



Conducting Research in Sites of Injustice: *Training to Ethically Collect Perishable Data After Disaster*



Lori Peek, Ph.D.
Professor, Department of Sociology
Director, Natural Hazards Center and CONVERGE
University of Colorado Boulder



NSF Award #1635593 and #1841338



Natural Hazards Center



CONVERGE

Purpose



Researchers looking to apply justice principles to their own work.

Communities seeking to lay out clear expectations for the researchers they collaborate with.

An aerial photograph of a city, likely New Orleans, completely inundated with floodwater. The water is a dark, murky blue-grey color, covering almost the entire visible area. Only the tops of buildings, trees, and some utility poles are visible above the water level. In the background, a large body of water, possibly a bay or river, is visible with a large ship docked at a pier. A bridge with two tall towers is also visible on the right side of the image. The overall scene depicts a massive scale of flooding and destruction.

Disasters are *not* equal opportunity events



Disasters are sites where *injustice* is revealed

What is the goal of post-disaster reconnaissance?

A. To collect perishable data.



After the deadly 2004 Indian Ocean earthquake and tsunami, hundreds of researchers from Japan, Russia, France, the U.S., and elsewhere rushed to the region to collect perishable data. The influx of foreign scientists angered and fatigued some locals. The former governor of Aceh province, Indonesia, where 128,000 people died, described foreign researchers as “guerrillas applying hit-and-run tactics.”¹



¹ Gaillard, JC & Peek, L. (2019). Disaster-zone research needs a code of conduct. *Nature* 575: 440-442.

What is the goal of post-disaster reconnaissance?

To collect perishable data in a *culturally competent* and *ethical manner*.



Perishable Data

“Perishable data is highly transient data that may degrade in quality, be irrevocably altered, or be permanently lost if not collected soon after it is generated... This data may need to be collected at multiple points in time across varying geographic scales to accurately characterize exposure, harm, and coping capacity.”¹

¹ Adams, R. M., Evans, C. M., & Peek, L. (2023). Defining, collecting, and sharing perishable disaster data. *Disasters* 48(1): e12592.
<https://doi.org/10.1111/disa.12592>



Collecting and Sharing Perishable Data

The **context** of perishable data collection introduces unique **ethical challenges** and considerations of our **collective responsibilities** as disaster researchers



