Transformative Teaching, Learning and Research

Experiences from a Transdisciplinary Doctoral Programme in Sustainability at Stellenbosch University, South Africa

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Short Historical Overview:

- **2005**: first **TD Workshop** in SA (on 11 – 14 April) exploring the possibilities of introducing TD programmes at post-graduate / PhD level; attended by a wide range of academics from various universities in South Africa (SA); co-facilitated by Manfred Max-Neef and Basarab Nicolescu.

- **2007 / 2009**: received seed-funding from the Sustainability Institute (SI) and SU’s “**The Hope Project**” to implement the TD Doctoral Programme in Sustainability (see: www.tsama.org.za).

- **2008 / 2009**: visited the universities of **BOKU** (Vienna) and **ETH** (Zurich) to learn more about their respective TD doctoral programmes.

- **2010**: launched TD Doctoral Programme in Sustainability with first cohort of six PhD students.

- **2011**: received funding from the National Research Foundation’s (NRF) Community Engagement Programme to launch the “**Enkanini**” TD Case Study.

- **2012**: received funding from the EU/AU Intra-ACP Mobility Scheme to establish the “**TRECCAfrica**” programme; offering scholarships to 16 PhDs from five different universities on the African continent.
The Transformative Challenge:

- Facing the problem of **increasing poverty** and **inequality** in post-apartheid democratic SA is a complex societal problem because there is no theoretical and practical knowledge of how to **transition** from this **current state** to a ‘more just’ and ‘sustainable’ **future state**.

- This complex problem is forcing us to fundamentally re-think some of the key TD concepts and principles of **doing science with society**, of **mutual learning** and of **knowledge co-production**, **integration** and **innovation** coming out of the developed world.

- The reasons for this is not only because these concepts have been developed and theorized under fundamentally different contextual / social conditions in the developed world, but also because of the dominant **theory of social change** that has been handed down to us from our apartheid past; which suggests that the only way the poor can improve their desperate situation is by employing the same strategies and tactics of violent community protest – known as “toyi-toying” – that worked so effectively in the past by bringing down the apartheid government.

- Unfortunately this approach has elicited a much ‘tougher’ reaction from the state (e.g. August, 2012: Marikana) than what was to be expected from a democratically elected government in the ‘new’ SA.

- However, this vicious cycle of violence/counter violence is what is prohibiting any **new theoretical** and **practical solutions** from emerging – especially in response to the government’s recently adopted “Breaking New Ground” human settlements policy, which explicitly endorses the principle of **incrementalism** – i.e. the incremental **in situ** upgrading of informal settlements – as a way forward.
Our TD response:

- Against this background, our challenge is how to co-produce integrated socio-technical innovations which not only addresses the technical aspects of the needs of the poor, but does so in a way that has the potential of developing new ways of understanding social change in our society?

- In other words, how do we link and integrate our theoretical and practical knowledges in ways that will not only address the poor’s immediate basic needs for housing, electricity, water, sanitation and waste management, but doing so in collaborative / participatory ways that will empower the poor to negotiate their way ‘out of’ poverty with the state – rather than reverting back to the ‘tried, tested and failed’ methods of violent protest?

- The process of social innovation and learning of how to go about doing exactly this is currently underway as our TD team of supervisors, educators, researchers, students and community co-researchers involved in the “Enkanini” case study are learning together how to co-design and develop technically challenging and detailed solutions that are, at the same time, empowering the beneficiaries of these solutions.

- Starting with the improved re-design of informal shack dwellings – known as the “iShack” – we are learning that it is indeed possible to bring together various academic disciplines – such as engineering, architecture, ecological design, economics, finance, sociology, anthropology etc. – and linking these with the practical knowledge of living together and through other people – known as “Ubuntu” – to come up with ‘niche innovations’ that are increasingly beginning to attract the attention of policy-makers at all levels of government.
Preliminary evidence that our TD response of empowering people through knowledge co-creation and integration may be working:

- In June this year, the Stellenbosch Municipality most importantly agreed to include the allocated Free Basic Electricity subsidies to homes not connected to the national grid in their Indigent Policy - a first for a South African municipality.

- On 31 July, a National Parliament Portfolio Committee on Energy visited the iShack project in Enkanini, speaking directly with the entrepreneurs and researchers who are driving the project in the newly built Enkanini Research Centre.

- The Committee Chair, Siza Njikelana, remarked that what impressed him most was a comment by one participant in the project who said: "We are showing the people in town [pointing to the centre of Stellenbosch] that we can build our own suburb." How different this is to the notion that “toyitoying” will force the 'people in town' to come do it for the community.
Thank you for your attention!
Reference List


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