

# 2019–2020 SOCIAL RESPONSIVENESS REPORT



Transformative portraits of practice

# The 2019-2020 Social Responsiveness Report

Transformative portraits of practice

# Contents

Preface .....	4
Introduction and methodology .....	6
<b>SECTION B: Faculty Cases .....</b>	<b>10</b>
Centre for Higher Education Development .....	10
Careers Service: Beyond School Programme.....	11
Centre for Extra-Mural Studies .....	19
CILT’s work on the Disability Inclusion MOOCs in collaboration with the Division of Disability Studies .....	30
EBE Course: END 1019L: Social Infrastructures: engaging with community for change .....	38
<b>Health Sciences Faculty .....</b>	<b>43</b>
Eh!woza:.....	43
The Drakenstein Child Health Study Social responsiveness initiative - building a school library and a book sharing program.....	47
Division of Disability Studies, Department of Health and Rehabilitation Sciences .....	51
Weekend Waiting List Initiative .....	54
The Safe Travel to School Project.....	58
<b>Commerce Faculty .....</b>	<b>63</b>
Women Empowerment.....	63
Student Financial Aid.....	67
<b>Humanities Faculty .....</b>	<b>69</b>
Impossible Return and The Rememberers .....	69
Young Women’s Leadership on Sexual and Reproductive Health Rights in Universities .....	72
Childhood poisoning and street pesticides from multiple perspectives: Reflections on an interdisciplinary research collaboration in Cape Town .....	82
Inaugural Khoekhoegowab Foundation Language courses.....	87
<b>Science Faculty .....</b>	<b>103</b>
Environmental & Geographical Science: The Peninsula Paddle.....	103
Engaging with city officials and citizens to understand water governance and how to adapt to water stress.....	107
The Seed and Knowledge Initiative .....	110
Monitoring the leakage of plastics into the environment .....	114
<b>Engineering and Built Environment.....</b>	<b>117</b>
Lived Experiences of Housing Struggle and Policy .....	117

Annual Community Build (CB) Project .....	123
The Water Hub: a research, innovation and training centre, Franschhoek.....	128
Human Centred Design .....	132
Upcycling human urine for societal and economic benefit .....	135
<b>SECTION C: Institution wide initiative.....</b>	<b>137</b>
The Knowledge Co-op .....	137
<b>SECTION D: Report on the activities of the Cape Higher Education Consortium (CHEC).....</b>	<b>142</b>
Partnership with the Western Cape Government (WCG) .....	142
Partnership with the City of Cape Town .....	143

## Preface

South Africa is one of the five most unequal countries in the world where too many people live in poverty and too few work. (NDP 2011:24). The intractable challenges of education, public health and proper housing are weighing heavily on the country's financial resources, and unemployment has ascended to alarming proportions.

There is, in light of this, deep debate around the world about the economic, political, human, social and cultural models, including the global capitalist system, that are responsible for producing these challenges and a sense of the need to be building alternatives. The university is a deeply important stakeholder in this debate. It is the one institution that systematically makes itself available for the review and renewal of this debate. Universities are about innovation. They deliberately set themselves up to think about and steer global debate and practice about development, about how the economy can work both efficiently and equitably, about how new approaches to the great social and cultural questions of the day can be approached and resolved.

Universities are now seen as crucial national assets in addressing many policy priorities as well as being vital sites of critique and scholarly debate. They are also seen as sources of new knowledge and innovative thinking; providers of skilled personnel and credible credentials; contributors to innovation; attractors of international talent and business investment; agents of social justice and mobility; contributors to social and cultural vitality; and determinants of health and well-being (Boulton, 2009)<sup>1</sup>.

This challenging picture of a failing economy, its concomitant results of unemployment, poverty and increasing inequality raises a number of subsidiary questions about the role of public institutions in addressing these seemingly intractable challenges. Given the fact that universities are public institutions, funded by taxpayers, the question arises: What is the specific role(s) of universities in the context of growing inequalities, poverty and unemployment? Would it not be appropriate to subject universities to some form of scrutiny and accountability in terms of how they should report regularly to the public in terms of how they are engaging with developmental challenges? Put differently, how does the knowledge project at universities make life better for the majority of people living in abject poverty? What are the modalities involved in generating knowledge that is transformative?

These are critical questions in our current institutional context. With calls for transformed curricula and pedagogies emerging from the student protests in 2015 and 2016, local and global debates have shed light on critical issues of transformation in the debates around local, African epistemologies and more inclusive pedagogies. The international literature in the field of engaged scholarship similarly points in important ways to the significance of these kinds of issues and links the work to projects around 'knowledge democracy'<sup>2</sup> at the heart of which lies a transformed notion of scholarship. Hall and Tandon (2017) uses the term 'knowledge democracy' to talk about the relationship of knowledge to a more just and equitable world. The authors argue that common interpretations of concepts such as the 'knowledge economy' and 'knowledge society' do not address issues of justice around access to and valuing of different knowledge forms.

---

<sup>1</sup> Boulton, G. (2009) 'What are in universities for?' University World News' Issue 0069, March.

<sup>2</sup> Hall & Tandon (2017) Hall, B.L. and Tandon, R. (2017) 'Decolonization of knowledge, epistemicide, participatory research and higher education'. *Research for All*, 1 (1), 6–19 [Hall & Tandon are UNESCO Co-Chairs in Community-Based Research and Social Responsibility in Higher Education].

Knowledge democracy refers to an intersection of several phenomena: it acknowledges the importance of multiple epistemologies; it affirms that knowledge comes in multiple forms; it creates an awareness that knowledge must be shared; it links values of democracy and action to the process of using knowledge<sup>3</sup>.

It is against this set of questions and transformation context that we are working to locate the social responsiveness work at UCT going forward.

The cases profiled in the 2019-2020 Social Responsiveness report provide a dashboard account of how UCT is grappling with the socio-economic challenges outlined above and encouraging scholars to reflect on their SR work in ways that link to the broader knowledge transformation project. As a knowledge generator, UCT is thus challenging itself to rethink what knowledge is, how that knowledge is generated and for what purpose. These are the kinds of questions that run as a thread through most of the cases.

Gibbons, in reflecting on the role of higher education in society, argues that the prevailing contract with universities is based on an expectation that universities provide new knowledge. In terms of this 'traditional' contract, for the past 200 years research agendas are set by the universities and the results of the research are communicated mainly in academic journals. In this paradigm information 'travels in one direction with little impact on the universities, their organization or their ethos' (Gibbons, 2006:5).

Conversely, underpinning most of the cases in the report is the belief that universities in the 21st century should enter into a new pact with society in which external constituencies are active partners in the learning process, and where learning is diverse and serves a variety of purposes giving rise to a diversity of 'transformative knowledges'.

As UCT moves into the future with its new vision one hopes that the cases will serve as torch bearers in helping UCT, first, rethink the prevailing false dichotomy between local relevance and excellence and, secondly, the hegemonic notions of what constitutes good quality scholarship.

---

<sup>3</sup> McMillan, J. (2019) Taking UCT's Social Responsiveness project forward: ensuring sustainability and visibility through scholarship, transformation and leadership. Position Paper, University of Cape Town.

# Section A

## Introduction and methodology

The 2019-2020 social responsiveness report is different from the previous report which profiled a wide range of faculty activities to demonstrate how UCT was engaging with the multiple socio-economic challenges bedevilling our country, the continent and the world. The shift from a comprehensive data base to case studies is borne by a reality that it is difficult to compile inventories of engaged scholarship (ES) at universities, largely because this field of practice is hard to define and does not have the same status as research and teaching.

The current report is designed around cases of good practice which will hopefully help the university community deepen its understanding of engaged scholarship as a scholarly practice. The need for rigorous, robust studies of engagement as a topic of enquiry has been endorsed by the United Nations Educational, Scientific and Cultural Organization (UNESCO) Chairs of Community Engagement as a result of their international study on university-community research partnerships (Hall et al, 2015). The Carnegie Foundation (2015) has also argued that the “existence of systematic, historic and ongoing efforts to assess community engagement within universities” is key to bringing ES into the institution, i.e. embedding it in the fabric of institutions.

UCT’s policy framework has defined ES as the production and dissemination of knowledge for public benefit, where such knowledge is generated and spread by means of engaging with external constituencies. The policy framework insists that SR should be scholarly and that all academic staff are expected to exhibit some level of engagement through teaching and learning and research. Scholarship is at the core of the purpose of the university and engagement should, therefore, be about knowledge and knowledge resources. (Kruss, 2012) explains that: “It is not an activity that academics engage in as citizens but is core to their disciplinary commitments and reputational identity. Nor is it an ‘add-on’ to ‘normal’ academic work, in that it ‘cuts across’ teaching, research and services in an integrated manner. It is also not driven solely by external demand, whether from markets or government or communities. The notion that engaged scholarship should be related to the mission of the unit or university, to substantive growth, is important for analytical purposes. It introduces a nuance to the normative dimension which is typical to the South African debate, in that it highlights the possible differentiation and segmentation between institutions or knowledge fields” (Kruss, 2012: 19).

Despite this seemingly clear definition, ES as part of the university mission remains differently understood across faculties.

## Methodology

Given that SR work inherently defies easy definition, it might be useful to shift focus away from clarifying definitions and towards understanding the purpose, the set of principles and values implicit in the work that can help drive the change – both externally in the social realm as well as internally in our teaching, research and service work. This understanding of the work could arguably assist scholars articulate the ‘bigger why’ of their work that is not necessarily achieved in more traditional modes of engaging through teaching, research and service.

Rich, textured case are potentially useful in this regard. In the early years of the report, case studies called ‘portraits of practice’ were used specifically and were successful in reflecting the wide variations in forms of SR, albeit at a different stage of the institutional project.

The choice of case studies is thus a deliberate attempt by the USRC to ameliorate some of the tensions in this debate. Case studies can provide some of the most useful evidence of what counts as practice i.e. what colleagues are actually doing in their SR practice through teaching, research, and service. In this way, case studies can serve as important tools for critical reflection on practice. In addition, case studies are important in demonstrating how engagement as a methodology can be weaved into research and teaching in a manner that is deeply enriching.

For the 2019-2020 report the USRC asked faculty representatives to collect four to five cases in their faculty that would contribute to deepening knowledge of the field of engaged scholarship, and its links with research, teaching and service. In addition, colleagues were asked to present their work in ways that indicated its links with the broader institutional transformation project, an important dimension in understanding this work going forward. This was done though requesting faculties to structure their cases around a set of criteria critical to broadening an understanding of engaged scholarship. Below are the criteria/broad categories faculties were asked to use:

- background to the project/work/unit; ((not more than 300 words)
- reason for work initiated/nature of the need underpinning the work ;
- key thematic issues addressed through the initiative (e.g. education, health, environment, etc)
- nature of the partnerships involved and how they engage and contestations with the external participants/partners/beneficiaries; (Building partnership is challenging)
- aims of the social responsiveness activity and the values underpinning this work;
- links with teaching and research and transformation. (how does it feedback to teaching, research and transformation?)
- contribution or added value to UCT
- contribution or added value to any external constituency involved;
- evaluation of social responsiveness activity and its impact; and the nature of outputs emanating from the work
- High quality “use inspired basic research” which can be published e.g. in international journals.

### **Themes emerging**

What emerged is a rich tapestry of cases or ‘portraits of practice’ that show a broad understanding of ‘engagement’. Given the complexity of the social world in which this work is located whether it is teaching, research or direct service/civic engagement, this is not surprising. In terms of types of cases, there are several that respond to a government need with low levels of engagement (Financial Aid schemes from Commerce).



There are however community based research cases which demonstrate high levels of engagement with external constituencies (Eh!woza from Health Sciences and Seed Knowledge from Science). This approach to engagement demonstrates that “the university does not speak at society from above (and that) it engages with societal actors as equal partners in a discursive and democratic set of social relations. In these relationships, universities bring their considerable knowledge assets to the table, which, together with the indigenous knowledge of communities, social networks and resources in society, provide building blocks for different forms of development” (Swartz, 2006: 142).

There are also very innovative teaching and learning cases which draw on external constituencies to enrich the practice and curriculum development (Khoekhoegowab Foundation Language courses from Humanities and Lived Experiences of Housing Struggle and Policy from EBE). These engagements have the benefit of providing students with the opportunity to apply the theory of their disciplines in a practical context. Increasingly, students are demanding practical relevance from higher education, and this is challenging traditional interpretations of knowledge and knowledge sharing, which perceived learning as an individual process separated from social engagement. Action and engagement are increasingly considered valid and beneficial forms of learning.

What also emerged from the cases is much broader understanding of engagement. Extension of knowledge falls within the ambit of engagement as demonstrated by the work of Centre for Extra Mural Studies which contributes to UCT’s social responsiveness mission by making the intellectual resources of the university accessible to a wide range of participants ‘outside the walls’ of academe.

The Centre for Innovation in Learning and Teaching (CILT) produces Massive Open Online Courses (MOOCS) to people who want to further develop their knowledge in a more openly accessible way outside of formal credentials and requirements. The CILT MOOCS team, in collaboration with colleagues across all faculties, have produced 22 since 2015. The case highlighted in this report is their work with the Division of Disability Studies which reflects a strong social justice orientation.

As part of the VCs 100UP programme, learners from township feeder schools come over to UCT Career Service (CS) for one-on-one careers consultations with one of the CS’s career advisors.

The cases submitted also showed examples of people providing technical advice to outside organisation and developing online platforms to enable ordinary people to access information pertaining to their health needs.

What all these cases demonstrate is the willingness to respond to the challenges facing society. Some of the cases did not adhere to the format which was sent to faculties but they are significant in demonstrating the varying understanding of this work. It is impossible to develop a comprehensive picture of engagement at UCT but one can hope that the cases presented in this report can help shift the discussion to a better understanding of the inherent breadth of SR work, how it inherently defies easy and neat categorisation, and how it benefits the university enterprise.

## **Structure of the report**

**Section A** is the introduction which lays out how the report was put together and the themes which emerged from the cases.

**Section B** of the report consist of faculty cases which when analysed can give us a hint of how engagement feeds into research, teaching and transformation. What is also evident from the cases submitted is that the field has been characterised by a lack of conceptual clarity about the term engagement. UCT and South Africa is not unique in this respect. Internationally the field has also been contested and defined very differently in diverse contexts with terms or concepts like outreach, community service, regional engagement, public service, community engagement, civic engagement, public engagement, knowledge exchange, third mission, triple helix and social innovation being the most common. The cases submitted seem to reflect these broad contestations. Many of these contestations come down to the core question of the purpose, role and responsibility of the university as an institution. Most significantly, the cases illustrate how universities have engaged with communities and how the engagement:

- provides universities with new research opportunities;
- enables academics involved in CE to develop interdisciplinary competencies and broaden their perspectives on problems through drawing on different knowledge sources; and
- helps to educate students to adapt to working in different social contexts.

**Section C** is a summary of the work of the Knowledge Co-op which is a mechanism which enables external constituencies to develop research projects with students and their supervisors.

**Section D** is UCT's work with its regional partners i.e. the Western Cape government and the City of Cape Town.

# SECTION B: Faculty Cases

## Centre for Higher Education Development

### Introduction

CHED's traditional constituencies and focus of work as an institutional-facing faculty, is typically colleagues and students on campus. This work takes place through various units, programmes and centres e.g. ADP, CILT, Careers, EMS. The work is focused on supporting teaching and learning and is realised through innovation in areas such as curriculum and course design, academic staff development, student development, multilingualism, and educational testing.

However it is significant to note there are projects in of CHED that contribute towards UCT's goal 5: engaged scholarship, and impact on broader communities and constituencies outside of the institution. Submissions for the report were solicited from 4 units in CHED:

- the Career Services' 'Beyond School' programme which offers career guidance to a wide range of schools and NGOs;
- the Centre for Extra-Mural Studies (EMS): the UCT's Schools Improvement Initiative; SAILI Scholarships; Ikamva Youth; Just Grace; Catholic Welfare and Development Athlone Cultural Hub;
- the MOOCS' project on the Disability Inclusion MOOCs in collaboration with the Division of Disability Studies (DDS) in the Faculty of Health Sciences;
- the Global Citizenship programme's community engaged course 'Social Infrastructures: engaging with communities (SI)' is run through the Faculty of EBE and works with a range of NGO and CBO partners.

While the work of each of these units/programmes is distinctive in its own right, there are some key themes that cut across the work in each which is in alignment with the values and ethos of SR work on campus:

- *A strong emphasis on partnerships with diverse range of both internal and external constituencies.* What is key to note here is that due to CHED's primarily internal, institutional focus, many of the partnerships are initially internally i.e. with UCT departments or Faculties, through which CHED links with outside constituencies. The MOOCS project and the SI course are key examples of this where work is both on campus initially through a division in the Faculty of Health Sciences in the case of the MOOCS and the Faculty of EBE in the case of the SI course, and then with broader off-campus constituencies;
- *Strong links to transformation*, of educational processes, practices and spaces - the curriculum e.g. the SI course, the MOOCS project;
- *Commitment to extending UCT's resources* e.g. knowledge, expertise, services, students, *to external non-academic constituencies* – all the cases but most directly through the Career Services work with schools and NGOs; the work EMS does directly with the broader public, and particularly with new, more diverse groups;
- *Focus on more diverse prospective UCT students* – the Career Services work

- *Strong ties to civil society organisations* –the SI course has been working for several years with a small group of CBOs and NGOs;
- *Commitment to linking SR work with scholarship as engaged scholarship* – the MOOCS project and colleagues on the SI course have written quite extensively about the work they do; aspects of the work EMS does also has a scholarly component

The rest of this section of the report provides more details on the 4 CHED case studies.

### Careers Service: Beyond School Programme

Contact person: Ingrid van der Merwe – [Ingrid.vandermerwe@uct.ac.za](mailto:Ingrid.vandermerwe@uct.ac.za) , Athi Matinase – [athi.matinase@uct.ac.za](mailto:athi.matinase@uct.ac.za)

#### **Background to project**

The Beyond School Careers Programme is a UCT Careers Service initiative which provides career development services to high school learners and unemployed youth in order to assist them make better informed decisions for their lives. We also provide training for university students, youth workers and teachers to become career development mentors in their communities.

The Beyond School programme is aligned to the University of Cape Town’ Strategic Goal five: To enhance the scope, quality and impact of engaged scholarship with an emphasis on addressing development and social justice issues, including the expansion of community and external partnerships. It is also linked to Strategic Goal number one: To forge a new, inclusive identity that reflects a more representative profile of students and staff, and the cultures, values, heritage and epistemologies of the diversity of UCT’s staff and students

The Programme is in line with CHED’s mission of improving equity of access and student success and helps learners and unemployed youth to access quality career guidance and information to assist them to make better informed study and career choices.

The strength of the Beyond School work is our approach to career development, which we see as an ongoing and dynamic process that requires the individual to engage and take responsibility for their choices. It is a complex mix of information gathering, decision making, reality checking, and action planning. Moreover, this approach is best suited for working with learners from a range of socio-economic backgrounds.

Currently the programme is being run by Athi Matinise, who is also a careers advisor of current UCT students.

What he has achieved in this role is remarkable given that he still carries a student careers advisory load.

#### **This is what the programme offers:**

- One on One career consultations (paid & unpaid)
- Smaller group career consultations
- Customised career workshops and talks (paid & unpaid)
- Train youth workers, NPOs and Teachers.
- Train and support university students to become career ambassadors/ mentors in the broader community.
- Provide access to career resources and information.
- We also provide access to computers and online resources to the learners and unemployed youth.

## **Reason for work initiated/nature of the need underpinning the work**

Through our day to day work with current UCT students we know that many young people make ill-informed study choices based on wrong information and assumptions.

As a result of wrong study choices, students find themselves stuck in study programmes that do not interest them. In many instances this leads students to lose motivation, doubt their abilities and eventually fail the course or drop out of university.

Studies have also shown that poor choice of careers, poor matric results, a lack of guidance or no guidance at all are some of the reasons why students are dropping out at university.

This point was also been emphasised by Ian Scott, Nan Yeld and Jane Hendry in their 2007 paper for CHEC - *A Case for Improving Teaching and Learning in South African Higher Education*.

The consequences of making wrong study choices are costly to the individual student, their families, the country's economy and has negative impact to the Universities' throughput rates.

The Beyond School Careers Programme seeks to address these challenges by providing appropriate career information, one on one career guidance, career development workshops to schools and NPOs.

## **Key thematic issues addressed**

The key issue that the Beyond School programme is addressing is career education, or rather the lack of career education for young people in South Africa. There are numerous websites and resources available, but young people often do not have the ability to make decisions, navigate the information or understand what they are choosing.

Most schools (even those that are relatively well resourced) are still operating with outdated methodology which puts huge pressure on school leavers to make a once off career decision in matric, or shortly thereafter, which is unrealistic and puts enormous and unnecessary pressure on young people. Our approach teaches them that careers are constructed over time, and that employability involves many parts of life, not just one's education. We emphasise the difference between a career choice and a study choice, and show students the importance of developing transferable skills that better prepares them for the fast-changing technological world that we live in.

The strength of our approach stems from the contact we have with current UCT students, with graduates and with employers. This interface gives us a cutting-edge exposure to the labour market and the varied opportunities students have after graduation.

## **Nature of partnerships and how we engage**

In 2017 we opened a fully resourced career centre in the Philippi Township. The space is used by learners and unemployed youth from the surrounding communities such as Philippi, Gugulethu, Nyanga, Cross Roads, Manenberg and Victoria Mxenge townships. The learners and unemployed youth have access to career guidance, career information and can use the computers for career development purposes such as, job search and applications.

We also provide career education training to university students, NPO workers and life orientation teachers to help them become career mentors in their various communities. The training equips participants with the necessary skills, knowledge and tools to enable them to assist young people to make informed choices in their lives. This training also helps to scale the impact of the programme nationally and beyond the South African borders.

We work with various UCT agencies like the 100UP VC Programme, SHAWCO, Student Representative Council and various Students Societies. We also work with community-based youth development organisations, such as, Ikamva Youth, VPUU, Harambee, Beautiful Gate, Leap Schools, Nasper Labs etc. We also contribute to the school programmes of companies such as PWC, Investec, KPMG and Cipla.

The schools that Athi Matinise has direct contact with through the 100UP programme are: Bulumko, Chris Hani, Cosat, Esangweni, Harry Gwala, Intlanganiso, Iqhayiya, Joe Slovo, Kwamfundo, Luhlaza, Manyano, Masiyile, Matthew Goniwe, Sinako, Siphamandla, Sizimisele, Thembelihle, Usasazo, Uxolo and Zola.

Workshops and individual career consultations are conducted with the learners from these schools.

In 2017, Athi Matinise was invited by VPUU to run a career education workshop in Villiersdorp for young people of the area. He wrote a report with recommendations after this engagement, and as a direct result of this report, a youth centre was opened in Villiersdorp this year.

Athi also visited Sutherland in September this year on the request of the DVC Loretta Ferris, to participate in a career exhibition for the youth of Sutherland. This was a request that arose from the engagement with the Sutherland community by UCT surrounding the return of ancestral bones.

### **Aims of the programme and values underpinning our work**

Our overall aim is to help young people understand their choices and make well informed decisions about their futures. This is vitally important, as so many young people make ill informed decisions in every community, which has a serious implication to giving young people a good start to their careers. If students at any institution have chosen well, knowing what the course is about and choosing according to interest and ability, the chance of success and throughput is much, much greater. This has positive implications for them, their families and even for the economy of our country.

It is also essential to note that our work does not promote UCT as the only study option. We help learners and young people to find the options that are right for their interests and education level, which includes options at TVET colleges and learnerships in many sectors.

Currently we run day long workshops for youth workers, teachers and those who wish to help young people in their communities. We recognise the value of local role models, so if we can train those who are embedded in their communities, this is the most sustainable model.

Our aim is to develop a distance learning or online resource so that we can reach more youth workers locally and in Africa.

## **Links with Teaching/research and transformation**

The fact that the Beyond School programme is run from the Careers Service which is in CHED is very important to us, as our career development approach is deeply rooted in teaching and learning principles. The transformation potential to what we are doing is very important, as most of the schools and organisations we work with do not have the means to pay for career consultations.

## **Added value to UCT**

The added value for UCT is twofold: Young people who we work with who do come to UCT are exposed to sound career development principles, which aids their choices. This means there is a far greater chance of them being successful in their chosen course, as they would have chosen it having been informed by our approach. This positively contributes to our throughput rates.

It is also very positive for UCT to be linked to this initiative, which is not there to promote UCT, but to help all young people to make good choices, even if that choice is not UCT. Communities appreciate us using our expertise for young people that do not end up coming to our institution.

## **Added value to the external parties**

There is tremendous value for any constituency through our train the trainer model. In many cases, there are teachers and youth workers who mean well and try to help young people with career decisions but are using outdated thinking and are actually causing more harm than good by their help and interventions.

By going through our training day, youth workers and teachers are empowered and helped to support young people to make key decisions by their exposure to our model of ongoing career construction and development. The value of our programme is that those that are exposed to our training, are those that have day to day relationships with young people that are making decisions.

Once exposed to our materials, many participants are motivated and feel better equipped to find information and to guide young people than before.

The added value to the school leavers that we interact with can be seen in our evaluation forms, which is in the next section.

## **Evaluation and impact**

It is our practice to conduct before and after evaluations when we have workshops and consultations with school learners, so that we can measure our impact.

## **Career consultations**

In order to measure impact on one-on-one career consultations learners were asked to complete a pre-questionnaire before and a post-questionnaire after the career consultation using google docs.

Many of the participants indicated that, they never had career guidance in their lives before they participated in the UCT Beyond School Careers Programme.

A significant number of learners showed an increase in their levels of confidence to explore their career options after the consultations compared to before the consultations.

## PRE QUESTIONNAIRE: One on one career consultations

**We asked: What would you like to discuss with a careers advisor?**

### What would you like to talk to a Careers Advisor about?

96 responses

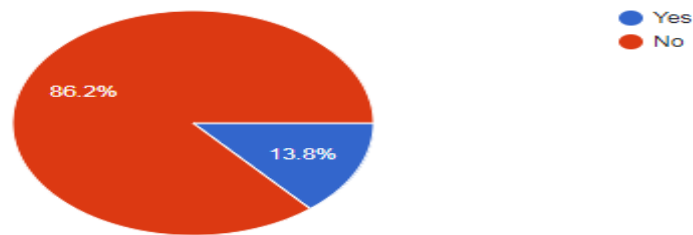
- I would like to talk about career awareness (2)
- I want to talk about pharmacy how to be a pharmacist and also clarify (2)
- I would like the career advisor to tell more about my career that I want to following (2)
- I would love to talk about medical faculty and science (2)
- I wanna talk about how do you know that you are perfect for the certain career ? (2)
- Requirements for computer science (2)
- To talk about my career I have chosen (2)
- I want to talk about faculty of Humanities (2)
- I would like to know more about the requirements that are needed in Geology.
- More about the actions I need to talk for my career plans, developing a plan and hear more about the career path I want to follow and what is expected from me.
- About which career does my personality meet and whether my interest will meet my career and the money I would like to earn and will they meet my needs.
- I would like to talk about how I could narrow down the different career paths I want to follow and how to survive in tertiary and how likely I would change the careers.
- I would like to talk about the various career options available to me with my subjects.
- I would like to ask the careers advisor what you need to have in order to get into the health science faculty.
- My career and available funding in my future study field
- I would like to talk about my ambitions and the future
- I WOULD LOVE TO KNOW MORE ABOUT CAREERS ESPECIALLY THOSE THAT HAVE GOT TO DO WITH SCIENCE
- I would like to talk about careers and I would the career adviser to help me and in my particular career choice and assist me to a right direction
- I would like advise on which career would best suit my interests , requirements and which career courses are in demand in South Africa. I would also love to get advise on tips to study so that i can get good marks so to meet my requirements and get a bursary
- Talk about career option that fit well with my abilities and interests.
- I would like to talk about careers that include Maths and science. How good must I do at school



We asked:

### Do you have a clear idea about your career plans after school?

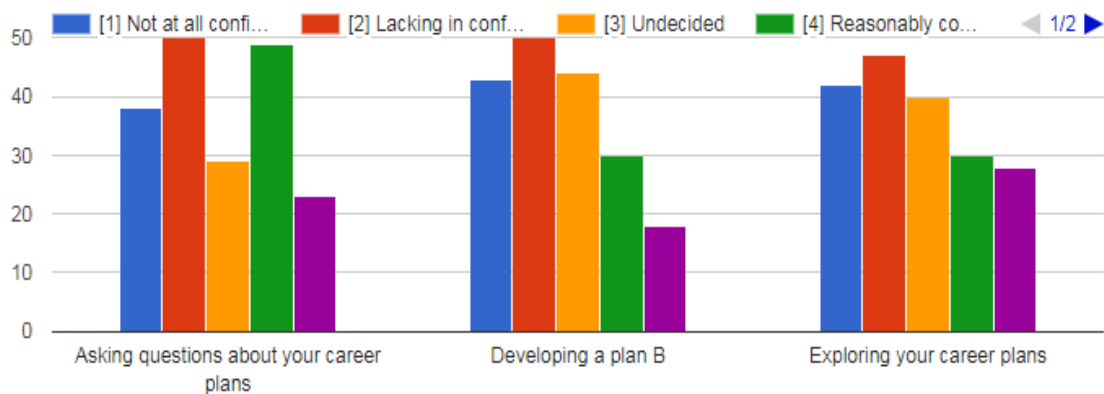
196 responses



**86 percent of the students seen for career consultation had no clear idea about their career plans when asked before the consultation.**

We asked:

On a scale from 1 to 5, how confident are you now to take action on:



An overwhelming majority of the students reported to have no confidence or lacking in confidence to exploring their options or asking questions about their career plans and developing a plan B for themselves before the consultation.

## POST QUESTIONNAIRE: Career consultation responses

### We asked:

#### What did you learn today?

194 responses

That there are many fields that you can follow, and I got more information on becoming physiotherapist (2)

Today I learnt about the different careers that are out there that I didn't even know I could be interested in (e.g. Geneticist). The career is so fascinating and broad because not only does it apply on human beings, but also on animals and plants. Genetics make our lives so much better, if ever there five of us in a room and one of us has T.B and coughs it could be that one of us doesn't get the virus. So their DNA doesn't allow the virus inside the immune system. So basically a geneticist will kind of like take a strand of that DNA, make copies of it and everyone will not get TB if they have that susceptible DNA strand in their immune system. I also learnt about the different studying strategies. The different courses each institution has to offer (e.g. UCT doesn't offer Physiotherapy but Stellenbosch offers the course). (2)

I found out more about my career and now able to make informed decision on which career path I can follow. I am now aware of the requirements needed. stuff about bursaries. (2)

I learned how to choose a suitable career. This workshop has changed my perspective and I am more aware of myself. (2)

I learnt about how to choose your career in terms of university studies, how to choose wisely propelled by interest and passion, what importance your NBT results are to Universities and that the degree you do may lead you to other different jobs or careers. (2)

I've learnt more about the career that I've chosen to study, its requirements and what I need to do to achieve that.

Today, I've learnt to think even more critically. Not just about the career path I have to follow but also facing disappointment of not being accepted to the institution (UCT) and to be able to have plan B on my life and to which other institution I'll have to register.

That when you choose a career you must have different plans and options and you must be determined to work hard and get ahead and not get even.

I learnt how to break down the various career options and which one would be the most preferable. I also learnt some great study tips and how to stay relaxed and focused.

I learnt that there were many careers that were available for me to do, other than just those I wanted.

I learnt that I need to spend more time in my studies in order to qualify for my career of choice

I learnt more about career choices and I learnt how to prioritise and stabilise all my subjects

I have learnt a lot about my self first and also about the importance of choosing a career that will suit me at the end of the day.

I've learnt more about careers and how to balance my work so I could study hard to obtain good marks. I have also learnt about values and priorities and how to put my self first

about the future

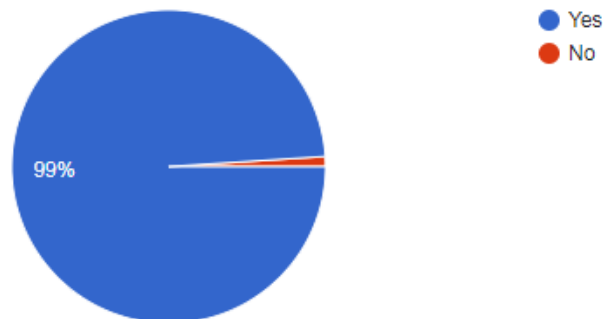
I got a chance to know what I want to study next year. Bhuti Athi told me about the careers in the business and helped me to see HR the other way

I learn study plans in order to groom in knowledge and also how to put my effort in studies in order to be better than yesterday. I also found out more information about programs videos to understand better my subjects. The career advice give me a light about my career choices chartered accountant and construction studies. from now everything is in my hands in order to achieve my goals

**We asked:**

Do you have a better understanding about the next steps for your career plans?

193 responses



99 percent of the learners who came for a career consultation indicated that they have a better understanding of the next steps in their career journey.

**We asked for explanation on the above response:**

I was exposed to so much information that I didn't even know existed and with all this knowledge I've gained today I think i have a clue of the career path i want to follow. (2)

i now understand my career and what it entail and so i am going to work towards meeting the requirements of my career and also engaging myself on work at my environment similar with my career (2)

All the questions that I used to ask myself are now answered. I now know what to do from today onwards. (2)

Now that I've spoken to the career advisor I know that I have to work hard on my studies so that I could go to university.

Since now that I know what to do. I have to commit myself to work hard so that I could commit myself to work hard so that I could meet the requirements needed to be able to end up doing or taking the career path of my choice.

Yes I do. I now learnt how to distinguish between social myths and what i actually want to do. Now I have learnt of various options available to me.

I will start making short films on my phone and start making them into music videos.

