who communicate about natural hazards
Aim was to collect a range of views

Results: Communication needs

*Most commonly mentioned theme: **strategic planning***

- Programme or **campaign-level** strategy
- **Support** and acknowledgement that communication work matters
- **Targeted** (i.e., to specific groups) communication strategies
- **Evaluation** strategies
- **Risk** and resilience basics
- **Participatory** approaches to communication

Content analysis was carried out on a subset of the data, and ongoing analysis continues.

Themes are being checked using constant comparison, and refined as new data is included.

- Most professionals reported that their organisation did not have a coherent strategy for communication (overall).
- Want/needs for senior leadership to endorse a wider communication strategy
- Targeted approach which allows scientists to communicate better to specific audiences, particularly vulnerable populations
- Help developing the means and strategies for evaluating what has already been done, and see what works
- Audiences struggle to understand what risk and resilience are, and have differing meanings. It would be good to develop basic strategies to help translate risk and resilience to the wider community
- Use communication as part of a participatory approach to engagement with their communities

Results: Shared knowledge

Many of the professionals interviewed are active communicators and communication researchers. Several key resources have been identified and will be shared today:

- Lessons Learned in Communication Training (Dohaney 2016)
- **Crossing the Disciplinary Boundaries** (Dohaney and McBride, 2016)
- 16Cs and 7Ts of **communication best practice** (Bryner, 2016)
- **Reflective practice** for communicators (McBride, 2016)

One major aim of the interviewing process is to identify key resources that can be used, as part of a collection to be provided to the science and risk communication community.

Several communication researchers have directed us to some work that we can share.

These resources can be found at riskcommresources.strikingly.com

WORKSHOP OBJECTIVES:

- ✓ **Discuss** the lessons learned from our research into communication education.
- ✓ **Reflect** on how different professionals approach communication differently due, in part, to their training, experiences, and values. **Recognise that communication is a team-effort** shared by these disciplines, with the public.
- ✓ Learn about research-informed **science and risk communication best practices**. Reflect on areas for growth, reflection and improvement. **Recognise** your own challenges and needs in risk communication.

COMMUNICATION LEARNING: WHAT DO WE KNOW?



Section Objectives:

Describe the lessons learned from our research in communication education.

Identify which lessons resonate with you, and why.

Higher Education Research for Improved Communication



This project developed and evaluated a suite of scenarios that can be used as real-time role-plays that enhance communication skills. Through these role-plays, learners can gain experience in realistic and challenging situations where they need to rapidly respond in an uncertain environment, and effectively communicate with a range of stakeholders



Why are we qualified to engage professionals in communication?

- We have experience with training undergraduate and postgraduate students.
- We have built and tested several role-plays, (Please see: Dohaney, J., Brogt, E., Kennedy, B. et al. J Appl. Volcanol. (2015) 4: 12)

Full Ako Aotearoa Project Report available at:

<https://ako.aotearoa.ac.nz/improving-science-communication-skills>

Lesson 1. A holistic & interdisciplinary approach



- You cannot understand communication without exploring its history and use from **many domains** (E.g., Public relations, health communication).
- **Different definitions:** risk vs. crisis vs. science communication.

Lesson 2. Communication is cultured and highly contextualised

- Communication is no longer viewed as Source -> Receiver. Communication does not occur in a vacuum.
- Training should include tasks that allow us to assess the appropriateness of strategies for specific circumstances.

In stage 1 of the project, we summarised and identified the major learning from our research into communication training. Please refer to the Lessons Learned Handout (which is also available on the riskcommresources.strikingly.com)

Lesson 1.

Communication is studied by many academic disciplines: Public relations, Media and mass communications, emergency management, science communication and public engagement.

Many definitions in the literature: Risk, vs. Crisis, vs. Science, vs. Corporate, vs. Health (sub disciplines). There is learning from all these areas which are helpful for communicating about natural hazards

Lesson 2.

Communication is complex, cultured and highly contextualised.

Training of science communicators should include complexity, incorporating elements from social, political, cultural spheres.

Lesson 3. Communication is multi-faceted

*Some scientists approach communication with a **narrow view** and specific to a public speaking context.*

Communication has a range of ...

- **Receivers** (strangers, acquaintances, friends)
- **Contexts** (public, meeting, group, paired)
- **Forms** (verbal and non-verbal)
- **Styles** (informative, advocative, persuasive)
- **Formats** (press conferences, seminars, panel discussion, interviews, social media, visual, written)

Lesson 3.

Communication occurs in a wide variety of formats, styles and contexts.

A skilled communicator should be familiar and comfortable with communicating in different situations

Therefore, training in communication should incorporate different situations and styles

This allows the communicator to develop situation-specific (i.e., audience-specific) strategies

Lesson 4. Role-play improves perceptions & confidence

There is much anecdotal advice on how to improve communication



We showed* that by participating in the role-plays, learners...

- improved communication **confidence**
- improved their **perceptions** of best practices in communication
- gained valuable **experience** in a realistic scenario

*Dohaney et al. (2016) Improving Science Communication through Scenario-Based Role-plays, Ako Aotearoa Research Report

Lesson 4.

Previous research into role-play has revealed that learners show self-reported improvement of communication.

We used valid metrics to measure their improvement: confidence (SPCC, McCroskey and McCroskey 1988) and perceptions (PCC in Dohaney et al, Ako Aotearoa Report, 2016). Further research will allow us to compare self-reported measures to performance.

Lesson 5. Feedback & support is key

Meaningful feedback is the key to improving communication.

