



## Exploring the immersive educational programming of water resources for young people to empower and promote water sustainability towards a carbon-neutral Nottingham

### Project Aims

Water is an important, yet mismanaged and undervalued resource. As our water systems suffer degradation and further pollution, it is more important than ever to educate young people about water. However, as education systems become squeezed by focusing on testing and achievement, the opportunities for young people to learn outside of the classroom are diminishing. This leaves key questions about how young people will learn about the value of water, how best to use and reuse it, and learn to protect water and our environment.

In support of Nottingham's 2028 Carbon Neutral Action Plan, this collaborative research project will explore the attitudes of young people in Nottingham towards water usage. This project also looks to collect data on behaviours and values around water, in the context of specific educational interventions which aim to change attitudes.

Working with Dragon Breath Theatre, the researcher will engage with several Nottingham and Nottinghamshire primary schools and visitors to the Papplewick Pumping Station Museum and evaluate existing educational approaches and interventions which aim to enhance the importance of water and its sustainable use and reuse. As well as examining the role of community partnerships in educating young people through immersive drama, this project will investigate to what extent, and how, the key areas of water management and carbon neutral futures are currently taught in local schools.

This PhD project is grounded in an interdisciplinary approach, combining history, sciences, engineering, and the arts, and would best suit a social sciences perspective to support sustainable attitudes and behaviours in relation to water use across Nottinghamshire communities.

This project has been co-created and is supported by researchers from Nottingham Trent University, the University of Nottingham, and partners at Dragon Breath Theatre and Papplewick Pumping Station. The successful candidate will be enrolled at Nottingham Trent University.



## Project Aims

1. To understand perceptions and attitudes of Nottingham's young people towards water use, and identify ongoing educational needs
2. To benchmark water behaviours within Nottinghamshire communities via engagement with primary schools and visitors to Papplewick Pumping Station
3. To explore how educational initiatives based on immersive drama can support school and public education around Nottingham's water stories and how we can best use and reuse water today and in the future.

## Supervisory Team

1. Lead Academic Supervisor: [Dr Frances Howard, NTU](#)
2. Academic Co-Supervisor: [Prof Rachel Louise Gomes, UoN](#)
3. Community Supervisors: [Nettie Scriven and Peter Rumney, Dragon Breath Theatre](#)

## Key Details

<b>Host University:</b>	Nottingham Trent University
<b>School / department:</b>	School of Social Sciences
<b>Start date:</b>	03 April 2024
<b>Financial offer:</b>	Tuition fees covered in full (worth approx. £15k across full PhD programme). Monthly stipend based on £18,622 per annum, pro rata, tax free.
<b>Working hours</b>	Full-time (minimum 37.5 hrs per week), or part-time (minimum 20hrs per week).
<b>Working Style:</b>	Primarily in-person at host university. Flexible working supported. Working pattern to be agreed between successful candidate and lead supervisor.



# Competencies

## Co(I)laboratory Core Competencies

Category	Competency	Assessed: Application (A), Interview (I)
<b>Comprehension and evaluation</b>	Strong understanding of the project and its subject matter.	A / I
	Analytical, researcher mindset with keen attention to detail.	A / I
	Communicate complex concepts with clarity and precision.	A / I
	Able to identify connections, patterns, gaps, and irregularities in information/data.	I
	Able to interpret data/information confidently with logic and empathy to derive meaning.	I
<b>Social and emotional</b>	Demonstrable experience of responding effectively changing contexts, information and demands.	A
	Ability to persevere in the face of challenges/failures and to remain constructive in developing solutions.	A
	Demonstrable passion for learning with clear drive and curiosity to undertake this specific research project.	A / I
	Willingness to immerse oneself in the research subject matter and make a contribute to new knowledge through a PhD.	A / I
	Strong desire to make a positive community impact through the research.	A / I
	Willingness to think deeply about complex concepts and engage with academic ideas and theory.	A / I
<b>Preparedness and potential for success</b>	Experience of working, collaborating and communicating effectively with different stakeholders.	A
	High level of self-motivation and ability to work with minimal guidance.	A / I
	Strong organisational and time-management skills with the ability to balance and prioritise multiple tasks.	A / I
	Ability to identify potential challenges and complexities and thoughtfully consider possible solutions.	A / I
	Able to identify the technical, personal, or professional skills required for a task and take action to develop these.	A / I
<b>Community Context</b>	Genuine desire to undertake community-engaged research over more traditional approaches to research.	A
	Understand the impact of and need for the inclusion of diverse experiences and points of view in research.	A / I
	Appreciation/understanding of the importance of community insight and experience in the generation of new knowledge.	A / I
	Awareness/understanding of the broader societal context related to the subject matter of the project.	A / I



