

# Evaluating the Effectiveness of In-Person and Online Gender-Based Disaster Response Training in Australia

An Interactive Qualifying Project

Submitted by:

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# Acknowledgements

We acknowledge the traditional owners of the land on which we live and work and pay our respects to their Elders past and present. We understand that Indigenous sovereignty was never ceded.

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L to R, Back: Naomi Bailey, Liam Leonard, Rachael Mackay, Deb Parkinson, Jaspreet Kaur, Steve O'Malley  
L to R, Front: Jacob Borowsky, Natalie McClain, Grace Jolin, Emma Driscoll

## About us



Worcester Polytechnic Institute (WPI) is a project based engineering school located in the U.S. A major aspect of the curriculum is to complete an Interactive Qualifying Project (IQP) during the third year. This project gives students a chance to “*work in interdisciplinary teams to solve a problem or need that lies at the intersection of science and society*”. WPI has 30 project sites all around the globe.

This booklet was made as part of our global IQP experience in Australia. We spent the first seven weeks working with our sponsor, GADAus, doing research and preparations. We spent the next five weeks in Australia completing this project, exploring, and experiencing the country.

# Gender and Disaster Australia

Gender and Disaster Australia Ltd. (GADAus) researches how gendered expectations determine disaster experience.

GADAus' research considers the disaster experiences of women, men and people of diverse gender and sexual identities.

GADAus applies this research to create and deliver their *Lessons in Disaster* training, to carry out their mission:

**“Promote an understanding of the role played by gender in survivor responses to disaster, and to embed those insights into emergency management practices” (Gender & Disaster Australia, n.d.).**



# Background



# Gendered Impacts of Disasters

**Gender** and **sexual identity** play an important role in how people perceive and cope with disasters, before, during, and after they occur. Traditionally, men are expected to be the **protectors** whereas women are expected to take care of the home and children, being seen as **vulnerable** and needing **protection**. Both of these constructs are not only false but also extremely damaging to people's physical, mental, and emotional health.

Discrimination, harassment, and abuse put women and members of the LGBTQIA+ community also at risk after disasters. Due to their identity, they are often the victims of increased **sexual assault, rape, and domestic violence** (Stark, 2015), which causes them to fear seeking help after disasters, placing them in further harm.

*"I would be **reluctant** to invite local services...or support agencies after an event because, after a lifetime of **discrimination**, I would feel it made me more **vulnerable**." - LGBTI Respondent 9 (Parkinson et al., 2018)*

Disasters also contribute to **increasing family and domestic violence**. For example, the pressures of COVID-19 have caused a 60% increase in the frequency of family violence against many vulnerable groups (Pfitzner et al., 2020; Respect Victoria, n.d.). Disasters are traumatic for all people, and feelings from this trauma are understandable. These feelings, however, are by no means an excuse for using violence. The effects of gender expectations in isolating men and increasing violence against women and LGBTQIA+ people cannot be ignored.

*"Since the fires, there seems to be **no control** on his emotions...once he was able to moderate or there was at least some kind of understanding to his rage and anger....Now there's **no context to his rage**. It just seems to be completely random." - Madeline (Parkinson, 2011)*

Current disaster response strategies reinforce **harmful binary** gender stereotypes



Protectors  
Dismissive  
Physical  
Stoic



Protected  
Selfless  
Vulnerable  
Emotional

*"It's like he died. It's like I'm a widow but the corpse is still here to beat me up."- Emma (Parkinson, 2011)*

*"Treating everybody the same usually means that all people are treated as heterosexual and this can be alienating to LGBTI people in all sorts of ways...LGBTI people have different life experiences and health needs from their heterosexual peers." (Parkinson et. al, 2018)*

*"Every man thinks there are expectations on men to stand up and be brave and be the stalwarts of the family ... [Instead] I think a lot of people were absolutely shit scared and didn't realise that that was a perfectly natural and normal feeling ... but I'm sure a lot of those who were, feel it was a weakness." - Rod (Parkinson & Zara, 2013)*

The lack of information and awareness about the effects of gendered expectations in disaster response contributes to increased gender based violence, family violence, and struggles with mental health.