- It allows learners to **try out new strategies** and receive specific feedback in a safe learning environment.
- Feedback can be done on the spot, through **quick-fire comments**, or through **longer reflection** on practice (viewing self, viewing others).

Lesson 6. The value of education research

Science communication training is often built adhoc and is not evaluated.

- Build and design communication from known **theory**.
- Use appropriate and **evidence-based methods** of evaluation.

Lesson 5.

Research tells us that rehearsal, reinforcement and feedback are core to improving confidence in communication.

Curricula which incorporates real, meaningful feedback and multiple opportunities for feedback, allows students to respond and develop new strategies

Feedback should be provided in a supportive fashion, acknowledging that learners have different styles and have a range of prior experiences which influence their ability to communicate.

Lesson 6.

Reflections?

As a group talk about these lessons.

What is most valuable for you and your work?

Are there any that you disagree with? Why?

~5 minutes

CROSSING DISCIPLINARY BOUNDARIES FOR IMPROVED RISK COMMUNICATION



Activity 1:

(~30 minutes total)

Start activity by introducing participants to Crossing Boundaries diagram of the professions involved in natural hazards communication and their attributes. Talk about how these are different areas with people trained and valuing different skills, attributes, etc. Recognise that these attributes come together as almost stereotypes – in reality most people lie along a spectrum of behaviours. This is a perspective-taking exercise, not a finger-pointing exercise.

Activity Objectives:

Reflect on how science, engineering, emergency management and communication professionals approach communication differently due, in part, to their training, experiences, and values.

Practice thinking about the needs and strengths of these different professions.

Discuss ways to overcome professional differences/tensions

Recognise that communication is a team-effort shared by these disciplines, with the public. We all play a part in the narrative of an event or in peacetime, and as a continuum through time.

CROSSING DISCIPLINARY BOUNDARIES FOR IMPROVED RISK COMMUNICATION

- ✓ Get together into small groups of people from different backgrounds. Introduce yourself to the people at your table.
- ✓ In turn, look at the communication needs for each type of professional. Where do you fit? Think about how you want to be communicated with? What style/format/strategies do you value? What are your strengths? Do people at the table agree/disagree with what's been said? Share your own experiences that help prove your point.
- ✓ List barriers (as a group) which can create misunderstandings between these sectors. Come up with some ideas or strategies that can reduce these barriers.

Activity 1:

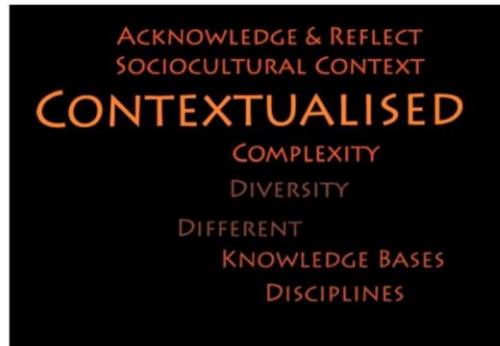
~25 minutes

Then (5 minutes):

- ✓ Conclude activity with whole-room talking about their shared goals that these professionals have. What are they aiming to do, TOGETHER, during a regional or large-scale event.

BUILDING YOUR OWN COMMUNICATION STRATEGY

Features (16Cs) and strategies (7Ts) for
science and risk communication



Activity 2:

(~30 minutes)

Objectives

Using the 16Cs & 7Ts, individually, build their own strategy which incorporates their strengths.

Identify which parts of the 16Ts matter most to you the most, and why that is (i.e., areas for growth, reflection and improvement)

Build an individual communication strategy which incorporates your strengths and acknowledges your weaknesses

Recognise your own challenges and needs in risk communication

Vivienne Bryner did her doctoral study at the University of Otago on the mass media and how it is pivotal for communicating the sciences of disaster risk reduction (DRR) to citizens.

Ultimately, it has a significant collective effect on how individuals and society consider natural hazards science, mitigation, and risk reduction principles.

She used her research to identify practical ways in which media, scientists, and policy- and decision-makers could individually and collaboratively improve the content of mass media concerning natural hazards.

Her research looked at evidence-based advice on science and risk communication

from a range of scientific disciplines, analysed earthquake-communication-related media, notably the NZ-based media preceding and during the Canterbury earthquakes of 2010 and 2011, and surveyed and interviewed 493 New Zealand citizens and scientists.

The 16Cs and 7 Ts is a synthesis of this research for how scientists and practitioners can better communicate about science and risk for DRR.

BUILDING YOUR OWN COMMUNICATION STRATEGY

- ✓ Putting yourselves in the shoes of a wide range of audiences. Individually, pick three elements on the left of the table that you think are the most important to the public.
- ✓ Discuss as a group why you think that is.
- ✓ Now, revisit the diagram. Reflect on what you think YOU are good at on this list. What strengths do you have?

Activity 2:

(~15 minutes)

Identify which items you think the public will think is most important.
Circle the items that you think you are good at.

BUILDING YOUR OWN COMMUNICATION STRATEGY

- ✓ Reflect now on what you can improve on. What areas would you like to make an improvement?
- ✓ What challenges stand in your way? (i.e., what are the barriers for improvement?). What do you need to improve on these areas?
- ✓ Discuss as a wider group what the common barriers/challenges that are inhibiting us from being good risk communicators.

Activity 2:

(~15 minutes)

Circle the areas that you think you can make an improvement.
Flip over the sheet, and write about some challenges (top half of the paper).

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