I know more about what my career entails

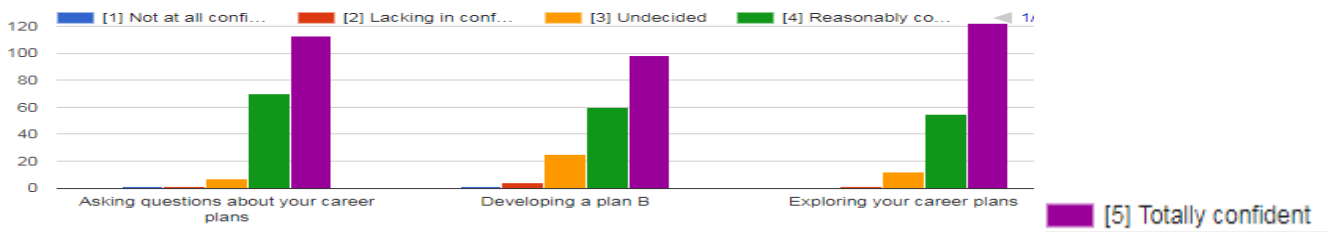
I now know what to do in the next months of my final year in school and what I will do after matric

I now know what to do to get to my dream career. I know what I want so I wont find it difficult to choose a suitable career. Because the career advisor made me realise that I'm more interested in commerce.

yes I do. I know that In order for me to be well satisfied with my career path its to do more research about what I want to do.

**We asked:**

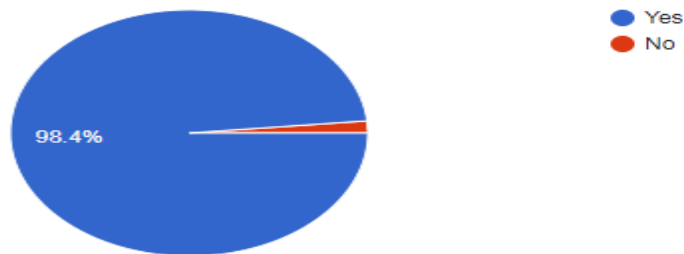
On a scale from 1 to 5, how confident are you now to take action on:



**We asked:**

Would you recommend this careers consultation to a friend?

190 responses



**Centre for Extra-Mural Studies**

Contact person: Dr Medee Rall – [medee.rall@uct.ac.za](mailto:medee.rall@uct.ac.za)

The University of Cape Town’s extra-mural work derives from an international tradition of university extension which holds the universities have a responsibility to disseminate their knowledge to a wider public beyond the walls of the university. Guided by this vision, the Centre for Extra-Mural Studies (EMS) has served Cape Town’s adult learners since the late 1950s – with the first annual Summer School programme held in 1950. The mission of EMS is to offer short courses to all regardless of educational qualifications. These courses aim to make the academic resources of the institution available to a wide range of participants and to make university research available to the general public, drawing on different disciplines. It also stimulates debate on important issues relevant to its surrounding communities, in so doing contributing to intellectual transformation and an informed citizenship.

The work of the Centre for Extra-Mural Studies is considered to be that of Goal 5 which addresses engaged scholarship. The social responsiveness work done by EMS has an intentional educational purpose and benefit. The academic engagement with EMS’s external constituencies is based on solidly grounded scholarship, both discipline specific and in the field of adult education, grounded in sound androgogical principles. In particular the scholarly work of EMS provides opportunities for learning with the intention of making an impact on individuals that will last a lifetime and in impact on society through opening the doors of higher learning to the university’s diverse communities.

In recent years EMS has begun a process of broadening its reach and engagement with wider external communities through the formation of partnerships and through its range of programme offerings, in order to attract a younger and more diverse audience. The transformation of the traditional Summer School audience is a generational project that will take time. These interventions are laying the foundations for the creation of a new generation of lifelong learners both within the university and in its wider communities. Partnerships have been formed and programmes offered with the following departments at the university and in non-academic communities:

- UCT's Schools Improvement Initiative: 100-UP project and the Gill Net project
- SAILI Scholarships
- IkamvaYouth
- Just Grace
- Catholic Welfare and Development Athlone Cultural Hub
- Cornerstone Institute.

The first four programmes are aimed at grade 10 to 12 learners, the Catholic Welfare and Development Athlone Cultural Hub at adults and the Cornerstone Institute at university students.

### **Programmes for learners**

The Centre for Extra-Mural Studies offers day-long Summer and Winter Schools, in partnership with non-academic constituencies, with the key thematic issue being education. The aim of these programmes is to expose learners, most of whom will enrol at university, to lectures at first year level on a range of topics that prepare them for tertiary study and to experience what it will be like to be a student at university. By offering a range of lectures the aim is to show learners that there are a great many areas they can choose to study that can lead to a fulfilling career they may not have known or thought about. The values that underpin these programmes include instilling a sense of curiosity and wonder, the experience of learning for the joy of learning and to become lifelong learners. These programmes aim to establish an early relationship with learners and introduce the possibility of recruiting them as future students, graduates and lifelong learners that participate in the university's programmes such as the annual Summer School and short courses.

The Centre for Extra-Mural Studies works with the following four programmes for learners who are being prepared for tertiary studies.

**The 100-UP project** is a three-year programme enrichment programme that focuses on broadening access to higher education with the specific purpose of preparing academically gifted learners from Khayelitsha to compete for places at UCT and other tertiary institutions. The Gill Net programme reaches learners from sixteen secondary schools in Khayelitsha and in Mitchell's Plain. These programmes address under-representation from the majority of South Africa's demographic at universities. The programmes are aimed at grade 10 to 12 learners from disadvantaged backgrounds.

The mission of the **IkamvaYouth project** is to enable disadvantaged youth to pull themselves and each other up out of poverty and into tertiary education or employment. It provides a safe space for learners to go after school to receive help with their homework and other services and support to ensure they succeed.

The emphasis is on an effective tutoring programme to enable grade 12 learners to get good grades that will give them entry into tertiary education.

The **Just Grace Education** organisation based in Langa creates and supports community-based projects that will lead to the social upliftment of Langa so that its people are empowered to be active citizens. The vision of the organisation is for the Langa community to be a safe place where residents have access to quality education and meaningful employment.

**SAILI Scholarships** organisation is focused on maths and science performance and provides scholarships to financially disadvantaged but academically talented, positive and motivated students so that they can attend good quality, low-cost state schools that provide a solid education that lets them reach their full potential, in so doing aiming to redress the inequalities in the South African education system.

The day-long Winter and Summer School programmes have included the following lectures:

- *The many faces of forensics*
- *Numbers old and new*
- *African dinosaurs*
- *Gentrification in Cape Town*
- *Making galaxies*
- *The interconnectedness of our Universe*
- *The two thousand year old computer*
- *A hundred years of thinking about race*
- *Super primate: the human origin story*
- *It's all about the brain.*

The 100-UP learners also attended three sessions at the university's Decolonial Winter School whilst at their residential holiday camp home on campus: *Black Roots marimbas*, *S.W.E.A.T.* and *Nguvu Ya Mbegu*. This provided these learners, of whom the majority would study at the UCT in 2019, with a sense of what decolonisation means in higher education, and specifically in the context of the Rhodes Must Fall Student protests of the time.

The value of these Summer and Winter School programmes can be seen in the following comments from Emeritus Professor Anwar Mall and Professor Crain Soudien who lectured on these programmes, and from the learners who attended the programmes. The value of these programmes to the learners can be seen in the comments they have made, noted below.

Emeritus Professor Anwar Mall has delivered many courses at the annual Summer School, but says that these young learners are different in that main value of the Saturday Summer and Winter School programmes lies in opening students' eyes to the value of [a] higher-education career as a very worthwhile goal. Professor Crain Soudien, previous Deputy Vice-Chancellor for Transformation at UCT, provided the learners with a historical context for their role in transforming both the university and society at large in his lecture *A Hundred Years of Thinking about Race* and told them not accept information blindly.

These two statements demonstrated to the learners the role they are able to play when they come to university and in more broadly in society and the importance of questioning information and what they learn, which will enable these learners to become engaged citizens.

Sinethemba Jaca, a volunteer tutor at the Ikamva Youth's Nyanga branch, an Ikamva alumnus, is now a UCT student. He has welcomed the Saturday Summer School initiative and is keen to have Ikhamva Youth learners enrol for more Summer School courses.

The impact of the programme, however, goes beyond academic benefits, as it also builds confidence and equips learners with important life skills. Luvo Jama from Bulumko Secondary School said that attending the Summer School programme gave him a bigger perspective on life and taught him to communicate well and said that he learned how to interact with different people and that it's given him a lot of confidence.

Most importantly, these learners don't keep the knowledge, skills and resources they have gained through these programmes to themselves, but instead return to their schools to share these with their friends and classmates. This is testament to the extent to which these programmes, which have reached around a thousand learners since 2018, reaches the wider community and the impact these programmes have in the communities and on future university students.

These programmes are examples of engagement with external non-academic constituencies with clear transformation goals that fit with the university's engaged scholarship and social responsiveness initiatives. There are clear links with research, teaching and transformation, which adds value to the university through involvement with external constituencies. This programme warrants research and publication in accredited education journals, which will be pursued in 2020 and will draw on the evaluation forms completed by learners, in-depth interviews with members of the different organisations involved in the programmes and the university's 100-UP programmes, lecturers, learners and relevant research and journals. This will be a use inspired basic research project resulting in publication.

### **Catholic Welfare and Development Athlone Cultural Hub**

The partnership with the Athlone Cultural Hub, based at the Catholic and Development (CWD) premises, was initiated by the Centre for Extra-Mural Studies (EMS) in order to address barriers to access – perceived and real. There is a widespread perception of UCT – and EMS as part of this with its history of white dominated and fee-paying Summer School – is a place that is only accessible to an exclusive elite. One example of working to overcome these barriers is the EMS partnership with the Athlone Cultural Hub.

The Athlone Cultural Hub is located on the premises of the Catholic Welfare and Development (CWD) offices in Athlone. CWD is one of the longest established NGOs in South Africa. Their major focus is to encourage people to rise out of poverty and become self-reliant. Their interventions aim to unleash the potential of individuals and the communities through its four community development centres, of which one is the Athlone Cultural Hub. The Athlone Cultural Hub is co-ordinated by André Marais, who has drawn on the skills and activist experience of members of the broader Athlone Community. The Hub organises a range of cultural and educational activities, including healing trauma workshops and writing workshops for disadvantaged communities.

The choice of the Athlone Cultural Hub as a partner was informed by a synergy of purpose in both public education programmes. The Hub wanted to continue an old community tradition of public education for changing society. EMS wanted to establish strong links with publics in the area in which the Hub operates, and the Hub wanted to attract an older more mature audience.

Summer School has traditionally been patronised by an almost exclusively older white audience. The imperative to transform the Summer School audience and decolonise the Summer School curriculum in the wake of the nationwide student protests has remained an important goal. The partnership with the Hub allowed EMS to put into practice the idea of an 'Open University', by bringing Summer School courses free to the public in Athlone, as well as to experiment with smaller, practically orientated courses, for which the delivery format is more conducive to an interactive pedagogic style. What was envisaged were two parallel programmes that will draw on one another and transform both campus and community. EMS will use the Summer School programme as a bridge to connect intellectuals, artists, writers and scholars across the university/community divide.

The Hub drew on the local Cape Town intelligentsia whose origins are rooted in the search for a theoretical and practical approach to the ending of apartheid. During the apartheid era, organic intellectuals and university-trained intellectuals have always worked side by side, built libraries, organisations, wrote tracts and treatises on every conceivable social and political questions of the day, from every conceivable political ideology (Marxism, Leninism, Black Consciousness, Trotskyism, Maoism, adherents of the PAC, ANC, etc.). These intellectuals were knowledge producers in their own right, and are deeply rooted in the previously disenfranchised areas of Cape Town. Three of UCT's well-known academics, A.C. Jordan, Neville Alexander and Crain Soudien come from this tradition.

Many of the pioneers of this tradition have now died (Neville Alexander and R.O. Dudley, being the most well-known). In the post-apartheid period this intellectual energy has passed on to a different generation that has redirected itself to the urgent social and political questions of the day. Many who were activist-intellectuals in the apartheid period now find themselves involved in the practical day to day governance of a society still very much in transition. Less dogmatic in their ideological stance, they are interested, not in the pursuit of knowledge and ideas for its own sake, but how best to turn around the enduring legacies of apartheid. Amongst them are also artistic and literary figures, whose work is not limited to the narrowly political. Many have written autobiographies and their work represent a kind of archive of local intellectual, cultural and political life under the apartheid regime.

The Hub wanted to access university- based scholarship and research and make it available to the Athlone community. EMS wanted to take the Summer School programme to this public, and in turn encourage their presence at Summer School.

In this way both the ACH and EMS have put into a practice a philosophy of education that acknowledges that non-formal education is as important as formal education in the growth and development of the person. In the context of the South African education crisis, non-formal education initiatives contribute to a culture of learning for the joy of it.



The long-term goal of this partnership is to contribute to a culture of education for enlightenment and enjoyment, and not just to obtain qualifications. This partnership is based on an acceptance of the equality of the two partners in the relationship despite the inequality in resources. We do not want to reproduce the old paternalistic power relations by separating the intellectual and the practical, along old racial divides. Our engagements off campus will not ghettoise ‘community’, while extolling on campus activities as the standard to emulate. EMS will draw on local intellectual capital to offer Summer School courses, while making available the intellectual and scholarly resources of the university available to the Athlone community. Courses and lectures that were offered in Athlone at the CWD premises have included Dr Tessa Dowling, senior lecturer in African languages at UCT gave one of her popular lectures, *Xhosa in 45 minutes*. It is significant that the event was held in Athlone, a traditionally ‘coloured area’, where people, as a result of an apartheid history, know very little Xhosa. Despite many coloured areas being adjacent to African residential areas, Xhosa has made no inroads in the ‘coloured residential areas of Cape Town. EMS and the Hub jointly hosted the launch of a Major-General Jeremy Veary’s Memoir, *Jeremy Vannie Elsies*. Like with the isiXhosa lecture our Summer School participants to attend. The event was packed by a truly diverse audience. Jeremy Veary is well-known on the Cape Flats as an anti-apartheid activist. The event brought together a number of well-known activists of the 1980s (black and white), but also younger people involved in contemporary social movements.

In 2019 the Summer School course by UCT Professor Julian Cooke and colleagues, *Building a more sustainable Cape Town*, was held at CWD, and not at UCT like the other courses. Entry was free for members of the community. The course itself appealed to a very specific group: activists involved in opposing the continuation of spatial apartheid in the city, and progressive professionals involved in the planning and architectural professions, and the traditional Summer School course. At the end of the course there was an expressed interest on the part of a group of people, including Professor Cooke to continue the conversations and begin to actively promote the ideas for building a sustainable city.

The value of this partnership lies in external beneficiaries, the Athlone community and traditional Summer School students, benefitting from the courses by UCT academics based on their latest research as well as national and international scholars and public speakers and these diverse communities having access to lifelong learning.

The scholarly work of EMS academics in their respective disciplines informs the development of Summer School courses and lectures, which are based on sound andragogy principles. This partnership plays a key role in the transformation initiatives of EMS, in particular engaging with communities that the university does not currently reach.

## **THE CORNERSTONE INSTITUTE**

The Centre for Extra-Mural Studies has formalised its partnership and run its first programme, *Reclaiming Agency*, in collaboration with the Cornerstone Institute. The session at UCT, titled *Geo-politics of Reclaiming Agency in the City Centre – District Six, Zonnebloem, Bo-Kaap, Liesbeek River*, has as focus apartheid South Africa city space, which was designed as white space and regarded as ‘for whites’. Forced removals have a long history that begins at the turn of the nineteenth century when African dockworkers living in the Bo-Kaap area was forcibly removed to Ndabeni, as a result of the outbreak of a plague epidemic.

In 1918, with the outbreak of the worldwide influenza epidemic in the last months of the First World War, Ndabeni was razed and the residents were once again moved to the township of Langa, the first township to be established in South Africa. Communities living in the places that survived apartheid era forced removals (such as Bo-Kaap and Woodstock) are currently being forced out by economic apartheid taking the form of gentrification. Gentrification has been allowed to proceed apace with the result that in the post-apartheid era, apartheid spatial design is being continued and maintained by economic forced removals.

Members of the panel aimed to reflect on this history with the emphasis on addressing the specific issues related to their area and the broader issues arising from that specificity:

- Tauriq Jenkins (Observatory Civic): the Liesbeeck River area
- Mandy Sanger (District Six Museum): the question of Reclaiming District Six
- Fowzia Achmat (Bo-kaap Civic): economic forced removals in Bo-Kaap
- Bevil Lucas (Reclaim the City): spatial justice and affordable housing in the city.

This partnership will be strengthened in 2020 with a focus on key and current issues in Cape Town and its surrounds.

### **Conclusion**

EMS's social responsiveness role has enabled access to the university's intellectual resources to those publics who would otherwise not have access to the institution. By taking programmes to communities the adult education work of EMS has reached communities in which the university does not have a presence. By not offering formal qualifications it has contributed to a culture of learning for its own sake among a younger generation, while encouraging a culture of lifelong learning among an older generation. The above programmes have also built bridges between two intellectual publics: one institutionally based, and the other organically grown from within communities.



Learners from the IkhamvaYouth programme with the staff from this IkhamvaYouth



Emeritus Professor Anwar Mall with learners from the Ikhamva Youth programme



100-UP

learners at a day-long Summer School programme



The 100-UP learners with Mrs Ferial Parker who runs the 100-UP and Gill Net programmes and Dr Medee Rall from the Centre for Extra-Mural Studies



Dr Medeé

Rall, director of the Centre for Extra-Mural Studies (left), Summer School student assistant Knowledge Mahbena (second from left), 100UP manager Ferial Parker (third from right) and Shireen Gamielidien (second from right) and learners from the 100-UP programme



## A day in the life of a student



Thank you UCT for hosting our learners and exposing them to new and exciting areas of study!



Dr Tessa Dowling presenting the isiXhosa lecture at the Athlone Cultural Hub



Participants at the Jeremy Veary book launch at the Athlone Cultural Hub

## CILT's work on the Disability Inclusion MOOCs in collaboration with the Division of Disability Studies

Contact: Janet Small [janet.small@uct.ac.za](mailto:janet.small@uct.ac.za)

### Background

Massive Open Online Courses (MOOCs) are open online courses with no entry requirements intended to reach people outside the university. They are designed for mass participation and assume that learners will drive their own education, studying alongside diverse fellow learners who may come from anywhere in the world. MOOCs are a means for a university to engage with people who are interested in a topic but unable to attend a university formally as a student. Thus one of the goals of the UCT MOOCs was to make more of the university's knowledge resources globally accessible and give exposure to content and knowledge from an African context.

In 2016, the Division of Disability Studies (DDS) in the Faculty of Health Sciences received support from UCT to develop the *Education for All: Disability, Diversity and Inclusion* MOOC. CILT provided the support for creating the MOOC that would respond to both the goals of the university and DDS.

The intended audience is teachers and parents who wish to create inclusive educational environments for children with disabilities. Inspired by Sustainable Development Goal 4 which strives to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, the MOOC aims to support inclusive education for the most marginalised children in low to middle income countries. Being free to access and available globally made the MOOC mode of delivery attractive as a means to address the shortage of materials on inclusive education for teacher education relevant to the global south. Promoting inclusive education practices are not only relevant for disabled children but also benefit the community as a means of promoting social cohesion.

The DDS collaborated with local and international NGOs (Inclusive Education SA and Atlas Alliance) and included a wide range of guest contributors. Following on the success of this initiative, the DDS was able to win the bid for a multi-year, multi-stakeholder project - Teacher Empowerment for Disability Inclusion (TEDI). The TEDI project launched a research investigation into the educational provision for children with mild to profound sensory and intellectual disabilities in South Africa and resulted in the development of a variety of educational materials for teacher education, including four MOOCs.

### Rationale and purpose

While most of CILT's work is focused on supporting teaching and learning within the institution, the university and CHED goals encourage extending our work more widely, with developing MOOCs being an example. One of the CHED goals is 'Developing and supporting initiatives that widen access to the knowledge resources of the University community at a local, national, regional and international level.' This captures the intentions of the work CILT's MOOC team does when developing open courses together with UCT academic departments,

The DDS came to CILT with the challenge to raise awareness and widen access to their work on inclusive education. While there is growing awareness of the need for education for all (through worldwide campaigning around SDG 4), there is little information or training around inclusive education for teachers in lower to middle income countries.

The DDS regularly receives enquiries from individuals and institutions in other African countries to assist with the implementation of inclusive programmes and the education of teachers and caregivers of children with disabilities. Given resource limits, most of these enquiries are for support opportunities and educational materials that are free to access.

Teachers and caregivers of children with disabilities living in low resourced contexts may struggle to know how best to adapt their teaching approach. Specialist teacher education is not widely available, and in many settings, regular teachers have children with disabilities in their classrooms, while in some settings prevailing negative attitudes mean that children with disabilities are not included in schools at all. The MOOCs are aimed at offering basic teacher education in how to accommodate the learning needs of children with disabilities. To realise SDG 4, teachers need to advocate for children with disabilities and be empowered to ensure equity in education for all children making sure “no-one is left behind”.

The development of the MOOCs provides an accessible introduction to inclusive education - offering examples of practices from mainly African settings. All the materials developed have been released as open educational resources (OER) to allow for easy reuse and unimpeded sharing.

While CILT has little direct expertise in disability studies, our mandate and experience is in designing online learning for a wide range of students and public audiences. Hence our partnership with DDS in developing *Education for All*, and later the four TEDI MOOCs aligns with this mandate.

Key thematic issues addressed through the initiative

Two aspects to the CILT MOOC initiative concern the educational theme. The first supports the capacity of UCT departments to develop new skills while engaging in creating MOOCs, while the second supports the delivery of MOOCs so they can achieve their intended goals. Both roles are important, with the first inwardly focused while the second is more outwardly oriented.

The key focus of this initiative is supporting teacher education for disability inclusion linked to SDG 4, which specifies a target of achieving ‘equal access to all levels of education and training for the vulnerable’ - including persons with disabilities. A real concern is that many of the children with disabilities are being denied schooling, particularly in the developing world in part because of teacher training does not address these issues sufficiently. The MOOCs address the skills and knowledge needed to include children with all types of disabilities in an educational experience which is appropriate to their needs.

In the first MOOC created by the DSS - *Education for All* - the focus was on introducing the concept of inclusive education and promoting disability as an aspect of diversity, which benefits all learning contexts and all societies. In the subsequent MOOCs created through the TEDI project, the focus has been on developing learning materials for teachers or caregivers working with very specific disability needs - severe to profound hearing, visual and intellectual impairments.

### **Nature of the partnerships involved**

The creation of the Education for All MOOC was founded on several fundamental partnerships:



## **Knowledge creation partnerships.**

- NGOs - The Division of Disability Studies has expertise in research and scholarly work on disability studies, and is connected to an extensive network of organisations involved in disability advocacy work. For this project, the local NGO, Inclusive Education SA helped to create the curriculum and contribute to the learning materials. Their expertise in working closely with schools and teachers was essential to the project. Creating an online course is extremely time consuming and Inclusive Education staff found it very difficult to balance their existing work demands with the online course creation. In learning from this initial experience, when the DDS did further fund raising for the TEDI project they specifically included budget items to pay NGOs for their time for developing online courses. Contributing costs for the staff time for the TEDI MOOCs allowed the full collaboration with key NGOs in the sector - specifically DeafSA for the course on Educating Deaf Children, and Cape Mental Health for the course on Severe to Profound Intellectual Disability: Circles of Care and Education. Understanding the time demands and financial constraints is an important lesson in building real and respectful partnerships between higher education role players and less resourced organisations.
- Atlas International is an international NGO which contributed some of the core learning material which had been specifically created for inclusive education in low resource settings.
- Government - Getting the support of the Department of Basic Education and the Western Cape Education Department was seen as essential to help the materials reach the teachers. Discussions about the content, including contributions from government officials and accessing distribution networks for teachers and caregivers are crucial to the success of the project. In 2016, the Director General of the Department of Basic Education wrote a letter of support for the use of the Education for All course for teacher education.

### Building a community of practice for inclusive online education practices

DDS partnered with CILT in the development of online courses. CILT played a brokerage role to facilitate the best way of reaching under-served audiences with online learning materials.

Making use of UCT's agreements with international MOOC platforms allowed the courses to be accessed globally given the low entry barriers and multiple modes of content. In the collaborating relationship, CILT and DDS contributed their different expertise and together developed new understandings of accessibility for the online mode. Through the exposure to the concept of Universal Design for Learning (UDL), CILT has been adopting new approaches to building inclusivity and accessible for online learning - both in design and production processes - which should have positive impacts on other UCT online courses in the future.

## **Aims and underpinning values**

The aim of the MOOCs was to create accessible, online learning materials and educational opportunities aimed at empowering teachers to more effectively advocate and to practice disability inclusion in schools. As a leading higher education institution in Africa, It is appropriate for UCT to produce high quality open education resources to reach underserved communities.

In supporting the development of the Disability Inclusion MOOCs, CILT was able to align with CHED's goals in providing educational design expertise to accommodate student diversity and support an initiative that widens access to the knowledge resources of the University at a local, national, regional and international level. Much of the CILT and CHED work is focused on improving our own students' experience of the University's teaching and learning. The development of the Disability Inclusion MOOCs embody many of UCT's social responsiveness values of widening educational opportunities, contributing to the building of an equitable social order based on respect for human rights and engaging with the key challenges facing our society.

The course development team adopted the following guiding principles in the creation of the *Education for All* MOOC, which were amplified in the development of the subsequent four TEDI MOOCs:

- Adopting the social justice lens which views disability as part of the diversity of society, and inclusion as providing benefits to the wider society
- Co-creation of the knowledge and content with key partners
- Building opportunities in the courses for people to find common connections and to encourage the development of communities of support and practice (Some participants on Education for All created a Facebook group for teachers to share resources)
- Respectful representation of people with disability as full participating members of society
- Inclusivity in the production process (to allow for the full participation in the making of the course by people with disabilities)
- Accessibility of the content through multiple means of representation of the content (video, audio, text)
- Profiling successful implementation of inclusion in African contexts and educational settings in low resource environments
- Creating openly licenced materials to allow for maximum sharing and impact especially by those looking for training and educational material to use in their own contexts.
- Generate new OER which features local research, African contexts and examples from low income countries to challenge the dominance of the global north content.
- Active partnership between CILT and DDS which allowed both partners to share and develop expertise in creating accessible online learning opportunities
- Creating opportunities for teachers and parents to be exposed to inclusive education practices and concepts.

One of the key decisions taken in developing the learning materials was to ensure there were representations of people with disabilities as fully participating members of society. Ensuring the meaningful inclusion key stakeholders in the development and presentation of the course materials was also a principle. The courses have lectures delivered by people with disabilities, teachers and health care professionals, caregivers, organisational representatives, family members and educational administrators.

The course team made a point of ensuring that visuals showed children with disabilities demonstrating active agency and involvement in a community of support. This included producing original artwork and the sourcing of appropriate photographs.

#### Teaching, research and transformation

The collaborative initiative to create accessible open online learning practice draws on the scholarly and professional expertise of DSS and CILT. The development of the courses has built a community of practice which has benefits in terms of teaching, research and transformation.

#### *Teaching*

*Education for All* is aimed at promoting inclusive education in low resourced schools through equipping and connecting teachers with resources, examples and case studies. The content was generated by academics from the DDS who teach a postgraduate diploma in Disability Studies collaborating with NGOs and other stakeholders. The development of the MOOC has raised the profile of the Division for Disability Studies' academic programmes and has led to several new postgraduate student enrolments from across the continent.

For example, [Benedict Leteane](#), who is now registered in the Department as a postgraduate student described how the MOOC had provoked him into enrolling for formal studies at UCT:

*As much as I have a disability [Benedict has a visual impairment], there is more that I don't know about disability. Also being involved in disability organisations, we are trying to be activists, but we need to learn more. I never thought that I could study disability – I thought for what would I study this, as I have a disability. But when I looked at the MOOC, and how meaningful it was, I thought I should study disability and take it as a career. Looking at it as an academic field of study – compared to other fields.*

Some of the OER materials have been used as part of the teaching of the PG Diploma at UCT, and at the University of Johannesburg. The experience gained in creating and running the MOOCs in collaboration with CILT has helped the academic team further develop their online PG Diploma. The nature of MOOCs being largely self-directed learning encouraged experimentation with peer-to-peer learning which has been brought into some aspects of the mainstream teaching by DDS.

#### *Transformation*

Through the experience of working with the DDS, CILT staff have experienced challenges to inclusion in traditional approaches to online learning design and production of digital learning materials. The DDS's work with CILT on this project has had a long term impact on the services offered around online learning. From the exposure of this project, there is heightened awareness about and commitment to inclusion, increased knowledge about the technicalities of implementing accessibility for digital materials (for example, more concrete knowledge about typography or colour combinations to maximise visibility for low vision learners) and the development of standards based on Universal Design for Learning (UDL) practices to ensure that the university's future online courses are widely accessible.

Thus the partnership between CILT and the DDS has been transformative in a two-way, iterative relationship - allowing both parties to learn and change their approaches based on the experience of working together.

### *Research*

The topics presented in the *Education for All* MOOC and the subsequent TEDI MOOCs represent both the application of research which is going on in the departments and a commitment to share the knowledge with a wide public audience in South Africa and beyond. This knowledge sharing impulse is given impetus through the creation of OER which can be used and adapted in many different contexts. Lead educator, A/Prof Judith McKenzie has presented her research and the dissemination of learning materials on inclusion through the MOOC at several academic conferences. There are a number of post graduate students who are researching topics related to teacher education through the MOOC, as well as playing mentoring roles with the global MOOC student cohorts. It was partially the success of the first MOOC, *Education for All* MOOC, that assisted the DDS to successfully raised funds for a large research project - TEDI (on which A/Prof McKenzie is the Principal Investigator) - which included the creation of different types of teacher education materials, including four more MOOCs.

### **Contribution to UCT**

The *Education for All* MOOC, which was first offered in May 2016 has attracted over 35,000 people to sign up for the course from around the world, with 20% from African countries. 80% of those joining are actively involved in schooling as educators, teachers or school administration with the remainder comprising family members or health professionals so the course is reaching the envisaged target audience.

There has been an increase in the number of people who showed an interest in studying further in the topic of inclusive education and approached the DDS. Several of these people have since applied to and been accepted to study at UCT and are current students.

In 2019, *Education for All* was rated as 'one of the top 100 courses of all-time' by the MOOC aggregator public website, [Class Central](#) based on reviews by MOOC takers who visited their site.

While it is difficult to quantify the value for UCT, there is no doubt that the global and continental exposure have been of great value. Several current Postgraduate students enrolled in the DDS because of having taken the MOOC. Other learners reported feeling proud to have earned a certificate of completion from taking the UCT MOOC. Many were simply grateful for the opportunity to gain skills and knowledge for their professional development through this flexible, free online format.

Creating the MOOC has raised the profile of the university, the division and the individual academics. There have been high profile media coverage of the successful MOOCs including the ones focusing on Disability.

The DDS has secured a large follow-on research grant and teacher education project (TEDI) in part owing to the profile of the first course. During 2018-2019, four more MOOCs dealing with teacher education support around disability inclusion have been created.

## Contribution to external constituencies

In some follow up interviews with learners, the widening access goal was made visible when we came across people taking the course because of reduced mobility (some because of disabilities) as well as limited access to professional development opportunities. The key target audiences, teachers and people involved with schools have been the largest group to enrol. In the first year, around 80% of learners who completed the course survey were in some form of formal educational role, 4% of whom were remedial teachers and 5% school principals or school administrators. While the number of enrolments from South Africa remains lower than from other countries, this course attracts more than double the usual number of South African enrolments than other similar courses on the FutureLearn MOOC platform. In addition, the South African Department of Basic Education Director General wrote a letter of endorsement for the course and recommended it for South African teachers. The course is also listed as an e-resources for educators on the [Western Cape Department of Education's ePortal](#).

The *Education for All* and four TEDI courses are free to access with the materials licenced for legal re-use through the application of Creative Commons licences.

Aside from the popular ratings (it featured in Class Central's top 100 courses), there are many individual accounts of value gained from the MOOC - for example, here are some quotes from people who completed the course and left [reviews](#):

*This has been an encouraging and motivating course in which I have enjoyed listening to different people from many different countries and cultures talk about their life, experiences and pieces of advice to put into practice.... It will definitely make a difference in my teaching. I am sure I will have a chance to use the material and resources we have been given in this course. A great message to pass around is that about how all members in a community can change things by collaborating. Thank you. (Anonymous)*

*Really great course. It has been very informative and a real eye opener for even an experienced teacher. It clarified so many doubts I had had which my teacher training never even touched on. ...And this course was only 6 weeks long. I would encourage anyone interested in learning the ESSENTIAL basics of inclusive education practices to take this course. (Peter)*

A participant on *Education for All*, Claire Ozel, based at the Middle East Technical University in Turkey is involved in teacher education and found the focus on low resource settings extremely useful for her work with rural schools.

*When I started out, I was looking for examples [of inclusive practices in education] and the only examples I knew about were from the UK and the US and those examples were not transposable and then you are left high and dry. But the wide variety of examples which the MOOC gives from different countries and different situations in Africa. People will look at those and say, "oh, I can do that". And that is giving people the confidence to have a go. That is what is important.*

## Evaluation of the impact

Precise quantifying of the impacts is difficult aside from what has been provided in the earlier sections, but there are many types of outputs and impacts from the *Education for All* MOOC.

- [Education for All](#) - an open online course has been successfully running on the international platform, FutureLearn three to four times per year since May 2016. Each time the course runs, approximately 1 000 to 2 000 people enrol. By September 2019, more than 34 000 have signed up for the course and 1 800 have completed the whole course (the completion rate is consistent with MOOCs worldwide).
- All the course content is available as open education resources (OER), and are in the process of being shared on the UCT Open Repository which will allow easy downloading and reuse.
- In part based on this course, additional funding was raised by the DDS for a three-year research and teacher education materials development project (TEDI).

#### Published research

Both DDS and CILT, the two UCT departments are involved in the project, have generated research out of the work on the Disability Inclusion MOOCs. DDS research outputs include a book chapter, peer reviewed journal publications, conference presentations. CILT has been part of two international research studies which included a focus on *Education for All*. These have generated several peer reviewed journal articles.

DDS and CILT are also in conversation with the Disability Services about looking at ways to improve the accessibility of online learning platforms at UCT.