Treating everyone the same is not effective.  
Gender and sexuality must be considered.  
Gender-based disaster response is necessary.

*"I went to the supermarket and did some shopping, because Steve always said to me that, if our houses were under threat, he would come home and help. He didn't...The women had a big job that day, making all the decisions...We never had a fire plan. You thought he'd be here. My fire plan was him." - Sophie (Parkinson & Zara, 2011)*

*"I never told them about my orientation. I would face discrimination. No way to risk it in the middle of a fire." - LGBTI respondent 3 (Parkinson et. al., 2018)*

*"For a lot of men being in control is part of the way we construct masculinity and they didn't have control on Black Saturday. Often they lost their jobs so they didn't have control over their workplace anymore so the one place that they thought they could exert control was within the home...the expectations on men were high and many felt that they should have done more to save people." - Dr. Debra Parkinson (Stark, 2015)*

# GADAus Founding and Training



In 2015 Women's Health Goulburn North East (WHGNE), Women's Health In the North (WHIN), and the Monash University Disaster Resilience Initiative (MUDRI) established the Gender and Disaster (GAD) Pod to **raise awareness about the impact of gender roles in disasters, and to use these insights to help develop new emergency practices and disaster response techniques.** GAD Pod's founders, Debra Parkinson and Claire Zara, were previously involved in WHGNE's research regarding the Black Saturday Bushfires. Parkinson and Zara conducted interviews with survivors of the fires to help determine more inclusive response strategies for the future. Patterns emerged through these interviews, including **an increase in violence against women and the pressure on men to not seek help** (Parkinson, 2017). In 2022, the GAD Pod became an independent organisation, Gender and Disaster Australia Ltd., and continues GAD Pod's mission. ADAus has been primarily based in Victoria Australia but has recent government funding has allowed them to begin expanding across the country.

The extensive research on the gendered impacts of disasters and response have been incorporated into GADAus' training programs. These focus on properly dealing with family violence and the pressures placed on men and women after disasters to challenge harmful gender stereotypes. Additionally, they instruct how to develop and implement disaster response strategies that address gender inequalities, including family violence, in the emergency management sector. These training programs aim to emphasize the need for a gendered lens on disaster response and educate participants on techniques and resources available to them. Through their extensive work, GADAus is working to create real cultural change and continue to improve the emergency management sector.



With the onset of online learning due to COVID-19, GADAus configured their in-person programs into five training modules: *Under Pressure*, *Working for Change*, *The Disaster Made me do it*, *The Impact of Gendered Expectations on Disaster Experience for Women and Men*, and *Gender and Disaster: the Evidence*. The training focuses on:

*“local and international research into family violence following disasters, and research into the challenges faced by men in the context of disasters. The policy and practice implications for identifying and responding to family violence are examined and participants are challenged to take action to address gendered stereotypes which are harmful to women, men and children’s healing and recovery following disaster.”* (Organizational CV, Gender and Disaster Australia, 2021)



**“The training offers participants the opportunity to formulate new and proven actions as individuals, community members and within their organisations which respond to family violence and which challenge harmful stereotypes which limit people’s recovery”** (Organisational CV, Gender and Disaster Australia, 2021)

# Online Training: Strengths and Weaknesses

In early 2020, COVID-19 resulted in a complete restructuring of daily lives. While working from home became widespread, stories of schools moving online appeared in headlines frequently.

**97%**

of Victorian children in state run schools attended classes online in May 2020 (Sacks et al., n.d.).

Other types of education were also forced online, including medical training and training for emergency responders. In doing so, a varied range of benefits and drawbacks became apparent. Benefits include cost-effectiveness, flexibility, accessibility, and new modes for the delivery of information (Scott et al., 2016). Online learning offers the flexibility to complete assignments at any time and the ability to complete the training from any location would allow for more people to participate in the sessions. These factors could prove beneficial for the expansion of GADAus to the entire country.

## FLEXIBILITY

In a high school setting, it has been suggested that students learn just as much, if not slightly more due to the flexibility of online learning (Means et al., 2013).