Time Pressures

- Rapid data collection *and* need for data sharing

Power and Resource Gaps

- Outside researchers in culturally unfamiliar contexts

Emotional Challenges

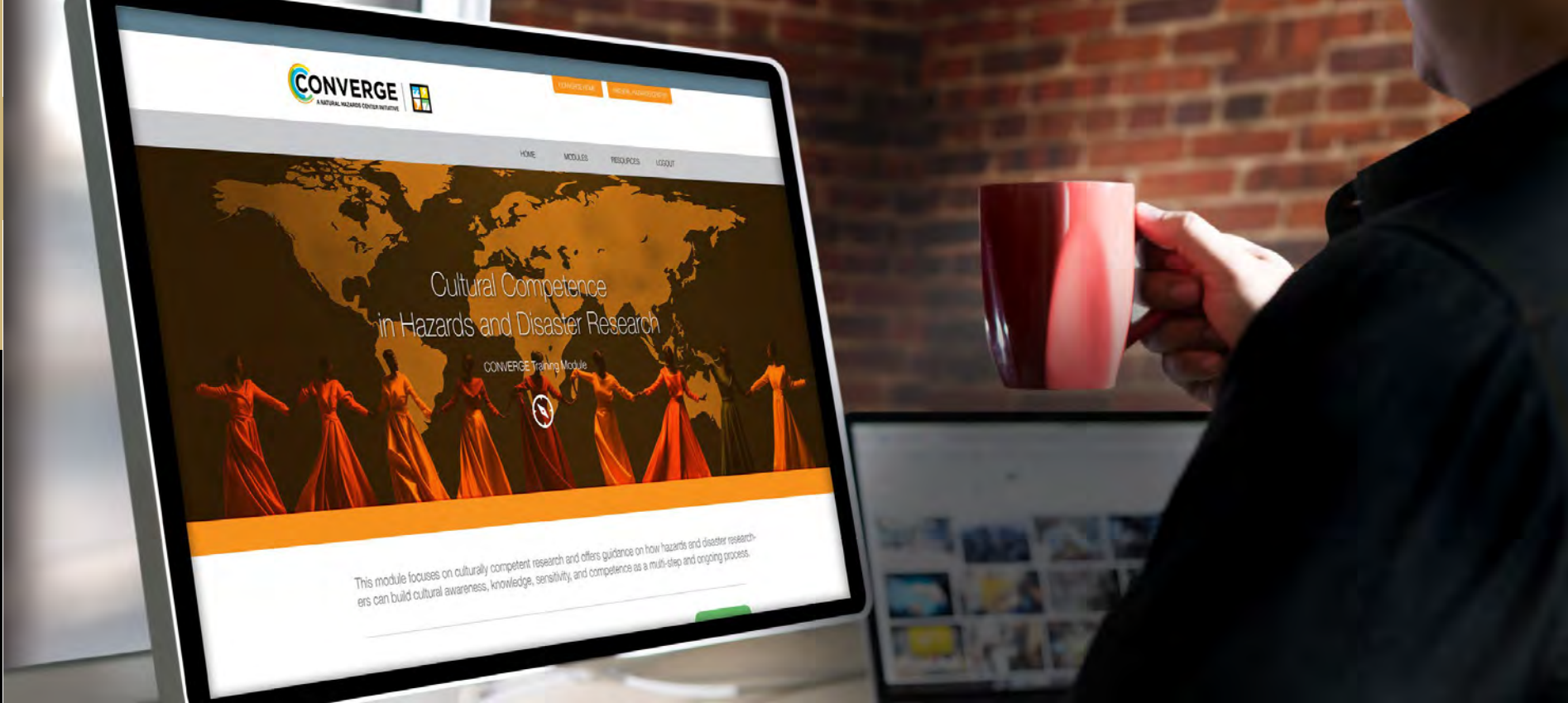
- Researchers exposed to widespread damage, destruction, and loss of life
- Witnesses to disproportionate impacts among marginalized populations and newly vulnerable people

Coordination Complications

- Teams must balance the need to collect perishable data while not interfering with emergency response efforts
- Locally-affected colleagues may be disaster survivors *and* disaster first responders



University of Colorado Boulder



- Broader Ethical Considerations for Hazards and Disaster Researchers
- Collecting and Sharing Perishable Data
- Conducting Emotionally Challenging Research
- Cultural Competence in Hazards and Disaster Research
- Disaster Mental Health
- Indigenous Sovereignty in Disaster Research
- Institutional Review Board (IRB) Procedures and Extreme Events Research
- Positionality in Hazards and Disaster Research and Practice
- Public Health Implications of Hazards and Disaster Research
- Reciprocity in Hazards and Disaster Research
- Social Vulnerability and Disasters
- Understanding and Ending Gender-Based Violence in Fieldwork

CONVERGE Training Modules

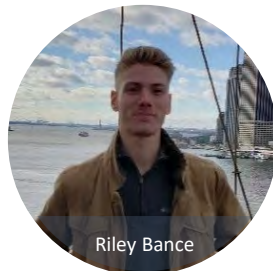
converge.colorado.edu/resources/training-modules/