The outwardly facing nature of MOOCs encourages outputs beyond traditional research dissemination in academic journals. These forms of dissemination are intended to be more accessible and reach a wider audience. We highlight how UCT media have written about the MOOCs and online resource web pages with further details. These are some of the likely ways in which people interested in the topic of inclusive education become aware of the work being done at UCT around these topics.

#### Media coverage:

- [UCT news story](#) on *Education for All* MOOC
- [UCT news story](#) about focus on disability in MOOCs
- [UCT news story](#) about inclusivity MOOCs

#### Online resources:

- [Education for All sign up](#) page [Promo video: Education for All](#)
- [Class Central reviews](#) of Education for All
- [Learner stories video](#) featuring Education for All
- [TEDI project page](#)
- [Disability Inclusion in Education sign up](#) page and [Promo video: Disability Inclusion](#)
- [Educating Deaf Children sign up](#) page and [Promo video: Educating Deaf Children](#)
- [Severe to Profound Intellectual Disability: Circles of Care and Education sign up](#) page and [Promo video: Severe to Profound Intellectual Disability](#)

### **Background to the project/work/unit**

The ‘Social Infrastructures: engaging with community for change’ (SI) Course - has been developed via a partnership between Engineering and Built Environment Faculty (EBE) and CHED and has its roots in UCT’s Global Citizenship programme (GC) (see [www.globalcitizen.uct.ac.za](http://www.globalcitizen.uct.ac.za)). Associate professor, Janice Mc Millan, worked with the EBE Faculty to develop a course that could respond to several exit level outcomes, as determined by the Engineering Council of South Africa, for the qualification of Bachelor of Science in Engineering (B.Sc (Eng)/ Bachelors of Engineers (BEng): NQF Level 7. The following Exit level Outcomes were considered:

- Consistency of Exit Level Outcomes with Critical Crossfield Outcomes
  - Contributing to the full personal development of each learner and the social and economic development of society at large, by making it an underlying intention of the programme of learning to make an individual aware of:
  - Reflecting on and exploring a variety of strategies to learn more effectively
  - Participating as responsible citizens in the life of local, national and global communities
  - Being culturally and aesthetically sensitive across a range of contexts
  - Exploring education and career opportunities

The course was first offered as a credit bearing course in 2013 running during the semester and started running in Winter break in 2014. The course counts as an 18-credit Humanities Complementary Studies Elective for EBE degrees.

### **Reason for work initiated/nature of the need underpinning the work**

The work was initiated because the university recognised the ever-increasing call for engaged citizens who can respond to pressing global concerns and address local realities; as well as a recognition that the world of work is changing and new ways of thinking, problem-posing, and critical reflection is required – linking to understanding and improving the lives of communities locally and globally.

### **Key thematic issues addressed through the initiative**

The primary thematic area is in the nexus between education, justice and development. The course is designed to situate the praxis of education within a context of place-based and experiential learning, thereby enabling an engagement with social, spatial and historical justice. The term ‘social infrastructures’ recognizes that urban development is a sociotechnical process, shaped by the institutional and political context. The concept of ‘social’ therefore implies that development and any other form of ‘service’ cannot be looked at without considering the needs of people and of communities. In doing so, we get to ask questions about active citizenship and social justice – what community engagement means for ourselves as citizens but also what it means for several citizen groupings and organisations off campus.

The concept of social infrastructures bears two references, in the first instance, social infrastructures refers to relationship between the physical and environmental infrastructures that students engage with within their engineering curriculum and the social context in which such infrastructure is embedded, in the second instance, social infrastructures is also understood broadly as a political-institutional arrangement of ‘governing’ practices that can be a vehicle for social change. Social Infrastructures is thus calling to attention the multiple ways that knowledge is layered, and the mechanisms for engaging with communities as active citizens. The call to social justice, central to the course design and delivery, is a recognition of the historical and spatial inequalities that persist and are complex, and that requires both professional commitment and active citizenship.

### **Nature of the partnerships involved and how they engage and contestations with the external participants/partners/beneficiaries**

The course is centrally structured on two intersecting principles, the community as knower and the university as knower; and fosters the principle of co-creation of knowledge. The course has been designed through community participation in the form of an on-going collaboration with the Development Action Group (DAG) – [www.dag.org.za](http://www.dag.org.za). DAG coordinates 8 community-based partners that host students during their community visits as well as attend a community day within the university classroom. In 2019, the community partners were the following organisations – Gatesville Housing Committee, PJS Khayelitsha, Khayelitsha Peace building Team, Bokaap Civic, Violence Prevention through Urban Upgrading (VPUU), Maitland Garden Village, Salt River Residents Association, Village Heights Informal Settlement, Mitchell’s Plain Residents Association, Cissie Gool House, Phillip Horticultural Area (PHSA) and Kensington, Factreton and Maitland Backyard Dwellers While not involved in the course in 2019, the SI course has a longstanding relationships with Vahalla Park United Civic Front The course values relationships with community partners and we have individual meetings with all partners before commencement of the course. Similarly, there is a planning and debrief session with DAG before and after the course is facilitated. On-going relationships with these organisations have been developed over time and is a central component in revisiting spaces of mutual engagement, equity and justice. These organisations presence in this course, holds us accountable to re-thinking the nature of community participation and community engagement, and equitable, power relationships.

A central, guiding question that frames the pedagogy is:

- How do we develop strategies for engaging communities that reflect principles of mutual learning, reciprocity and social justice?

### **Aims of the social responsiveness activity and the values underpinning this work**

The course was designed as socially responsive but intentionally focused directly with the concept of deliberative pedagogy<sup>4</sup>. The purpose of the course is for students to negotiate their learning across different domains:

---

<sup>4</sup> Deliberative pedagogy includes: Creating space for an immersion experience i.e. ongoing, interrogation of critical issues; structuring classes to optimize engagement – peer to peer dialogue, contracting to provide a space that aims to be both safe and disruptive; Rethinking assessment practices that facilitate learning through experience and critical reflection; Working with student facilitators as collaborators, involving them in curriculum design wherever possible; Building reciprocal partnerships with community members as educators – community partners are critical educators of students who, as emerging professionals, will be engaging with a range of constituencies in their professional work.



conceptual-practice-community, and hence the course is underpinned by the idea of pedagogy that, “looks both ways”

- Towards outside world in which engineers engage
- Towards inside world of self, practice and professional

#### *Towards outside world in which engineers engage (engaging the social)*

Engaging the social means that when engaging the social context in which students will one day work and live, how we understand the concept of ‘social infrastructure’ or ‘networks of collaboration’ must reflect and include the community practices in poor communities that mobilise and strategise for change. Engaging the social thus means recognising and situating community histories in the context of development, particularly within a neo-liberal context of development.

The course is structured through positioning the community person/organisations as ‘knower’ and authority – the course is framed by an understanding of communities as an extension of the classroom and thus critical learning contexts. The course asks the following questions:

- Can we make sense of how communities engage with (access and use) infrastructure? In particular, how do we make sense of social infrastructure as a product and a mirror of inequalities?
- How do we bring questions/challenges of inequality and social justice to understanding social infrastructure-both its production and its use, in a context like South Africa?

#### *Towards inside world of self, practice and professional*

The classroom teaching practice is based on experiential-learning, through the learning-action-reflection cycle. This means that students work in small groups and engage in activity-based learning that asks them for their opinions, while at the same time providing readings for them to reflect on and that assist in developing a deeper theoretical context for their learning. The themes of the course such as ‘perspectives’ provides students to reflect on the concept of multiple perspectives, and how they view the world/ and their context is only a single perspective, and that multiple perspectives do coexist. The assessment in the course is directed at facilitating ‘the inside world of the self’, so reflective blogs and essays are used as assessment tools.

#### **Links with teaching and research and transformation**

Teaching is through a critical pedagogical lens, so reflection and place-based learning (in the community) is central to the way the course is taught and signals a transformative approach to teaching. A transformative approach that recognises and validates knowledge as generated across different domains (self, university, community) and that knowledge does not reside solely in the expert university lecturer and the accompanied disciplinary domain, rather the role of the lecturer is to facilitate the co-creation of knowledge. The principle of co-creation of knowledge is central to transformation of the concept of academic knowledge (as traditionally unidirectional) and defined through rigid disciplinary boundaries.

This course, through a participatory, inclusive process of co-creation in knowledge generation challenges 'disciplines' as the only location of 'scientific and evidence-based' knowledge generation and fosters a transdisciplinary approach to knowledge generation that values community experience. This course therefore acknowledges that knowledge-making is political, and that an integration of social justice into our curriculum design promotes a shifting of the relationships of power in ways that are inclusive and transformative.

### **Contribution or added value to UCT**

GC has designed and facilitated courses that follow a similar format used within the SI course. The GC programme runs a course on the *Information Systems Honours* programme in Commerce to support students doing their community service requirement. In 2018, a decision was made to enter a formal partnership between the IS Department and the Global Citizenship Programme to offer a uniquely designed course, just for the IS Honours students, which would fit into their schedule and programme requirements as part of HOCIP (The Honours Outreach and Community Involvement Programme).

This semester (2019) GC in collaboration with EBE and OIC has designed and facilitated a course, *Citizen Professionals in Engineering & the Built Environment*. The course END1023S: Citizen Professionals in Engineering and the Built Environment introduces students to key global challenges and helps them to understand how these manifest locally. The focus on social justice will facilitate the development of 'socially conscious' EBE professionals who strive to work for social justice and equity as professionals. The 18-credit course (which counts as a Humanities elective) has been designed and facilitated by colleagues in EBE, CHED and OIC.

Both courses hold the opportunity to conduct research on social justice pedagogies in a climate of changing (decolonising) curriculum design.

### **Evaluation of social responsiveness activity and its impact; and the nature of outputs emanating from the work**

#### ***Student Participation***

The course has grown and now consistently enrolls 100-115 students. Over the 7 years since the course began, we have registered over 650 students. Student evaluations commend the teaching and learning experienced within the course – see the latest video on the course experience - - <https://youtu.be/uL8fHZIvWc8>. Students often approach the GC programme to request participation in the GC programme because of their experience of the SI course. This year, the tutors and facilitators on the course were previous course attendees. This is significant as we strive to provide an opportunity for past students to be role models for other students. Overall, student feedback on their learning has been significant.

#### ***Curriculum design***

As discussed above, it has also shaped additional credit-bearing courses in Commerce and EBE. The course also offers the potential to contribute to curriculum and course design in other faculties. Several conversations to this effect have already taken place this year.

### ***Student and Academic Leadership***

Across the years, students who have attended the SI course have transitioned into completing the other GC course offerings, as well as become trained facilitators on the course. We have had a student, who has been an attendee, then was a tutor on the course, and this year, was an assistant lecturer on the course.

### **Outputs:**

These include a commissioned book chapter, 1 Hons thesis, more than 10 conference presentations, and several seminar presentations on campus.

# Health Sciences Faculty

## Eh!woza:

\*Adapted from Young *et al.* 2018. *Eh!woza: intersection of art and science to engage youth on tuberculosis*. *Global Health Innovation*: <https://doi.org/10.15641/ghi.v1i1.520/>

Contact person: Anastasia Koch

[Eh!woza](#) loosely translates from isiXhosa as (Hey! [Come with us]). Its first project was a 2013 documentary describing the attitudes of young people in Khayelitsha towards tuberculosis (TB). Support and budget resources for the “pilot” film were provided by the [Molecular Mycobacteriology Research Unit](#) (MMRU) as part of its commitment to community engagement, and Prof Digby Warner (MMRU) continues to provide critical strategic oversight and guidance to the programme.

## Background

Despite substantial expenditure by national tuberculosis (TB) programmes, significant efforts by advocacy groups, and heavy investment in clinical and biomedical research, TB remains a health emergency disproportionately impacting the poorest and most vulnerable in southern Africa and other endemic regions. Personal experiences of TB are varying and contrasting in these areas where misconception, stigma and taboo are commonplace. An urgent need therefore exists for projects that engage community members as active partners in reducing the impact of TB and other diseases. Eh!woza aims to address this need by fostering collaborative interactions between biomedical TB researchers, a conceptual artist, a non-governmental organization, and young people living in Khayelitsha, a township outside Cape Town. In a series of workshops, the project engages high-school learners with biomedical TB research and provides space, guidance and equipment for participants to produce documentaries about personal experiences of TB.

## Why was the initiative started?

Eh!woza was established in 2013 as collaboration between a South African contemporary artist, [Ed Young](#), and then PhD student Anastasia Koch together with other a group of biomedical postgraduate students at the [Institute of Infectious Disease and Molecular Medicine](#) (IDM), [University of Cape Town](#) (UCT). The students, working in the fields of TB and HIV, were planning a health workshop to be held with high-school learners during the annual winter school of [IkamvaYouth](#), a Khayelitsha-based non-governmental organisation whose mandate is to empower youth through education. The possibility of filming the workshop as a tool to enhance the learning experience was discussed.

With an artist on board, a 20-minute documentary was produced, the primary focus of which was to capture how TB is understood and experienced by learners (14 – 18 years old) from IkamvaYouth. The film investigated stigma and other issues relating to TB and was made available freely online and broadcast via [Mindset TV](#) and its OpenHD network. This led to the establishment of Eh!woza’s flagship project, **Eh!woza Doccies**, which has been running for 6 years.

Eh!woza was thus born out of the desire of postgraduate students to engage with communities affected by the diseases forming the focus of their doctoral research, and the determination of a conceptual artist to effect social change. In addition, the initiative grew out of the need to interrogate the relationship between the biomedical and social realities of TB; the project's founders recognised that interactions between those who conduct research on the disease in the basic sciences and those afflicted with—or affected by—TB were limited.

### **Key thematic issues addressed through the initiative**

*Health, education, youth advocacy, and capacity development for health innovation.*

It was also viewed as an opportunity to expose biomedical researchers, many of whom are exclusively laboratory-based in contrast to their clinical colleagues, to the complex social and economic aspects of the disease: to shift the perspective from the pristine laboratory to the realities of patients with TB.

### **Nature of the partnerships involved and how they engage and contestations with the external participants/partners/beneficiaries**

Public engagement has enjoyed increasing investment and interest over the past 20 – 30 years. In healthcare, there has been an intensifying acknowledgement from funding bodies, regulatory agencies, and researchers that inclusive participation from the public in decision making and knowledge production should lead to more effective implementation of healthcare interventions.

While there are challenges, public engagement has the potential to combine collaborative, consultative and democratic approaches with traditionally didactic means of knowledge production, facilitating the provision of accurate information as well as frank debates around taboo issues surrounding health and disease.

Participants for Eh!woza are selected from the IkamvaYouth pool of learners through an inclusive process that prioritises enthusiasm for the subject and personal commitment to the programme over academic achievement. In April of each year, recruitment is aided by a screening of the previous year's films and a closing ceremony for previous participants (approximately 80 – 100 learners attend). Learners are invited to apply to the project via a simple application form, and consent is obtained from parents for learners to participate and to appear on camera. The collaboration with IkamvaYouth is critical to Eh!woza and the organisation continues to provide key input into the wellbeing and academic progress of the participating learners. Perhaps most importantly, learners are developed as equal partners and are constantly consulted about the conceptual and logistical structure of the project, which adapts accordingly.

After recruitment, the science workshop phase of the project begins. Over a series of six science workshops, learners are encouraged to engage with biomedical research and to merge the biology of TB with its social implications. The workshops are 3 – 4 hours long, held on a Saturday afternoons. Each workshop is facilitated by 8 – 12 junior and senior members of research groups based at the IDM, and typically consists of a seminar delivered by a senior research member of the research group facilitating the session followed by a practical experiment in the laboratory with PhD students and postdoctoral research fellows assisting the learners.

These six biomedical research workshops cover topics such as “What is research”, “TB basics”, “TB Drug Discovery”, “TB Vaccinology”, “TB Clinical Trials” and “Design a Research Project”. After numerous years of overseeing this activity, Dr Koch successfully assigned coordinating and supervising the biomedical workshops to Ms Cheleka Mpande (PhD candidate, [South African TB Vaccine Initiative](#) [SATVI]) a successful move towards capacity development and expansion within Eh!woza. The science workshops provide an example of a process of inclusion between a community of scientists and a community of non-scientists: the scientists invite students into the laboratory space and students develop lines of inquiry during discussions within the workshops.

After science workshops, learners enter into an intensive media production phase, managed by Ed Young, over the July school holidays where learners are provided the skills, equipment and platform to make short documentaries which depict the social and personal impact of TB. Through these workshops learners conceptualise films, interview community members, gather footage and edit short documentaries. Learning films up until 2019 can be viewed here: <https://ehwoza.com/learner-films-1>. Finalisation of 2019 films is in progress, with learners currently applying translations (isiXhosa to English) as subtitles to films prior to the final visual and sound edit. At the end of the media production, a total of five films will be disseminated. Two of the films provide an overview of community perceptions, attitudes towards and experiences of TB within Khayelitsha. A third places heavy focus on stigma, telling the story of a central character who experienced major levels of stigma and ostracization when diagnosed with TB, ultimately leading to her death. The fourth follows an elderly woman and her daily struggles living with HIV and multiple instances of TB, while the fifth tells the story of a grandmother, living with HIV, recalling her youth and sexually promiscuity, hardships she encountered during her life as well as the death of her son. While there have been minor tweaks, the basic format of the workshops has remained unchanged since 2014.

In 2018, Eh!woza established a collaboration with the Khayelitsha mission of [Médecins Sans Frontières](#) to develop the Wellcome-funded [MSF/Musos/DR-TB Collab](#). This work brings together Khayelitsha-based musicians and survivors of drug-resistant TB (DR-TB), in a process that encourages story-telling and sharing, so that the lived experience of surviving DR-TB inspires the production of new music, poetry and music videos. Ms Nomfundo Sibiyana (PhD Candidate, [The Wellcome Centre for Infectious Disease Research in Africa](#) [CIDRI-Africa]) has been instrumental in running the **MSF/Musos/DR-TB Collab**.

Eh!woza’s newest project, **Eh!woza Schools**, aims to use the media produced in **Eh!woza Doccies** and **MSF/Musos/DR-TB Collab** to engage a broader group of learners and to stimulate dialogue in high schools around infectious disease and the social determinants of health. Finally, Eh!woza is placing a strong focus on capacity development and training: to this end, a recently awarded Wellcome Trust Diversity and Inclusion supplement has facilitated training of previous learner participants as facilitators of current and new work.

### **Links with teaching and research and transformation. (how does it feedback to teaching, research and transformation?)**

A key area in generating knowledge is doctoral research, conducted by Ms Bianca Masuku that seeks to understand the intersection of science and community in understanding TB.

The work, funded by an NRF Community Engagement Award, explores how a project such as Eh!woza navigates knowledge about TB and the lived experience of the disease through engaging a community of TB scientists, a community of young people from a TB-burdened setting, and narratives of TB illness shared by affected community members. The work explores understandings of TB as presented by the project, and whether and how the media produced by the young people are reflective of local experiences of health and illness. With fieldwork complete, preliminary findings suggest that the manner in which young people participate in the project articulates the role they play in narrating how TB is understood and lived within their social worlds. Moreover, by participating in the work of the project, young people are finding ways to present themselves as active agents within their communities interrogating and shaping local understandings of this infectious disease.

In many respects, for those involved in the project, it provides an embodiment of transformation and an act of social justice. In a country where the majority of TB sufferers are black, poor and vulnerable to ill-health and those wearing lab coats are white, well off and healthy, a project such as Eh!woza makes it clear that illness is not merely accidental—social context, environment and circumstances shape the bodies we have; and the bodies we have shape our experiences of and in the world.

Moreover, encouraged and supported by Prof. Warner, Dr Anastasia Koch and Ed Young also developed the first ever public engagement coursework component of the BMedSci (Hons) degree at UCT (piloted in 2018 and implemented in 2019).

**Contribution or added value to any external constituency involved;**

By participating in the work of the project, young people are finding ways to present themselves as active agents within their communities interrogating and shaping local understandings of this infectious disease. During focus group interviews, a learner suggested that, following her training with Eh!woza, she became more comfortable having conversations with her mother about TB, who was then “able to share this information with her friends and people that she knows”, while another described feeling that he had the opportunity to change people’s mind-sets and talk openly to individuals about issues generally considered taboo. These statements echo sentiments expressed in the pilot film, however further work will be required to determine whether the conversations young people are having with their families, peers and close contacts effect change in perceptions of TB. This will be an important topic of investigation as Eh!woza was specifically designed to focus intensively on smaller groups of participants rather than a larger public.

**Evaluation of social responsiveness activity and its impact;**

As Eh!woza ends its sixth year, a project that started as an informal once-off event has grown into a sustainable initiative. An early evaluation, informal observations, and preliminary data from ongoing doctoral research indicate that the initiative has been successful in certain respects, specifically in its ability to engage young people in Khayelitsha and – through online dissemination – nationwide. Preliminary findings from an anthropological study suggest Eh!woza participants are more confident and comfortable to discuss TB with family members and peers, potentially enabling the diffusion of scientifically accurate information.

Over the course of six years, Eh!woza has intensively engaged 85 learners, held 2 – 3 screenings annually (with > 80 people in attendance during each screening) and raised R5million in grant funding (including two NRF Community Engagement Awards to Prof Digby Warner, and several Wellcome Trust Public Engagement Awards).

While Eh!woza has produced progressive and innovative results, certain programmatic areas require strengthening and addressing. Dissemination of films has been improved by yearly screenings, presentations at conferences and symposia and more recently, plans to screen a selection of films on national TV as well as at national and international film festivals. Given its fast growth, the project has now reached a stage where regular evaluations (yearly) are necessary. Outcomes that could be measured with the appropriate techniques and resources include assessing (i) to what extent to the biomedical knowledge acquired by learners is redistributed to family and other social circles, (ii) the impact and reach of Eh!woza’s social media campaign, (iii) the quality of discussion and debate around TB, biomedical research, and social issues, that occurs at films screenings, and (iv) how sustainable the project is in terms of funding income, management, as well as the changes generated. This kind of evaluation is essential to ensure the project’s growth is useful, strategic, sustainable, and scalable. If Eh!woza is able to address these questions honestly, it has the potential to develop into an independent and sustainable public engagement programme that facilitates dialogue and democratic decision making between biomedical researchers and practitioners, and the various publics impacted by TB and other diseases.

**High quality “use inspired basic research” which can be published e.g. in international journals.**

The project has resulted in publication of two papers in peer-reviewed international journals ([BMJ Medical Humanities](#) and [Global Health and Innovation](#)).

**The Drakenstein Child Health Study Social responsiveness initiative - building a school library and a book sharing program**



*Pictures:  
Opening  
and use of  
the  
school  
library*



**Background to the project/work/unit; (not more than 300 words)**

The Drakenstein Child Health Study (DCHS), is a unique South African longitudinal birth cohort study, investigating determinants of child health. This study intensively follows 1000 children and their families from pregnancy through childhood in a low socio-economic, peri-urban area of Paarl (1). Many children in the study have neurocognitive delay, and come from impoverished circumstances with little access to books, reading, or early child development initiatives. To strengthen education and promote literacy and neurodevelopment, the DCHS partnered with a local primary school, Langabuya Primary (1500 learners from Grade R to Grade 7) to create a library (identified by the school as a core need). The DCHS constructed a school library, in partnership with the school and other stakeholders, including fundraising, building infrastructure, finding appropriate partnering NPOs, stocking the library, and training staff. The library opened on Mandela Day 2018 and is stocked with carefully selected books (supported by organizations which the DCHS sourced - Biblionef, Val de Vie Foundation, Breadline, and Solomon Schechter Day School). Library furniture was purchased from local community businesses. A Langabuya library committee of teachers and parents was initially established and trained to run the library; thereafter a librarian from the local community was employed, funded by an international partner (Solomon Schechter Day School) that the DCHS sourced. The library is a well-used facility, greatly valued by students and school staff. The librarian sees around 220 students daily, scheduling weekly class library sessions and opening after hours. She builds a love of reading through playing reading games, reading stories, allowing children to create stories and letting children read quietly. Children's excitement as they discover books and begin a journey of enhanced literacy is key to later literacy development and educational attainment. The DCHS has also initiated a book sharing trial amongst a sub-group of parents and their children, so as to promote a program whereby parents interact and read to their children as a means of promoting literacy, bonding, cognitive and socio-emotional development.

**Reason for work initiated/nature of the need underpinning the work**

Neurocognitive development in child participants in the DCHS is tracked longitudinally and the DCHS has identified high rates of neurocognitive delay in study children, with approximately 65% having some form of neurocognitive delay (2). Language delay is a key area in which children are delayed (2,3). Early childhood development sets a trajectory for attaining a child's full potential, therefore it is essential to try and strengthen early childhood development.

The children and families in the DCHS live in poor households (1), many of which are single parent families, with 43.6% of households in the Mbekweni community earning less than R1000 per month. A large proportion are unemployed, and many mothers have not attained matric education (4). Due to these circumstances, many households do not own children's books and there is little exposure to reading or other activities to promote child development at home. Furthermore, children in the area typically attend no-fee paying schools which are oversubscribed and under resourced, leaving little time for individual and tailored care.

Therefore, the DCHS team engaged in two projects emanating from concerns around neurocognitive delay in the community. In the first project, the study engaged with under-resourced schools in the area to identify areas where the study could collaborate with the community to strengthen child development initiatives. In 2017 the DCHS team engaged with the local under-resourced school in Mbekweni (Langabuya Primary School), that many study children attend, about their key needs – a library was listed as a high priority. South Africa has a “reading crisis,” with 78% of Grade 4 learners being unable to read for meaning (5). However, the Department of Education does not provide libraries or funds for librarians, depriving learners of adequate access to books and literacy development. Through engagement with the community, drawing on research findings and considering needs expressed nationally, the DCHS SR defined their area of community support within the crucial areas of child development and literacy.

The second project was through the study’s implementation of a book sharing intervention trial for a subset of DCHS parents and their 3.5 year old children. This sub-study investigated the cognitive and socio-emotional effects of book sharing on child development. Parents (literate or illiterate) were provided with books and received small-group training on the technique of sharing and actively exchanging picture books with their young children. This programme provides a foundation for later literacy development and has been endorsed by the World Health Organisation. Previous research around the book sharing programme in other South African communities suggests possible improvements in language, cognitive development, and social-emotional understanding (6,7) as well as strengthened parent-child bonding (8).

**Key thematic issues addressed through the initiative (e.g education, health, environment, etc)**

Literacy, reading, child development, education, needs assessment, infrastructure development, sustainability

**Nature of the partnerships involved and how they engage and contestations with the external participants/partners/beneficiaries; (building partnership is challenging)**

The library was created at a primary school – Langabuya Primary School. The DCHS engaged with various organisations to assist in providing and stocking the library for the school – a USA school (Solomon Schechter Day School), the Western Cape Education Department and a number of local NPO’s were also involved in the initiative (Biblionef, Val de Vie Foundation, and Breadline Africa). The DCHS has formed strong links with the school and Western Cape Education Department library advisor to develop the project and try to ensure its success and sustainability. This has been a challenging partnership to build, due to limited resources and time available at the school. Engaging with the school leadership has been challenging with the principal, teachers and parents involved in different ways. For example, the school has not always been able to provide the necessary materials and documents when requested, or to strongly advocate with the DOE or others for more resources or infrastructure. The DCHS has had to readjust some of their timeframes, given the constraints under which the school is working. The DCHS has been the link between the school, and the external funders, thus staying intricately involved in the running and building of the project. The DCHS has kept links with many of the other organizations with which it interacted, while planning and implementing the library project. These important connections could result in the library project being implemented elsewhere, using the contractual frameworks set up by the DCHS.

The book sharing programme was implemented through engagement with those that had previously trialled the programme with other communities within South Africa. The DCHS gained knowledge on how best to implement the programme in the study community.

### **Aims of the social responsiveness activity and the values underpinning this work**

Through facilitating access to books and literacy development and building a love for reading, the DCHS team, in collaboration with the community, aimed to help students reach their full developmental potential. Potential long term developmental and neurodevelopmental outcomes from improved literacy include improved general educational outcomes and access to advanced learning and career opportunities. Continuous engagement and collaboration with the school has been prioritised throughout the project to ensure a sharing of knowledge, ideas and plans for a way forward. The DCHS aims for the project to be self-sustaining, ensuring that external funding is not required once the project is sufficiently implemented at the school. It is also hoped that if the book sharing study proves successful in the study community, that it can be implemented in Early Child Development Centres, and libraries within the greater community, to increase its level of impact.

### **Links with teaching and research and transformation. (how does it feedback to teaching, research and transformation?)**

Both the library project and the book sharing intervention programme implementation were guided by DCHS research findings, that many of the study children had high rates of neurocognitive delay. Research findings such as this are essential to address and act on; thus leading the DCHS team to find ways of supporting optimal child development. In addition, the literacy crisis in South Africa, requires input and support from all organisations on multiple levels. The DCHS research team provided the staff and resources to drive and establish this project; the study is closely involved in the community and is committed to improving the lives of children.

### **Contribution or added value to UCT.**

It is essential to ensure that social responsiveness is a key consideration when undertaking any type of research. This library project could serve as one of the many examples of ways in which researchers can carry out social responsiveness activities, to inform other UCT researchers. In addition to the project that has already taken place, UCT's DCHS team have built lasting relationships with many organisations, which will serve as connections for future projects with the university. For example, other NPO's have indicated an interest in using the librarian contractual frameworks drawn up by the DCHS, to assist in implementing library projects at other schools. It is important to realise that what starts out as a smaller isolated project, can grow and ultimately result in a much greater impact.

### **Contribution or added value to any external constituency involved;**

The library is a valuable asset to the school and can have a large long-lasting contribution to the educational development of many children. Other than the 1500 children it currently serves, it should continue to serve all new children registering at the school each year.

Through this project the DCHS has accumulated good knowledge around implementing social responsibility projects and can share this knowledge with other constituencies wanting involvement in library projects. As noted above, other NPO's would like to potentially use the librarian framework drawn up by the DCHS, to implement similar projects in other schools. Therefore, extending the impact of the project. The DCHS hopes to continue to be involved in literacy support and child developmental programmes going forward, partnering with other organizations with the same goal of tackling South Africa's literacy crisis.

Although the data from the book sharing programme is still under analysis, it is hoped that the implementation of the programme has had the same cognitive and parent-child bonding benefits that have been shown in other areas of South Africa. It is hoped that the development of this foundation will improve the literacy skills of the children involved.

### **Evaluation of social responsiveness activity and its impact; and the nature of outputs emanating from the work**

The library usage is tracked through class attendance registers, librarian hours and book loan records. In addition, the DCHS attends monthly meetings and regular review sessions with the school to discuss the functioning of the library and the ongoing partnership between the school and the funders. It is envisioned that the school governing body will allocate budget to cover the librarian going forward, ensuring sustainability of the project and continued accessibility for the children. Furthermore, the school has agreed to provide their Grade 3 and Grade 6 literacy statistics from 2016-2020, in order for the DCHS to evaluate whether the project has resulted in any changes to these figures. The book sharing intervention programme results are still under analysis. However, pre- and post- cognitive testing took place when the sub-study and control children were 3.5 years and 4 years of age – this information will allow rigorous measurement of the cognitive and behavioural impacts of the programme. This too is a program that if shown to be beneficial, could serve as a model and be widely rolled out in other settings.

### **High quality “use inspired basic research” which can be published e.g. in international journals.**

Many NPO's are forming a coalition with corporates, as well as the Department of Education, to tackle the literacy crisis. The development of this powerful group is already underway, planning ways to best support literacy in young South African children. Research around various methods is being drawn upon to guide the various projects and once more projects come to fruition, the research from them is likely to be publishable, as a way of sharing knowledge and guiding others on interventions with proven success. Once results from the book sharing intervention program have been obtained, they will be published in journals, as a way to share knowledge about the program and hopefully enable replication of a successful model.

### **Division of Disability Studies, Department of Health and Rehabilitation Sciences**

Contact person: Anthea Hansen, Ikechukwu Nwanze and Theresa Lorenzo.

The Higher Certificate in Disability Practice is an accredited (NQF level 5) qualification that is offered by the Division of Disability Studies, in Faculty of Health Sciences.

The Certificate equips community workers with the necessary skills and knowledge in working with persons with disabilities across the lifespan in their local communities. The Certificate is the only accredited programme of this nature in the country and also provides students with a pathway in which to study further in Disability Studies. In 2018, we offered twelve continuing professional education workshops to community rehabilitation workers employed by NGOs in the Cape Metropole on developing, self-mastery in addressing access to rehabilitation, poverty reduction and social inclusion of persons with disabilities their communities. Developing a professional identity as a member of ward based outreach teams of Department of Health, and finding strategies to prevent burnout were key focus areas.

This year (2019) we have engaged in the following socially responsive initiatives:

- Hosted a research dissemination workshop in May 2019 on four Masters theses and one Honours thesis on the community rehabilitation workers with different Stakeholders, namely, other universities in the Western Cape, NGOs and Department of Health.
- Hosted a workshop on the role and scope of the community rehabilitation workers in August 2019 with key stakeholders from various NGOs and Department of Health's sub-district of Tyberburg.
- Collaborated with the College of Cape Town regarded the feasibility of joint teaching on the Higher Certificate in Disability Practice

The Higher Certificate is still a new qualification and we are only currently training our fourth cohort of students. The research done on this programme needed to be shared with all who have a shared interest and all who have participated in this research.

Additionally as this is a type of graduate that is a core component of the rehabilitation community based services, it is vital that we engage on the practice implications to facilitate the successful implementation of this disability practitioner. The research dissemination workshop shared findings on the impact and value of the higher certificate graduate, challenges and suggested recommendations and solutions.

The key thematic issues addressed included what the Higher certificate in Disability practice education entails and the skills set this worker has, sharing the best practice examples of how this Higher Certificate graduate is being effectively used in different rehabilitation contexts.

In order to continue growing the graduates of the Higher certificate and successfully using the graduate in rehabilitation it is vital that we partner with key stakeholders. We continue to grow our partnership with Western Cape Department of Health (WCDOH) as potential employers and beneficiaries of our graduates. The WCDOH also is key to providing input into strengthening the HCDP curriculum.

We are also building a partnership with the TVET colleges as their students can articulate into the HCDP and we can potentially partner with them to deliver the HCDP.