## ACCESSIBILITY

Online Learning can be accessed at any location with internet.

## INCREASED RETENTION

In the evaluation of online training for suicide prevention, researchers found that online participants gained more knowledge compared to those who received face-to-face instruction (Scott et al., 2016).

Research on the effectiveness of online learning has also exposed some drawbacks, including a lack of engagement from participants and a decreased ability to connect with others. The online setting makes it less common for participants to engage or pay attention to the content that is being presented to them.

## DECREASED ENGAGEMENT

A study on suicide prevention training notes that although the online scores were higher than in-person, the participants were highly-motivated with specific learning goals (Scott et al., 2016). This could pose an issue for training attendees required by their organisation, but do not have a personal desire or belief that the information they are learning is valuable.

## HARDER TO CONNECT WITH OTHERS

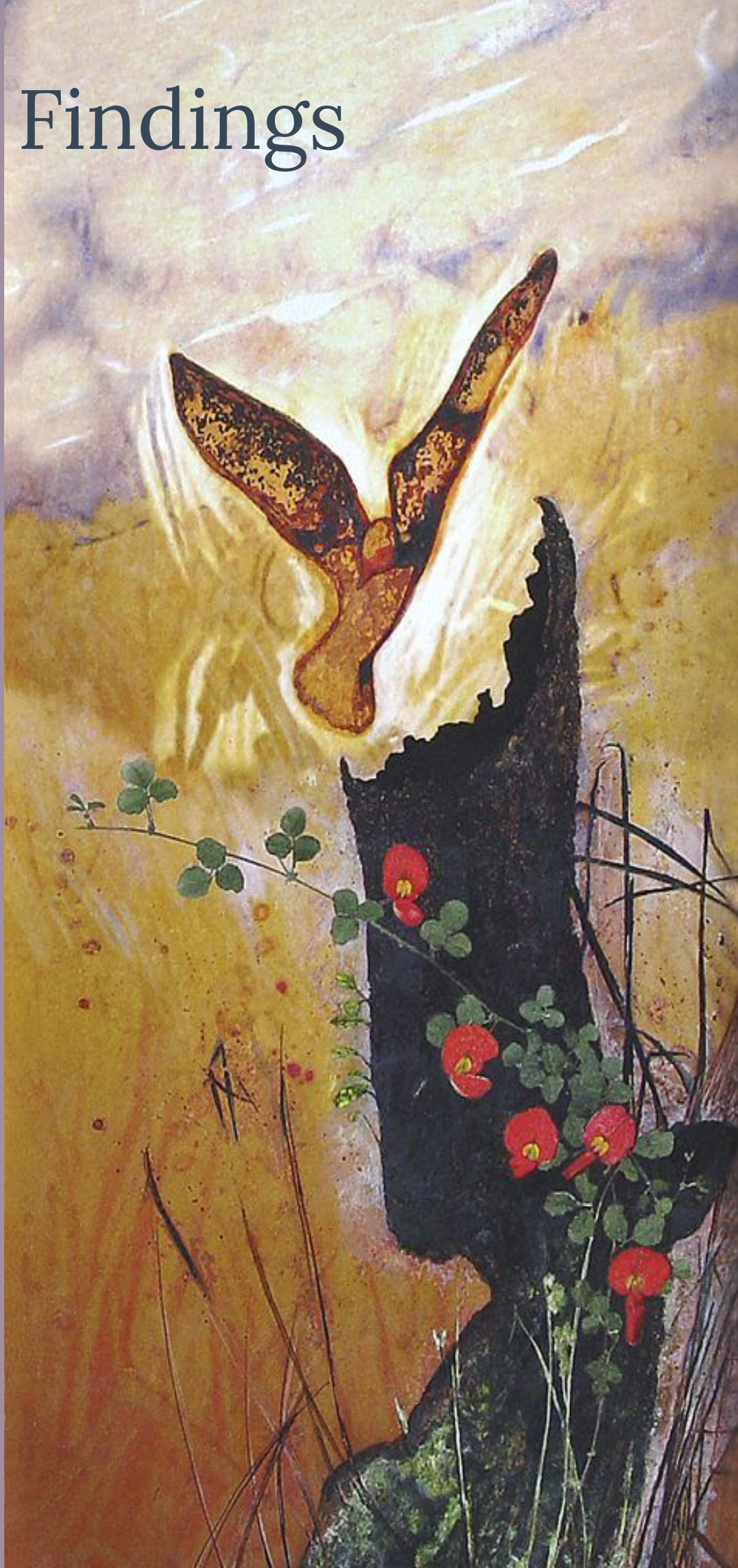
It has been suggested that students need close teacher contact when learning complex material, which is reduced in an online setting (Singh et al., 2021).