Training Module Developers and Collaborators



Jessica Austin



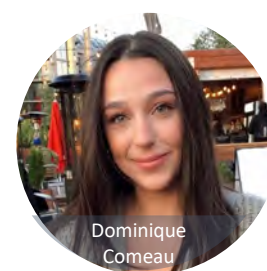
Riley Bance



Paulette
Blanchard



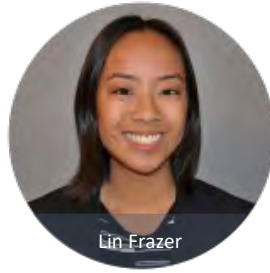
Heather
Champeau



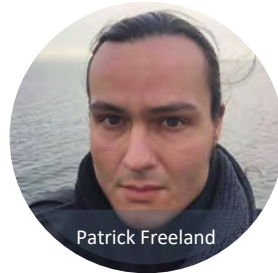
Dominique
Comeau



Tracy Fehr



Lin Frazer



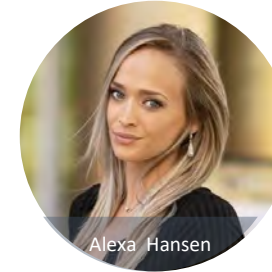
Patrick Freeland



Christine
Gibb



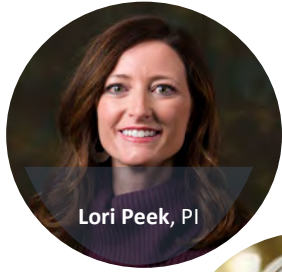
Ciarra
Greene



Alexa Hansen



Jerika Heinze



Lori Peek, PI



Lesley Laukea



Julie Maldonado



Brigid Mark



Molly McKeown



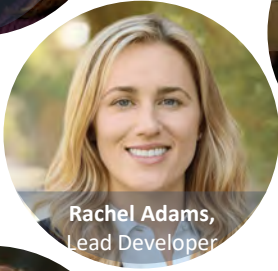
Michelle
Montgomery



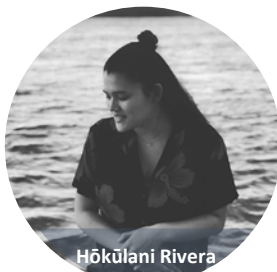
Jasmine Neosh



Skye Niles



Rachel Adams,
Lead Developer



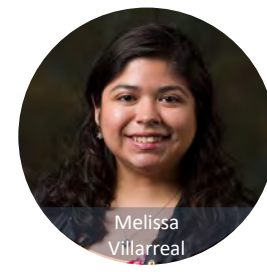
Hōkūlani Rivera



Bella Runza



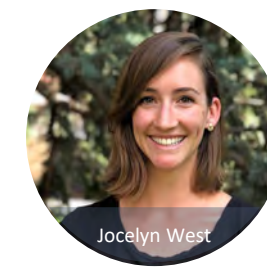
Bertha Bermudez
Tapia



Melissa
Villarreal



Courtney Welton-
Mitchell



Jocelyn West



Haorui Wu



University of Colorado Boulder

CONVERGE Training Modules

CONVERGE

Training Modules

Free, online trainings designed for students, early career professionals, and others who are new to hazards and disaster research and practice. They incorporate an all-hazards approach grounded in cutting edge research from the social sciences, public health, engineering, and other disciplines. Each module features:

- Learning objectives
- Lesson plans
- Case studies and interactive activities for self-reflection and discussion
- A list of additional resources
- A final quiz worth **one contact hour** of general management training through the International Association of Emergency Managers (IAEM) certification program.



Cultural Competence

- Rigorous, ethical research can be driven by **both** engineering/scientific needs **and** the needs of locally-affected populations
- Familiarizing yourself **cultural context** of the research site can help ensure that your research approach is not unintentionally causing harm



Wu, H., Peek, L., Mathews, M. C., & Mattson, N. (2022). Cultural competence for hazards and disaster researchers: Framework and training module. *Natural Hazards Review*, 23(1), 06021005. [https://doi.org/10.1061/\(ASCE\)NH.1527-6996.0000536](https://doi.org/10.1061/(ASCE)NH.1527-6996.0000536)



University of Colorado Boulder

Developing Cultural Competence

- Training
- Self-Reflection
- Organizational Support and Leadership
- Working with, Recognizing, and Compensating Local Partners and Culture Brokers
- *This is an ongoing, iterative process that entails critical reflection and deep engagement*



University of Colorado Boulder

Emotionally Challenging Research

- Disasters wreak havoc on communities and can make research in these settings emotionally challenging
- Examples of emotional challenges include **vicarious trauma**, **compassion fatigue**, and **burnout**
- This is *not* just a “social science issue” – engineers and physical scientists are often first on the scene after a disaster and may be witness to death and destruction
- There are **strategies** to help cope with emotionally challenging research



Bermúdez Tapia, B., Fehr, T., Niles, S., Peek, L., Evans, C., & Adams, R. Conducting emotionally challenging research: Lessons from the field. *Under Review*.