This qualification and engagements contribute to well-being and social inclusion by providing the much needed rehabilitation and inclusive development to an under resourced health and local government system. In so doing, it provides access to services for persons with disabilities across the lifespan who are often marginalized. It also contributes to social development by capacitating staff at district and community level with the necessary knowledge and skills as they aim to meet the development challenges facing communities.

The engagement with the TVET colleges has created an articulation link into the HCDP for students doing the Primary Health Care (NQF 4) through Recognition of Prior Learning. This possibility builds capacity in youth as creates a pipeline into career development, especially for youth from rural areas. Community based inclusive development contributes to overall health equity.

We have also facilitated two writing circles for community rehabilitation workers in Gauteng, Limpopo and Mpumalanga. The focus of the workshops was on documenting their experiences of facilitating community based inclusive development. Case studies included setting up disability forums with disabled people's organisations, working with local municipalities and community development forums on the provision of housing for persons with disabilities, supporting families in the transition of their disabled children through the education system and into finding employment, accessing assistive devices for persons with disabilities, training teachers, and doing home visits. 10 CRWs presented their papers as part of a panel discussion at the national Rural Health Conference in Port Shepstone in Kwazulu Natal at the beginning of December.

Two journal articles have been published in international journals and there are three further journal articles publications in process.

Two staff members are also collaborating with Microsoft on how they can help support digital accessibility at UCT with the roll out of the UCT online policy. UCT staff will be capacitated on how to make sure their teaching and learning in the online space is accessible to students with disabilities. It will contribute to UCT's strategic goal of inclusivity. Microsoft is hoping to use this collaboration as a testing phase to see what works and what does not in terms of online accessibility using their products so they can make it better. The impact would hopefully be an online teaching and learning system that is accessible to UCT staff and students with disabilities. A presentation will be given to the Senate Teaching and Learning committee chaired by Associate Prof Lange in October.

## Weekend Waiting List Initiative

Contact person: Sharon Cox



### Background to the project

The Red Cross War Memorial Children's Hospital is well known nationally and internationally for the complex and involved surgical procedures performed on children. Performing these intricate, time consuming operations often leads to the cancellation of many of the patients with minor surgical conditions due to operative time constraints and pressure on inpatient beds.

The day case surgery unit is currently used to operate on patients requiring smaller procedures. Many patients are, however, not appropriate for these lists due to their small size or young age. In addition, these lists now have waiting times up to 7 or 8 months in certain specialties. Additional time is also required for new and novel procedures that cannot be accommodated on the in-patient lists due to the current resource constraints and overburdened system.

With the above factors in mind, it was decided to propose a "Weekend Waiting List Initiative." The idea was to use the Day Case Surgery Unit, normally closed on the weekends, to run specialist driven operative lists in order to alleviate all of the above concerns. This, if accepted by Hospital Management, would make use of the Hospital's physical infrastructure as well as hospital consumables and instruments, and draw on the experience and skill of the staff working within the hospital, all while not influencing the current running of the wards and theatres, with no impact on the ongoing management of admitted patients.

The proposal was drafted and accepted by the Hospital Managers, who then approached the Children's Hospital Trust to take the concept on as a fundraising project. The project has now been running since 2011 and continues to grow in the number of lists as well as the number of different specialties taking part and to date has operated on over 1000 patients.

### Reason for work initiated/nature of the need underpinning the work

Ongoing increases in the population of Cape Town have not been accompanied by equal increases in financial resources, staffing levels or physical infrastructure due to resource constraints within the health system. The resultant pressure on operative lists at Red Cross is great with waiting times increasing and the number of cases on the emergency lists growing annually.

One way to alleviate the pressure on inpatient facilities is to perform some minor operations as day cases- no overnight stay being needed. Day case lists run every weekday and involve most surgical specialties – the proviso for booking on these lists is that the children are over 1 year of age, and over 10 kg in weight. Many patients with minor conditions are not suitable for surgery in the hospital's Day Case Unit as they are too young or small. These patients are thus admitted to the in-patient Surgical Wards. Whilst these procedures are not lifesaving, they still need correction as left alone they can cause ongoing health and quality of life problems. Currently these patients are booked in main theatre, and, as their conditions are not life threatening, can be cancelled up to 3 times as they make way for extremely ill children. This increases patient and caregiver distress, results in multiple days off work for the caregiver, and may result in worsening of the medical situation.

The waiting list for cases suitable for day surgery in some disciplines extend over 7 to 8 months. Long delays result in many patients missing their dates, needing rebooking and hence a cycle of prolonging the wait again.

Some divisions have a heavy burden of urgent surgical procedures that consume all of the allocated surgical lists, and are unable to perform less urgent procedures, such as Laser treatment of burn scars to the face and hands – not an emergency, but vital to the physical and psychological wellbeing of the patient and essential for holistic recovery.

The hospital needed a way of responding to the situation, decreasing waiting lists, adding time for new and novel procedures and alleviating the pressure on in-patient lists. This would in turn improve the health and lives of those needing operative procedures, reduce the no-show rate, improve waiting times for new patients and decrease the complications or adverse outcomes of those waiting too long for their procedures.

Joint UCT specialist staff were prepared to operate on more patients but the time and beds for these patients were not available within the constraints of the system at Red Cross. Alternate ways of decreasing lists were considered by various specialties and operating at secondary level hospitals as an outreach/ social responsiveness project was an initial response. Unfortunately, the equipment as well as anaesthetic expertise were not available at these institutions and so minimal patients could be operated on. Further thoughts led to the proposal of the Weekend Waiting list Initiative that started as “Saturday Surgeries” in 2011 and has morphed into an annual project, growing from strength to strength, and including multiple surgical and non-surgical specialties.

This initiative makes use of physical infrastructure that exists but is ordinarily not used on the weekend and does not disrupt in-patient hospital management in any way.

### **Key thematic issues addressed through the initiative**

Both physical health of the patients as well as mental health of patients and their care givers is improved by timely and appropriate specialist intervention for the existing medical conditions. Included in this is the lack of need for return visits and lack of cancellations resulting in further days off work. In addition, many procedures – especially the cosmetic ones such as laser surgery, have improved mental wellbeing as an outcome.



Service delivery is improved and by operating on patients sooner, the knock-on effect is a reduction in return visits to outpatient clinics and improved compliance to health care requirements.

This project has created a sense of involvement and cohesion in all levels of staff. It has facilitated improved communication between medical and non-medical staff as well as theatre teams and hospital managers.

#### **Nature of the partnerships involved:**

This project is a partnership between the specialists performing procedures (UCT joint staff), Red Cross War Memorial Children's Hospital Managers, The Children's Hospital Trust and its donors. More recently the University of Cape Town Surgical Student Society has taken on the project and joined in with the Sanlam Cape Town Peace Run to raise funds for the project. The project enhanced communications between specialists and hospital managers, Hospital Management and the Children's Hospital Trust, and the Children's Hospital Trust and its donors.

#### **Aims of the social responsiveness activity and the values underpinning this work**

The aims, and now the subsequent successes of the Waiting list initiative include:

- Decreasing Day Case Surgery waiting times
- Freeing up space on the main theatre lists for more complex cases to be done
- Avoiding cancellations of minor procedures booked into main theatre
- Allowing time for non-urgent, yet life changing procedures such as Laser treatment of severe burn scars

#### **Values underpinning this project:**

This project was initiated as a response to a surgical waiting list burden, using a patient and family centred approach. This is in alignment with the values of the hospital and the university, to be flexible to respond to changing needs of the patient population.

This project has also facilitated the improvement of staff morale, through giving the staff a sense of value and purpose in being responsive to paediatric patient needs.

#### **Links with teaching and research and transformation**

Red Cross is a teaching hospital and has both undergraduate MBChB students and post graduate General Surgery as well as Paediatric Surgery trainees from UCT and other countries needing teaching. The current service delivery needs mean that cases need to be performed in the shortest time while still being safe.

This means actual operative training is compromised. This initiative reduces pressure on lists and allows for more time to teach all categories of students with increased operative training of postgraduates.

Due to this initiative, the various divisions within the Surgical Department at UCT have undertaken significant research into the understanding of the service load, lean management, waiting list management and are currently involved in further analysis of areas of extreme service pressures – especially relating to the emergency surgical list. In addition, they have embarked on a new project to increase elective operative lists for more serious cases in main theatre and implementation is planned for the first 3 months of 2020. Further to this there is a current project – due

for completion by the end of September 2019 that involves rationalization of fragmented half day lists into full day lists, thereby creating efficiency within the system. All of these are direct knock on effects of the research related to this project.

As Red Cross is a state hospital, all of the beneficiaries of this project come from previously disadvantaged groups. The current project has created a viable financial model has been developed and tested that can also be used in other hospitals. This is an example of how Public Private partnerships can work in response to service needs of the community and how private medical institutions can partner with NGO's to fund state hospital patients.

### **Contribution or added value to UCT**

All senior surgeons and radiologists working on this project are UCT staff. This is a prime example of how to increase social responsiveness of university academics through service delivery. The project has added value of bringing together Provincial Health Department and UCT in working towards a common goal of effective and efficient service delivery. Throughout the project there have been networking opportunities and identification of potential future private public partners.

The University of Cape Town Surgical Student Society has joined forces with the Children's Hospital Trust and raised funds for this project in 2018 and 2019 by initiating the "Scrub Run" as part of the Cape Town Peace Run. Fifteen September saw numerous UCT students and surgeons as well as our MEC for Health, Minister Mbombo all run the 10 km fundraiser in surgical scrubs. They are believed to have raised over R180 000 for this initiative, and in the process UCT, Red Cross War Memorial Children's Hospital, and The Children's Hospital Trust all received media attention.

### **Contribution or added value to any external constituency involved**

The value added to external constituencies is in their own Social Responsiveness drives. This project enables Donors to in non-health orientated occupations to contribute to the health of South Africa Children, and those within the private Health care setting to contribute to the State system.

### **Evaluation of social responsiveness activity and its impact**

Given the success of the previous initiatives, and the growing waiting lists/ backlog of cases in many divisions, surgeons feel that this waiting list initiative has become an essential part of the service delivery that keeps waiting times at an acceptable level. As the operating lists take place on the weekend, using the Day Case unit, which is ordinarily closed on these days, no inpatient activities are impacted.

The previous waiting list initiatives have decreased the day case lists in the past and allowed for increased capacity to keep these lists at an acceptable waiting time. Each initiative has made a remarkable improvement in service provision, allowed minor surgical procedures to be completed, and opened space in the main theatre complex for the more complex and urgent cases to be done.

To date there have been 8 consecutive years of this initiative, with each year adding new specialties and more lists and patients. The Children's Hospital Trust prepares a report for the donors to this project which is attached to this submission as an addendum and gives further information. Disciplines that have used the Initiative to decrease waiting times include General surgery, ENT, Urology, Plastic surgery, Orthopaedics, Burn surgery, Dental surgery and the radiology department to perform MRI under general anaesthetic.

In conclusion, as it takes an extensive team to provide surgery, this project has lent a sense of cohesion and home-grown innovation to the hospital environment. It has become an essential part of service delivery, has encouraged and improved communication between all cadres of staff, including project coordinators, porters and cleaners which has added to the transversal and a sense of 'everyone'-reaching-out to community need, and has improved the lives on over 1000 patients and their care givers. In so doing it has allowed each and every one of these staff members and the funders to contribute to the greater good by providing health care at an appropriate level at an appropriate time.

### [The Safe Travel to School Project](#)

#### **Core Collaborators: ChildSafe South Africa & Discovery Health**

#### **Contact person: Sebastian Van As**

ChildSafe South Africa, a campaign of the Child Accident Prevention Foundation of Southern Africa (CAPFSA), is an organisation founded in 1978 by the Charles Saint Professor of Paediatric Surgery at the University of Cape Town, Sidney Cywes, for the purpose of educating caregivers on how best to give the children they look after a healthy, safe environment.

Children are the most vulnerable when it comes to easily preventable incidents. ChildSafe aims to strengthen community responsiveness with respect to these problems. ChildSafe is a non-profit organisation which believes strongly that every child has the right to grow and live safely.

ChildSafe is a national NGO that comprises three programmes, (1) Research, (2) Education and (3) Advocacy; with the specific notion that it is Research component that informs the Education and Advocacy programmes.

Since 1991, ChildSafe South Africa has systematically kept a computerised Childhood Trauma Surveillance System of all injured children presenting to the Red Cross War Memorial Children's Hospital Trauma Unit.

Approximately 10 000 childhood injuries are treated annually. The ChildSafe Surveillance System currently contains details of over 200 000 childhood injuries. The Childhood Surveillance System serves as a national and international information system for childhood injuries in South Africa.

In order to prevent childhood injuries through Education and Advocacy, ChildSafe has analysed numerous and the most important aspects of how childhood injuries occur in order to develop effective strategies to prevent them in the most appropriate and targeted approaches.

To provide a few examples, from our research we know that the most lethal mechanisms of injuries for children between the age of 1 and 18 years are: (1) Road Traffic Crashes, (2) Drowning and (3) Burns, and ChildSafe therefore focusses on these causes.

We also found that children under the age of 6 are mostly injured in and around the home, while older children (over the age of 6) are most vulnerable on the way to and from school. Our educational programmes to prevent childhood injuries under the age of 6 are focussed on the home situation; we used a life-sized informal settlement model in our ChildSafe Centre to educate parents.

The most common mechanisms of how childhood injuries are sustained are demonstrated there. Analysing our academic data, we also developed a series of Educational Posters to educate the South African public what precautions they take to prevent their children being injured.

The Educational posters, which use pictures indicating the most common mechanisms of injury in the various age categories, are available in several languages and received a Global Award for its design. Topics that are covered include: (1) General mechanisms of childhood injuries, (2) How to prevent your child from being burnt and (3) How to prevent traffic injuries in children.

### **Red Cross War Memorial Children's Hospital**

ChildSafe has been the leading force in documenting childhood trauma, gathering information from trauma patients at the Red Cross War Memorial Children's Hospital based in Cape Town.

The catchment area of trauma incidents reaches a far greater geographic area beyond the borders of the Western Cape. From this information, we can determine where the problem areas in society are and how better to address them.

This trauma database is the largest of its kind in the world and has allowed our organisation to distribute information, conduct essential research internationally, participate in advocacy drives and educate at a more efficient level.

Of particular note is that the Childhood Surveillance System has been the solid basis for approximately 100 scientific publications, all in the field of child injury prevention and management.

ChildSafe is also an organisation dedicated to the protection of children through education of parents and caregivers whilst advocating for legislative change on design and environmental standards.

Over the past four decades, and as a member of Safe Kids Worldwide, ChildSafe has been recognised, participated and been highly-awarded as an invaluable source of information and experience relating to childhood injuries prevention and approaches with key partnerships with leading international organisations such as the World Health Organisation, UNICEF and the United Nations.

### **Background to the Safe Travel to School Project**

A staggering 17 000 or more people are killed on South African roads each year, with about 68 000 people injured (Western Cape Road Safety presentation; September 2015). Of these, about 3 000 children are killed (0-19 years).

Even when children are not killed, they are often permanently incapacitated. Some road traffic crashes are caused by infrastructural issues.

However, most of the responsibility for these incidents lies with the drivers. About 20% of all SA children travel to school by minibus, bus or taxi. Thousands of children are transported to and from school daily along high-risk routes, in vehicles that are often not roadworthy, by drivers who speed, are not legally compliant and are generally not road-safety aware.

### **Rationale for the Safe Travel to School Programme**

The Safe Travel to School Programme aims to help create a more conducive environment for road safety, especially with regard to school children travelling to and from school each day in learner transport vehicles – by focusing on drivers, specifically, scholar transport drivers.

Millions of children are transported to and from Early Childhood Development centres and schools every day, often in unsafe vehicles driven by careless, untrained drivers.

The Safe Travel to School Programme works with scholar drivers with key interventions such as:

- Conduct multi-point vehicle checks
- Installing an innovative car tracking device to monitor driver behaviour
- Train drivers in child safety
- First Aid Courses
- Defensive Driving Courses
- Creating regulations for scholar drivers
- Monitor driver health indicators
- Treat poor eyesight with glasses and regular checks
- Regular driving behaviour feedback
- Improve parent and driver communication

### **The core of the project is positive re-enforcement:**

- Each driver is eligible to be selected as the safest drivers as per their driver feedback scores every quarter and can win prizes ranging from R500.00 to R3000.00.

Annually the two safest or most improved drivers overall are selected and awarded the prize of a brand-new car.

### **Key theme 1: Improving and transforming Taxi Driver Behaviour**

Through this series of interventions the Programme hopes to develop cohorts of safer, reliable learner transport drivers.

The pilot phase was launched on 30 January 2014. The pilot project was evaluated by the Violence, Injury and Peace research unit of the Medical Research Council.

The results were clear: taking school transport drivers through a programme which combines monitoring, screenings, training and incentives results in drivers who drive more safely, are more road safety aware and more confident about their 'trade'.

Launched with fewer than 20 drivers, the Programme aims to have 1 000 drivers at the end of 2019. Currently there are more than 900 participating drivers. The programme has expanded throughout the greater Cape Town area, recruiting scholar transport drivers from Macassar to Muizenberg, from Khayelitsha to Kraaifontein.

### **Key theme 2: Partnership building**

This project is a key example of success through close collaboration of a great diversity of partners such as the Discovery Fund, Discovery Insure, ChildSafe SA, Essilor, SDM Ltd, C Track.

The Core partners of the programme are:

- Discovery Fund
- Discovery Insure (Funder)
- Childsafe SA (Implementor)

Other more Peripheral Partners are:

Pro-bono Service providers:

- C-track
- Specs Savers
- Essilor, SDM Ltd
- C Track
- Tiger Wheel & Tyre (Corporations who do business with Discovery)

Paid Service providers:

- First Aid training
- Defensive Driver Training

The core Beneficiaries are:

- Over 900 Scholar drivers: Private and employed by special need schools

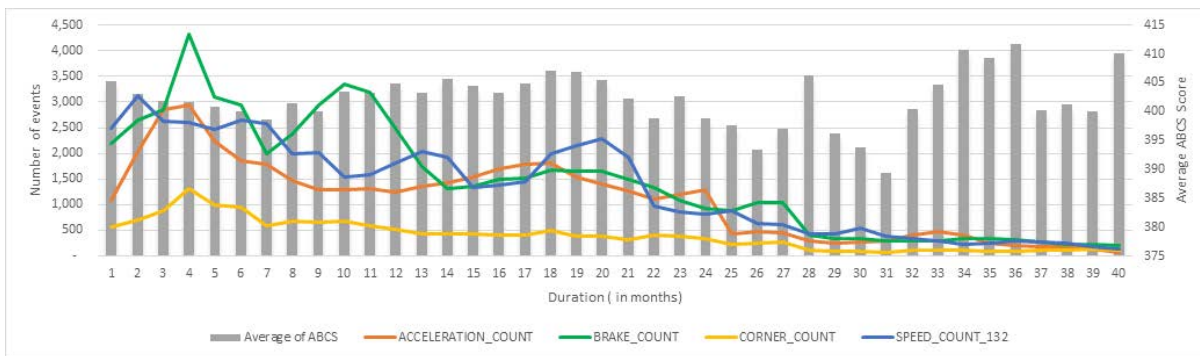
The indirect beneficiaries are:

- 18 000 School going children and their families.

### **Improvement of Driver behaviours over a 40-months period:**

The success of our Engaged Scholarship programme has been remarkable, as demonstrated in the graph below.

The coloured lines represent the various indicators of bad driving; there is steady and permanent decline of them over the 40-month time period; indicating improved driving.



**Major achievements of the Safe Travel to School Programme:**

- It has been remarkable that our School-bus Drivers drive significantly safer than the average South African driver.
- Not a single major crash or childhood injury has occurred among the participants of the programme since its inception.

**ChildSafe-related Academic (Peer-reviewed) Publications (2017 -2019)**

The programme has given rise to a great number of reports in the media as well as the academic literature.

# Commerce Faculty

## Women Empowerment

Contact person: Haroon Borat, Morne Oosthuizen, Arabo Ewinyu, Zaakhir Asmal, Safia Khan and Robert Hill - DPRU

*“A Gender Analysis of the Department of Trade and Industry Services and Funding Processes”*

### Background to the project

Globally, women face significant challenges in the labour market – and South Africa is no different. These challenges include differentials in educational attainment and quality; interruption of labour force participation related to childbearing; discrimination in terms of employment practices and wage determination; relatively fewer role models; vulnerability and weak bargaining power; and environments that may be hostile to female membership of the workforce. Women typically also face the consequences of gender norms and the unequal division of labour. This is due to women being seen as caregivers within the family, while men are viewed as bread-winners.

Given these challenges, an outcome of various programmes undertaken by the Department of Women (DoW) is to ensure the financial inclusion and support of women so that they can fully participate in the economy. Access to funding for women should not be underestimated due to its role in securing the empowerment and advancement of women in the economy. In this regard, the DoW has identified the incentives supervised by the Department of Trade and Industry (the dti) as the focus of this particular research programme undertaken by the Development Policy Research Unit (DPRU).

This research aims to determine the extent to which women access and benefit from the services offered by the dti. To do so, we conducted a quantitative analysis into the position of women within the South African economy, as well as an overview of the dti incentive programmes and the extent to which they currently benefit women. We also undertake a qualitative case study into one specific incentive offered by the dti, the Sector Specific Incentive Scheme (SSAS).

Overall, the research aims to provide insights into three key questions:

- I. How are women currently accessing incentives offered by the dti?
- II. What impact do these incentives have on women?
- III. Do the incentives adequately target and make provision for women?

### **Reason for work initiated/nature of the need underpinning the work;**

The research need emanates from the DoW’s acknowledgment that women often struggle to access services, especially those related to access to markets and funding, that the dti offers.



Considering this, the DoW requested a gender analysis of the services of the dti to determine whether women benefit from its services and funding and what the impacts of these interventions are. This research aims to determine the extent to which women access and benefit from the services offered by the dti.

Development, Social Justice, Women in the Economy, South African Labour Markets, Employment, Poverty, Gender Inequality, Access to Funding, Socio-economic Empowerment. Nature of the partnerships involved and how they engage and contestations with the external participants/partners/beneficiaries.

Due to the nature of the research, each stage of the project required ongoing engagement with various stakeholders. Primarily, we engaged with the DoW. The department also facilitated introductions and further coordinated the working relationship with the dti. A key relationship was facilitated by the DoW, in terms of providing input to work currently being undertaken by the Department of Policy, Monitoring and Evaluation (DPME).

### **Aims of the social responsiveness activity and the values underpinning this work;**

The South African government's Department of Women has a mandate to promote women's socio-economic empowerment, development and human rights through oversight, monitoring, evaluation and influencing policy. A key area in this regard relates to the role of government broadly in empowering women, whether through its role as an employer or through the many programmes and policies it has implemented. The aim of this research project is therefore to determine the extent to which women access and benefit from the services offered by the DTI through both a quantitative analysis of the DIT's incentive data and a qualitative case study on the experience of recipients.

Links with teaching and research and transformation (i.e. how does it feedback to teaching, research and transformation?)

The research relates to the empowerment of women and increasing the participation of women in the economy. A key element of transformation is the aim to improve women's access to funding; enable the empowerment of women; and reduce inequality between men and women.

In terms of links with research, if government is serious about properly measuring and monitoring the performance and impact of incentive schemes, the collection of relevant data must be prioritised. The findings of this project reveal that data collection for the purposes of measuring performance and impact of incentive schemes should be integrated into the design of the scheme to ensure accuracy and completeness.

### **Contribution or added value to external constituency/ies involved;**

Ultimately, it is hoped that the findings and policy recommendations of this research project will inform policy and interventions that aim to ensure the integration of more women into the broader South African economy. Recommendations include the following:

1. Collection of relevant data must be prioritised. There was a lack of data to undertake a comprehensive analysis of the impact of the schemes considered in the research. Data collection for the purposes of measuring performance and impact of incentive schemes should be integrated into the design of the schemes.

2. The DTI should monitor impact in terms of gender as a standard feature of evaluations of their interventions.
3. Women's access to incentive programmes should be prioritised in order to effectively help address their historical and continuing economic marginalisation.
4. To promote women's fuller economic participation, incentive programmes cannot ignore those in the informal sector or those in rural areas or smaller urban centres.
5. Incentive schemes may need tailoring to account for the specific challenges faced by women and women-owned firms. Based on varying barriers that exists to female entrepreneurs in establishing successful businesses across different sectors, incentives should be tailored by sector to respond to the specific needs of women in particular industries.

Evaluation of social responsiveness activity and its impact; and the nature of outputs emanating from the work;

The core outputs delivered by this project include a full research report and a policy brief (highlighting the most policy-relevant findings and key messages which can inform the policy process).

We also created a series of infographics that use data visualisation to make the findings even more accessible and engaging, encouraging viewers to dive deeper into the accompanying content (see below).

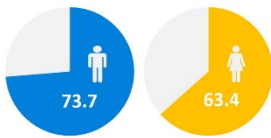
High quality "use inspired basic research" which can be published e.g. in international journals.

The DPRU is still considering whether there is scope to publish this research further.



# WOMEN IN THE SOUTH AFRICAN ECONOMY

## LABOUR MARKET: GENDER DIFFERENCES

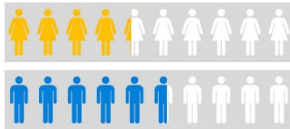


### LABOUR FORCE PARTICIPATION RATE

- Men are more likely to be in the labour force than their female counterparts
- LFPR for men is 73.7% and 63.4% for women

### EMPLOYMENT-TO-POPULATION

Female employment-to-population is lower at 37% compared to 49% for men

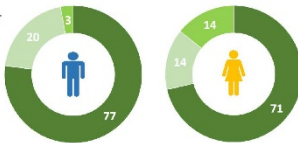


### EMPLOYMENT

Men make up more than half of the total employed

### SECTORAL EMPLOYMENT

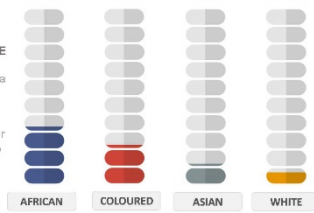
- There are more men in the formal sector than women
- There are >4 times more women employed in private households than men



## WOMEN IN EMPLOYMENT

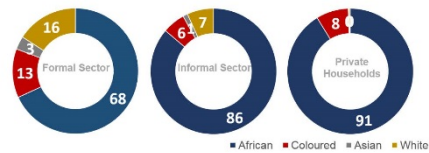
### FEMALE UNEMPLOYMENT RATE

- African women are at a more disadvantaged position in the labour market
- Unemployment rate for African women is 33%

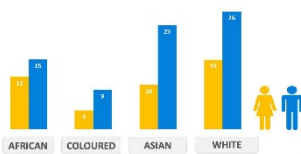


### FEMALE EMPLOYMENT BY SECTOR

Almost all women in Private Households are African (91%)



## SELF-EMPLOYMENT



- Men are more likely to be self-employed than women
- African & White women have the highest self-employment rate

### SELF-EMPLOYED WOMEN BY INDUSTRY

More than half of self-employed women are located in the Wholesale & Retail trade industries



## SUMMARY

Women are less likely to be employed than men

Women face more challenges in the labour market compared to men

Data sources: Statistics South Africa, Department of Trade and Industry

© 2019 Development Policy Research Unit, University of Cape Town



## Student Financial Aid

Contact persons: Haroon Borhat, Mumbi Kimani, Adaiiah Lilenstein and Amy Thornton - DPRU

“Targeting Rules for Student Financial Aid”

### **Background to the project**

This project aimed to update the National Student Financial Aid Scheme (NSFAS) funding test system, which was beset by poor targeting. The first stage is a proxy test that determines whether students get full funding, or whether they progress to the second stage income means test; in which case they usually get partial funding. NSFAS identified a serious ‘leakage’ problem (when non-eligible applicants slip through the system and receive the benefit of full funding). Generally, too many students were passing the proxy test and receiving full funding (even in cases where they did not necessarily need it), leaving very little to be distributed across those who legitimately required partial funding. Furthermore, the formula NSFAS used to allocate partial funding was very out of date and generally underestimated students’ need. This contributed to the plight of those in the ‘missing middle’ category – students deemed too rich to qualify for government support, but too poor to afford tuition fees.

The Development Policy Research Unit’s (DPRU) research presented in the first report aimed to find the proxies that best identify the genuinely poor, and to combine these proxies in a useful way that is not too administratively burdensome, or easy for applicants to cheat. The objective was to improve the targeting of the proxy round, and thereby reduce ‘leakage’. The hope was that more funding would be left over for the means test round, so that financial aid could then be distributed more efficiently across more students at more appropriate levels, to their level of need. The second report focussed on improving the formula for the size of the funding award, by updating what are called ‘household allowances’. These were out of date and needed to be increased in order to properly meet student needs.

### **Reason for work initiated/nature of the need underpinning the work**

The purpose of this research was to update the test NSFAS uses to award funding, and to decide the level of funding to students who apply to them for financial aid. We delivered two research reports; one related to the proxy test, the other related to the means test and the household allowances. These tests needed to be updated due to concerns about poor targeting. The DPRU submitted a research paper that highlighted a few different options for the test, as a way to shortcut the process while trying to balance targeting precision, without making the administrative burden unduly heavy.

**Key thematic issues addressed through the initiative (e.g education, health, environment, etc)** Inequality; tertiary education transformation; development; education; skills.

### **Nature of the partnerships involved and how they engage and contestations with the external participants/ partners/ beneficiaries;**

The National Student Financial Aid Scheme (NSFAS) commissioned this report and actively engaged with the DPRU during the process. We consulted regularly with NSFAS representatives.

We were approaching the project from a conceptual point of view, and some of the important feedback we received was about whether certain ideas for the test were very administratively burdensome, or easy to cheat.

**Aims of the social responsiveness activity and the values underpinning this work;**To combat inequality by contributing to the transformation of tertiary education in South Africa. The research aimed to have an effect on and enable NSFAS to better deliver their services in a sustainable manner that promotes access to, and success in, higher and further education and training, in pursuit of South Africa's national and human resource development goals.

**Links with teaching and research and transformation (i.e. how does it feedback to teaching, research and transformation?)**

This research topic directly relates to transformation by contributing to the efficiency and effectiveness of NSFAS as a provider of financial aid to students from poor and working class families. The results have potential impact on which students get access to higher education, through whether the costs of their studies are covered, or not.

**Contribution or added value to UCT;**

Our aim was to bring rigour and economic understanding to the difficult process of setting up a funding schedule from NSFAS. This would of course have a direct impact on UCT's student funding.

**Contribution or added value to external constituency/ies involved;**

Feedback from our NSFAS contact: "It's been quite important for us to understand the thinking – not the science of the research because none of us are economists – we just need to know that it was done and that the way it was done informed these recommendations, and trends and patterns, so that they are relevant for us going forward. It's been an incredibly useful process for us... We've obviously had to re-write all our business rules in line with that, but in essence we took the DPRU's recommendations to executive management here in NSFAS, and they agreed with the proposal. We then worked that into our business process and our validations and rules engine for [the next] application cycle."

**Evaluation of social responsiveness activity and its impact; and the nature of outputs emanating from the work;**

Subsequent to submitting the research reports, we were informed by NSFAS that they immediately engaged with the research, and acted on the strategic findings we delivered. They began implementing recommendations from both studies (i.e. for both parts of the test), and adopted our favoured test option into their system - using it for the 2018 application cycle.

**High quality "use inspired basic research" which can be published e.g. in international journals.**

In both research reports, we used nationally representative household survey data and regression analysis. In addition to household survey data, statistical methods were used to reach our conclusions. The DPRU is still considering whether there is scope to publish this research further.

# Humanities Faculty

## Impossible Return and The Rememberers

### Projects at the Centre for Curating the Archive

A driving motivation behind much of the archival work of the Centre for Curating the Archive has been the imperative draw material out from storerooms or private collections and into the public domain. We have done this through a cluster of strategies that include work in the archives, convening new archives, recognising archival material that has the power to speak of hidden stories and histories, and coupling this work with publication, film-making and exhibition. Part of our methodology has been to engage both our own scholars and students in shaping the projects, as well as working directly with those for whom the material we engage has the most direct meaning. In this way, we are exposed not only to the direct effects of our research but our projects are shaped by the involvement of communities outside the academy.

Two separate but conceptually linked projects of the past five years have involved informal partnerships with: a community evicted from Harfield in Claremont in the 1970s under the Group Areas Act; and several smaller communities in the Cederberg and Hantam Districts who, similarly, have suffered internal displacement, and deal on a daily basis with the aftermath of Apartheid. The first project “Impossible Return” recovered a collection of photographs taken in the early 1970s by of residents of Second Avenue in Harfield, and the second, “The Rememberers” is an emerging collection of interviews which grew out of the CCA’s long-term engagement with the annual Clanwilliam art and performance festival that took place in the small Western Cape town since 1998. Both projects have engaged post staff, graduate students, undergraduates, and resulted in publication of a book, two websites and two short documentary films. Both have created possibilities for further research.

### Impossible Return

This project began with a collection of photographs by South African sculptor, David Brown, who, as a young Michaelis student, documented life in Harfield Village prior to and during the forced removals of the 1970s. Taken up by then director of the CCA Siona O’Connell, it soon grew into a collection of interviews and workshops with those former residents (featured in Brown’s photographs) and their descendants, and has since yielded several forms of research and related publications. The project also included contributions from Jade Nair and Pippa Skotnes. CCA digital manager Fazlyn van der Schyff and exhibitions assistant Nicholas Simane provided infrastructural support.

The central thematic concerns of Impossible Return are a set of questions around trauma, memory and freedom in the aftermath of apartheid. How has the practice of forced removals influenced social structure in the Western Cape? At the heart of the project has been the drive to locate those people pictured in their homes from which they were evicted in the 1970s and understand the ways in which they have lived in the aftermath of this trauma. After wide-scale advertising in community fora and newspapers, dozens of former-residents contacted the CCA, and workshops, meetings and reunions were convened. These took place in community halls, on university grounds and in religious meeting places (mosques and churches).

In some cases, this was the first time in forty years some families had seen their former neighbours. Stories were told and recorded, and these became the basis for a film, and a publication due to be launched in October 2019.