There has been extensive research on blended learning specifically within the nursing and medical training fields. In a study focused on training techniques for midwives in Ethiopia, the hybrid model had similar retention rates to the traditional, but blended learning was more cost-efficient and sustainable (Yigzaw, 2019). Notably, the hybrid program required fewer trainer-hours, which helped the organisation conserve resources and reach a larger audience. Like online and in-person training models, hybrid learning has its own unique set of benefits and drawbacks. However, a comprehensive blended model can optimise the benefits of both formats with the proper implementation of online aspects.

The goal of this project is to **evaluate** Gender and Disaster Australia's Gender-Based Disaster Response **training programs**, both in-person and online, and provide **recommendations**.



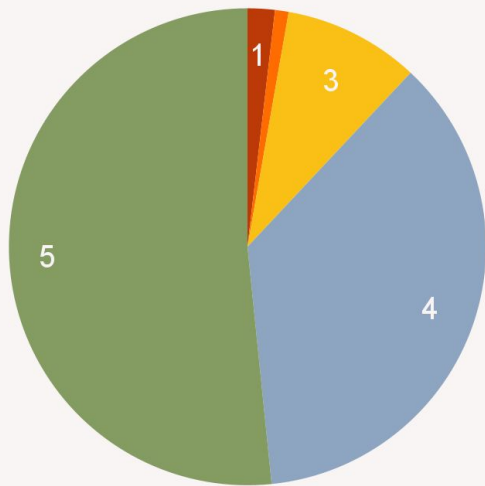
# Findings



# Training was rated as highly valuable

How valuable was today's training for your work?

1= not at all, 5= very (Online sessions) (n=274)



Only **2.8%** of participants rated a 1 or 2, which were the most negative ratings.

However, **88%** of participants rated a 4 or 5, which were the most positive ratings.

[the training is what] *“a lot of what emergency management is missing... [it's] **what our frontline people need.**”* - Past participant from the Red Cross

*“**Changing** how we view and respond to gender stereotypes has such a **huge impact** on our ability to cope during and after a disaster.”*

# Training was overwhelmingly likely to be recommended

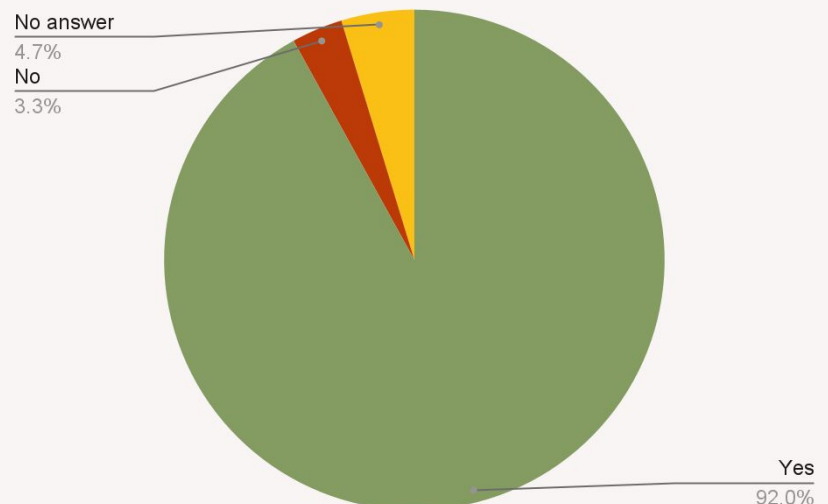
**92% said they would recommend the training**

A higher percentage of participants chose to skip the question than answered no.