Recommendations for Addressing Emotional Challenges in Research

Strategies for Individual Researchers

- Writing fieldnotes and journaling
- Participating in counseling or coaching sessions
- Balancing research activities and taking breaks
- Seeking religious or spiritual support
- Practicing mindfulness
- Caring for one's physical and emotional health
- Expressing gratitude and acknowledging the positive aspects of your work

Strategies for Research Collaborators

- Developing peer support networks
- Participating in advocacy or activism

Strategies for Research Mentors or Supervisors

- Allowing time and space for discussing emotionally challenging research
- Establishing advising or mentoring contracts

Strategies for Leaders or Institutions

- Integrating discussions of Emotionally Challenging Research into the research culture
- Providing financial resources and expertise



A Question:

- How do you plan to *give back* to the people or places that you study?

Reciprocity in Research

- Researchers have an **ethical obligation** to not only collect data, but also to work to produce meaningful benefits for the people involved with or affected by the hazards and disaster research process
- **Reciprocity** in research involves an ongoing practice of reflection, relationship-building, and **mutually-beneficial exchange** between researchers and partners/participants
- Examples of reciprocity: **\$ compensation, training, cultural preservation**, and the provision of **research resources** such as the return of data and presentation of findings



CONVERGE

Training Modules

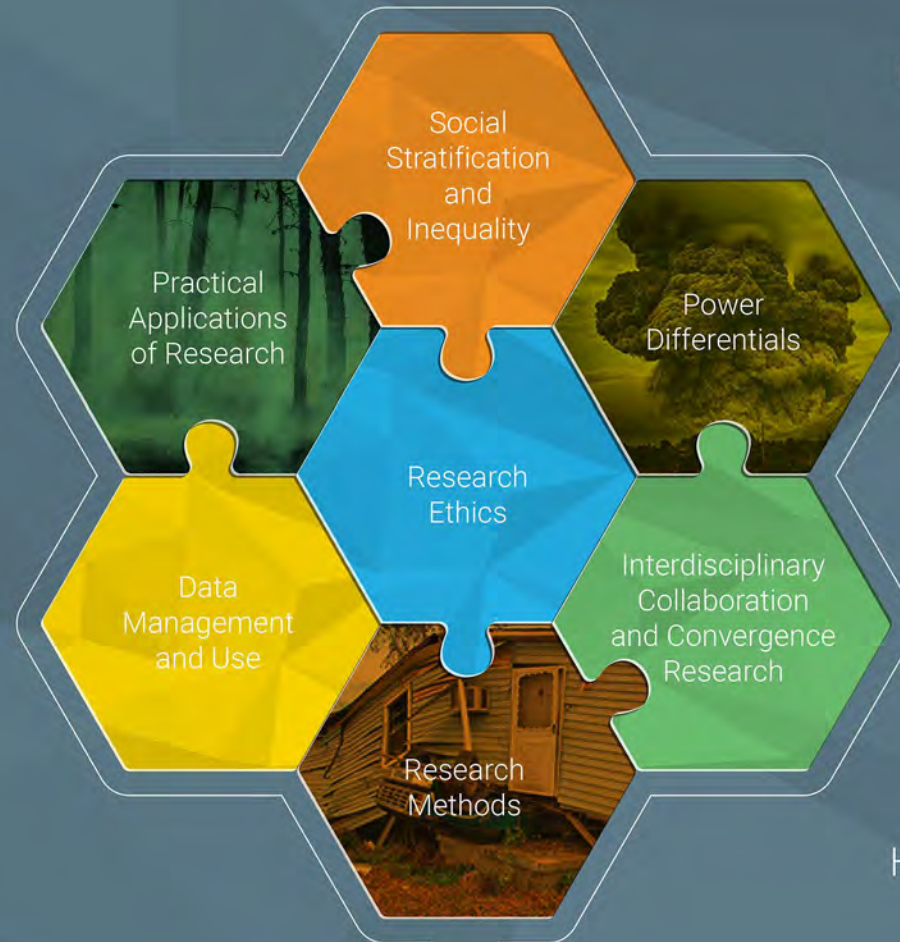
Foundational Training Module Topics

- Institutional Review Board (IRB) Procedures and Extreme Events Research
- Conducting Emotionally Challenging Research
- Cultural Competence
- Collecting and Sharing Perishable Data
- Social Vulnerability and Disasters
- Disaster Mental Health

