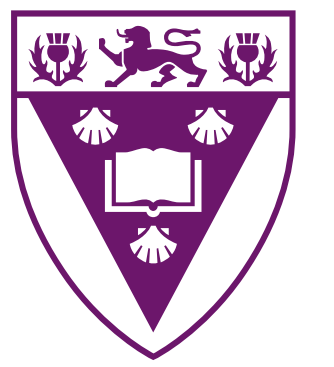


Social learning, knowledge uptake and use



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WHY WATER EDUCATION RESEARCH?

Every year, scientists produce large volumes of new knowledge. Increasingly, however, scientists are concerned that the valuable new knowledge that they produce does not get taken up and used in the education and training sector. Working with the Water Research Commission, this multi-year 'Amanzi for Food' research programme sought to develop social learning models and tools that could strengthen knowledge uptake and use of rainwater harvesting and conservation amongst smallholder farmers in South Africa to increase food production.

By 2014 the Water Research Commission had produced a number of books and guidelines for farmers and agricultural training institutions which shared important knowledge of no less than 26 different rainwater harvesting and conservation practices that could be applied and used by smallholder farmers to increase household food production. At the time, the books, based on 'Research-Develop-Disseminate-Adopt' (RDDA) logics had been distributed and 'disseminated' to agricultural training institutes and extension services, but it was found that they were not being used. Farmers and college lecturers on average only had knowledge of 3-4 of the 26 rainwater harvesting and conservation practices.

METHODS AND APPROACHES

In response to this problem this engaged research programme, started in 2014 (and still ongoing), sought to investigate the problems and contradictions farmers were confronting as they tried to bring water to their lands in rural areas. The contradictions were seen as valuable sources of learning, knowledge uptake and use.

Cultural historical activity theoretical tools and approaches were used to engage multi-actor networks in 'searching out' and testing new knowledge of rainwater

harvesting and conservation practices. This involved developing and testing various knowledge mediation practices as well as evaluation of the mediation practices.

The research was done via a number of engaged post-graduate studies, as well as wider programmatic studies that reflected on and linked the various post-graduate studies over three cohorts of post-graduate scholars between 2014 and 2024 (still ongoing).

WHAT DID THIS PROGRAMME ACHIEVE?

The programme tested and articulated a social learning model and approach for knowledge uptake and use amongst smallholder farmers. The programme led to significant shifts in farmers capabilities to expand their repertoire of rainwater harvesting and conservation practice, and thus their ability to grow food. It catalysed and supported a wider interest in agro-ecological approaches to food production in rural areas in the Eastern Cape and Mpumalanga provinces.

The social learning model showed that RDDA approaches are overly simplistic in their assumptions of knowledge uptake and use. The programme shows that knowledge dissemination and uptake requires a more complex range of social learning mediation processes that are place-based and expansive of farmers and college lecturers' existing knowledges and practices.

The mediation processes investigated included mobilising and investigating local (indigenous) knowledges and cultures of practice, development of productive demonstration sites for collaborative learning, developing and testing a range of social media tools (e.g. a radio handbook), offering and testing a training of trainers course, and working with colleges lecturers on curriculum innovations

that foregrounded locally relevant rainwater harvesting and conservation practices and agro-ecological principles. The approach reveals that time is needed to work with farmers, lecturers, extension services and other stakeholders in ways that make 'sense' to local farmers and extension support officers in a variety of contexts if knowledge is to be taken up and used by them.

The approach also reveals the power of co-designed mediation processes, and development of local learning networks that link up different actors who contribute variously to expansive social learning. The learning network established in 2014 is dynamic and still ongoing, with farmers now regularly sharing new knowledge with each other, with uptake occurring as they knowledge becomes useful in their practices and as they try to solve problems together.

The learning network approach has also led to significant changes in the vocational education and training curriculum in participating colleges, as well as changes in extension service practice. It has also strengthened relationships between universities, colleges, extension services, NGOs and communities, effectively reflecting principles and practices of a 'social ecosystem for skills' in place.

The research, developed further via a VET 4.0 Africa research project with partners in South Africa and Uganda, shows promise in articulating models of education and training that can produce innovation in learning institutions, while also serving communities.

Ongoing research is being conducted into how to offer the training of trainers programme using online tools, and also how to engage larger groups of youth in supporting food production work in communities.

A number of support materials for the social learning approach have been developed, including an interactive resource-based website and online course with linked up resources that can be downloaded by farmers, youth, extension services and communities.



Mulching, water capturing contours and ridges on circular bed design

Small farm dam under construction

Knowledge Uptake & Social Learning Strategy



The Amanzi for Food Knowledge Uptake and Social Learning Strategy for co-learning in an expanded skills ecosystem model is based on an iterative social learning approach involving five key processes. Tools that support these five iterative processes can be downloaded from the Amanzi for Food website.

All reports, tools and resources, including the open access online course, can be accessed via the dedicated Amanzi for Food website.