Only 3.3% would not recommend

Would you recommend this training to others?

From all online evaluation data (n=274)



*“I would like to suggest that all members of CFA **undertake this training.**”*

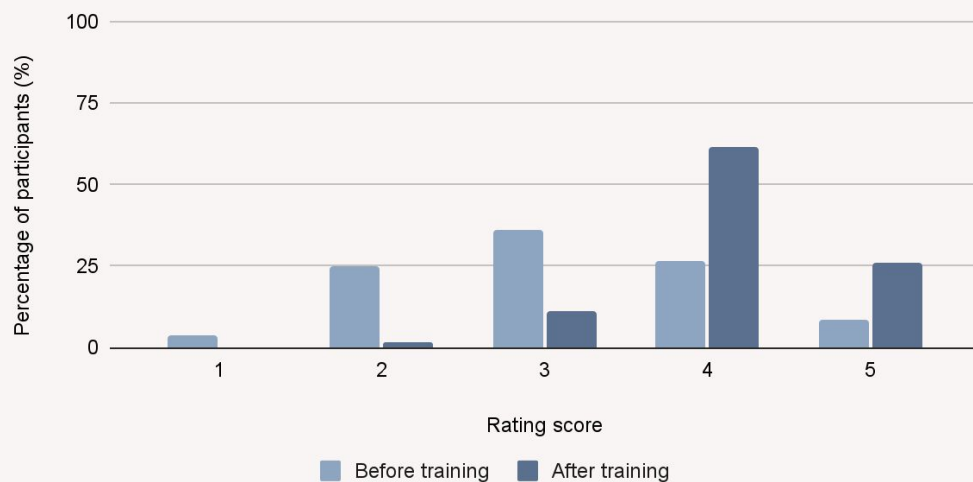
*“I look forward to **sharing my learning** from today with my teams.”*

# Participants left with more knowledge of the subject than they entered with

The evaluations used self rating scales for participants to rate their knowledge before and after the training. This was used to assess how well the participants felt their knowledge changed. Participants were asked to rate their knowledge of the session topic before the session began, and to rate their knowledge at its conclusion. The scale was 1 to 5, where 1 indicated 'no knowledge' and 5 indicated 'fully informed'. This data became the foundation for the conclusions of this training being successful and impactful.

## Online participants' self rating of knowledge of subject

1=None, 5=Fully Informed (n=274)



Online participant's average for knowledge before the training was 3.00, and after the training, the average increased to 4.03. This is indicated by over 75% of participants rating their knowledge after as a 4 or 5, which were the highest ratings. The before numbers were far more spread out with about a third below 3, a third at a 3 and a third above 3. The average before was 3.00 and after was 4.03 for an average increase of 1.03

## In-person participants' self rating of knowledge of training subject

1=None, 5=Fully Informed (n=49)



There was **no significant difference** in perceived knowledge increase between online and face to face training sessions.

The average knowledge increase and average value rating for each individual training session were compared to the overall average, and there were no significant outliers for overly successful or unsuccessful sessions. Similarly, we compared the average of each trainer pair to the overall average and also found no outliers. This allowed us to conclude that regardless of trainer or specific training session, the participants gained knowledge and thought the training was highly valuable.

# Participants gained knowledge and understanding to apply to their lives and workplaces

To evaluate the effectiveness of the training program from the participants' perspective, our group analysed responses to evaluation questionnaires and conducted three interviews with past participants. There were 274 online evaluations and 49 in-person evaluations. The following quotes are in response to the question:

“What changes might you make in your behaviours following this training?”.

*“**Deep thinking** about prevention planning, ensuring people having the conversations are a true reflection of the community and that all the **voices around the table are heard.**”*

*“**Increase my awareness** of workplace practices and assumptions and find 'can do' ways to address these.”*

*“**Family violence** will now be **in my mind** as I move around the fire affected communities.”*

*“Always put **gender considerations and accessibility** at the forefront of my decision making regarding **policy.**”*

*“To be more vigilant and **observe for changes** every day in an educative role.”*

# Discussions, exercises, and activities were valued most by participants

We coded comments from 274 online and 49 in-person respondents to identify clear patterns across training sessions. The coding categorised the responses to open ended questions for quantitative analysis.