Our relationship with community newspapers has been an important tool in engaging with communities, raising awareness for the project and communicating with forcibly removed communities on a large scale. Whilst building these partnerships has been challenging, our partnership with the public have been the most important source of data collection for this and, many of our other projects, and also integral to their success.

As part of the programme of engagement, an exhibition *Return to Harfield*, was launched at the District 6 Homecoming centre in 2015. This was curated by Siona O'Connell and Pippa Skotnes and a CCA hosted symposium, *Towards an Archive of Freedom: Why Now?* was held at the same time, that explored ideas of the 'open-ended archive', with a keynote address by Leo Spitzer, professor of history at Dartmouth College. During the process of convening workshops and reunions, and conducting interviews with ex-Harfield Villagers, a rich archive of stories and reflections was assembled and people voiced their feelings of validation that they were part of a collaboration with an institution (UCT) that is out of reach for many on the Cape Flats and beyond, and that they were able to articulate, and have recorded, a piece of their history which is often denied and overlooked by history books. The film, *Impossible Return*, is a documentary film produced by the Centre which examines three crucial moments: the forging of lives of humanness, the receipt of the eviction notice and the eviction itself. This film has been shown locally and internationally, within academic contexts, but also as part of film festivals and community events. It has been part of university syllabi both locally and internationally. These include UCT's Honours in Curatorship course, as well as courses offered at the University of Pretoria and Colgate University (New York, USA). Additionally, exhibitions borne of this project have provided postgraduate internships for UCT students, providing experience and skills in the following areas: fieldwork, data collection, exhibition making and curating.

October 2019 will see the launch of the publication, *Impossible Return* by Siona O'Connell. This book features the photographs by David Brown alongside narratives from various families who were forcibly removed from Harfield Village. The launch for this book will take place at St Matthews church in Harfield Village whose congregation is made up of forcibly removed families who still travel to Harfield Village from the Cape Flats to attend service.

The added value of this project for UCT has been a continuing engagement with the local communities who live their lives in that vast expanse of land seen from Rhodes Memorial view; building of an archive which is available to all; public events and research outputs that palpably link UCT with the subjects of its research; and, building relationships which create the groundwork for interdisciplinary and interdepartmental collaborations within the university and other universities, particularly during 2019, the University of Pretoria.

Whilst hundreds of families across the Western Cape continue to battle the bureaucratic monster that is land restitution in South Africa, the trauma of forced removals, still echoing through generations of black and coloured families is easily overlooked by the distance of time. With this project, we acknowledge and document this trauma and hopefully contribute to the national conversation around land and power.

Sharifa Booley poses with the picture taken of her as a young woman in Harfield, at a workshop held at UCT of former residents.

Some of the children photographed in the 1970s and then as adults at a workshop in 2017.

Miriam Floris photographed in her home in the 1970s. Her husband Sulieman, at a workshop on the

Hiddingh Campus more than 40 years later, recalled the clothes she was wearing on the day she was photographed and the life they had led with their children before a 'Mr Burger' came knocking telling them, "You must get out!" "You must get out!"

### The Rememberers

Twenty-one years ago Professor Pippa Skotnes and a group of Michaelis Fine Art students initiated an art project, funded by the Fairheads Trust, the aim of which was to make connections with school learners and encourage them to think of art as a career. It eventually became the Clanwilliam Art and Performance Festival which ran in collaboration with Mark Fleishman and the Drama and Music Departments, the Magnate theatre and a whole host of others who came together each subsequent year in September to deliver, through art, music and performance, stories from the Bleek and Lloyd archive, to thousands of children and members of the Clanwilliam community. This built on a previous engagement with the community of Clanwilliam, developed by John Parkington of the Archaeology Department, and led into one of the major themes of the CCA, that being the curation of material from the colonial period relating to the work of Bleek and Lloyd, and its multiple legacies.

The Bleek and Lloyd archive (tens of thousands of pages of interviews with 19th century |xam and !kun individuals in their own languages) is one of UCT's most precious archival collections, and unique in the country, and its legacy, as convened by the CCA, includes many related archives from the 19th and 20th centuries, and stretching right into the present with the collection of contemporary oral histories.

Oral histories were first collected at the CCA by post-doc Jose de Prada (published in 2016 as *The Man Who Cursed the Wind*) in the central Karoo (2011–15). The project gave those descendants of the |xam living in small communities and on farms, the opportunity to tell their stories and, and speak of long traditions of storytelling which confirmed their deep connection to the land. Our more recent project *The Rememberers* is a collaboration with Patrick Hanekom who has worked for several years with Nature Conservation and has deep roots in the communities of Algeria and Hantam districts, and who, during 2018 and 2019, conducted interviews with many members of these communities. Here our mutual interest has been in the ways in which those living in small rural communities have navigated the hardships of their lives, come to terms with internal displacement, and how they understand their legacies from the colonial and pre-colonial past.

These interviews have given rise to a website *Onthouers/ Rememberers*. (<https://www.rememberers.co.za/>) which we update from time to time, and which has already generated several studies including a recent MA registration in the CCA. The interviews include a wealth of stories – some echoing the voices of the long dead, others, stories of individual experiences and personal histories, of hardship and evictions. Legends of Dirk Ligter and Jan Thomas, stories of Jantjie se Ram and the water creatures living in dams and rivers are shared, along with family histories. Their accounts speak of both personal struggle, and of achievement, and reflect on some of the history and spirit of the area stretching along the Groot Winterhoek and Cederberg.



As part of the project several workshops were held in Clanwilliam where the opportunity was used by some of the older participants to speak to the youth of traditional practices of veldkos collection, food preparation and tell of other stories and histories passed down through generations. As a result the project has attracted more individuals wanting to contribute, and a recent Oppenheimer Generations grant will enable an expansion of the project into other areas in the Cape.

Patrick Hanekom, fieldworker and conductor of interviews for the Rememberers project, along with some screen shots from the developing website. <https://www.rememberers.co.za>

## Young Women's Leadership on Sexual and Reproductive Health Rights in Universities

### Overview of Project

The notion of 'young women' spans different approaches to understanding the politics of sexual and reproductive health and rights, and despite the complexity of this notion, it offers a very particular challenge to those working in universities in Southern Africa. In brief, to differing extents universities face a number of challenges: challenged economies, rising numbers of young people with a strong desire for class mobility through higher education, campus structures which are too small (in many ways) to accommodate these numbers, and the question of the 'brain drain' which pulls researchers, teaching faculty and prospective students away from national university spaces towards international ones. At the same time, the gender parity of students admitted to universities has become more equitable, women are increasingly present in non-traditional areas of study (medical science, business, and the sciences more broadly), and women are more visible within higher echelons of university leadership.

AGI, through our engagement with each campus team who have been part of the project since its inception in 2010, argue that the young women who are accepted into universities in the region are thus faced with complex double messages. On the one hand, their academic institutional cultures increasingly recognize their equality with men and their intellectual potential; on the other hand, their contexts include high levels of vulnerability to sexual violence, stereotypes of hypersexual femininity, and strong – usually conservative - expectations around their identities as future 'girlfriends', 'wives, and 'mothers'. The territory they negotiate as gendered and sexual people is one fraught with opportunity, challenge, anxiety, and excitement, and it is one which constitutes much of the 'informal curriculum' of any higher education institutional culture. And yet, this is a territory very poorly represented within formal university curricula. Even with education in medical sciences (degrees in medicine, surgery, and nursing), there is very little opportunity to explore the politics of the body beyond questions of disease and intervention.

AGI's Young Women's Leadership (YWL) project focuses on strengthening the capacity of young women within four different Southern African contexts (Botswana, Namibia, South Africa, Zimbabwe, and Mozambique) to strengthen their capacity for research and leadership around questions of reproductive and sexual health and rights. The project seeks to both develop cross-institutional and cross-national linkages and simultaneously to effect a concrete change within each context. The project is rooted in work done by the AGI over many years in the politics of sexuality and gender within African contexts, and most recently in a project which concentrated on young women's leadership in this area.

The general objectives of the YWL project are to:

- Create opportunities for young women, in some SADC university contexts, to develop new leadership and advocacy skills, in the specific context of grounded SRHR research
- Stimulate strong, Southern African-based, action research which takes issues of sexuality, reproductive rights and gender for young women seriously
- Develop partnerships between young women based in different SADC campuses around the importance of reproductive and sexual rights
- Contribute to the reduction of young women's vulnerability to HIV-transmission, gender-based violence, and critically, to discourses of 'feminine powerlessness' in our different national contexts
- Stimulate movement-building in national, and regional contexts, around reproductive and sexual rights.
- Strengthen young women's knowledges of the histories and politics of the concept of sexual and reproductive health and rights, and of their location as rights within SADC contexts.
- Develop and share action research methodologies sensitive to the complexities of working with gender, reproduction and sexualities to create so that knowledge creation is integrated into direct activism (this could be policy change, media advocacy, and so on).
- Unpack concepts of leadership in ways that resonate with young women in higher education, and offer them opportunities for personal and professional growth trajectories.
- Learn from young women about the intersections of context, access to reproductive rights, and the options for sexual agency and choice.

#### Reflections on Achievements - 2017 to 2018

The June 2017 to 2018 period offered an opportunity to reflect on the last 7 years of the project and consider how to document what the project has achieved. There was an emphasis on tracing alumni of the project as a route to both archiving achievements and re-strengthening and capacitating the current leadership of YWL teams on each campus. This was thought to be crucial to achieving the objective of "...strengthening, capacitating, and profiling the growth of leadership among young women, in Southern African contexts, especially in areas of SRHR" (Funding proposal, 2017). Each campus team agreed to conduct research that will generate data on the number of young women who have held leadership roles in the project. The research will also trace what kind of work, activism, or research they are involved in that relates to SRHR work and/or areas of feminist leadership broadly. The research process will also involve convening spaces for alumni to be linked back into the project.

Some campuses have already embarked on ensuring alumni take on leadership positions within the university. The University of Witwatersrand, for example, has seen one of their Alumni Andile Mtombile move into a faculty position at Witwatersrand.

This achievement has been largely linked to the support and opportunity to conduct postgraduate research via the YWL. Andile was recently listed as one of the Mail & Guardian Top200 young people in South Africa. This award was for her work on SRHR, which she attributes to her involvement and mentoring of the YWL project. In her M&G200 interview, Mtombile says that she was offered a position as a research coordinator at the end of her fourth year and was part of the YWL Wits team.

The YWL team at the University of Cape Town has been re-resourced by alumni of the project. Kealeboga (Mase) Ramaru and Jan Lewin were recruited as researchers on the project to assist with coordinating both the regional and campus (UCT) level oversight of the project. Mase was part of the YWL team from 2012 until the end of 2015. She formed part of the core team who facilitated many of the peer educator events and meetings initiated by YWL UCT during that period. Furthermore, the UCT YWL team has worked closely with Sam Malunga, another alumni, who completed her Masters (in 2018) on “Using Information to Align Services and Link and Retain Men in the HIV cascade): activist men in Movement for Change and Social Justice and their motivations in taking up positions in community mobilisation in the Gugulethu area” offered training on sexual and reproductive rights to YWL team and helped in conceptualising the action-oriented research project that the team will embark on this year.

The Botswana and Namibia team has already convened an alumni conference to get YWL alumni linked back into the project. The intention is to involve them as mentors to support the work of the current cohort and future members.

The idea is to bring together present and past members to reflect on some of the SRHR challenges young people face and strengthen responses to these challenges. Alumni were encouraged to share their experiences about where they are in their life journeys and the role they play in relation to feminism. University of Namibia’s team aims to develop synergies between U- ART Alumni and an established feminist organization (Sister Namibia). This will contribute to possible pathways for collaboration in forming a young feminist movement. Such a movement could provide a home for students who have graduated from university but who still wish to contribute to the project.

### Influencing University Policy and Practices on SRHR

In the last year, some teams have been able to influence particular campus policies and practices that relate to young women's SRHR. The YWL team at the University of Witwatersrand used the experiences of young black women on campus to make the argument for the establishment of a policy that supports students who become mothers while pursuing their degrees. The team lead, Prof Mzikazi Nduna, has written an academic paper on the topic that was presented at a symposium titled "Dreaming Feminist Futures" hosted by the African Gender Institute in March 2018. The paper is likely to be published in a peer-reviewed journal this year.

The YWL team at the University of Botswana started a project called Jabulani, which focuses on raising awareness about ARV pills and challenging the stigma surrounding HIV/AIDS. The team has also begun to work with the clinic on campus to develop a system that encourages students to get their ARVs and to encourage them to collect their ARVs without the fear of judgment. Similar to the University of Zimbabwe, the team has also been having campus conversation on sex for marks and transactional sex.

One of the SRHR issues the University of Zimbabwe team and University of Namibia is addressing is the increasing occurrence of 'Revenge porn' on campus. As described by students on both campuses, 'Revenge Porn' entails students releasing 'pornographic' images of female students onto social media. This has been used by mostly male students to humiliate their female intimate partners when there is a breakup or argument. The project teams on each campus have been raising awareness on the dangers of revenge porn and steps to follow in the event that students find themselves as victims of revenge porn.

The University of Namibia team has had the largest number of students involved (perhaps over 100 per year with a core leadership of up to 20 per year). They have a heavy emphasis on advocacy that they divide into three forums/teams: femininity forum; masculinity Forum; and the LGBTI forum. Collectively, each forum is looking into sexual abuse and harassment on campus. The team has consulted with campus security on ways of dealing with cases of sexual abuse and harassment of various kinds, including 'revenge porn'. The most recent campaign focused on addressing sexual harassment from drivers of taxi's that student use to get to and from campus. The taxi drivers would pass sexual innuendos and touch girls as they got into taxis. The students raised awareness amongst taxi drivers and got them to publicly pledge to stop sexual harassment of female students. Revenge porn is also prevalent on campus. Through theatre, the team has raised awareness on the extreme stigma created by revenge porn and got students to speak about it and help prevent it. The other SRHR issues that the team continues to address is abortion. The teams have raised awareness on safe abortions and put pressure on the university to re-open its clinic so that students have access to counseling and advice on safe abortion options. This involved putting pressure on senior members of the university community. The clinic was eventually re-opened in 2017 and the faculty staff (Dr. Lucy Edwards and Namupala Ndeshi) were acknowledged for working with students to effectively advocate for the clinic to be re-opened. The team also plans to continue to host workshops on safe sex and contraceptives for women, men, and the LGBTI community. The third focus for the team has been on baby dumping with a focus on men and their role because they normally are left out of the conversation. The final focus for the team has been conversations with different religious bodies on LGBTIQ issues.

At Eduardo Mondlane University student's research highlighted the prevalence of transactional sex amongst female students who have multiple partners; partners for sexual satisfaction versus partners for financial benefit and gifts. This brought up questions of transactional sex in a context of poor funding for students, especially for students who grew up in families whose income is insufficient to cover fees and upkeep. The question of the potential of sexual abuse and transmission of sexually transmitted diseases in such relationships is being explored by interviewing female students. They also highlighted the issue of lack of privacy in the residences where students share rooms and bathrooms due to the uncondusive architectural design of the bathrooms. This raised questions of safety, especially for female students who fear being sexually harassed when they are seen using toilets that have no doors. The group thus drew links between lack of privacy in student hostels and occurrences of sexual harassment.

Some campuses have begun to create various online platforms to strengthen the e-visibility of action- based SHRH work in university contexts. This is a vital strategy towards young black women's leadership and it is one of the key approaches of the project.

For example, the UCT YWL team have developed their own online newsletter and their first issue articulated their involvement in a symposium titled “Dreaming Feminist Futures” convened by the African Gender Institute. They convened a panel discussion that entailed an inter-generational dialogue between themselves and relatively older feminists such as Dr. Zethu Matebeni, Prof Pumla Gqola, A/Prof Mzikazi Nduna. As collaborators of the symposium, the young women offered intellectual and creative analysis of feminism from the perspective of being black wom?n in a historically white university. Their contributions and reflections on the symposium can be found in an online newsletter they produced (see link <https://medium.com/young-wom-ns-leadership-project/feminist-africa-22-and-dreaming-feminist-futures-b568549dbcaf>). The team has since grown their social media presence through facebook, twitter, blogs, and podcasts.

Facebook: <https://www.facebook.com/YWLPUCT/>

Instagram: <https://www.instagram.com/ywlpuct/>

Twitter: <https://twitter.com/ywlpuct>

YouTube: [https://www.youtube.com/channel/UC3c\\_p9I\\_scca0XS\\_EQLInCw?view\\_as=subscriber](https://www.youtube.com/channel/UC3c_p9I_scca0XS_EQLInCw?view_as=subscriber)

Blog/Medium: <https://medium.com/young-wom-ns-leadership-project>

SoundCloud: <https://soundcloud.com/ywlp-podcast>

Other campus teams have committed to improving their online presence by way of making short video clips with the help of students who members of YWL teams who have studied film and media.

### Debating Feminist leadership on SRHR

A challenge the project faces is different interpretations of feminist leadership that each team has taken. There is a growing separation between those who focus on advocacy to change policy or practice on SRHR that offers practical changes for young women's sexual rights, while other campus teams have interpreted feminist leadership as producing academic research outputs (in form of postgraduate degrees or peer-reviewed journal articles) on SRHR that contributes to building an academic career in higher education institutions. Since 2017, most teams are keen on exploring ways of ensuring the participatory action research projects feed into both interpretations of feminist leadership on SRHR. One way this is being done is a deliberate recruitment of postgraduate students (honours and masters) who will have the option of working with data produced by participatory action research to inform their honours and masters research thesis. Campus teams that have had large student teams and involved many students via awareness campaigns (e.g University of Namibia and Botswana), agreed to downsize their teams in 2018 so that they are able to offer individual support to a core team whose leadership can be supported via academic support and mentoring from alumni.

The book project, *Neva Again: Hip Hop Art, Activism and Education in Post-Apartheid South Africa*, which is edited by Adam Haupt (UCT), Quentin Williams (UWC), H. Samy Alim (UCLA) & Emile Jansen (Heal the Hood), and the related EP, *#IntheKeyofB*, can be regarded as a socially responsive because it aims to bridge the gap between scholarship and Cape Flats communities, which are often theorised extensively whilst also denying research subjects

a voice. The book project and EP feature contributions by scholars, artists and activism who work on hip hop art, activism and education. The book combines academic and non-academic forms of writing, including edited transcriptions of interviews, lectures and panel discussions, in order to offer a broader readership multiple points of entry into the key themes that the book explores. This allows users of the book and EP to use the work as a teaching tool, including for the purposes of developing multilingual literacy initiatives.

Adam Haupt also co-chaired and co-hosted the African Hip Hop Indaba Lecture Series on 13 September at CPUT. The event also aims to engage communities beyond the academic context in discussions about the arts, activism and education.

Herman Wasserman served as an expert member of the working group on “Freedom of Expression and addressing Disinformation” of the Broadband Commission on Sustainable Development of the United Nations Educational, Scientific and Cultural Organization (UNESCO). He was invited to provide input into a draft Media Ethics Code for the Qatar Media Hub and attend a workshop in Doha to discuss the code in February 2019. He was invited by the Namibia Media Trust to present at a workshop on Media Freedom and Sustainability in Windhoek, Namibia.

Wasserman was also a consultant on the United Nations Office for Drugs and Crime, Education for Justice Project (2018, 2019). He served as an adjudicator on the Rapport/Kyknet prize panel for non-fiction. He has been asked to provide media analysis for a range of local and international media, including the Canadian Broadcasting Corporation, The Economist, Voice of America, the SABC and others.





## Introduction

Through Stepping Stone supported by the Fox Foundation and UCT Centre For Media Studies (CFMS), UCT TV conducts a series of social responsive interventions. The training programme was initiated in 2016 as a way to provide aspiring filmmakers who are not registered for UCT Screen Production courses access to the knowledge, facilities, equipment and skills needed to make a start in film and video production.

Our vision includes offering learning opportunities to previously disadvantaged aspiring filmmakers and creating and distributing powerful and unique videos that can be used as educational and outreach tools.

This year, the unit hosted a documentary training course in partnership with Social Justice Coalition based in Khayelitsha, the Stepping Stone annual multicamera training course held during the June/July university vacation period. We also held a series of skills and career development workshops and seminars to Stepping Stone alumni through the ScreenCubator programme. On 11 November, begins the Stepping Stone single-camera / documentary training course.

The two Stepping Stone courses are:

1. multi-camera (studio talkshow) course - June/July
2. documentary production course - Nov/Dec single.

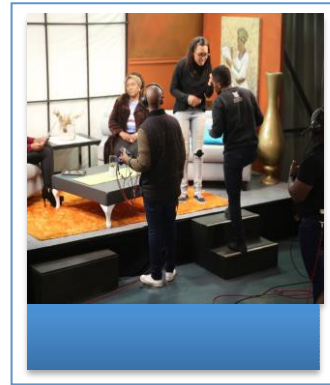
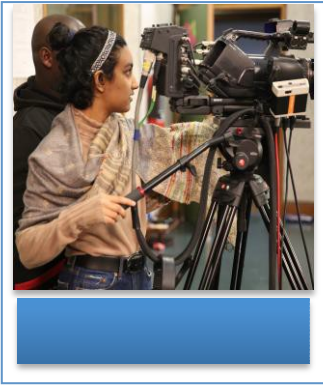
Now in its third year, the ScreenCubator programme has expanded with an increase in the number of workshops, and seminars, drawing interest from our Stepping Stone alumni and broader filmmaking fraternity.





## 2019 Courses

### June/July multi-camera course

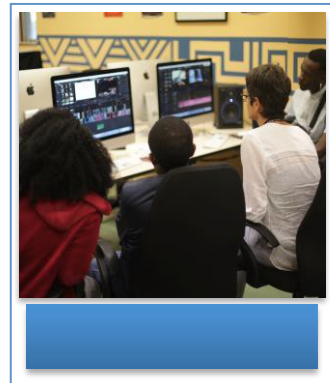
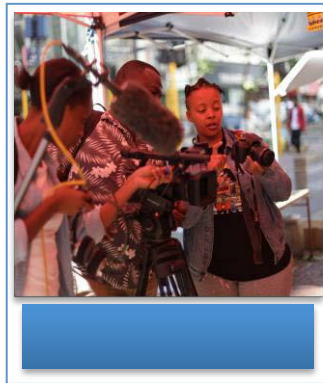
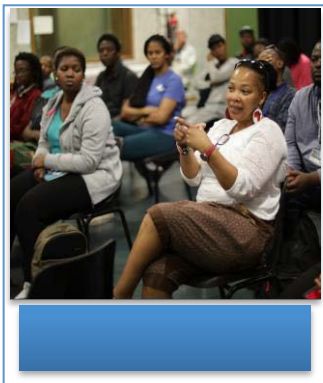


For the June/July multicamera course Stepping Stone partnered with US-based producer Steven Roy Goodman for the fourth time since 2012, to produce 5 episodes of a talk-show - *Higher Education Today (HET)* - which is broadcast in on PBS platforms in the United States of America.

This collaboration provided our course-participants with an opportunity to gain in-service learning on a professional, broadcast-standard talk show, tackling various social topics connecting higher education and the broader community.

Sixty-five applications were received for the course, from which eighteen participants were selected. They all successfully graduated.

### Nov/Dec documentary production course



We select twenty participants for the Nov/Dec documentary course through an open-call process.

Participants come from all walks of life, with last year's cohort including a professional scriptwriter, sports camera-woman, a former policewoman, a film and theatre performer, and two alumni who graduated from the multi-camera course earlier in July that year.

The course was a huge success, and the participants and clients alike were extremely happy with the five short documentaries that were produced.

The five films can be viewed here:

[https://www.youtube.com/playlist?list=PLqZGXqjj85uWDEL2tz\\_Ok5ehDAKgnBjkl](https://www.youtube.com/playlist?list=PLqZGXqjj85uWDEL2tz_Ok5ehDAKgnBjkl)

### Social Justice Coalition

Social Justice Coalition partnered with Stepping Stone for the second year, hosting a documentary training programme for their community members. The training programme is designed and coordinated by Sandiswa Tshefu, a Stepping Stone graduate from 2016. The programme is designed to equip community activists with skills to document their conditions to further different social justice campaigns. The programme has produced 8 films to date.

### ScreenCubator

The ScreenCubator programme has proven to be very productive and successful since it was introduced in 2017. The incubator came into being as a response to Stepping Stone graduates expressing a need for support with their first projects. Through ScreenCubator, Stepping Stone alumni receive support in the form of mentorship, access to equipment and facilities, as well as post-production. Candidates pitch their project to a panel of three people, including the project coordinator, a professional producer and an academic, who provide feedback and advice on the pitch and project.

We accommodate projects in various stages of development, pre-production, production and post-production, as well as continue to attract various experienced industry professionals to act in a mentoring capacity. The programme has supported a total of 14 very diverse projects to date, and we hope to keep this going as the project expands further.

### Career development seminars

In June, we hosted a series of compliance workshops in partnership with Wesgro (The Tourism, Trade and Investment Agency of the Western Cape) and Encounters International Documentary Film Festival. Through the partnership, ScreenCubator offered a series of workshops open to the public, to assist alumni and emerging filmmakers to register their companies, open business bank accounts and secure accounting and legal services. The workshops consisted of four hot-desks for CIPC company registrations, access to SARS for tax clearance certificates, a banking institution for the newly registered companies to open bank accounts, allowing participants to leave the workshop with a newly registered company with a bank account, tax clearance and BEE certificate.

The aim was to set emerging filmmakers up with the basic required compliance to access available grant funding support, such as from the National Film and Video Foundation (NFVF) as well as for them to be able to enter into co-production partnerships, and trade formally. In this way, Stepping Stone participants enjoy a comprehensive capacity building experience and support.

### [Childhood poisoning and street pesticides from multiple perspectives: Reflections on an interdisciplinary research collaboration in Cape Town](#)

Contact persons: Susan Levine, School of African and Gender Studies, Anthropology and Linguistics, University of Cape Town, Hanna-Andrea Rother, Environmental Health Division, School of Public Health and Family Medicine, University of Cape Town, Alison Swartz, Division of Social and Behavioural Sciences, School of Public Health and Family Medicine, University of Cape Town, Fritha Langerman, Fine Arts, University of Cape Town.

#### **Background to the project**

The project draws attention to the hidden perils of agricultural pesticides in the Western Cape, which have been repurposed by street sellers in urban townships to kill rats and other unwanted urban pests. As a contribution to this public health social intervention, Susan Levine has been conducting qualitative research on the causal relationships between child poisoning episodes and the household use of illegal street pesticides to safeguard homes from pests. Since 2008, Susan has harnessed her interest in building a critical health and medical humanities to address the crisis of childhood poisonings due to the ingestion of illegal pesticides. Drawing on perspectives from public health, medical anthropology, and fine art, the interdisciplinary team traces episodes of child pesticide poisoning from Red Cross War Memorial Children's Hospital (RXH) back to the homes and communities where poisoning events occurred. Susan highlights the layers of social injustice and economic inequality that contribute to child poisoning episodes and has worked hard to develop with Andrea Rother and other scientists and medical doctors, a range of educational and activist interventions to reduce the number of childhood poisonings. While it has been essential to demonstrate the dialectic relationship between the political economy of sanitation, waste removal, insecure housing, and the proliferation of rodents and other 'pests' in urban landscapes of the Western Cape, there has been an immediate urgency to produce alternative methods of killing rats, organize community members to attend safety workshops, as well as to develop social media platforms for disseminating information about the harmful consequences of illegal rodenticides. While immediate public health interventions for eliminating rats and household pests in non-toxic ways is critical, longer structural changes will require continued environmental and human rights activism to address racist processes of dehumanization and forms of structural violence that underpin human suffering.

### **Reason for work initiated/nature of the need underpinning the work**

The medical and health humanities is well poised to contribute to ameliorating childhood poisoning incidence and rat infestation using creative ways to draw public attention to these challenges, as well as to bridge the divide between science and the humanities through collaborative research efforts. As a form of social justice activism, we bring together diverse perspectives in attempt to address the problem of rats and childhood poisonings. Our research provokes a set of critical questions related to the intersection of the city, human-animal relations, and the spike in childhood poisonings related to the use of illegal pesticides. The medical and health humanities in South Africa has the responsibility to respond to the toxic layering of social injustice that lead to childhood deaths.

### **Key thematic issues addressed**

In the Western Cape Province of South Africa with its population of an estimated 6.5 million in 2017, a growing number of people live in urban townships (Statistics South Africa: 2017). Township residents are subjected to invisible and visible environmental harms and health related risks associated with inadequate sanitation and refuse disposal, limited access to clean water, insecure housing, and 'pest' infestations. To safeguard against diseases carried by rats, including salmonella poisoning and plague, and to eliminate pests from domestic spaces, some people resort to using unlabelled and illegal pesticides (Rother 2016; Rother 2010). The proliferation of such substances into urban spaces has increased significantly in both locally and globally.

These include rodents that destroy food sources, carry diseases and bite children; cockroaches that cause allergies and create stigmas linked to uncleanliness; and other poverty related pests including flies, bedbugs, and fleas (Rother 2016). These street pesticides are increasingly available and affordable, particularly in townships spaces. Although they are illegal to distribute in this way, the demand for cheap and effective ways to eliminate pests in township homes, keeps street pesticide sellers buying, diluting and reselling agricultural pesticides in unlabelled containers to those attempting to protect their children from contamination, and rid their homes of unwanted pests.

Illegal street pesticides are sold by street vendors in unlabelled beverage containers previously used for water, juice, or alcohol. Aldicarb, a highly toxic agricultural pesticide, is sold in strips of tiny black pellets that are mixed with rice or mielie meal for rats to eat. As these illegal pesticides masquerade as being safe to consume, they are all too often accidentally ingested. Unlike registered pesticides, street pesticides have no hazard and toxicity warnings on their labels. In South Africa, the active ingredients in street pesticides are not registered by the National Department of Agriculture, Forestry and Fisheries under Act 36 of 1947 for domestic uses due to their extreme toxicity, but rather, they are registered for agricultural use in food production (Rother 2008).

Where Rother's earlier research focused on the health risks of spraying commercial crops with poisons, her new research follows the poisons as they are moved off farms and demonstrates their illegal use as rodenticides. In low-income areas street pesticides are easily accessed and affordable. Rother (2010) identified, through laboratory analysis, that some of the key street pesticides being sold in Cape Town's townships in 2008 included carbamates and organophosphates.

As a result of the circulation of these illegal street pesticides, the Poisons Unit at the Red Cross War Memorial Children's Hospital (RXH) in Cape Town sees children with pesticide poisoning on an all too regular basis. As part of a larger project investigating the distribution and effects of illegal street pesticide distribution in Cape Town, ethnographic research was conducted in RXH with poisoned children and their caregivers. We illustrate how child poisoning from street pesticides is caught up in the toxic layering of poverty, politics, and South Africa's intractable history of 'race' and class oppression (Goldstein and Hall 2015). Increased reports in townships related to childhood poisoning in the aftermath of South Africa's 1994 democratic election are just one example of the widening gap between the rich and the poor. Democracy for the poor means increased reliance on the allocation by the state for basic services. Current political struggles and potential divisions within the country's leading party signal local and national levels of frustration. Insecure housing, poor rubbish removal services, inadequate sanitation, overcrowding and childhood hunger all contribute to incidents of childhood poisonings, and are thus enfolded modes of affliction.

**Nature of the partnerships involved and how they engage and contestations with the external participants/partners/beneficiaries; (Building partnership is challenging)**

The four researchers come from different disciplinary backgrounds and have over several years grappled with the subject matter and narrative accounts of child poisoning, together and separately.

Using an interdisciplinary approach to better understand these complex issues, we draw on the expertise of academics, medical professionals, and artists/designers. These complimentary perspectives offer multiple ways to think through child pesticide poisoning. How can we better understand the use and distribution of illegal street pesticides? What alternatives to using such pesticides exist? How is our understanding of suffering complicated when poisons are explored in relation to children, their caregivers, pests and the environment? Using child pesticide poisoning as a case study, we highlight the challenges and opportunities this collaboration afforded us to grapple with these questions, through different disciplinary lenses. In so doing, we highlight the ways that a complex picture can be painted: one in which toxicology, art, anthropology and activism might be woven together in order to address this challenge through deepening and challenging our understandings of this case.

Grappling with child poisoning through collaboration: introducing the research team

We are a multidisciplinary group of researchers working on the issue of child poisoning. Andrea Rother is an environmental health specialist who has been researching pesticide poisonings for many years. Susan Levine is a medical anthropologist with a passion for building a medical and health humanities at UCT. Alison Swartz is a social scientist trained in social anthropology and public health. Fritha Langerman is a fine artist, whose artistic contribution is drawn from her 2012 exhibition R-A-T: an associative ordering at the Iziko South African Museum in Cape Town. This work developed ideas presented in a previous exhibition Subtle Threshold (2009–10) that explored infectious diseases and the complex inter-relationship between zoological, human and microbial worlds. The images that Fritha produced have added a critical dimension to our presentation of the work, and in one key case, supported our claim that drowning rats is a more humane way to kill rats rather than using dangerous poisons. This intervention was essential in light of the fact that the SPCA condemned the drowning of rats on the basis of cruelty to animals.

Here is an illustration of one visual work from the project by Fritha Langerman.

#### **Aims of the social responsiveness activity and the values underpinning this work;**

The purpose of the original ethnographic research was threefold:

1. to gather narrative accounts of child pesticide poisoning in Cape Town,
2. to make the concrete connection between the use of illegal street pesticides and child pesticide poisoning, and
3. to better understand the poisoning experience from both the children's and caregivers' perspectives.

The purpose of the second phase of the research was to:

1. to develop critical interventions to educate people about the hazards of illegal rat poisons
2. to map the movement of rats and poisons in urban townships
3. to develop alternative ways of killing and disposing of rats

#### **Links with teaching and research and transformation.**

Susan supervised Alison Swartz's Honours thesis in anthropology, which forms the basis of their joint publication in the *British Medical Journal*. Susan is currently supervising Thulasizwe Clement's MA thesis, which is based on the network of street sellers and will attempt to trace the entry point of illegal pesticides into the hands of street sellers. Susan teaches the work of Andrea Rother in her second-year medical anthropology course, as well as to participate in an urban animals' research project jointly convened in South Africa, the UK, and India. Susan has presented aspects of this research at the ASA meetings in Oxford, the AAA meetings in the US, as well as in Belgium and

Sweden. The project has significant pedagogical innovations including the crossing over of disciplines and making anthropology relevant and applied in the context of radical forms of structural violence along lines of class, race, and gender.

