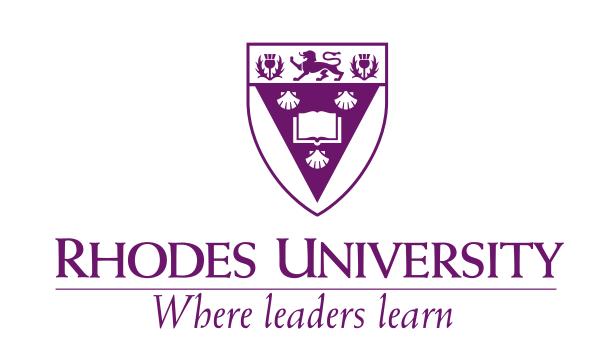
Engaged Leaders Transforming Education

Water Education and River Commons



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WHY WATER EDUCATION RESEARCH?

South Africa is a water scarce country, a situation which is set to become more serious with the impact of climate change. South Africa's water resources are all allocated, yet new water is needed for development, including in the agricultural sector. At the same time South Africa has serious water quality problems, and many communities are without water as the country experiences water supply and management problems.

Improved governance of strategic water resources areas is also crucial not only for the country's people, and the sustainability of its economy and cities, but also for biodiversity and the ecological systems that sustain life. There is clearly a need to do more with less, and to develop approaches to water education and governance that are more inclusive, more holistic, and that also contribute to work and learning.

METHODS AND APPROACHES

Water education is a wide focus in educational research and practice. It includes curriculum, pedagogical and social learning research for education in schools, higher education, communities and in landscapes. It includes research into professional development of water scientists and water managers, skills development, as well as development of inter- and transdisciplinary approaches to water governance, and research into citizen science approaches.

MAIN FINDINGS, OUTCOMES, SIGNIFICANCE

There are a number of findings and outcomes that are worth noting from our research:

- From a schools perspective, water education is narrowly conceptualised and often reduced to simplistic messaging such as 'Save Water!', yet learners need to come to understand the water system and how it works, especially in urban landscapes. Arts-based methods as well as heritage-based expansive learning methods have helped both teachers and learners to broaden their views and pedagogical approaches to water education.
- In universities and higher education settings creative approaches to water education helps students and academics recognise that water knowledge is 'fluid', political, intersectional, and can be mobilised into the co-creation of reconciliation pedagogies, decolonial, hydro-feminist and water and climate justice learning encounters.
- In landscapes, transdisciplinary approaches, communities of practice and activity theory research has helped multi-actors to work better together in confronting contradictions and dealing with complex social-ecological system issues.
- In the skills system, professional learning approaches that develop change-oriented learning approaches, capacity to engage with complex systemic problems, and technical skills are all needed.
- Citizen science approaches need to urgently be scaled through a reframing of work and learning. When viewed as 'work for the common good', new work opportunities and learning pathways can be opened up for communities and youth. All of these multidimensional insights offer perspectives on how to advance water education in South Africa. They show that water education is relevant across the education and social landscape, and is vitally important for South Africa.





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