Advanced Training Module Topics

- Broader Ethical Considerations
- Positionality
- Reciprocity
- Understanding and Ending Gender-Based Violence in Fieldwork
- Public Health Implications of Hazards and Disaster Research

Shared Themes





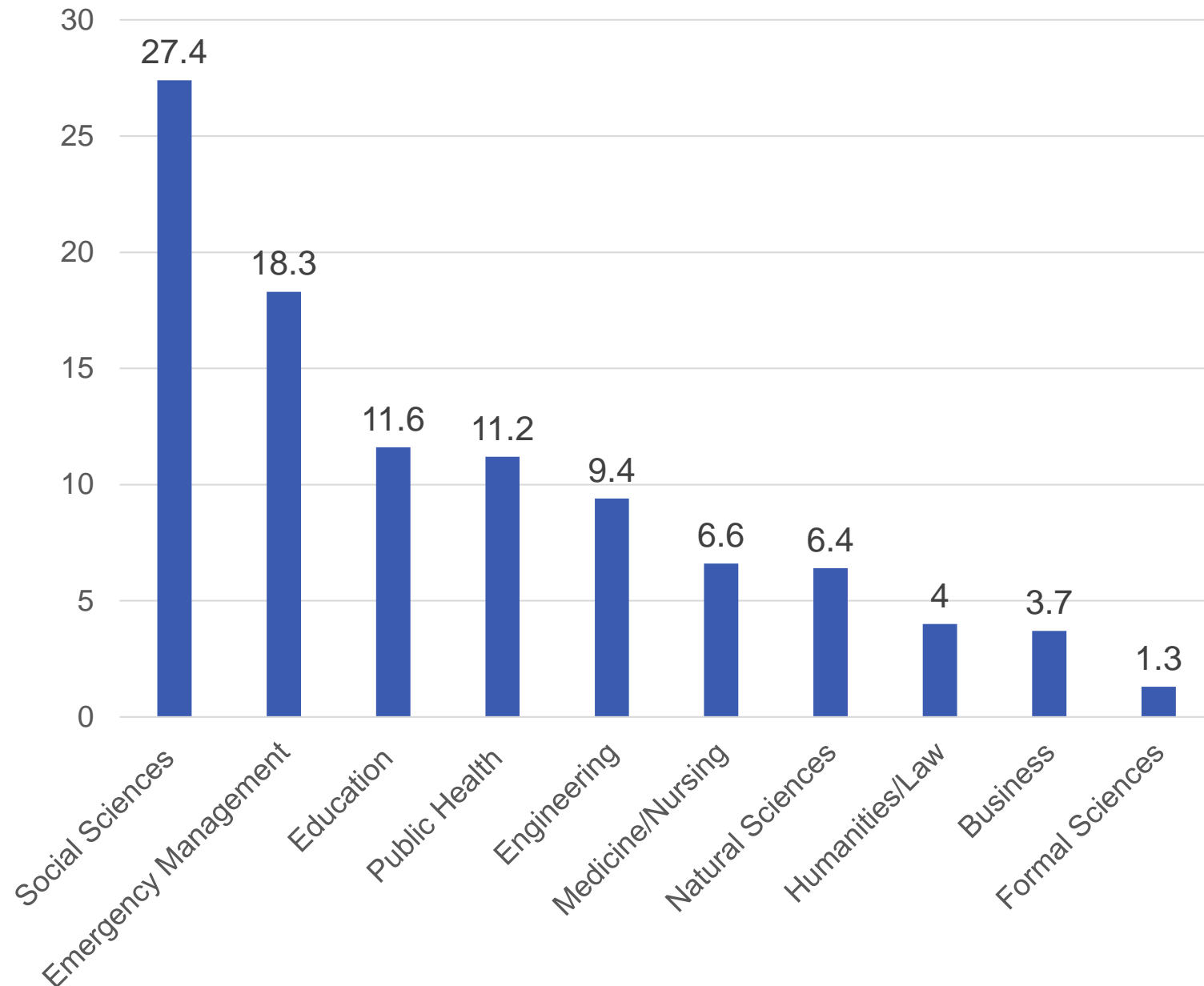
Training Module Evaluations

CONVERGE

Training Modules: Use and Impact

- **10,423 Training Module Registrants**
- **11,513 Successfully Completed Modules**
- **Improved users' knowledge, skills, and attitudes**
- **Completing the modules was “the most helpful thing” in preparation for rapid research after the 2021 Marshall Fire. –Oregon State University engineering graduate student**

% Completions by Discipline





Additional CONVERGE Resources



Additional CONVERGE Resources

CONVERGE UNIVERSITY OF COLORADO BOULDER
CONVERGE TRAINING MODULES
ANNOTATED BIBLIOGRAPHY

CONVERGE Cultural Competence Annotated Bibliography

This annotated bibliography includes resources focused on cultural competence in hazards and disaster research. This bibliography is meant to support those interested in learning more about how to build cultural competence and to complement the CONVERGE Cultural Competence in Hazards and Disaster Research Training Module. These references were compiled through searching Web of Science, Ebscohost, Proquest, and Google Scholar databases. If you identify missing references, please send them to converge@colorado.edu, and we will add them to the list.

Citation

Anderson, M. B., & Woodrow, P. J. (1998). *Rising from the ashes: Development strategies in times of disaster*. Lynne Rienner Publishers.

Abstract

N/A

Citation

Ball, A., Anderson-Butcher, D., Mellin, E. A., & Green, I. H. (2010). A cross-walk of professional competencies involved in expanded school mental health: An exploratory study. *School Mental Health, 2*, 114-124. <https://doi.org/10.1007/s12310-010-9039-0>

Abstract