### **Contribution or added value to UCT**

One of the challenges associated with understanding child poisonings like these is the complexity and layering of contexts from the most intimate – mothers trying to protect their children – to the global – the global trade in pesticides and pharmaceuticals. Through our work, we believe that multiple disciplinary perspectives have given us this opportunity to respond to a complex issue from multiple viewpoints.

We tend to speak a language fractured by disciplinary boundaries. Different disciplines are often concerned with taking up different questions with different approaches. Part of this has to do with question of scale, as we have suggested, but we are also interested in what different disciplinary approaches make visible. From a conventional public health point of view, for example, the behaviour of mothers who expose their children as they have done, to toxins, is reprehensible. The ethnographic lens we have been able to shine on the data demonstrates not that the behaviour is correct, but why, in context, it happens.

The question of how to intervene, once we have these perspectives, becomes more complex – poisoning of children by pesticides is not just a public health issue but a social justice issue. Though some of the intervention must of course focus on making sure that children do not get access to pesticides in the way that they do, our multiple lenses on the issue suggest that if social justice issues are not addressed, another form of toxicity may come to replace the poisonings.

Street pesticides are a prime example of the layered toxicity of pesticides that result in unacceptable harms. An unavoidable consequence of the intended toxicity of these products is the unintended negative consequences (i.e., unintended toxicity). Public health interventions are critical, and yet the historical inequalities that set the stage for poisoning trauma are complexly folded in with the layers of waste that attract rodents to specific areas in the Western Cape. Socio-economic oppression finds its material moorings in the waste of old bed springs, mouldy mattresses, medicine packages, plastic bottles, torn shoes, cereal boxes, stagnant bacteria filled puddles, plastic bags, and other domestic waste that is left to accumulate in heaps of hospitable mounds for rodents to prosper. Thus, residents in urban townships bear a dual burden of disease from exposure to pests and toxic pesticides (Rother, 2010).

Incorporating multiple perspectives in from these disciplines offers a richer understanding of the case, and yet, the work produced by each of these disciplines are fundamentally concerned with taking up different kinds of questions.

As social anthropologists, we are perhaps most concerned with understanding the multi-layered forces that coalesce to produce the social and political realities that lead to child pesticide poisoning. In this case, we wanted to describe and understand the lives of the women and children affected by pesticides poisoning.

There are multiple forces that come together to produce a single child poisoning event, which can be read a crisis. The fact that such events occur, that environments and a lack of service delivery create spaces where rats and other pests breed and enter homes and thus call for people to use such toxic pesticides, all speak to the structural violence and political neglect of particular people and spaces within our cities. Drawing on multiple perspectives in collaborative research, we have highlighted how perspectives from public health, medical anthropology and fine art have offered multiple lenses through which to better understand child poisoning events. In order to mitigate the effects of such events, and thus achieve the goals of social justice, the voices from these disciplines are necessary to explore. This paper has brought into focus the imperative for collaboration and the value of using the medical and health humanities as a framework through which to think through these challenges.

In the medical and health humanities, we can learn from the questions, methodologies and insights from other disciplines. It offers an opportunity to explore how threading these different perspectives and thinking through a different set of questions, a different cantering of various narratives can help us to build a complex picture: one in which inclusion, access and social justice might be an achievable goal.

### **Evaluation of social responsiveness activity and its impact; and the nature of outputs emanating from the work**

We have not yet conducted an impact assessment of the intervention.

### **High quality “use inspired basic research” which can be published e.g. in international journals.**

Andrea Rother has published widely in high impact factor journals. Susan Levine and the team have also published articles and book chapters:

#### [Inaugural Khoekhoegowab Foundation Language courses](#)

The Aboriginal /Xarra Restorative Justice Forum was established in early 2018 at the Centre for African Studies under the chairpersonship of lead civic activist and KhoeSan traditional structures leader Tauriq Jenkins and facilitated by Dr June Bam-Hutchison for UCT. This project is an integral part of CAS director's precolonial NIHSS-funded project which led systematically to the founding of this organic community research and knowledge production partnership building process over a period of five years. As a result of this work that gestated through grounded research and trusted work with the communities, the forum was established at CAS within a restorative justice framework with its values of anti-racism, anti-xenophobia, anti-homophobia and decoloniality. Of paramount



importance to the Forum's partnership with CAS is intellectual self-determination in order to avoid repeating the colonial patterns of knowledge formation and unethical research methods of the past, including intellectual ownership of indigenous knowledge.

In addition, the objectives of the Forum are placed within the context of restorative justice in relation to the Centre for African Studies' institutional role as a catalytic platform for broader transformation across all sectors of the university itself. The role of the Forum takes shape as a relational interface between the university (through CAS) and indigenous Khoi leadership where issues of cultural advocacy are discussed with recommendations forwarded on areas including language restoration.

Within its agreed values framework with CAS (as its safe space), the Forum has established eight Research Commissions: Human Remains, Ethics, Gender, Law, Language, Youth Education, Leadership Development and Research. All the Commissions are based and convened at CAS with its leading professors and the head of AXL as regular participants in the work of the Commissions, including the Language Commission. Professor Vawda (as Head of AXL) and Professor Deumert (Linguistics) supported the roll out of Khoekhoegowab in these Commissions. The Language Commission meeting held in late 2018 motivated that CAS and the Forum invite Professor Madiba of the Multilingual Education Project to the Language Commission. This led further to an extension to EMS to join the meeting of the Language Commission at CAS on how to take the teaching of Khoekhoegowab forward at UCT. EMS (Dr Medeé Rall) attended the next meeting in February 2019 and offered to convene in partnership with CAS (Dr June Bam-Hutchison) and the /Xarra Forum (Bradley Van Sitters) the short Foundation Khoekhoegowab course starting in May 2019. CAS (Dr June Bam-Hutchison) and EMS (Dr Medeé Rall) wrote the funding proposal together, drawing substantially and contextually on the work at CAS over the past years. Within this contextual background, the course is not convened in the traditional institutional way but co-convened in the spirit of decoloniality by the three parties: EMS (provision of the venue, registration of students, contracts of teachers, assessment, curriculum review and teaching pedagogies, certification, management of the funds), CAS (curriculum review and teaching pedagogies, recruitment of community participants, interface between the /Xarra Forum and EMS on political sensitivities, intellectual self-determination of indigenous knowledge and relevant pedagogies within an African context, A/Xarra Forum (teachers, assessment, interface between community and CAS, curriculum and pedagogy review, intellectual self-determination of indigenous knowledge).

The United Nations has declared 2019 the Year of World Indigenous languages, to preserve and protect endangered languages as a result of various factors, including the devastating direct consequences of colonialism, imperialism and genocide. The aim of this declaration is to raise awareness of the consequences of the endangerment of indigenous languages across the world, with an aim to establish a link between language, development, peace and reconciliation.

It is also intended to integrate indigenous languages into standard setting, empowerment through capacity building and growth and development through elaboration of new knowledge. These aims support the 2030 Agenda for Sustainable Development and the UN's 17 sustainable development goals.

Khoekhoegowab is an erased ancient language of southern Africa which Jan Van Riebeeck recorded as the language spoken by the indigenous people at the Cape in the 1600s. Loss of language represents loss of memory, culture and identity. It is an undisputed fact that UCT is situated on Khoe and San land and on Khoe and San burial grounds and associated sacred remains. In recognition of this historical fact of land dispossession and its link to the severe historical injustices suffered by South Africa's indigenous people at the Cape and countrywide, UCT has embarked on the inaugural implementation of Khoekhoegowab (under the VC's request to the forum in 2018 that it be led by CAS). This is part of the university's restorative justice programme for peace and reconciliation. The introduction of Khoekhoegowab as a Foundation Course in 2019 and plans for it to be implemented as the fourth official language at UCT underscores the similar historical importance of the renaming of Jameson Hall as Sarah Baartmann Hall (also led by CAS and the A/Xarra Forum requested by the DVC Transformation and the Naming of Buildings Committee). This renaming process was led by CAS in a country wide partnership consultation process, which led also to the formation of related community consultations on the reburial of the unethically acquired human remains of Sutherland's indigenous people.

In commemoration of the Year of Indigenous Languages of the World, CAS and the A/Xarra Forum's Language Commission held its workshop on 22 January 2019 and on 25 February 2019 at CAS to plan the inaugural Khoekhoegowab language programme to be launched during Africa month. Two teachers, widely recognised for their professional expertise, were identified after extensive discussion and consultation at CAS in consultation with Professor Deumert and Professor Madiba and the Forum's networks over the preceding months: Dorothea Davids, a first language speaker and teacher from Namibia, and A/Xarra Forum member Bradley Van Sitters. Both have studied at the University of Namibia, speak and teach Khoekhoegowab and have exemplary reputations as language activists.

The Centre for Extra-Mural Studies, which offers adult education programmes to university's community and its broader community, facilitates the standardisation, certification and course evaluation. The latter is done through a Curriculum and Teaching Review Committee comprising the Forum, CAS (Dr June Bam-Hutchison) and EMS (Dr Medeé Rall). This enables attendees to be issued with a UCT certificate and transcript in line with the university's academic standards.

The initial planned outputs from the Language Commission are:

- (i) The roll out of Foundation Khoekhoegowab language courses, which will include setting up a partnership with the University of Namibia.
- (ii) The development of an open-access digital Khoekhoegowab dictionary in partnership with UCT libraries and through copyright negotiations with Professor Haacke from the University of Namibia who authored the dictionary.

When the announcement was made on the university's website that an inaugural Khoekhoegowab course will be offered at the university there was enormous interest from members of the community and from the media. In excess of forty members of the community and UCT staff and students applied to do the course within days of the announcement. The local and international media carried the story with interviews being held with Dr June Bam-Hutchinson, Professor Mbulu Madiba and Bradley van Sitters on, amongst other media outlets, CNN, SABC3, eNCA, Cape Talk, Radio Sonder Grense, Bush Radio, Radio 786, Fine Music Radio and Radio 2000 (see below). This media coverage is not only worth many hundreds of thousands of Rands but has ensured that the university's reputation within higher education and its wider community is positive, showing a commitment to social justice and working closely with its communities.

As a result of the huge and unanticipated interest in and demand for a Foundation Khoekhoegowab course four twelve-week courses began on Monday 10 June. Places were made available at no cost to members of the Forum, UCT students and members of the West Coast community.

Fifty per cent of participants are paid a quarter of the usual language course fee consistent with the ethos of enabling those who cannot afford full fees to have access to higher education.

The aim of this language programme is to have a reach much wider than attendance in the class. The courses were recorded and will be made available online as will the materials and notes, in so doing extending the reach to meet the demand for knowledge about this erased language. Importantly this will be included in the archive of the Centre for African Studies that holds the records and preserves all the information related to the work it is doing with the Forum and the various Commissions.

Plans for 2019 and 2020 in this three way partnership include:

- Running four twelve-week courses starting in 2020 (four courses were run in 2019), which will include the first Intermediate courses to be attended by participants in the first class in order to advance their language skills.
- Offering two Khoekhoegowab courses in the 2020 Summer School programme.

- Writing an academic article for an accredited journal.
- Continuing with discussions and drawing up a proposal to curate an exhibition at the Iziko South African Museum in 2020 building on and extending the San rock art exhibition with a focus on indigenous language and its role in restorative justice.

Exploring the development of a 'decolonial' online Khoekhoegowab course which will enable Africans (as a priority group who have been disavowed from this language through political oppression and colonialism) to have access to learning this language. Because of its significantly sensitive nature, the process of prioritisation and inclusion will be workshopped with the Forum and EMS in the coming months. The Forum considers CAS the safe space for intellectual self-determination and protection of indigenous knowledge. The inclusion of relevant global indigenous communities in this project would be paramount as not to repeat the colonial patterns of knowledge production in the past.

The collaboration with the A/Xarra Restorative Justice Forum, the Centre for Extra-Mural Studies and the Multilingual Education programme has made it possible to engage with external participants and build partnerships with members of the community who have not previously had access to the university and university based adult education opportunities. The appreciation for this opportunity is evidenced in a number of emails from people who wanted to register for these language courses.

Dr June Bam-Hutchison's interdisciplinary research (history, language, heritage, epistemology, decolonisation in higher education knowledge partnerships, identities) and scholarship focuses on precolonial historiography. She has recently co-published Bam, J., Ntsebeza, L. and Zinn, A. eds., 2018. *Whose History Counts: Decolonising African Pre-colonial Historiography* (Vol. 3). African Sun Media. Earlier work in the area includes a paper published in Ntsebeza, L. and Saunders, C., 2014. *Papers from the pre-colonial catalytic project: volume 1*. She has worked in research and teaching partnerships with Forum member and Khoekhoegowab teacher Bradley Van Sitters over the past five years. This grounded organic research work and teaching led to their writing of a chapter on the establishment of knowledge production partnerships between universities and communities in this publication. She is currently producing a monograph on decolonising KhoeSan historiography based on research on the Cape Flats and the work with the A/Xarra forum. She is a qualified and experienced language teacher and holds language, education and history postgraduate degrees, including a Masters degree in Education which her co-convenorship of the Khoekhoegowab course draws from. She has lectured at universities in South Africa and globally over many years and worked in museums. She currently teaches a number of courses in African Studies at both undergraduate and post graduate levels: the undergraduate African Political Economy; Language, Globalisation and Identity and Representations of Africa courses; the post graduate courses (Public Culture Internship;

the African Studies Archive; Decolonial Theory and Practice and Problematising the Study of Africa. She also co-supervisors doctoral students in related fields.

Dr Rall's scholarship and research is in the area of representation in museums as well on the decolonisation of colonial era museums and museums with colonial collections. She has recently completed her PhD, *Recontextualisation in museum displays: refracting discourses over time*. Her teaching and course development is grounded in sound androgogical principles, informed by her Diploma in in Adult Education and a long career in adult education. She has published in numerous journals on the representation of the San in museums, and on the decolonisation of museums with colonial exhibitions and collections. She holds a Masters degree in Education (Applied Language and Literacy Studies) on museum display, *Museums and labelling: differences, discursive influences and professional identities*.

Their respective areas of scholarship and teaching entails high quality 'use inspired research which will be published in accredited journals, including international journals, as noted in the future plans for this programme, which is a strong social responsiveness initiative which contributes and add value not only the external constituency this course is aimed at and serves but also to the university through reaching a constituency vital to the decolonisation imperative of the university.

Please see the list of publicity generated by the offering of the Khoekhoegowab course below for further information about the courses.

The first four Khoekoegowab courses were offered in 2019 in partnership with the A/Xarra Restorative Justice Forum, the Centre for African Studies (CAS) the Centre for Extra-Mural Studies (EMS) and the Multilingual Education Project (MEP). This aspect of the Language Commission of the A/Xarra Restorative Justice is a Vice-Chancellor project and has been funded by the Vice-Chancellor's Strategic Fund and the Mauerberger Foundation

**The University of Cape Town (UCT) will offer a short course on Khoekhoegowab, the indigenous Khoisan language, through its Centre for Extra-Mural Studies (EMS).**

The first course runs from May to August, said Professor Mbulungeni Madiba, coordinator of UCT's Multilingualism Education Project (MEP) in the Centre for Higher Education Development (CHED). The project fosters multilingualism on UCT's campuses.

The bigger plan is for Khoekhoegowab to become a fourth language at UCT, said EMS director Dr Medee Rall. Partners in this initiative are African Studies' Dr June Bam-Hutchinson and the/Xarra forum's Language Commission. (A news story with further details on this project will follow at a later date.)

The announcement was made at CHED’s Africa Day celebration on 21 May, which also marked the United Nations International Year of Indigenous Languages. The event was part of a university-wide Africa Month series of lectures, seminars and panel discussions.

Madiba said MEP’s introduction of short courses in isiXhosa, and latterly Afrikaans, has taken off among the UCT community of staff and students.

“We cannot celebrate things that are African without celebrating the languages. One-third of the world’s 6 000 languages are spoken in Africa,” he said at their most recent certificate presentation.

Unfortunately, many of the continent’s indigenous languages, such as the Khoisan’s Khoekhoegowab, spoken by the [Nama](#), [Damara](#) and [Hailom](#) ethnic groups, are endangered. Colonialism is one of the main causes of this decimation, said one of the CHED event’s two speakers, Khoisan heritage activist Bradley van Sitters. Van Sitters’s presentation followed that of another researcher in the field, retired University of Namibia scholar Professor Wilfrid Haacke, a Khoekhoegowab language expert and also a UCT alumnus.

### **Kindling a language**

Today there are about 167 000 speakers of Khoekhoegowab. Roughly 39% are Nama and 60% are Damara, said Haacke.

He has been instrumental in efforts to preserve the language through various orthographies, or conventions for writing the language, dictionaries and glossaries (two-way with English or Afrikaans), compiled with Pastor Eliphaz Eiseb.

He has also worked with another prominent academic in this area, University of Namibia scholar Dr Levi Namaseb. The dictionary database has some 24 500 entries, later distilled into a glossary in 1999 and 2000.

Van Sitters said that the different names given to Africa, its settlements, rivers and natural features – and even its people – has a multi-layered history that reflects the different indigenous languages spoken through time, many now lost and others on the brink of extinction.

“Imagine being the only one [left] to speak a language?”

“Imagine being the only one [left] to speak a language?”

## **Journey of discovery**

He is often referred to as the “Walking Man”. As a younger man he left his home in Cape Town with his friend’s passport and crossed the! Gariep River into Namibia to find his Khoisan ancestors.

He is now a Khoisan language and heritage activist (“It’s Cool to be Khoi”), visiting communities and schools north and south of the! Gariep River where Khoekhoegowab is still in use.

As part of his campaign to “decolonise the tongue and the mind”, Van Sitters is also taking the language onto the Cape Flats, to communities such as Lavender Hill. Bradley van Sitters, a Khoisan activist, talked about visiting schools and communities to reignite the language and heritage of his ancestors. Referring to the lost names of Africa, he said the colonial ships that had reached the Cape shores centuries ago had been like missiles, creating craters of impact that still ripple outwards in language and culture today.

“The indigenous languages and knowledge were destroyed. The language that was once spoken here is no longer spoken ... Before this place,” he said, referring to CHED’s headquarters in the Huriꞑoaxa building, “there were people living here.”



**A ritual cleansing ceremony, watched over by Khoekhoegowab linguists and activists and Khoe clanspeople, marked the historic launch of the University of Cape Town's (UCT) Khoekhoegowab language short course this week.**

This is the first of four 12-week courses that will be presented at the university, thanks to funding from the Mauerberger Foundation Fund (MFF) and support from the Vice-Chancellor's Strategic Fund.

Khoekhoegowab is spoken by the [Nama](#), [Damara](#) and [Hailom](#) ethnic groups, now living predominantly in the Northern Cape and Namibia. It's one of the continent's many endangered indigenous languages.

By introducing Khoekhoegowab language courses, UCT has underscored the importance of 2019 as the United Nations International Year of Indigenous Languages. Its mission is to raise awareness of



the fragility of many of these languages, and establish a link between language, development, peace and reconciliation.

### **Extensive preparation**

The course is the result of extensive work and consultation with key entities, led by the Centre for African Studies' Dr June Bam-Hutchison, and has been over a year in the making.

The foundation stone was the establishment of the /Xarra Restorative Justice Forum in the Centre for African Studies (CAS). The /Xarra Forum's Language Commission invited UCT's Centre for Extra-Mural Studies (EMS) and Multilingual Education Project (MEP) to partner them on the project.

It is now co-convened by EMS and CAS, supported by MEP.

The course is an important beacon for inclusivity and diversity at the university, which is built on land formerly inhabited by the indigenous Khoe people.

Places on the first course, which started on 10 June, were made available to members of the /Xarra Forum, UCT students and members of the West Coast community. The fee for fee-paying attendees has been reduced, in line with the ethos of assisting those unable to afford higher education, said EMS director and co-convenor Dr Medee Rall.

### **Teach your children well**

The course's teachers are renowned in education and in the indigenous communities: Dorothea Davids, a first-language Khoekhoegowab speaker and teacher from Namibia and /Xarra Forum member, and Khoekhoegowab activist Bradley van Sitters. Both studied at the University of Namibia.

EMS, which offers adult education programmes to the university and wider community, will facilitate the standardisation, certification and course evaluation.

“The aim of the language programme is to have a reach wider than the attendance in the class. The course will be recorded and made available online, as will material and notes – also to extend the reach and meet demand for knowledge about this erased language.”

Importantly, this will be included in the archive of the Centre for African Studies that holds records and preserves all the information related to the work it is doing with the Forum and various commissions. In this instance, it includes its partnerships with EMS and the Multilingual Education Project.

## **History in the making**

Speaking at the launch, Bam-Hutchison, a co-convenor of the course, thanked MFF chair Dianna Yach for her unwavering commitment to the project.

“She didn’t look left or right; she said, ‘This is important... I’m going to make it happen.’”

MEP’s Professor Mbulungeni Madiba added: “How far it has come. We didn’t have funds, we didn’t know when we were going to get money to run this. I’m so excited that the MFF came in to assist us, and I believe we should see something bigger, that will become a heritage centre.”

Van Sitters, who conducted the cleansing ceremony in the Kramer quad, added: “This work did not happen overnight. This took a long, long time of preparation. We’ve encountered many obstacles; many challenges came our way. For us to stand here today is history in the making. So, our ancestors, the people that went before us – I know they are rejoicing, because that is what they have lost.”

“So, there’s a lot of memories of pain that we are enduring, and I’m glad that this is a circle that is now, today, activating those voices of restoration.”

Yach said a seed had been planted, which she hoped would mark the beginnings of a cultural centre or heritage centre for the Khoekhoegowab community that would go beyond language.

## **High demand**

Response to the Khoekhoegowab course has been overwhelming, said Rall.Safiye Yildiz, an honours student in human genetics, joined the course after she saw it advertised on a campus notice board. She speaks both Turkish and English, and is keen to add Khoekhoegowab to her linguistic skills.

“As a foreigner in South Africa, I want to make use of the opportunities provided, especially at the university, to enhance my knowledge regarding the country, the cultures and the people I engage with. One of the best ways to gain this is to learn the languages. I will also be attending an Afrikaans language course in [the] second semester.”

Academic Dr Halim Gencoğlu said that, as a historian, “I do believe that [the] history of a region can be properly learnt through the languages of the people belonging to the region”. “[The] Khoekhoegowab language ought to have been in the school curriculum long ago. When we understand and communicate with people from various communities, and recognise all minorities in society regardless [of] their belief and ethnicity, we can contribute to the spirit of Ubuntu.”

The multilingual Gencoğlu uses Arabic, Persian, English, Afrikaans, isiXhosa and isiZulu sources, “even if I am not fluent in all”. “Khoekhoegowab cannot be outside of this circle. Maybe I might not be fully fluent in Khoekhoegowab, because of its clicks or sounds, but I can learn its structure and cultural background. Certainly, these matters must also be re-examined in the decolonial context, which is what the University of Cape Town is currently doing.”

Other responses poured in via email:

“... thank you for what you and the university are doing to revive and keep the forgotten language alive. Much appreciated. This is far more than just learning a new language.”

“Could you please forward all relevant documentation and fees so that I can apply and make my ancestors proud?”

“I am a graduate student with a BCom degree. My ancestors are from the Griqua tribe. As much as I appreciate my heritage, I do not speak the language. I saw a post online that UCT will now be offering a course which aims at teaching the language again, and I am very interested. Could you please forward all relevant documentation and fees so that I can apply and make my ancestors proud?”

“I have just finished reading an article on UCT’s plan to introduce a Khoekhoegowab short course, and I think that this is a genius idea!”

“Firstly, allow me to begin with sharing my excitement for the fact that there is finally an institution of higher learning offering a course on Khoekhoegowab. We are absolutely thrilled.”

### **What’s next?**

Rall said plans for 2019 and 2020 include another four 12-week courses, starting in September. EMS will also offer a Khoekhoegowab foundation language course as part of the 2020 Summer School programme, as well as a course on the history and role of Khoekhoegowab. This will be presented by Bam-Hutchison.

### **UCT to offer indigenous Khoi language**

Wednesday 29 May 2019 - 3:02pm

eNCA

JOHANNESBURG - The University of Cape Town is offering a short course on Khoekhoegowab, an indigenous Khoi language.

The endangered Khoi language has been given a chance to take its rightful place after members of the broader Khoi and San communities have highlighted the plight of their diminishing culture.

Dr June Bam-Hutchinson from the UCT Centre for African Studies says there has been a flood of interest in the course from people across the country.

“We’ve had a flood of interest, beyond our expectations. A few dozen coming in already, as far afield as Kimberley”, said Bam-Hutchinson.

Heritage activist Bradley Van Sitters says although the short course is a step in the right direction, however, more needs to be done.

The short course will officially be launched in June.

UCT has stated that there is a bigger plan for Khoekhoegowab to become the fourth language at UCT.

Co-ordinator of UCT's Multilingualism Education Project at the Centre for Higher Education Development (CHED) Professor Mbulungeni Madiba explains to Kieno Kammies why this is so significant.

He clarifies that the term Khoisan is considered derogatory as there were never such people.

There were Khoi and San but the joint word was a term falsely created by academics in the 1920s as Patric Tariq Mellet explains in The Daily Maverick.

Madiba says he has been working with the Xarra Restorative Justice Forum comprised of the speaker of the Khoi languages. A number of buildings at UCT have been renamed after Khoi people. So UCT has really been finding ways of promoting the language.

— *Professor Mbulungeni Madiba, Co-ordinator - Multilingualism Education Project at the Centre for Higher Education Development (CHED) UCT*

Offering a short course was a further way of promoting the language, he says. It is widely spoken among the Khoi. It is a myth to say the language is dead. The Khoi languages and the Khoi culture add value to UCT's inclusivity.

According to IOL News, the Khoisan language activists have welcomed the institution's introduction and hoped that it will help to save the culture.

“Unfortunately many of the continents indigenous languages are endangered. We cannot celebrate things that are African without celebrating the languages. One third of the world’s 6 000 languages are spoken in Africa,” said Khoisan heritage activist, Bradley van Sitters.

IOL News adds that the first course will run from this month to August, and that the long-term goal was for Khoekhoegowab to become a fourth language at UCT after isiXhosa, English and Afrikaans.

“I was informed that there wouldn’t be enough interest in the language, and now years on they introduce this course, although it’s not enough. UCT must establish a department for teaching, research and restoration of this language, added van Sitters.

“There were about 167 000 speakers of Khoekhoegowab, of whom roughly 39 percent were Nama and 60 percent were Damara,” noted retired University of Namibia professor Wilfrid Haacke.

UCT launches Khoekhoegowab course, plans to make it fourth language option

2019-05-24 13:57

*Ethan van Dieman*

Starting this month, you can learn the indigenous Khoisan language Khoekhoegowab at the University of Cape Town (UCT).

Professor Mbulungeni Madiba, co-ordinator of UCT's Multilingualism Education Project at the Centre for Higher Education Development (CHED), said the first course runs from May to August.

Extra-mural studies director Medee Rall said the bigger plan was for Khoekhoegowab to become a fourth language at UCT.

The announcement was made at CHED's Africa Day celebration on May 21 which also marked the **United Nations International Year of Indigenous Languages**.

Madiba said MEP's introduction of short courses in isiXhosa, and latterly Afrikaans, has taken off among the UCT community of staff and students.

### 'Celebrating the languages'

"We cannot celebrate things that are African without celebrating the languages. One-third of the world's 6 000 languages are spoken in Africa," the professor said at their most recent certificate presentation.

Khoisan heritage activist, Bradley van Sitters, said at CHED's Africa Day celebration that many of the continent's indigenous languages, such as the Khoisan's Khoekhoegowab, spoken by the Nama, Damara and Haiom ethnic groups, were endangered.

Colonialism was one of the main causes of this decimation, said Van Sitters.

"The indigenous languages and knowledge were destroyed. The language that was once spoken here is no longer spoken..."

"Before this place... there were people living here," he said, referring to the CHED's headquarters in UCT's Huriꞑoaxa (Hoerikwaggo) building.

Plans to make indigenous Khoisan language UCT's 4th language

According to retired University of Namibia scholar Professor Wilfrid Haacke, a Khoekhoegowab language expert, there are about 167,000 speakers of Khoekhoegowab today.

Eyewitness News | 24 days ago

JOHANNESBURG - The University of Cape Town (UCT) will soon offer a short course in Khoekhoegowab, the indigenous Khoisan language, with plans in the works to make it the university's fourth official language.

The Khoekhoegowab course will be offered through UCT's Centre for Extra-Mural Studies.

Khoisan heritage activist Bradley van Sitters said unfortunately many of the continent's indigenous languages - such as the Khoisan's Khoekhoegowab spoken by the Nama, Damara and Hailom ethnic groups - were endangered. Colonialism was one of the main causes of this decimation, he said.

"We cannot celebrate things that are African without celebrating the languages. One-third of the world's 6,000 languages are spoken in Africa," he added.

According to retired University of Namibia scholar Professor Wilfrid Haacke, a Khoekhoegowab language expert, there are about 167,000 speakers of Khoekhoegowab today.

Referring to the lost names of Africa, he said the colonial ships that had reached the Cape shores centuries ago had been like missiles, creating craters of impact that still ripple outwards in language and culture today.

“The indigenous languages and knowledge were destroyed. The language that was once spoken here is no longer spoken before this place,” he said, referring to CHED’s headquarters in the Huriꝓoaxa building. “There were people living here.”

# Science Faculty

## Environmental & Geographical Science: The Peninsula Paddle

### **Background**

The first Peninsula Paddle took place in 2010 with four people who wanted to see if it was possible to traverse the Cape Peninsula along the city's waterways from Muizenberg to Woodstock beaches in kayaks. The possibility of paddling 27km through gruelling waters from one side of the Peninsula to the other had never been tested before. However, the underlying reason for initiating the challenge was to create a fresh awareness of the deteriorating condition of the city's waterways and to highlight the spatial and social inequalities across the city. Thereafter the paddle became an annual event with up to 80 paddlers – the maximum number of participants that could be accommodated – comprising individuals and interest groups who embraced adventure, social diversity and a keen sense of trying to make a difference by bringing attention to the conditions alongside these waterways and the state of the waterways themselves. Conditions were dire in these early paddles that the paddlers coined the phrase, “The health of the city is seen in its waterways”. In the earliest paddle event, large sections of the route were blocked with solid waste and floating weed. The paddle also presented an opportunity for the paddlers to engage in brief conversations with citizens along the route to understand the living conditions and how they were being affected by these waterways. This led to a second important slogan that was used in subsequent paddles: “We are all connected to the city's waterways”.

### **Reason for the Project**

The paddle route was purposely chosen to highlight poorer socio-economic sections of the city. The purpose was to deliberately raise questions about what we are missing in a city that fails to appreciate the opportunities that are offered by its waterways and how improvements could transform the city – socially and economically. These waterways offer public open spaces that could unlock the spatial divisions across Cape Town and offer shared public spaces for safe recreation among others. This focus is important because it is one of the underlying causes of the solid waste and litter that finds its way into the waterways eventually entering the sea. For many paddlers it was their first encounter of these conditions and challenged them to think more deeply about the state of pollution that went beyond blaming people for their poor behaviour that led them to discard rubbish into the waterways.

By 2019 over 380 people had participated in the paddle since it was first started. The paddle has encouraged a number of community-based groups to become actively involved in cleaning up rivers and beaches in the city. Each year the Peninsula Paddle brings people together to engage in a conversation and to share insights about how to address the problems caused by solid waste and living conditions. This form of discussion and learning recognises different viewpoints, and values a diverse community of stakeholders who are able to work together on shared problems.



Paddlers are drawn from various parts of the city including youth from the low socio-economic areas and from Khayelitsha where a group of paddlers are actively managing the wetland through a youth development programme. New insights to the problem of degrading waterways are found in the diversity of experiences.

Each year the Paddle attracts media attention and the event has been featured on national television, local newspapers and documentaries such as Carte Blanche and TEDX talks. This has often resulted in some form of intervention by City of Cape Town, for example, in mechanically removing solid litter and aquatic weed.

### **Key thematic issues**

Two key themes characterise the Peninsula Paddle. For many paddlers this is the first time that they are able to observe the condition of the city's waterways. Similarly, for people living in the neighbourhoods alongside, are curious to know why people are paddling through their polluted waterways. It is the start of conversation and spontaneous learning. These conversations build shared meaning. Each time new knowledge and information is generated by taking water quality samples on the day which helps to inform discussions between the paddlers, and is reported to City officials and interested journalists.

The second theme is the focus on the environment. The problems are obvious and are highly visible: discarded material objects, papers, dead animals, plastics and detritus, but solutions are more difficult to achieve. More evidence-based research was necessary to understand the problem and how this varies with seasonal conditions. UCT's Future Water Institute which is a lead organisation received funding that was raised by the Paddle to develop real time monitoring instrumentation and loggers to improve and refine an understanding of flow and water quality. The results of this work have been published in an international journal in Electrical Engineering. The data are likely to be used in seeking nature-based solutions in arresting the downstream flow of plastics and in reducing the nutrient levels in rivers such as the Black River.

### **Nature of the partnerships**

UCT's Future Water Institute and the Friends of the Liesbeek are lead organisations in organising the paddle event which is sponsored by a private investment company, ABAX Investments. There is a close relationship between all three organisations with the shared interest in generating new knowledge and actively seeking to improve the waterways. A number of other Non-Government and Community-based Organisations have also contributed and each makes a contribution to the event and reporting that follows. These include the Zandvlei Trust, the Cape Town Environmental Education Trust, Wildlife and Environment Society, and the Khayelitsha Canoe Club.

Each of these organisation is responsible for recruiting paddlers, providing transport, refreshments, information and arranging logistics on the day. Further interactions in the post-paddle event are often shared on Facebook and on the paddle website.

### **Aims**

The Peninsula Paddle is a community-based advocacy campaign that raises concerns about the health of the city's waterways and surrounding conditions and highlights issues requiring research attention. The waterways are blue and green corridors that are the veins of the city that connect well-established suburbs with some of the poorest parts of the city. The central value and realisation is that everyone shares the waterways and is responsible for the condition.

