

The Potential Role of Transition Education in Sustainable Water Management

Background

Water is a limited resource in the UK and globally. Problems of supply are exacerbated by rising populations, and the East Midlands has the fastest growing population of any region in England and Wales.

Given that feasible options for increasing supply are not sustainable in the long term, reductions in demand will be necessary. Water companies in England and Wales are required by the regulator (Ofwat) to reduce domestic demand by 1 litre per household per day over the next four years, and provide evidence that they are promoting water efficiency by their customers.

However, in the UK water is supplied relatively cheaply and with very little disruption. Its consumption is often unconscious, being tied in with domestic practices of cleanliness and relaxation. Reducing demand is, therefore, beyond the reach of information provision or policy change alone. In addition to practices, it has been recognised that behaviour is moulded by prevalent social norms and how people perceive their peers to be acting. For this reason, there may be potential for individuals to be 'nudged' towards more sustainable behaviour.

Learning as sustainable development, or transition education, incorporates innovative modes of teaching and learning while exploring the reasoning behind values and behaviours. This study aims to test how it can help inform demand management policy.

The framework behind the study is the distinction between the **social practices model** and the **active citizen consumer** :

Social practices model

- Very difficult for user to change behaviour- technological and social constraints
- Actions are dictated by chores, pastimes and lifestyles
- Lack of awareness of the volume of water consumed

Active citizen consumer

- Tailors water use according to their needs
- Makes informed choices based upon personal values and attitudes

Water Literacy

- Understanding of the value and scarcity of water
- Capacity to make informed decisions and engage in the water management debate

Transition Education

Learning as sustainable development- Using environmental resources to encourage engagement with and deliberation of issues, building capacity for sustainable development

Aims

- **To explore the potential role of transition education in increasing water literacy and water citizenship**
- **To examine whether increased water literacy and water citizenship can potentially lead to reductions in domestic water demand in the East Midlands**

Plan of Research

A review of water education provision in the region is currently being carried out, including teaching in schools, science education centres, 'real world' examples of sustainable water use, and grassroots environmental movements such as the Transition Initiative. Attention will also be paid to national campaigns to reduce water demand. Additionally, the education programme provided by Severn Trent Water will be analysed (examples shown in figures 1 and 2).

Research in two schools in Nottinghamshire will look at the effectiveness of more traditional methods of transition education, through outreach and curriculum. Water usage and values towards water will be explored with young people through questionnaires and focus groups, before and after a programme of water education. This will be run in conjunction with teachers and the project CASE partners.

Research with a community group will explore the role of social practices in shaping water demand, and see how social normative theory could be applied to modify these. A selection of households will be engaged and water usage monitored over the data collection period. It will be noted whether water demand can be altered by providing a report about the water consumed by each household anonymously to their neighbours.



Figure 1 Severn Trent Water 'Environmental Promise' activity



Figure 2 Severn Trent Water 'Wet Water Wizard' computer game

Conclusion

This research aims to test the potential of unpicking social practices, routines and norms to aid understanding of values, attitudes and behaviours towards water. It will then look at how this understanding can enhance the development of modes of transition education in order to reduce domestic demand for water.

It is suggested that people are locked into social practices and norms, but that these are constantly evolving. It is not yet known how far these factors go towards dictating water usage, or the extent to which people can be changed into active water citizen consumers. This study will also examine how age and background could affect water consumption, and the role of the school and the community in shaping and changing norms.

If transition education is found to be an effective tool for sustainable water management in the East Midlands, this research could enhance efforts by other water companies to meet their efficiency targets, as well as informing the development of future Ofwat Asset Management Plan objectives.

Georgina Wood

ESRC CASE PhD Student

Email: ttxgw7@nottingham.ac.uk

Academic supervisors

Colin Thorne - School of Geography

Mary Biddulph - School of Education

Sujatha Raman - School of Sociology and Social Policy