Expanded school mental health (ESMH) programs often involve individuals from a variety of professions working together to address student needs evident across school, family, and community systems. Profession-driven differences in philosophies, expectations regarding confidentiality, and graduate training that reinforces isolated rather than interprofessional approaches to working with students, however, represent real challenges to maximizing the potential of ESMH. To address these issues, this exploratory study identified a common set of competencies to support interprofessional practice in ESMH. A total of 51 competencies were identified across seven theme areas, including: (1) Key Policies and Laws; (2) Interprofessional Collaboration; (3) Cross-Systems Collaboration; (4) Provision of Academic, Social-Emotional, and Behavioral Learning Supports; (5) Data-Driven Decision-Making; (6) Personal and Professional Growth and Well-Being; and, (7) Cultural Competence. Mapping of the competencies to existing accreditation and practice standards

CONVERGE | National Hazards Center | CU Boulder
481 UCB | Boulder, CO 80508-0481 | (303) 751-1544
convergecolorado.edu

CONVERGE UNIVERSITY OF COLORADO BOULDER
CONVERGE TRAINING MODULES
SAMPLE ASSIGNMENT

SOCIAL DIMENSIONS OF NATURAL HAZARDS TRAINING MODULE ASSIGNMENT

Course: NR 303: Humans and the Environment
Description: Guest lecture for a 3 credit undergraduate course at North Carolina State University. Presented as part of the Risk and Hazards module.
Student Lecturer: Olivia Via, PhD student at North Carolina State University in the Department of Parks, Recreation, and Tourism Management
Email: olivia@ncsu.edu
Session: Fall 2019
Due: October 29, 2019

Guest Lecture Overview:
As part of your Risk and Hazards module, you will have a guest speaker who will discuss the social dimensions of natural disasters. The learning outcomes for this guest lecture include the ability to:

- Define disaster, social vulnerability, and the four phases of emergency management.
- Explain why natural disasters are considered social phenomena.
- Demonstrate how social factors influence people's vulnerability to disasters.
- Identify ways that university research can help inform our understanding of diverse disaster experiences across and within different groups.

In preparation for this guest lecture, you will be required to complete three tasks, which are described in the following pages.