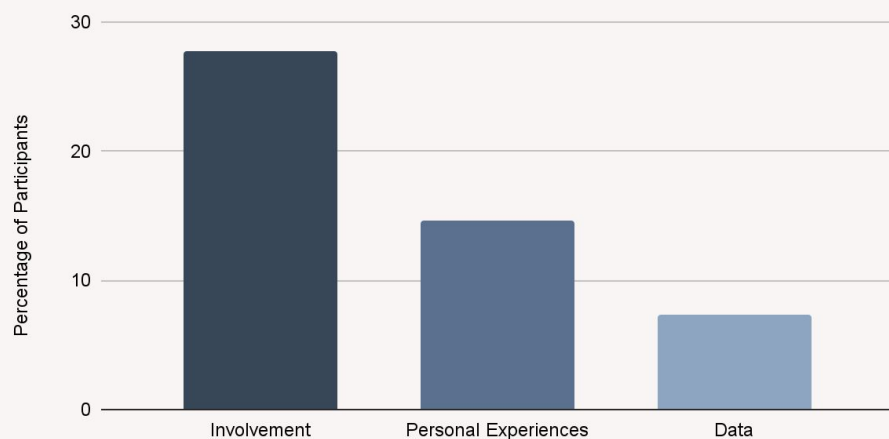
## What was the most useful thing about today's training?

In-Person Participants



## What was the most useful thing about today's training?

Online Participants



Over 30% of in-person participants thought the discussions following session presentations were the most useful part of the training, and 30% of online participants agreed. 15% and 10% of participants thought the inclusion of personal experiences and relevant data were the most useful parts of the training, respectively. This feedback is also similarly reflected in the in-person evaluation data.

*“Having some **time for discussion** with others about **planning, training, engaging.**”*

*“[They] were a **power tool** that captured the **raw emotion.**”*

*“The **research and statistics** were really useful & **impactful.**”*

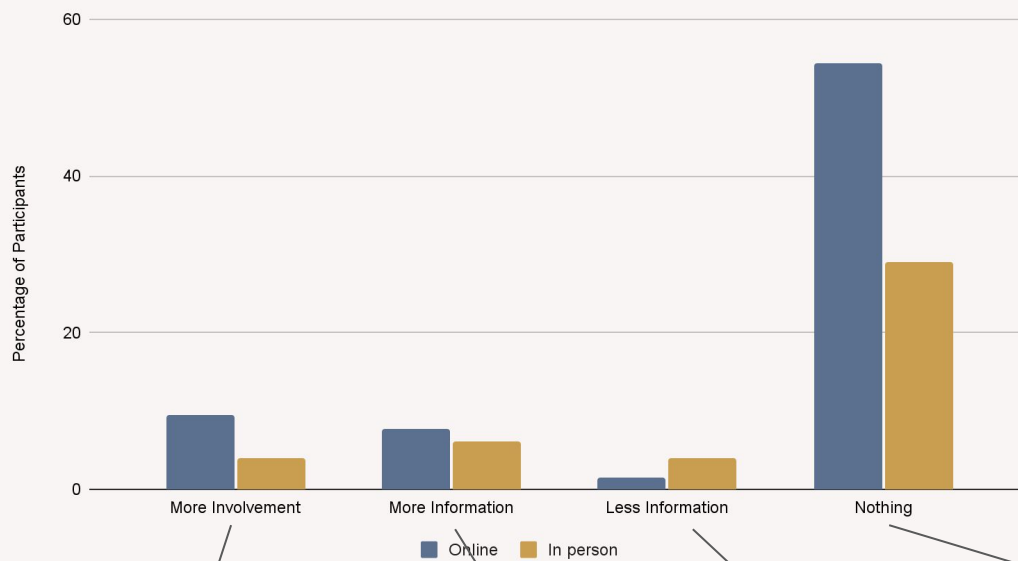
# Greater than 50% of online participants and almost 30% of face to face participants did not have anything they thought could be improved

The question “what could be improved in the training” was also coded for analysis into four categories:

- **More involvement**, which includes discussion, practical exercises, and activities.
- **More information**, which includes data, research, and strategies for participants to use in their specific workplace or community.
- **Less information**, which includes data and research.
- **Nothing**, which includes N/A, none and similar answers

Some comments were excluded because they were miscellaneous and did not contribute anything meaningful to this analysis.