Project Specific Competencies			
Essential	Assessed: Application (A), Interview (I)	Desirable	Assessed: Application (A), Interview (I)
Experience with young people or other social groups in a professional or community setting.	A / I	Experience working in an arts or education setting.	A / I
Understanding of wider contextual issues relating to water, sustainability and the environment.	A / I	Experience working with young people or teachers in a school setting.	A / I
High level of IT proficiency with the ability to learn and use new software and tools (ie., data analysis tools).	A / I	Knowledge of school STEM curriculum.	A / I
Interest in the subject matter of the research project and interdisciplinary practice.	A / I	Knowledge or experience of drama, and/or immersive performance	A / I

## References for Further Reading

- Economic & Social Research Council Access Flex Fund, Advancing Capacity for Climate and Environment Social Science, ≤£30,000 available (<https://accessnetwork.uk/flex-fund-information>).
- Royal Society of Chemistry Primary science teaching empowerment fund, ≤£600 available (<https://edu.rsc.org/primary-science/get-funding/primary-science-teaching-empowerment-fund>)
- Royal Society of Chemistry Outreach fund, small ≤£5,000 and large ≤£10,000 available (<https://www.rsc.org/prizes-funding/funding/find-funding/outreach-fund/>).
- Black, G, Transforming Museums in the 21st Century, Routledge, 2012, ISBN-10:0415615739
- Cutter-Mackenzie, A. and Rousell, D., 2019. Education for what? Shaping the field of climate change education with children and young people as co-researchers. *Children's Geographies*, 17(1), pp.90-104.
- GET WET project, available at: <https://www.papplewickpumpingstation.org.uk/education-projects-lectures.html#:~:text=The%20Get%20WET%20Project&text=Nottingham%20Schools%20worked%20with%20artists,%2C%20Geography%2C%20History%20and%20Literacy>
- Heathcote, D. and Boulton, G. (1994) *Drama for learning: Dorothy Heathcote's Mantle of the Expert approach to education*. Portsmouth, NH: Heinemann Press.
- Jackson, A and Kidd, J, *Performing heritage: research, practice and innovation in museum theatre and live interpretation*, 2012, ISBN-13: 978-0719081590. MUP,
- Jackson, A and Vine, 2013 *C Learning Through Theatre: The Changing Face of Theatre in Education* Routledge ISBN 9780415530712
- Jorgensen, D.L., 2020. *Principles, approaches and issues in participant observation*. Routledge.
- Kuska, I, Scriven, N and Rumney, P, 2011 *The Cosmos Project: A Journey to the Stars*, *Youth Theatre Journal*, Taylor Francis Online <https://www.tandfonline.com/doi/abs/10.1080/08929092.2011.569307?tab=permissions&scroll=top&role=tab>
- Mansfield.gov.uk <https://www.mansfield.gov.uk/downloads/file/1732/the-town-investment-plan>
- Mertler, C.A. ed., 2019. *The Wiley handbook of action research in education*. John Wiley & Sons.
- Nottingham Carbon Neutral Action Plan <https://www.nottinghamcity.gov.uk/your-council/about-the-council/carbon-neutral-nottingham-2028/why-do-we-need-to-act/>
- Rumney, P and Scriven, N (2015) *A Crack in Time Immersive Learning Through Performance in Museum and Heritage Settings*, Connected Communities Heritage Network.
- Thomson, P., Coles, R. and Hallewell, M., 2018. What did creative partnerships achieve?: A review of the creative partnerships (CP) research archive. *Creativity policy, partnerships and practice in education*, pp.13-43.