The aim is also to remind the City to continue to fund the maintenance of the waterways and to fund an Expanded Public Works programme that employs people to clean and improve the waterways.

The challenge is to find new ways of enabling citizens to enjoy and value these waterways - a long term vision of the Peninsula Paddle.

### **Teaching, research and transformation**

Teaching and learning about water quality and the interpretation of the results is conducted on the day and reported later on the Paddle website. A wider audience is reached through social media reports.

The Paddle event has sponsored the development of ground breaking advancements in surface water monitoring technologies and real time monitoring. The support has resulted in the first MSc thesis on understanding stormwater behaviour and harvesting potential in the Liesbeek River.

The paddlers are well represented from across the city. Initially it was difficult to attract black paddlers, but this is no longer the case. The City of Cape Town's youth development paddlers, many of whom live in poor socio-economic suburbs, have been enthusiastic participants. More recently the event has been joined by the Khayelitsha Canoe Club. This is an important constituency because the Canoe Club has a similar vision to the Peninsula Paddle. They have learnt that collecting papers and plastics is not the best way to motivate others to clean up the waterways and have chosen to teach watercraft skills. The result is a remarkably clean wetland adjacent to an informal settlement. The knowledge and experience from the club members is an invaluable departure point from which to address other parts of the city's waterways.

## **Value to UCT**

Each year UCT students participate in the paddle drawn largely from environmental science, engineering and social disciplines. Most are enrolled in environmental, water and engineering post-graduate courses. The emphasis is on transdisciplinary learning and problem solving e.g. sustainable drainage, water quality monitoring, citizen science and community-based advocacy.

UCT is highly visible through the event largely through the involvement of Dr Kevin Winter from the EGS Department and Future Water Institute.

## **Added value to external constituencies**

Over the years the event has advanced the conversation and improved our collective and shared understanding about the environmental health and well-being of people living alongside the canals. The concept of ‘hope’ emerges as practical thought that is built on the collective experience of working together to accomplish a journey with purpose. It is also informed by new and transformed relationships from a diversity of committed citizens. For example, stories and experiences, which were informally shared along the route by members of the Khayelitsha Canoe Club, provide new insight and encouragement about how we could address the problem of solid litter at the wetlands park.

## **Evaluation of social responsiveness**

There are four notable signs of progress:

- The event attracts a diverse group of paddlers from different parts of the city – it is not a ‘middle-class’ thing that so often characterises environmental advocacy. Nearly 380 paddlers have participated in the event since it began, which includes youth from the neighbourhoods of Ottery, Parkwood and Lotus River. This year the Khayelitsha Canoe Club is partnering with the Peninsula Paddle to share knowledge and experience about similar issues in different parts of the city.
- Three weeks after the 2011 Peninsula Paddle, (then) Mayor Patricia de Lille founded an Expanded Public Works Programme employing over 200 people to clean and restore badly degraded rivers and wetlands in the city. These teams of men and women are responsible for removing weeds from choked river systems and the results are visible. In the Black River, for example, magnificent flamingos and other birds regularly stop their daily flight paths across the peninsula to feed in the river. They can see the water now, whereas previously it was covered in aquatic weed. The programme is ongoing and each year the Peninsula Paddle reminds the City about the importance of this programme and the need to sustain it and expand the work.

- In 2019 the City of Cape Town drafted its first water strategy in response to the Day Zero scenario, with an overall vision to become a water-sensitive city by 2040. To do this, the City will need to do things differently like shifting its approach to stormwater infrastructure to sustainable drainage systems, restoring ecological services and protecting urban ecology. The Peninsula Paddle participants were engaged in these kinds of conversations from the outset.
- Managing multiple water bodies with limited data is impossible: “You can’t manage what you can’t measure”. The City collects monthly water samples at nearly 40 sites across the city. While the data provides historical trends, it is difficult to access and single samples provide only a snapshot of water quality at the time of collection. UCT’s Future Water Institute set about addressing this problem by introducing digital sensors and loggers that are capable of delivering near real-time data for a limited number of water quality parameters as well as flow measurement. These instruments have been successfully trialled in the Liesbeek River and form part of an MSc thesis. It is an example of how scientific knowledge is informing new understanding about managing the waterways.

The initiative has led to some publications i.e. The development and testing of new water quality sensor and instrument was published in recent journal and Fell, J., Pead, J. and Winter, K. 2019 Low-cost Flow Sensors: making smart water monitoring technology affordable, IEEE Consumer Electronics, 10.1109/MCE.2018.2867984

Other reports and media coverage are available on [www.peninsulapaddle.wordpress.com](http://www.peninsulapaddle.wordpress.com)

## Engaging with city officials and citizens to understand water governance and how to adapt to water stress

Contact person: Gina Ziervogel

It is agreed that water availability and access is a growing concern in cities. There is less agreement on how best to ensure urban water resources are managed sustainably. Various challenges need to be juggled including climate change and increasing extreme events, increasing urban populations, surface hardening, covering water costs and ensuring access to water for all among a number of other stresses.

As a researcher who works on climate adaptation in cities, and is interested in how to adapt to climate stress, water access and use in cities was a natural entry point. I received funding from the AXA Research Fund to look at urban water resilience in 2016. I intended to understand the extent to which diverse perspectives and approaches to water management were being considered or whether the City government actors were excluding perspectives outside of the City administration.

My project activities started as the drought was developing in Cape Town and so the project shifted to use the drought as an entry point. My work on understanding the governance of the drought at the city level and understanding water access issues at the community level, has enabled me to contribute to public benefits and generate and share new knowledge that is relevant to urban water resilience, climate change adaptation and social justice.

The partnerships and involvement that I have had at the City government level has revolved around research, facilitation and involvement in City level forums. Specifically, I was nominated to serve on the City of Cape Town Water Resilience Advisory Committee in August 2017. Through this ongoing role I have provided input to various City of Cape Town processes and strategies. I have actively contributed to the City's Water Resilience Strategy and helped to organise stakeholder input into the strategy for civil society groups and for academics. Through the drought I worked with colleagues to facilitate a number of learning forums where we created an opportunity for City officials to reflect in a safe space on their lessons learned during the drought. This was followed up by the Drought Response Learning Initiative (<https://www.drought-response-learning-initiative.org>), where 30 interviews have been filmed to enable researchers and others to have access to diverse perspectives on what happened during the drought. This is a unique methodology that actively encourages learning and reflection on the crisis.

Through the African Centre for Cities, I undertook research for National Treasury's City Support Programme to produce a report on lessons learned from the drought in order to share lessons with other municipalities in South Africa. This report and associated briefing note were developed in close collaboration with City of Cape Town officials and was presented at the National Budget Forum that feeds into the country's metro's decision making. Importantly for me, the City and other researchers shared this work widely as they felt it captured important aspects of the drought response that were not easily accessible.

Drawing on the interview material and my ongoing engagement with the City, I worked with a journalist to produce a book, *Day Zero: One city's response to a record-breaking drought*.

This book aimed to ensure that the citizens of Cape Town and interested parties globally, could understand more about what happened within the City during the drought. It focused on the different actors that contributed to the drought response including the water managers, the politicians, the researchers among others. So much of what happened during the drought was not public knowledge and I felt strongly that citizens needed to better understand urban governance in order to hold government accountable and understand what their role might be in building water resilience. Linked to the book, a short video was developed that I know has been used in multiple teaching environments both in Cape Town and internationally. The book has also been used by high school teachers in Cape Town, as a resource for their students.

A core part of my research project is around multi-scalar governance, understanding the activities, relations and outcomes of interaction between local government and citizens. In order to understand how low income communities experienced the drought and broader water related issues, I have worked with the Western Cape Water Caucus (WCWC). The WCWC includes residents mainly from low-income communities and they have been working on water issues and activism for 20 years. Through my AXA research funds I have supported two inter-linked processes around action research and story collection with the WCWC. The year-long action research process is driven by the caucus, developed in line with their needs around wanting to better document people's water struggles at the household level. They are interested in how they mobilise and respond to water issues. One of their requests was also to strengthen their research skills. Related to this, the story collection process emerged, where we have partnered with Stellenbosch University to use the Sensemaker methodology to capture stories. Through two four-day workshops we have collaboratively developed questions around water access. The caucus members have gone out to their communities and collected stories that they have uploaded. The second four-day workshop analysed these stories and explored how to present them back to the communities and use for engagement in other ways. In particular, we are engaging with the City of Cape Town Water and Sanitation department around ways to feed back these stories but also explore how this data might be integrated in their work more systematically going forward. This is an important avenue for ensuring that community generated data is better integrated into City decision-making, which is a priority outlined in the new Water Strategy.

This experience and research has fed directly into my teaching. In undergraduate classes I have drawn on the material directly. I have run a project with third year students for the last few years where I have got them to put together videos about vulnerability. In the last two years these have been specifically about how residents and groups in Cape Town have responded to the drought. Through my involvement in this work, I have got honours and masters' students to engage in these questions and produce theses that reflect on the drought and water resilience perspectives. I have also used material collected to publish in international journals and have fed this work into the IPCC. One of the student theses has also been developed and submitted to an international journal.

I have had various comments back from City officials appreciating both the input in meetings and contributing concepts to their work.

## The Seed and Knowledge Initiative

Contact persons: Rachel Wynberg: [Rachel.wynberg@uct.ac.za](mailto:Rachel.wynberg@uct.ac.za) Jaci van Niekerk:

[Jaci.vn@gmail.com](mailto:Jaci.vn@gmail.com)



The Seed and Knowledge Initiative (SKI) grew out of longstanding synergistic relationships between the Bio-economy Chair at the University of Cape Town and two NGOs, Biowatch South Africa and the Earthlore Foundation. Initiated in 2013, SKI has completed a pilot phase, a four-year first phase, and in March 2019, entered into a second four-year phase, with all phases supported by Swiss Development Cooperation. With 13 partners in the southern African region (South Africa, Zimbabwe, Malawi, Zambia) representing a range of civil society and farmer support organisations, SKI has galvanised into a robust, long-term collaboration on agroecology, seed and knowledge systems.

### Background, aim and objectives

The primary aim of the Seed and Knowledge Initiative (SKI) is to increase food sovereignty for participating farmer communities through resilient, farmer-led seed systems and agroecological practices. It does this by strengthening, spreading and deepening the practices of agroecology and farmer-led seed systems among participating farmer communities; by strengthening the agroecology and farmers' rights movement in southern Africa; and by influencing decision-makers to support policy initiatives towards achieving the aim. Research comprises a core, cross-cutting theme across all this work.

As one of the founding members of SKI, and the only research institution, the SARChI Bio-economy Chair Rachel Wynberg brings research and policy expertise to the collaboration as well as a track record of working on issues relating to traditional knowledge, biodiversity and social justice, with an active hub of postgraduate students and post-doctoral fellows developing around this theme. The initiative also brings together a range of tertiary research institutions from South Africa and the region, with the aim of building a research platform that stimulates critical thinking on these issues, grooming a new generation of scholars producing “socially robust” research, and advocating for research approaches that benefit smallholder farmers and target their needs.

#### Nature of the need underpinning the work

The initiative’s programme grew out of a need to reverse the environmental degradation and human health toll caused by the widespread promotion of industrial agriculture. As noted in the [recent IPCC report](#), agriculture, forestry and other land-uses produce almost a quarter of greenhouse gas emissions, thereby contributing significantly to climate change. It leads to chemical pollution through the use of pesticides and herbicides, changes nitrogen and phosphorous cycles through the addition of synthetic fertilizers, and typically relies on irrigation, thereby impacting freshwater stocks.

Seeds, as the very essence of life, are also under siege as they increasingly become commodified. Since 2000, the growth of the commercial seed market has almost tripled. More than 63% of the world’s commercial seed is now owned by six corporations. New proposed mergers will reduce this to just three. These concentrations of political and economic power not only reduce farmers’ choices, but also signal profound changes for Africa given that traditional seeds provide the mainstay for Africa’s 500 million small-scale farmers and are also at the heart of rich and varied cultures.

Many argue that the basis for alternative agricultural systems should be the myriad ecologically based agricultural approaches developed and practiced by the world’s 1.5 billion smallholders, family farmers, and indigenous peoples. Key characteristics of these alternative farming systems, which fall broadly under the umbrella agro-ecology, include the use of technologies based on ecological knowledge, farmer-led seed systems, a focus on family farming and local production, low levels of external inputs, and their diversified nature. These are core components of SKI’s work.

#### Key thematic issues

A broad range of thematic issues are addressed through SKI. UCT’s work to date has inter alia explored the resilience of farmer-led seed systems and linkages to food security; implications for small-scale farmers of genetically modified (GM) crops and the contamination of local seed systems by transgenic crops; alternative modes of governance for assessing and evaluating GM crops; farmers’ rights and policy choices; and agroecology in curricula and learning. Overarching themes centre on social and environmental justice; alternative agricultural futures; and rural development.



## An overview of impacts

The level of social responsiveness of the initiative can be measured by examining the nature of its main outputs. These reflect the inclusive nature of the initiative, and bear testimony to the engaged practice of the research.

To date, some 13 post-graduate students within the Bioeconomy Chair (4 PhDs; 5 Masters; 4 honours) and 3 postdoctoral fellows have been involved in work linked to SKI, undertaking relevant research which not only suits their background and strengths, but which also contributes to a more diverse discourse on agriculture and rural development.

Through combining robust scholarship with “real world” exposure, the capacity of these emerging researchers has been strengthened, with exposure to new networks, knowledges and funding opportunities. They have been given platforms at international meetings and have been encouraged and supported to present their work at national and international conferences and workshops. All students are required to provide substantial feedback to the communities or individuals with whom they work, to enable benefits in areas where research takes place, to build local research capacity, and to integrate research into local processes where appropriate. Students are expected to give feedback on their research in ways which are accessible to participants, for example, if summaries of research findings are printed, these are translated into local languages.

The suite of research projects underway range from understanding links between seed and food security (PhD Bulisani Ncube), the resilience of local seed systems (PhD Kudzai Kusena; part published in *Agriculture and Food Security*), the role of household seedbanks (led by Jaci van Niekerk, published in *Agroecology and Sustainable Food Systems*), the importance of ‘orphan’ or under-utilised crops (Post-doc Laura Pereira) and the magnitude of changes and deskilling in agricultural knowledge, both among scientists and farmers (PhD Maya Marshak). A cover article by the influential American journal *Environment Science and Policy for Sustainable Development* presented research conducted by Rachel Wynberg, Laura Pereira and Yuna Reis on agroecology as inclusive innovation in emerging economies.

A book titled “Agroecology, Seed and Knowledge Justice: Critical Perspectives on Africa” is currently under development, due for publication by Practical Action UK in 2020. The book is edited by Bio-economy Chair Rachel Wynberg, with many of the co-authors members of SKI partner organisations, whilst others are post-graduate students. The book aims to shift discourse about agriculture, and uniquely, to provide African perspectives in this rapidly evolving field.

In addition to peer-reviewed articles, other publications have been written specifically with non-academic readers in mind, including publications and podcasts for *The Conversation*, four policy briefs, and regular popular updates on research activities, published on the [Bioeconomy website](#). SKI also has an active social media presence.

Dissemination of papers linked to SKI have taken place at a number of fora, including in Uganda (International Society for Ethnobiology), Bhutan (International Society for Ethnobiology), the Hague (Global Governance/Politics, Climate Justice and Agrarian/Social Justice: Linkages and Challenges), Tromsø (Social and Ethical Assessment in the Regulation of GM crops), Clanwilliam (Indigenous Plant Use Forum/Society for Economic Botany), and Oxford (Conference on Food and Cookery).

As a co-founder of the [Seed and Knowledge Initiative](#), UCT has played a central role in developing its strategy, supporting fund-raising and conducting research. UCT has also initiated a range of seminars, conferences and public fora. An annual two-day research seminar, held each year since 2014 has attracted approximately 50 participants and has forged links between academics, government departments and policy-makers, farmer-based organization and civil society organisations, from countries across southern Africa. The seminars have also provided a platform for post-graduate students and post-doctoral fellows to present their work, to be exposed to a range of diverse views, and to build their networks. A research forum has been catalysed in Zimbabwe, bringing together a wide pool of scientists, practitioners, development agents, policy makers, researchers and students interested in dialogues around traditional seed and associated knowledge.

UCT also led an [international agroecology conference](#) in January 2019 represented a culmination of these activities, with more than 250 participants from 12 countries, a wide range of different sectors and more than 60 inputs. The conference presented a rich “stew” of science, knowledge, practice, policy and creativity, alongside an arts programme which explored pertinent themes such as biodiversity and pollinator loss through multi-media installations. A concerted effort was made to supply food sourced from local, small-scale, sustainable sources. Some of the producers were invited to attend the conference and share their experiences with practicing agroecology in and around the city of Cape Town. Keynotes were presented both by academics and by farmers, and focused spaces were created to ensure that the conference shifted beyond an academic conference to include strongly the voices of farmers and civil society organisations. Many commented, including FAO keynote Dr Caterina Batello, that it was “the best” conference they had ever attended.

More information

For more information about SKI and its core partners, visit the following websites:

<https://seedandknowledge.org/> <http://bio-economy.org.za/> <https://biowatch.org.za/>  
<http://earthlorefoundation.org/>

## Monitoring the leakage of plastics into the environment

Contact person

Although nowhere near as serious as the climate crisis, waste plastics have significant ecological, economic and societal impacts if allowed to leak into the environment. The last five years have seen a marked increase in awareness of these threats, with policy makers and the general public finally heeding the calls made by natural scientists since the 1980s to address this largely avoidable problem. We already know enough to act to reduce plastic waste; the pressing research needs now centre on devising measures to reduce plastic leakage. The main role for ecologists is to monitor the efficacy of these mitigation measures.

### **UCT's long pedigree in plastics research**

The impacts of waste plastics are felt most keenly in the sea, and South Africa has a long history of research in this field, dating back to the late 1960s when George Hughes first reported plastics in the stomachs of turtles. Since the 1980s, UCT researchers have been at the forefront of this work, assessing the severity of the threat posed by plastics, and designing effective litter traps to prevent plastic from urban catchments reaching the sea. Ironically, while these traps have been installed in several countries overseas, they have yet to be adopted in South Africa.

The FitzPatrick Institute of African Ornithology has been recognised as a DST-NRF Centre of Excellence in Birds as Keys to Biodiversity Conservation since 2004, and has an enviable record for cutting edge environmental and conservation research of broad societal relevance. The Fitztitute started research on the impacts of plastic ingestion on seabirds in 1984, following increasing numbers of reports of plastic in seabird diet samples. The original demonstration of false satiation as a result of stored plastic loads in bird stomachs and of the transfer of persistent organic pollutants to seabirds from ingested plastics resulted from Peter Ryan's MSc dissertation.

At the time there was virtually no information on the amounts and types of plastics in South Africa's marine ecosystems. This is the first step to infer where marine plastics come from, which is essential to design effective mitigation measures. As a result, Peter and Ma-Re's Coleen Moloney conducted a synoptic survey of macro and microplastics at 50 South African beaches. They have repeated this survey every 5 years since then, in what is one of the longest-running plastic monitoring projects.

By the 1990s, it was clear that plastics had significant impacts on marine biota, so attention shifted to assessing the economic costs of plastics. Conservation biology masters student Anna Ballance studied the value of clean beaches to local tourism, and Debbie Swanepoel documented the growing cost of cleaning beaches. Despite these efforts, the amount of litter along the South African coast continued to grow. In 2015, a study published in *Science* ranked South Africa as the 11th worst nation globally for the release of plastic into marine environments, due to the large per capita waste production (2 kg

per person per day, of which 12% is assumed to be plastic) coupled with a worryingly high proportion of ‘mismanaged’ waste (56%).

### **Forging partnerships for change**

Although tackling the plastics problem should be simple – all we need do is stop the inappropriate disposal of plastic waste – it has proved remarkably hard to address. Numerous approaches are being explored to reduce plastic wastes, including improved product design and incentives to re-use or recycle plastics, extended producer responsibility for packaging beyond the point of sale, material substitution, and even banning plastics in high-risk applications.

To effect such changes requires action across all levels of society, from government to civil society, and throughout the plastic user chain. In South Africa, the biggest short-term gains will be made by improving solid waste management and intercepting debris in runoff, particularly from urban areas, because much of the problem stems from the inability of local governments to effectively manage solid waste.

Unsurprisingly, the plastic industry has been sensitive to the plastic issue for a long time. The Plastics Federation (now Plastics SA) has supported the field costs of the coastal plastic surveys since 1994. Working with plastic producers has encouraged the adoption of measures to reduce leakage of industrial pellets, which are the feedstock of the plastics industry. Operation Clean Sweep, initiated in the 1990s, has seen a marked decrease in the numbers of pellets ingested by seabirds and turtles off South Africa over the last two decades.

More recently, partnerships have been forged with various government agencies and NGOs. Since 2012, Peter Ryan has served on several UN scientific working groups established to address the plastics problem, and he chairs the Western Indian Ocean Marine Science Agreement’s Association’s Group of Experts on Marine Plastics. His recent paper in PNAS showing that many drink bottles in the South Atlantic are dumped from ships has shone a spotlight on this illegal practice, opening doors for dialog within the shipping industry. Peter also advises different facets of national government on the plastics problem in South Africa, and works closely with several NGOs, including the Sustainable Seas Trust, which runs the African Marine Waste Network.

There is much talk currently about the need to promote ‘triple helix’ partnerships between government, industry and universities. This ignores the importance of civil society, which also has a key role to play in driving critical environmental change. In 2015, an approach from the surfing community, who wanted to get involved, resulted in the start of monthly clean-ups of intertidal litter in the rocky shore at Muizenberg corner. This not only generated useful data on how intertidal rocky-shore litter differs from the much better studied sandy beach litter, but also resulted in the formation of the Beach Co-op, an NGO dedicated to tackling marine litter through education and outreach.

### **A two-way street: benefits for research and education**

Working closely with external partners ensures that research initiatives remain relevant. The main area of ecological research is to develop robust monitoring tools to assess the efficacy of mitigation measures designed to reduce plastic leakage. Historically, most assessments of the amounts and impacts of plastic have been done in marine ecosystems but monitoring to assess whether interventions are effective or not is best done as close to the source of leakage as possible.

Over the last two years, MSc student Eleanor Weideman has been estimating the amounts of plastic in rivers and urban wastewater. This not only provides a baseline against which future measures can be compared, but also helps to address one of the major outstanding questions regarding plastics. Both globally and locally, estimates of the amounts of plastic leaking into the sea vastly exceed the amounts of plastic found at sea. Her initial results suggest that the projections of plastic inputs from South Africa might be grossly inflated.

Another seeming mystery is why there has been little apparent change in the density of floating plastic at sea, or ingested by seabirds, over the last two to three decades, despite plastic production continuing to grow at some 8% per year.

Indeed, in the North Sea, the amount of plastic in seabirds has actually decreased in the last 20 years. PhD student Vonica Perold is exploring how plastics in seabirds have changed since the 1980s, and how this relates to the availability of plastics at sea.

The plastic programme is just one of the Fitztitute's applied research initiatives. In this time of unprecedented global change, at least within the modern human era, there is an ongoing trend for students to want to work in fields where they feel they can "make a difference". Studying in applied fields also help students transition into the working environment.

# Engineering and Built Environment

## Lived Experiences of Housing Struggle and Policy

Contact persons: Sophie Oldfield (African Centre for Cities, UCT), Noah Schermbrucker and Dolly Mdzanga (Peoples Environmental Planning)

A collaborative research partnership with Peoples Environmental Planning, their long-term housing movement partners, and the African Centre for Cities forms a core element of the curriculum for the MPhil in Southern Urbanism, a new course-work based Masters (run by the African Centre for Cities and located in the Department of Environmental and Geographical Science, see [www.africancentreforcities.net/programme/mphil-southern-urbanism](http://www.africancentreforcities.net/programme/mphil-southern-urbanism)) and the UCT-based semester of the new Masters in Critical Urbanisms at the University of Basel (see [criticalurbanisms.philhist.unibas.ch](http://criticalurbanisms.philhist.unibas.ch)).

The collaborative project is part of the City Research Studio, a core course, which takes students out of the classroom and into the city. More specifically, this part of the City Research Studio helps students engage with lived experiences of housing policy in Cape Town, with neighborhood level organizing and building of homes and with NGO support and advocacy on housing. The course also immerse student in the practice of qualitative and collaborative research methodologies.

In our collaborative design, Noah and Dolly, with Shawn Cuff, PEP's Director, identify projects, which would benefit from documentation and a research process, while Sophie designs and coordinates the students, building their curriculum, supporting their research work, and teaching the UCT-based elements of the City Research Studio.

Two projects have been completed: The first in collaboration with Ruo Emoh in Mitchells Plain, see *Ruo Emoh, Our Home, Our Story: From Housing Struggles to Hope in New Homes* (2018).



The second, with Hazeldean Ekuphumleni in Philippi, see: *Building Homes Bit-by-Bit: The Stories of Hazeldean-Ekupumleni* (2019).



The books are a powerful form of documentation, a final outcome of a productive research process, which neighborhood partners use in their ongoing mobilizing, PEP draws on for advocacy, and ACC for research and teaching work

Below – in a conversational format – we share what makes this collaboration and its projects work, in this case in our most recent 2019 Hazeldean-Ekuphumleni project.

*What is the value for PEP to facilitate student engagement and documentation at a development like Hazeldean and Ruo Emoh?*

*Noah:* For PEP student participation in the Hazeldean and Ruo Emoh projects has multiple values. On

a very practical level it allows for the production of detailed documentation on a long-standing project - a capacity which PEP does not have. Of course this is equally (if not more) valuable for the both communities to have a detailed record of their housing histories.

In the case of Hazeldean in particular the process has also allowed PEP to deepen ties with community leadership. It is hoped that deepening this relationship will positively affect on-going efforts to negotiate the transfer of title to individual beneficiaries, develop the outstanding plots and resolve all other outstanding Land Use Management issues.

From a more theoretical perspective it allows PEP and ACC to expose students to the “messy” reality and challenges of community based development and participation. It is important for future practitioners, especially those from foreign countries, to understand these complexities and details.

*What sort of value might this process have for Hazeldean-Ekuphumleni participants? For the neighbourhood?*

*Dolly:* Even though they have self-built their houses, I don't think Hazeldean women have ever had the chance to express these experiences and to tell people how their journey was. But through the research and with this book and its reflection, we can really see the amount of work that women and their families have put into making their homes and their community.

The project has also been a space and process in which we could reflect and discuss conflicts and misunderstandings. In interviews people could say how they felt, and talk about how they experienced this process. It was a space to reflect and to say exactly what and how they felt, to confront issues if that was necessary. There were quite a lot of conflicts. But conflict is good because we had to confront it. We talked about and resolved many issues.

*What is the value for ACC and UCT to facilitate a collaborative research process with PEP and with the Hazeldean-Ekuphumleni community?*

*Sophie:* This project is built on a careful collaboration between PEP, ACC (myself), and the Hazeldean neighbourhood leadership. It's work that requires a lot of preparation and careful realistic conversation. It needs to be rooted in real questions that relate to PEP and Hazeldean work and organizing, and rooted realistically in what students can produce in this half-semester project. These conversations need to be built on relationships and trust and a commitment to making things work and communicating through the process.



I enjoy these types of conversations and this approach to research. Students learn not only about critical experiences of housing insecurity, of realities in areas like Hazeldean, in how to do research, they also, I hope, get a sense of a research ethos, and ways to engage and produce knowledge that is embedded in expertise across the city. This translates to research that is grounded and relevant.

*Can you elaborate a little on the concept of the "lived experiences of policy" What does it mean and why take this approach to engaging the issue of housing?*

*Sophie:* Engaging and reflecting on the 'lived experience of policy' is the key experiential and conceptual anchor to this part of the City Research Studio. We engage in this case with housing policy through the actual complex experiences which families we interview share. In Hazeldean-Ekuphumleni, these are experiences that stretch across generations and that stretch over a twenty-year history of living in this place. These are complex stories of building houses without services, of building homes and getting established nearly fifteen years before being able to access bulk infrastructure - running water and sanitation and formal roads. And, these are stories that help students understand and document how families navigate insecurity, particularly the ongoing struggle to build a home, to improve it, and to access title deeds, the legal marker at least of home security. Family stories are diverse, they are real, and they are critical to understand how policy happens, its contingencies, and the roles in which ordinary people, organisations and movements play in engaging and making policy translate into development. In working with PEP and the Hazeldean-Ekuphumleni community, we could engage with an actual project and its complexities and contradictions. This mix of understanding and perspective on how people live, struggle and build homes and lives in the meanwhile is essential in a conversation on southern urbanism, where policy and its implementation is so central to our debate.

*The City Research Studio is also about exploring different methodologies. What methodologies did students use in this work?*

*Sophie:* The CRS builds on careful observation, exploring qualitative interviewing techniques, and gives student exposure to collaborative approaches to research. The 'learning how to do qualitative interview' is a method in which students engage – I hope - with the importance of listening, of not just asking questions, formulated from a research question and its agenda. Instead, we listen carefully to stories of everyday city life- in this case Hazeldean families and their navigation of access to homes and their stories of making this place a neighbourhood, a home in constrained circumstances. This work is as importantly a method for figuring out what we don't know or can't know. Through interviewing in the project, I work with students to help them pay attention to interviews as a relational moment, often full of emotion, with silences that require attention, complex contexts that

shape how we engage and what people chose to share. This is a method which helps us think critically about the stories that emerge and weave out of this sort of process.

We also spend time experimenting with. The work unfolds over the six weeks, which gives us time to reflect and engage, and to experiment together in doing this work. There is a weekly writing assignment. These assignments help students process their observations, the interviews, the method, and the material that residents share. From these they build that narratives for their papers and the book that, ideally have integrity and authenticity, that reflect the family, the place, their story, our city and that resonate and account for our collaborative research process.

*This work is exciting but also risky. What are some of the challenges and risks of this kind of engagement?*

*Noah:* The key challenge or risk of this type of engagement is best summed up in the sentence: "After that, how am I going to benefit from what you are doing".

PEP has invested much time, thought and effort into negotiating a "fair" research process. In fact this was the most important part of the entire studio process. For PEP "fair" is not defined by the vague idea that the engagement will "contribute to knowledge or policy"-even though these types of justifications are popular with students they have no basis in the lived reality of Hazeldean residents and should be discarded. In other words they may be useful for the academic project but have no practical value for Hazeldean residents.

For PEP "fair" should be practically defined. In the case of Hazeldean translators were financially compensated for their services - as would be the case in any job. In addition all those interviewed will receive framed photographs and copies of the final document. Furthermore it was arranged for the translators to receive career guidance through UCT. These are very real and practical compensations for the work undertaken.

*Sophie:* A key element is the sharing of the presentations and narratives from interviews with our Hazeldean Partners and with PEP, this ethos of accounting for what we heard and how we write up this work. For instance, our partners in Hazeldean and PEP colleagues attending our presentations on campus is a methodology through which students engage and account for their analysis and findings. Finally, we also share and check the narratives residents so that they can engage with and approve the stories that will go into this book, which we produce as a final element of the project. The book is another critical, layer for accounting for and ground-truthing our work.

*Dolly:* The presentation session on campus was really informative and relevant.

For me it was an eye opening session where I saw the research, the findings, how students articulated them. We also enjoyed the presentations by five students who presented on public housing contexts and struggles in their own home countries – in Sudan, Iran, Malawi, Botswana, and in Switzerland. That was amazing. It gave us an understanding of other peoples' contexts. There were some similarities. People in other countries also have difficulties in terms of how they build houses, how they find finances. There is always a danger of having 'a single story'. These presentations helped me I feel like I have a full story, many stories, of housing work in many places, of ways of building. It was really nice.

*Has the process, the engagement and feedback so far, delivered any new insights or affirmations for PEP's work in general or in Hazeldean in particular?*

*Noah:* Yes. For me it has affirmed a "template" for conducting fair and reciprocal research with academic institutions. Research that is not merely the "extraction" of academic knowledge but a more equal and fair process with transfer in both directions.

Secondly I believe that the workshops have allowed PEP to deepen our relationship and understanding of the Hazeldean leadership. Concurrent to this process a number of promising meetings have taken place with key stakeholders as to address the current impasse in Hazeldean. While there are not a direct outcome of the ACC partnership PEP has been able to enter these negotiations with a more detailed understanding of the community dynamics - as learnt during the workshop process.

*Dolly:* I know Hazeldean in bits and pieces, the story, but for me this project has helped me understand who Hazeldean is, what happened there, to engage with Hazeldean's beautiful story. It has taught me also the importance of first identifying who is the community and respecting them. It was also an opportunity to work with different people from different contexts and to respect each other and to learn from each other. It has been very positive- even in terms of how to do research. It has been quite a learning journey for me and for the community too.

*Sophie:* There are so many 'aha', learning moments in this research for students and for me. Some moments come with the confidence of doing interviews and the joys of talking with families about their lives and struggles, which are always a mix positive and often very hard realities. Some are linked to writing, to figuring out and enjoying writing from these interviews, from these stories and context, and in these particularities finding an argument, a way to build theory and concepts. Sometimes students can find their voice, a sense of their role, a confirmation or a moment

where they might really feel their passion and commitment for research. There are many aha moments for me too, fantastic moments for teaching, and for engaging, for working with students and with PEP and our Hazeldean partners.

ACC and PEP plan to continue this collaboration. To this end, we are planning a third project, which will run in the first quarter of 2020. This form of collaborative research gives us an opportunity to extend and further develop research and teaching, bringing together neighbourhood struggles for homes, with PEP's support for housing delivery, and ACC's approach to teaching and research in urban studies.

### Annual Community Build (CB) Project

Contact person: Karen Le Jeune, Mark Massyn

#### **Background**

The Department of Construction Economics and Management (CEM) curriculum has always included practical training as part of its' degree programme requirements and allows students the opportunity *“to supplement theoretical learning with practical exposure to work situations in the built environment”* and/or *“provide students with an opportunity to gain hands-on experience in selected building trades”* for a minimum of 160 hours per year of study (CEM, 2018). When UCT actively embraced social responsiveness in the early 2000s, CEM saw this as an opportunity to *“provide students with opportunities to engage around real life problems and thereby potentially help nurture a commitment to critical and active citizenship”* (UCT, 2019) and chose a building project located in a local community where low-cost housing was being constructed to facilitate civic engagement, under the umbrella of practical training.