What could be improved in the training?



Approximately **10%** of online participants wanted more **involvement** from the trainings, and just under **10%** of participants wanted **more data**, research, and specific strategies to make a positive difference in disaster response. In-person participants wanted more information.

*“**More time on this!** More discussion so we can process what we have learned. It was fascinating, but **I needed more!**”*

*“More detail about **how to apply** the gender lens in my workplace.”*

*“**Nothing**, it was run very well and was **extremely informative.**”*

*“Afternoon session was too much info and too much **being talked at.**”*

Participants wanted more involvement and information

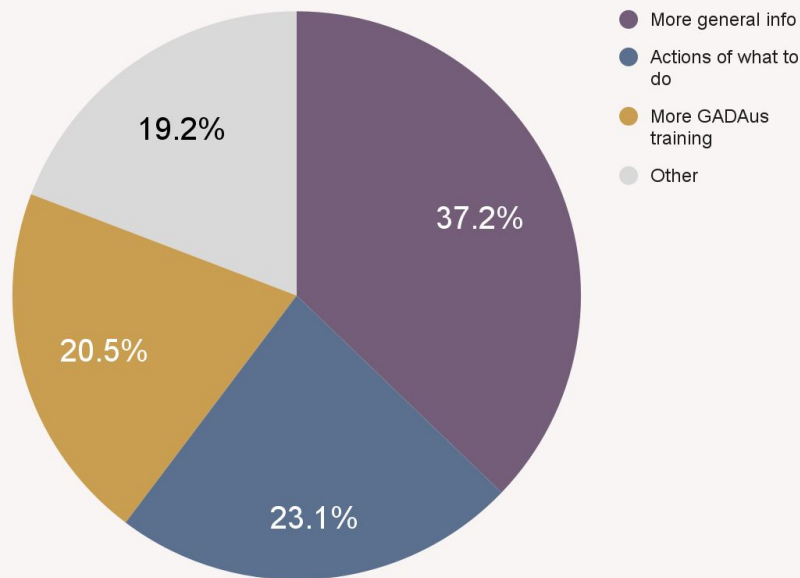
# Participants wanted more tools and knowledge to make a difference in their lives

We also coded the responses to the question: “What additional information or training would you like?”. Only the online comments were considered, as evaluation forms for in-person sessions did not include this question. These comments helped us to quantify the wants and needs of participants in the future:

- 21% wanted *more training*, either by taking more GADAus training or seeking information on how to become a trainer.
- 23% wanted *more actions of what to do*, or being equipped with specific strategies and tools to make a positive difference in disaster response.
- 37% wanted *more general information*, such as further data and research to increase their knowledge and awareness about the role of gender and sex in disaster response.
- 19% wanted *other* things not related to the above categories.

## What additional information or training would you like?

Based on online participants who answered the question (n=78)



“Is there a **next level training?**”

“Workshop and brainstorm our responses in **real life situations.**”

“**Further information** on intersectionality and disasters.”

“**Discussion** on how we can hold our **leaders** and **culture accountable** for encouraging domestic violence.”

“A policy analysis that ensures real and active inclusion in our work and activities. **promote strategies**, data into recovery objectives.”

Participants wanted to be equipped with the tools and ability to make a positive difference about the role of gender, sexuality, and gender equity in disaster response and everyday life. Participants left the trainings wanting more information, training and steps to implement what they learned in their daily lives.