CONVERGE TRAINING

CONVERGE | National Hazards Center | CU Boulder
481 UCB | Boulder, CO 80508-0481 | (303) 751-1544
convergecolorado.edu

CONVERGE UNIVERSITY OF COLORADO BOULDER
CONVERGE TRAINING MODULES
RESOURCES

Indigenous Sovereignty Resources

The following list of resources related to Indigenous Sovereignty in hazards and disaster research and practice. This list includes websites, tools, and other relevant resources that can be accessed through the embedded hyperlinks.

Websites, Tools, and Other Web-Based Resources

- National Indian Council on Aging
- Native American Food Sovereignty Alliance
- The Plateau Peoples' Web Portal
- Tribal Climate Tool
- U.S. Department of the Interior Indian Affairs

Books for Further Reading

- An Indigenous Peoples' History of the United States
- Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants
- Half-Lies and Half-Truths: Confronting the Radioactive Legacies of the Cold War
- Re-Indigenizing Ecological Consciousness and the Interconnectivity to Indigenous Identities

Videos

- Fire Management of American Indian Basket Weaving Plants in the Pacific Northwest
- Food Sovereignty: Valerie Segrest at TEDxBainier
- Indian Health 101: Fulfilling a Promise
- Remembering The Hiawatha Insane Asylum for American Indians

Resources for Writing about Indigenous Populations

- American Psychological Association Bias-Free Language Guidelines
- Indigenous Journalists Association Reporting Guides for Journalists
- Native American Journalists Association Reporting and Indigenous Terminology
- Native Governance Center
- National Congress of American Indians
- The Conscious Style Guide

CONVERGE | National Hazards Center | CU Boulder
481 UCB | Boulder, CO 80508-0481 | (303) 751-1544
convergecolorado.edu

CONVERGE UNIVERSITY OF COLORADO BOULDER
EXTREME EVENTS RESEARCH
CHECK SHEETS SERIES

BEST PRACTICES FOR ETHICAL POST-DISASTER COMMUNITY OUTREACH AND ENGAGEMENT
Melissa Villarreal, University of Colorado Boulder

This check sheet is intended to assist investigators who are conducting field research with communities affected by disasters. This check sheet draws on several sources, including methodological writings and case studies from previous research, and offers key considerations to help advance ethical post-disaster engagement.

What is community outreach?

- Community-situated: Research topic is of practical relevance to the participating community (as defined by the community members) and is carried out in community-based settings.
- Collaborative: Control over the research project is shared by researchers and community members.
- Action-oriented: The process and results are meant to lead to positive social outcomes and to promote social equity for community members.

How can researchers engage in effective community outreach?

- Pre-Engagement
 - Consult with community leaders and/or local researchers prior to beginning the research project. In a post-disaster setting, when community leaders may be overwhelmed, it is especially important that researchers be prepared to slow down or work at a pace that is appropriate for the community context.
 - Consider including local community leaders as partners in the research team from the outset. Involve key informants and stakeholders in decision-making roles from research design to implementation to analysis. Too often, community leaders are only asked to help with participant recruitment. Effective engagement moves beyond this step to include community members throughout the entire research lifecycle.
 - After a major disaster, many researchers may travel to the affected area, leading to potential redundancy and community fatigue. Local partners can help with constructing new research questions and identifying new participants.
- Conduct background research into the historical, social, and political context of the community.
- Researchers should also seek to understand community experiences and perceptions regarding academic research.
- Be aware that community leaders may be mistrustful of research; as such, this stage can have several challenges. For more details on how to navigate these ethical concerns and challenges, see: Bromley et al. 2015.
- Keep in mind: No one approach to engagement will be successful in all communities. This is why it is important that researchers familiarize themselves with the particular context of each community prior to initiating engagement.

CONVERGE | National Hazards Center | CU Boulder
481 UCB | Boulder, CO 80508-0481 | (303) 751-1544
convergecolorado.edu

converge.colorado.edu/resources





University of Colorado **Boulder**

THANK YOU



Questions? Contact:
Lori Peek
Lori.Peek@colorado.edu

hazards.colorado.edu
converge.colorado.edu

Subscribe Now



Natural Hazards Center



CONVERGE



NSF Award #1635593 and #1841338

