



# Embodied learning for place-based weather literacies

## Centre for People, Place & Planet Research Impact Case Study

### ABOUT THE PROJECT

While information and knowledge of weather and climate continue to grow, there is a sense in which weather is still seen as separate from the body; something we can lock ourselves away from, adapt to, or protect ourselves from with barriers. Through a series of linked investigations and exhibitions and a range of interactive activities and resources, our research uses the arts, science, and education to enhance place-based weather literacies. It applies modes of embodied learning toward reconfiguring human-weather relations for more liveable climate futures.

- **Conversations with Rain:** In 2019 AGWA exhibited a child-made rain work as part of a major public exhibition for the first time. The exhibition offered new ways to bring climate issues into the early childhood curriculum through creative engagement that includes children's perspectives.
- **Weather Collaboratory:** Based on an innovative methodology, the weather collaboratory brought together teachers, interdisciplinary researchers, and children to re-think weather learning.
- **Weather Studios:** Part of an 18-month Forrest Creative and Performance Fellowship, which brought together meteorologists from the WA Bureau of Meteorology and Art Gallery of WA to change creative climate communication.

This project has involved CPPP members, researchers from the Common Worlds Research Collective, Art Gallery of Western Australia (AGWA), WA Bureau of Meteorology (BoM), Social Sciences and Humanities

Research Council Canada (SSHRC), Australia Catholic University (ACU), and Creative and Performance Leadership Fellow from Forrest Research Foundation.

This research disrupts how weather is commonly understood as a natural force happening 'out there'. This way of thinking is problematic because it denies a relational understanding of the world. This prevents children from developing place-based literacies, which are necessary for living well during climate crisis.

## OUR RESEARCH IMPACT

By engaging with diverse multigenerational audiences, impact is made across age, gender, 'race', and social class. Through workshops, exhibitions, and a suite of creative outputs in 2019-2023 more than 40,000 people have engaged with the project. Teachers and children, visitors to AGWA and five regional galleries in WA, and meteorologists have benefited from this research.

### Improved environmental education

After participating in the Weather Collaboratory research project, early childhood teachers are thinking differently as they plan and conduct their outdoor learning programs to include a focus on weather and weathering. Teachers participating in Conversations with Rain at AGWA have described to us how they have integrated embodied learning into their programs, through more attentive and multisensory practices about weather. Our online creative videos *kep waanginy* and *Unlocking Imagination* have each been viewed over 5000 times.

Children are developing more nuanced understandings of weather relations. Over **600 rainbooks** have been created by children showing how they understand weather as embodied and relational;

*Rain can walk on the ground and swim in the river (child, age 4).*

Pedagogical leaders from NSW are drawing from these findings to change teachers' mindset about weather learning as an integral part of the curriculum. Contemporary Art Spaces Mandurah (CASM) created their own response journal inspired by the *Conversations with Rain* journal. Internationally, *Conversations with Rain* was included as an exemplar in 'Turn it around cards' produced as part of UNESCO Futures of Education Initiative that were presented at COP21.

### Improved meteorology communication

The Bureau of Meteorology supported staff to participate in the Weather Studios project in 2022-2023 demonstrating a new openness to explore creative approaches to weather communication. Meteorologists are starting to consider how they can use creative methods to communicate about meteorological science in conversation with CPPP's artist-scholar.

## CPPP RESEARCH ENGAGEMENT AND IMPACT PATHWAY

The CPPP supported the travel of Centre members to attend a research symposium in Bilbao, Spain. These members were invited to become part of the Code Red Alliance, an international network of researchers addressing issues young people are facing in contexts of environmental crisis. The CPPP established an artist-scholar position, which procured funding from the Forrest Research Foundation.



## FUTURE RESEARCH DIRECTIONS

Interest from pedagogical leaders in NSW and teachers in Western Australia shows there is interest in exploring these methods further. The CPPP continues to collaborate with AGWA and the Bureau of Meteorology through the ongoing development of creative methods for weather communications.

## REFERENCES

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