# According to GADAus Staff, online training improved accessibility, content, and creativity

*“Because it was all online people could take advantage of that and attend online **no matter what state they were from.**”*

*The session setup is like “**building blocks**”, “allows people to think about it a little more between sessions”, “**builds that story to a crescendo.**”*

*“You can **hone it** and become sharper on why you’re doing it and strip away some of the background.”*

*“Given us a **real opportunity** for people to start to sit with it and **feel it** and build and build rather than one long session.”*

*“**Capturing people** who ordinarily couldn’t leave their work but could sit at their desk and factor this into their day.”*

## However, it decreased spontaneity, interactiveness, and connection to others

*“In real life the trainers can see if someone’s not **coping**... and can go in later to see if they’re okay and **check in** with them.”*

*“Really **scripted**, you’re working towards a **deadline** rather than promoting that conversation.”*

*When in-person “we could have those **informal interactions** with each participant during lunch or tea breaks.”*

*“Nothing like the tactile way we can communicate watching people’s **body language** in-person.”*

*“Pretty **set**, rather than getting that real **rich feeling of the room** and where they want to go with the conversation.”*



# Recommendations



# Main Conclusions

## Training Overall

There is an overwhelmingly **positive** response to *Lessons in Disaster*, in which a vast majority of participants found it **valuable** and would **recommend** the program to others.

## Online Training

Overall, the responses to what participants like or what they thought could be improved had the same themes regardless of delivery mode, with similar frequency. Additionally, a higher percentage of online participants said they would change nothing about the trainings, compared to in-person. **The online delivery is just as effective as in-person, and allows GADAus to more easily reach participants and emergency responders across Australia.** Going forward, we believe both methods should be used to spread GADAus' work as broadly as possible.

# Successful aspects of training to continue and expand

## Discussions

Small group discussions that happened in breakout rooms when online should be continued and used further in online sessions, as well as incorporated into the in-person sessions. Discussions allow participants to talk about and digest the information in between chunks of material.

## Real life stories and examples

Real examples and stories about victims' experiences following disasters were also commonly identified as the most valuable piece of the training. They lend a realism to the training that allow participants to connect to the themes presented, which would be missing with just statistics and information about the topic. As past participant Julie put it, it is "always good to hear from someone rather than have someone read about someone else". As such, we recommend continuing to include them and potentially incorporate more in all versions of the training.

## Interactive activities

Group activities that involve participants, such as the X's and O's activity, allowed the participants to engage further with the material and many remarked it was their favorite aspect of the training. Activities like this directly involve participants and give them something specific to apply what they are learning and understand it further. Therefore, we recommend that more activities be incorporated into the online and in-person training sessions.

In-person training is definitely the preferred method, but moving forward, both methods can and should be used to reach the broadest audience possible, and the aspects discussed can further improve the success of *Lessons in Disaster*.

# Additions to training and changes

## Online Training

**Have trainers join breakout rooms** to increase interaction between trainers and participants, and allow the trainers to better gauge participant engagement and response to the content being given.

**Use Zoom reactions** to increase participation in a simple manner.

## In-person Training

**Provide content before sessions** to give participants time to absorb it independently. This will also allow for **more time** on **discussions** and **activities**.

**Give participants resources to discuss the training afterwards** and **ask questions** once they have had time to process the training.

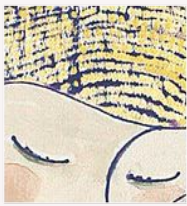
## All Training Sessions

**Provide participants with more information** and **opportunities** updating them on **new research**, informing them of **other training** they could participate in with GADAus, and access to the resources used in the sessions. Additionally, based on participants wanting more instruction of exactly what to do next, we recommend offering a basic example **framework of steps** to take in their lives, armed with this new information.

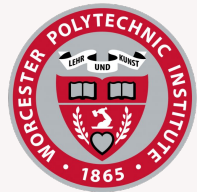
## Another option to consider

A **hybrid training format**, which could have training **materials, information, and data** given to participants **beforehand online**, so that the majority of **in-person** trainings would be used to **discuss** the provided information further, **elaborate** on confusing aspects, and participate in **activities** to maximize person to person **interaction**.

# Thank You!



Gender & Disaster Australia



# WPI

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