#### **Reason for CB project**

Le Jeune and Massyn (2018) noted that one of the many challenges Built Environment educators face is having to find innovative ways to allow the student to engage with the study material outside of the classroom. Site visits are commonly used, however, increased class sizes, the lack of relevant and local project sites, increased transport costs and stringent Health and Safety regulations has reduced this option to a large extent. The adoption of service learning as a teaching pedagogy offered CEM an alternative option to stimulate student engagement with their academic studies.

Bringle and Hatcher (1995) define service learning as a

*“course based, credit-bearing educational experience in which students participate in an organised service activity in such a way that meets identified community needs to gain further*

*understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility”.*

The community build (CB) project offers CEM students the opportunity to broaden their classroom knowledge of the construction industry in South Africa within the context of local communities where they are exposed to and gain first-hand experience of realities faced by people living and working in impoverished communities.

### **Key objectives of the CB project**

The key objectives of the CB project lies in the name of the Department: **Construction:** By engaging students in onsite construction activities, the students’ construction technology textbook knowledge of how buildings are built, is brought to life. Not only do the students gain an appreciation of the physicality of construction and the skill required to complete the construction tasks efficiently and correctly, they also understand the importance of team work.

**Economics:** The construction industry is a major contributor to the GDP of South Africa, with low-cost housing playing a big part in the economy of the country. From macroeconomic principles to the microeconomics at play during a construction project, students gain first hand exposure to the intricacies involved in striking a balance that benefits individuals, communities, business and government.

**Management:** Effective management of a construction project is vital to project success, and more often than not, students are exposed to how not to undertake a task or manage a site, which in itself is a powerful learning experience.

### **Partnerships in the CB project**

There is tension between keeping students safe and exposing them to the realities of the construction industry in areas that many students have never visited. South African townships are often “hot beds of contention” or struggling with desperate or opportunistic criminality, and this, coupled with the hazardous nature of construction, make keeping students out of harm’s way a primary focus.

CEM have partnered with experienced organisations who are familiar with volunteerism models and working with communities, such as Habitat for Humanity (H4H) and Niall Mellon Township Trust (NMTT). Recently, ex-employees of NMTT facilitated a CB project with a willing local contractor. When the CB project has been student-activated, it was found having a “safe” school environment and an enthusiastic and supportive school principal were key ingredients to a successful partnership.

### **Social responsiveness and the CB project**

Humanising the construction industry by making the students' experience life as construction labourers and/or managers (for a short time) as well as gaining a sense of how the houses they are working on will impact on the lives of people, allows for a broader appreciation of how the students can make a difference once they are graduates.

### **Teaching, Research, Transformation agenda of the CB project**

The construction of a single storey or double storey dwelling forms the syllabus of the first year Construction Technology course which all participants on the CB project are either currently studying at the time of the community build or have completed it. The annual CB project serves as a case study which feeds into all CON courses that cover construction, economic and management principles.

Course convenors use the student experiences to illustrate key issues.

Student reflections of the CB project are collated at the end of each community build, and contribute to the service learning research project active in the department. Not only is the service learning model reviewed according to the five core dimensions namely skill variety, task identification, task significance, autonomy and feedback (see Figure 1), but administrative issues are re-examined to ensure the continued improvement of the CB project experience.

The CEM CB project is a transformative event as students are moved out of their comfort zones to interact with other students in their class, people from different backgrounds that they meet onsite and sometimes, having the privilege to engage with learners from schools that cater for disabilities. Students are transported into areas of the greater Cape Town Metropolitan that they may not be familiar with, exposed to a work regime that is tough on body and soul, confronted with societal issues that aren't always visible, subjected to weather conditions that are uncomfortable. While many first year students do not appreciate the value of the CB project while they are experiencing it (most bemoan the sacrifice of their mid-term vacation time), most are very proud of their contribution to society by the time they become mature graduates.

## Value-add of the CB project for UCT

Service Learning Dimensions	Facilitated Community Builds			Student-Activated Community Builds
	H4H	NMTT	VHP	2012 - 2016
	2005	2006-2011	2017-present	Tembaletu LSEN School, Athlone School for the Blind, IY
Skills Variety	☀️	☀️	☀️	☁️
Task Identification	☁️	☁️	☁️	☀️
Task Significance	☀️	☀️	☀️	☀️
Autonomy	🧑‍🎓	🧑‍🎓	🧑‍🎓	☀️
Feedback	☀️	☀️	☀️	☁️
Safety of students	🧑‍🎓	🧑‍🎓	🧑‍🎓	☀️

☀️	Good
☁️	So-so
🧑‍🎓	Problematic



Figure 1 Synopsis of

CEM CB project experiences (Le Jeune and Massyn, 2018)

The Department strives to produce Construction Economic Management graduates who ascribe to the following intrinsic

values and competencies:

- Ethical judgment;
- Professionalism in all that they do;
- Environmental awareness;
- An understanding of social norms relevant to their profession;
- Critical Inquiry in respect of the construction and property industry;
- Technical knowledge/competency,

- Industrial knowledge/competency; and
- The impact of professional practice on social responsibility, social justice and social norms.

Each CB project represents a microcosm of “real” construction projects, and in this environment students find scenarios that allow them to safely test their values and competencies. Self-reflection and peer assessment, together with observations from CB project leaders, identify areas that may need more input or work from the department or students themselves.

### **Value-add of the CB project for external constituencies**

The external constituencies involved in the CEM CB project range from the beneficiaries of the products of the students’ “sweat and tears”, to the contractor and his staff who interact directly with the students.

From upgraded playgrounds, renovated facilities to construction of portions of BNG houses, the students leave a legacy of having improved the built environment of a local community. The appreciation shown by the learners at schools where student-activated projects have taken place, is humbling. The delight of general labourers who become “open-air” teachers of the students is a heart-warming as they realise they have something of value to share.

Building relationships with facilitators result in opportunities to expand the CB project, to forge new partnerships with communities that would not ordinarily expect interaction with students and academics from a leading tertiary institution in their home town. In 2020, CEM will be partnering with BlueMoon Projects and Irish volunteers to construct additional classrooms for an ECD centre based on a design facilitated by UCT academics and students.

### **Evaluation social responsiveness of the CB project, its impact and outputs**

Since 2005, CEM have engaged in at least one CB project every year, some of which were exceptionally fruitful and rewarding, while others were undertaken in trying and challenging situations. Many research topics have arisen out of the experiences associated with the CB project, one of which is the evaluation of the impact of the CB project on the social responsiveness of students and the lasting influence post-graduation. Students are encouraged to publish their CB project experiences on their practical training e-portfolios, which serve as electronic CVs, thereby advertising their social responsiveness to future employers. Published research about CEM’s CB projects has led to other tertiary education institutions seeking guidance from UCT in establishing their own service learning programmes.

The following publications have come from the service learning research project:



- Le Jeune, K. and Massyn, M. (2018) Reflection of Incorporating a Service Learning Activity as part of a Construction Degree Programme. *In Proceedings of the 2018 SACQSP 10th International Research Conference*, 30 September – 1 October 2018, Johannesburg, South Africa. ISBN 978-0-620-80551-3

## The Water Hub: a research, innovation and training centre, Franschhoek

### Background to the project

The Water Hub is situated on the site of an old Waste Water Treatment Plant near the town of Franschhoek. The facility was operated by the Municipality of Stellenbosch but was abandoned in 2013 with the commissioning of a new plant near Wemmershoek was commissioned. Thereafter the land and remaining infrastructure fell into a state of disrepair. In 2016 the Western Cape Department of Environmental Affairs awarded a small tender to establish a concept and business case for a water-related centre. The tender was won by a small consultancy with an interest in nature-based processes to treat contaminated surface water runoff from an informal settlement. As a consequence, the conceptual development of the plan was site driven by three broad factors:

- A response to limited rainfall as a result of drought
- Deteriorating water quantity and downstream effects of pollution on ecosystems and ecological services
- Necessity of supporting human capacity, knowledge, skills and resources to manage future water resources sustainably that included the integration of Food, Water, Energy and Waste that could become key learning themes on the site and demonstrated at a reasonable scale.

Thus, the Water Hub became a new and exciting initiative to connect multiple elements of the formal and informal urban system for generating new knowledge through research and innovation primarily in the use of nature-based processes for treating contaminated water.

The Water Hub (<https://www.thewaterhub.org.za/>) is situated near the town of Franschhoek is located 80 km east of Cape Town. It resides in the Stellenbosch Municipality, and stands exemplary for many urbanising areas in South Africa. Franschhoek is home to approximately 17,000 inhabitants, of which around 50% live in the Langrug informal settlement.

### Reason for work

Research at the Water Hub aims to improve our understanding of the application of nature-based processes in the treatment of contaminated water from an informal settlement and the safe reuse of this water for other purposes.

The primary aim is linked to five grand challenges:

- Developing technologies and techniques to treat polluted water without the addition of chemicals, and the extraction of resources during the treatment process, e.g. phosphate
- Generating energy from organic waste and high quality compost that in turn will regenerate the soil ecology at a local scale
- Growing vegetables that are high in proteins and vitamins to address the shift in the future of human dietary requirements
- Contributing to a Circular Economy that will enable the marginalised urban poor to participate and obtain just and fair access to formal market structures in the nearby town
- Inspiring a new generation of leaders in sustainability, water science and governance.

The Hub intends to demonstrate ‘state of the art’ techniques and technologies that will attract local and national and international visitors from government, research institutions and special interest groups. Together these opportunities, and the unique location of the site set in the beauty of the Franschhoek valley and mountains, make the Water Hub a strategically positioned centre as the catalyst for generating new knowledge and learning, and skills development in resource management in South Africa.

### **Key thematic issues**

Transdisciplinary water research, Education, Environmental, Health, Co-operative business enterprise development, Social justice

### **Nature of the partnerships**

The Water Hub is one of four Urban Living Labs in a European Union funded project that focuses on mapping and reducing waste in the Food-Energy-Water Nexus. The local project emphasises a developmental approach in housing – poor socio-economic formal and informal settlement - in which the urban poor have limited ability to connect to formal services and access to economic opportunities. Closing the gap on disparities of wealth and income remains a major challenge for the South African government and society. A failure to address this gap has long term consequences and will result in settlements that general will become more degrading, socially fractious and unsafe.

Periodic engagement is undertaken with members of the Langrug informal settlement standing committee. Once the scientific research on the treatment of contaminated surface water runoff is complete (December 2019), the aim is to create a co-operative business enterprise that the engage a small group of members who will take ownership of the food growing initiative. Vegetables are currently being grown on site and are being tested at each harvest to ensure compliance with South African irrigation standards. The intention is to grow high quality seasonal vegetables to local

restaurants and shops in the town and to use the profits to be shared among the members of the co-operative.

### **Aims of the social responsiveness activity and the values underpinning this work**

The potential to close the gap that will enable the urban poor to unlock access to local markets involves a multifaceted approach that is centred on building an inclusive economy but also one that is committed to strengthen the capacity of the urban poor to find opportunities to engage in the formal market. This will mean disrupting the linear economy in Franschhoek by enabling the capacity and potential to participate in a more ‘normal’, shared and equitable economy.

A circular economy approach has the potential to disrupt existing ‘business as usual’ state. The Water Hub, located less than 1 km distance from the informal settlement is a catalyst site for the co-creation of new knowledge systems and co-production of food, energy and ‘fit for purpose’ water that seeks to close the loop on localised resource exchange.

One of the goals of the circular economy approach, in this instance, is to enable the urban poor to enter existing markets without the stigma of producing inferior products that currently prejudice their opportunities of a market share. The diagram below illustrates a conceptual understanding of such a process involving a transition from market exclusion to inclusion. The challenge is to develop integrity and efficiencies in the production process and exchange; to close the loop on waste, most especially organic waste; to support the regeneration of soil and energy production (e.g. using industrial scale vermiculture farming), and ultimately to generate a household income that will enable the urban poor to make livelihood choices.

### **Links with teaching and research and transformation**

Currently supports at post graduate researchers in Science, Civil and Chemical Engineering, and 4th Year projects in Science and Civil Engineering.

Opportunities for field excursions and field camps are offered each year for local and visit students e.g. Netherlands internship students, IAPO international programme on integrated water resource management; AURA teaching / training site for participants from 16 different universities in Africa.

### **Contribution or added value to UCT**

The Hub will be the first of its kind to demonstrate ‘state of the art’ techniques and technologies that will attract the interest of local, national and international visitors, and the likes of government officials, researchers, and special interest groups with a keen eye to explore innovative options for treating and managing water sustainably. The work is directed by UCT’s Future Water Research Institute.

The Water Hub a strategically positioned centre as the catalyst for generating new knowledge and learning, and skills development that will build a confident future in water resource management in South Africa.

**Contribution or added value to any external constituency involved**

Contaminated surface water from informal settlements is a phenomenon that is ubiquitous in South Africa and across the African continent. The discharge of this water into downstream rivers and other water sources poses a public health risk and in addition is degrading the ability of the ecological services to naturally treat water. Progress in addressing this problem in South Africa, and indeed across the African continent, is extremely slow. It is overwhelming the ability of South African national and local authorities. The magnitude of the problem is often underestimated. The impacts are becoming so severe that the loss of valuable resources are causing irreparable damage to the receiving environment.

New thinking and the contribution of this centre is to re-introduce nature-based processes and solutions - an alternative approach – that aims to use green infrastructure and to develop sufficient confidence in these processes through research. New understanding is necessary to determine the efficacy of nature-based solutions in treating water; providing an energy source; and in using treated water for productive use.

This knowledge is invaluable for local authorities who are struggling with problem of contaminated water resources and lack the proof of concept from demonstration sites that are dealing the challenge in reality and at scale.

The Water Hub site is an opportunity to conduct large scale experiments that aim to understand the potential of using nature-based processes. For instance, water is currently being treated in six large biofiltration cells, each filled with natural media such as carbon sources and stone aggregates, which are used to polish and treat approximately 5000 litres of water per day.

The optimal performance of each cell is dependent on retention time, volume and flow, and the quality of water that enters the system. Thus far the results are encouraging and the sensitivity of each cell is being determined by new technologies that continuous monitor water flow and quality.

**Evaluation of social responsiveness activity and its impact; and the nature of outputs emanating from the work**

Earlier it was mentioned that one of the overarching aims was to close the gap on disparities of wealth and income remains a major challenge for the South African government and society. This aim is about building an inclusive economy.

It will do this through dedicated training, co-production of willing and interesting people, collaboration and use of technologies such as a mobile application to bridge the gap between the formal and the informal settlements.

Progress is relatively slow largely because the past 18 months were set aside to establish the experiment and to conduct iterative tests. One permanent job has been created thus far. A site manager from the informal settlement has become skilled at managing the experiments, recording data and at maintaining equipment. By January 2020 a small group of men and women will be invited to participate in the first commercial enterprises on the site. It is estimated that up to 8 people will be employed during the course of 2020 and should be capable of expanding this rate of employment by 10 to 15%.

### **High quality use inspired basic research**

New discoveries are showing how nature-based solutions are surprisingly capable of treating a large volume of contaminated water for irrigating edible crops without the addition of chemicals. This kind of research undertaking is not taking place anywhere else in South Africa. As a result it is attracting local and international interest. As the research advances our understanding of nature-based treatment systems, new insights about the constraints and challenges of managing nature-based systems are being uncovered. The findings already suggest that the performance of nature-based solutions is underestimated. In addition, new technologies are being developed that are improving the monitoring and management of green infrastructure, e.g. in a recent publication in an international journal – Fell, J., Peard, J. and Winter, K. 2019 Low-cost Flow Sensors: making smart water monitoring technology affordable, IEEE Consumer Electronics, 10.1109/MCE.2018.2867984  
<https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8570900&tag=1>

### **Human Centred Design**

Contact person: Corrine Shaw

The department of mechanical engineering has an approach to social responsiveness that, in addition to specific externally funded projects to respond to social needs, considers that opportunities should be sought for socially responsive teaching and research as part of practice as academic staff. To this end, there are a number of initiatives within the department to identify and respond to social needs. Such initiatives are located in final year projects, the first year introduction to mechanical engineering course, and other curriculum initiatives at undergraduate and postgraduate level.

The example of our work is presented below is a human centred design project initiated by Dr Corrinne Shaw and co-supervised by Dr Malebogo Ngoepe. Dr Shaw and Dr Ngoepe will continue to work with the collaborators for future projects.

### **Reason for work initiated/nature of the need underpinning the work**

Around the world, engineering practice develops out of specific social contexts and aims to service the needs of people in those settings. In South Africa, there are many communities and high school students who do not consider engineering as a career option or have not expressed an interest in it as they may not know what it involves or consider it to be a profession beyond their reach for historical, social or economic reasons. How to engage, excite and retain students' interest in engineering is an ongoing challenge and area of concern for government, educators and parents.

The Saldanha Bay Industrial Development Zone (SBIDZ) is an initiative for substantial development on the West Coast of South Africa. The SBIDZ will provide facilities for upstream oil, gas and marine repair, fabrication, logistics and related servicing ([www.sbidz.co.za](http://www.sbidz.co.za), 2019). The program is intended to facilitate job creation, economic growth and to contribute to developing the region of Saldanha Bay. In addition to their core imperative, the SBIDZ has also initiated a number of educational programs and projects that engage the educators and schools in the region. Working with key stakeholders in this program, namely Open Saldanha, we developed a challenge for the final year project students to design artefacts for learners in Saldanha high schools to motivate them to study engineering. The innovative artefact needed to be something that the students could interact with. It was meant to engage their interest, to motivate and educate students about what engineering entails. The scope of this project was confined to high school students between the ages of 13 and 18 years old from any high schools in Saldanha Bay.

### **The key thematic issues addressed through the initiative**

The major focus of the initiative is education and social development.

### **Nature of the partnerships involved and how they engage and contestations with the external participants/partners/beneficiaries;**

SBIDZ leadership and educational project facilitators provided the opportunity for the project, the transport for conducting the fieldwork and introductions to stakeholders. Given the timeframe for the initial project, the beneficiaries (high school educators and students) were not engaged with directly.

### **Aims of the social responsiveness activity and the values underpinning this work;**

The nature of daily interactions with engineering artefacts shapes the manner in which people perceive the engineering field. In addition, it influences the extent to which they view themselves as potential innovators and contributors to engineering practice. The intention of the project was for final year UCT students to produce designs with the view to engaging the interest of the high school students and to inspire and foster an enthusiasm for engineering. The design needed to appeal to and be appropriate for the communities in the geographical area of Saldanha Bay.

This project required that final year students demonstrate and share their enthusiasm and passion for engineering. They were tasked with coming up with an exciting and innovative idea for an artefact and design and build/create it for students at high schools in the Saldanha municipality to interact with. The project was conceived of as multidisciplinary, drawing on social considerations and/or design thinking to understand a problem and develop a solution.

### **Links with teaching and research and transformation.**

There was a direct relationship between the research project and teaching as the research outputs were assessed as student projects. The students who participated were international and from provinces in South Africa that did not include the Western Cape. The South African students who participated in the project were from previously disadvantaged groups. Students visited Saldanha Bay for the purpose of conducting their fieldwork and meeting the project collaborators and had the opportunity to visit economically disadvantaged areas.

### **Contribution or added value to UCT**

The student projects were very well received and the development of the designs are being considered for introduction in schools in the region. The project contributed to the reputation of the department of mechanical engineering.

### **Contribution or added value to any external constituency involved**

Has the potential to be developed into artefacts that can be introduced in schools to inspire students to study engineering.

### **Evaluation of social responsiveness activity and its impact; and the nature of outputs emanating from the work.**

The outputs from this project were prototypes of the students' designs and their final year project reports. These have not yet been developed into research outputs for conference presentations or journal publications although they have the potential to be converted into such output.

The students presented their designs to a full meeting of WOSA (Whole of Society Approach, includes senior members of local and provincial government) in the Saldanha Bay Municipality

Council Chambers. The feedback was very positive. The CEO of SBIDZ sent an email thanking us and noting, “we were truly impressed with the students’ projects”. Bryan Slingers sent congratulations to each of the students “on their superb work and their stellar presentations.”

### Upcycling human urine for societal and economic benefit

Contact person: Dyllon Randall [Dyllon.randall@uct.ac.za](mailto:Dyllon.randall@uct.ac.za)

Since most African countries are still in the developing phase, it would be beneficial locally, and on a global scale, if sanitation services are implemented while being mindful of sustainability and resource recovery. If these systems are installed based on past designs, Africa would be repeating similar mistakes currently facing many developed countries. For example, optimizing existing urban wastewater treatment infrastructure, as important as it is, is not ultimately going to reduce the thirst for water and stem the hunger for resources of burgeoning cities in a water and resource-scarce future. The longer we accept business as usual with our current urban water cycle, the more the window of opportunity for making significant impact decreases. The separation of human urine at source and the recovery of resources from this urine has the potential to dramatically change the face of future sanitation systems.

Human urine is rich in three key ingredients required for fertilizer production: nitrogen, phosphorus and potassium, contributing about 80% of the nitrogen, 56% of the phosphorus and 63% of the potassium typically found in domestic wastewater streams (Höglund, 2001). In addition to being rich in nutrients, the urine stream only makes up 1% of the volume of domestic wastewater streams. Urine therefore has significant potential in extracting these nutrients for fertilizer production. Urine could be collected at households because of the small volumes or directly from urinals and toilets. In commercial buildings, the urine would need to be stored or treated on-site. In addition to recovering nutrients for fertilizer production, separating urine from domestic wastewaters reduces the nutrient demand of wastewater treatment plants, making them net energy producers while also reducing toxicity and eutrophication of water bodies. Once collected, the urine could be used by local farmers as a fertilizer thus increasing their crop yields or the urine could be converted into additional useful products such as energy, water and even bio-bricks (Randall and Naidoo, 2018).

Considering the value of urine, a new research group was established at the University of Cape Town in February 2017 to investigate ways to upcycle human urine. Since then, the group has raised over R8million in research funding, written 8 urine-related journal articles, trained 3 postgraduate students and 12 undergraduate students and won 14 international and national awards for this pioneering research.



This work has resulted in a fertilizer-producing urinal that produces about 280 g of solid fertilizer per 25 L urinal. In addition, the new urinal uses no water to operate which is particularly relevant considering the recent drought in Cape Town. The urinal also does not have to be connected to a sewer line to operate, but instead has a removable container that can be transported to an on-site resource recovery plant. Details of how the urinal works is described in (Flanagan and Randall, 2018) and (Randall and Naidoo, 2018).

The urine is treated within the collection container with calcium hydroxide and operates at a high pH (12.5) which kills pathogens and helps degrade pharmaceuticals. The treated urine can produce multiple fertilizers, water and even building material which can be sold for a profit rather than treating it in a conventional wastewater treatment plant.

The urine research at UCT also resulted in Growthpoint properties installing a dual piping system in the new Exxaro building for the collection of urine from all the urinals installed in the building. The urine is stored in the basement for subsequent fertilizer production.

This project won an innovation star from the Green Building Council of South Africa and it is hoped that future buildings will also adopt such initiatives.

The collected urine can also be used to grow bio-material. For example, last year we announced that we had grown the World's first bio-brick from human. This nature-based approach uses urease-producing bacteria to breakdown the urea present in human urine to form carbonate ions. These ions then combine with free calcium ions to form calcium carbonate. The calcium carbonate cements loose sand particles together into any shape – in this case a brick. More info about this work can be found in our recent publication (Lambert and Randall, 2019).

We imagine a future where source separation of urine is the norm in all new commercial buildings, where human urine is upcycled into multiple products, uplifting communities while also creating a more sustainable and circular economy. We will continue pushing the boundaries to discover new uses of this liquid gold.

# SECTION C: Institution wide initiative

## The Knowledge Co-op

The UCT Knowledge Co-op acts as an access point for community groups who require research or practical support from the university, particularly those groups that are not in a position to pay for such services. Acting as a bridge between society and the university, it mediates between the two constituencies to jointly reformulate their questions into manageable projects. In the case of research these are allocated to students as projects that are conducted under the supervision of a senior academic, or to academics, which in turn may use it as case material for future research. Projects may also involve service learning or experiential training initiatives. Either way, a report (or another type of product) is produced which is of direct use to the client, while the student work also fulfils criteria towards an academic qualification, in most cases a postgraduate dissertation. For staff, the model provides a framework for research and student training, as well as learning that is grounded in engagement with society.

Available projects are posted on the website and on various discipline-specific lists and are presented to academics from suitable-looking disciplines to promote the topics to their students. The Co-op offers support for the collaborative work throughout – from the initial meeting to clarify the scope of the study to ensuring at completion that the community partner also receives a useful product.

Overview of the UCT Knowledge Co-op projects; period 2015 – 2019

- During the five years 2015 – 2019 280 **new collaboration ideas** were submitted to the Co-op from a total of 70 Community partners (CPs). Amongst them were 50 new partners, including Development Action Group, Nal'ibali, Cape Town Central City Improvement District, Sea Change Project, Organising for Work and TEARS animal welfare. This brings our total number of CPs to 133!
- During this period 139 student **projects started**. 86 of these were research-based, i.e. mostly Honours or Masters dissertations, under-graduate team-based research reports as well as Masters-level internships (6) and Rapid Research projects (4). The latter are short literature-based reports compiled by volunteer teams – a model that was discontinued, mostly due to inability to supervise these appropriately. The remaining 53 projects are made up of compulsory community service by students or by connecting CPs to resources within UCT.
- 114 **projects were completed**, including five that had started before 2015; there were 62 research-based projects and 52 community service / connections.

- Nine projects failed in this time – students left UCT without completing their dissertation (some due to the protests in 2015-16, others as a result of lack of funds, some simply disappeared – one after having been given the go-ahead to submit her dissertation!) or dropped the topic as it proved too daunting.
- As we are close to the end of the 2019 academic year, we have 26 projects currently underway; all of them research projects except for one community service project close to completion. We usually handle 35 – 40 projects during a year; some of them are completed within one semester, dissertations are mostly done within one or two years, but some continue longer – one student recently submitted his dissertation which he started mid-2014.

Impact reported from Knowledge Co-op projects

**Impact in the academic sphere:**

Academics and past students are asked a year or more after completion of projects about any outputs in academia. To date the following were reported: *four* published articles, *one* book chapter, *one* study contributed insights towards a published article with a wider scope, *one* CSSR working paper, *one* academic acted as advisor to inform research and subsequent writing of an article, *three* conference presentations by the academic supervisors and *six* more by Masters students. A 3-year NRF-funded study with the same NGO developed out of one project, and a follow-up study was developed to deepen the findings of another.

**Impact of the project in the community realm:**

Community partners are sent a questionnaire one year after project completion to assess any impact in their organisation and environment. Almost all respondents reported that the project results helped *raise awareness* of the issue(s) more widely; another common response was that project results led to *improvements in an existing policy, programme or service* within the organisation. For half of the respondents the project increased their capacity to get *project funding*. CPs valued data they received as it offered an opportunity for reflection on the programme within the bigger South African context; could be used to inform their campaigns or to build donor confidence; it confirmed the programme's positive impact on beneficiaries or acted as baseline data for future monitoring. For others it was the practical impact they valued most.

Feedback about how involvement with the Co-op adds value to partners

### **Value added for Students**

- What students valued most was experiencing the CP reality and the issues they are grappling with – calling it an eye-opening experience, having their perceptions shattered.
- They value the opportunity for co-learning through the partnerships, particularly about what it means to work in an NGO and about the marginalised groups serviced by them.
- This exposure deepens their understanding of the challenges facing South Africa today.
- Students assist in satisfying community organisations' needs – and value having the chance to make that contribution, small as it may be.

### **Value added mentioned by Academic Staff**

- Academic staff supervising students in their Knowledge Co-op projects most valued the contribution the project made to their students. **All** of them regarded it as an important opportunity for students to learn about the NGO reality.
- They reported that students learn valuable skills through an experience that is as close as can be to 'real life' research; something which cannot be taught in the classroom.
- Staff find that students are able to access under-represented groups and/or under-researched spaces, thereby contributing to the creation of new knowledge.
- Some expressed appreciation for the Co-op's role in brokering tricky partnerships.

### **Value added according to Community Partner Organisations**

- Organisations find that students' research projects often confirm the value of their work and thus use this data as part of their awareness drives or fundraising efforts.
- They report that where research outcomes are critical of their processes, they can use the new insights to revise and improve organisational practices.
- Partners mention gaining new insights they gained, specifically into the experience of their beneficiaries and into collaboration with academia; others valued access to independent research to inform their advocacy work.
- CPs value the capacity building of their teams through practical / service projects.

### **A commonly expressed critique: more clarity is needed at the start of a project**

**Co-op approach:** we facilitate a "Set-up meeting" once a student has clarity on the research question and approach for the study, and a supervisor's blessing for that. At this meeting of student, supervisor

and CP we aim to find a win-win, i.e. a way forward for the student that will address (some of) the CPs questions and also meet the requirements of her academic course. During the course of refining the proposal and conducting the research the focus or approach often shifts.

**Case study:** DO was interested in taking on a study to assess if a Wilderness Immersion programme for a diverse group of youth contributes toward changing previously held prejudices for his Master's in Environmental Sociology. After preparatory work the Co-op facilitated the "set-up meeting", where it was agreed that the study will focus on racial bridge-building between participants and whether the programme makes a lasting contribution to this. The CP agreed to a financial contribution towards fieldwork expenses. They would receive a copy of the dissertation as well as summary report.

As the study proceeded DO's research emphasis shifted to assess the impact of the programme on previous participants' perceptions of nature. The resulting dissertation was not very useful to the CP; and the summary report which contained some findings relevant to the original topic thinner and not guided by the supervisor. The Co-op had to take on a supervision and editing function – all of which was not quite a satisfactory return on invested time and funds for the CP.

### **Study sites & participants**

Many academics value the support Co-op projects offer their students in finding study participants, particularly from marginalised groups. NGOs who request such research are usually able to facilitate access. But even they cannot guarantee this, or only after delays.

**Case studies:** A student's study into services for victims of domestic violence was delayed because her access had to be enabled by very busy social workers to whom she had only been introduced by email. But SB persisted, conducted a successful study the results of which were enthusiastically received by the CP's staff – some of whom have become friends of SB.

MM looked at the economic benefits accrued to young graduates from a job skill programme. Alas, having completed their course few of the graduates still responded to messages and calls from the CP. So MM did a qualitative study instead.

In each of these cases, the students navigated the delays or changes very well; they completed their dissertations and produced valuable research on the reality of marginalised groups and passed helpful findings to those CPs collaborating with them.

### **Mental health concerns have high priority in UCT.**

**Co-op approach:** It is an important part of the Co-op's role to support students through their dissertation journey, especially when challenges arise – whether around funding for data collection or drawing up a budget, advice on how best to communicate with busy NGO staff or unexpected delays. And feedback from many of them attests to their appreciation for this additional support.

We realise that students require preparation in order to engage a particular community context and issue and raises that at the Set-up meeting. But how much preparation is sufficient? And who provides it? Who holds the student through challenges? With only two part-time staff and more than 30 projects on the go, the Co-op can only do so much. And the same is true for the supervisors.

**Case study:** LH started her dissertation research for her M in Environmental and Geographic Science in April 2016. Her study looked at the impact that (food) gardening has on the mental well-being of people in Mitchell's Plain. Having lived in the township herself for part of her childhood she felt well prepared for such a study. Yet the level of poverty she encountered in the households she studied proved overwhelming. And then, when protests started on campus later that year, a stone-throwing incident left her traumatised. The ongoing turmoil, in addition to personal challenges resulted in depression and the work on the dissertation dragged on ever more slowly.

By the start of 2018, with support from her two supervisors, LH had a plan for revising her first draft and reworking it for a final submission by June. Monthly milestones were in place. But she could no longer keep it up. Since late 2018 neither the Co-op nor her supervisors have been able to track her down.

### **Co-creating a feasible student research project in a challenging partnership**

**Co-op approach:** One of our principles is to build respectful collaborations that draw on knowledge of both community and academic partners and allow CPs to be part of the process from the outset.

**Case study:** A township pre-school had requested an assessment to show that children from their programme fared better in primary school than those from surrounding creches. This challenge was taken up by AU for his MPhil in Programme Evaluation.

A comparative study between children of different pre-schools was logistically daunting and beyond the scope of his degree. But AU developed a creative approach using standardised scales to assess the competency of the CP's learners; he raised funds toward the cost of an assessment from his department and the CP and managed that complex process involving a business and its mother-tongue facilitators efficiently within the limited time of the school term.

In the end, when AU presented his preliminary findings to the CP they were disappointed by some critical findings. They had not understood the academic proposal fully, in spite of two set-up meetings to ensure clarity.

# SECTION D: Report on the activities of the Cape Higher Education Consortium (CHEC)

## Partnership with the Western Cape Government (WCG)

In 2015, the Joint Task Team of the CHEC and the WCG created a fund to support research proposals designed to address strategic priorities of the WCG. Grants of R100 000 were provided to each CHEC university by the WCG.

The thematic focus areas were

- Resilience, Human Settlements and Climate Change
- Digital Innovation for Inclusive Development
- Social Inclusion, Youth and Skills Development
- Knowledge Partnerships

## Innovation Grant

In 2016 the Joint Task Team, the structure that coordinates the work of the CHEC – WCG partnership, introduced an Innovation Grant of R 100 000.

The purpose of this grant is to encourage university researchers, in partnership with WCG policy-makers, to consider new approaches, methodologies and interventions for addressing the seemingly intractable problems facing the Province. This year the focus will be on innovative, multi-disciplinary and multi-stakeholder approaches to improving our understanding of the implications and applications of the Fourth Industrial Revolution in the Western Cape. There are, therefore, two streams of research that will be supported: (1) investigations of the potential implications of the Fourth Industrial Revolution on the Western Cape, and (2) use the technologies and approaches that make up the Fourth Industrial Revolution to explore novel ways of addressing economic, social, environmental or governance issues in the Western Cape.

In the light of the above researchers were invited to submit proposals for innovative ideas which will yield research outcomes that focus on one or both of the following areas:

- research that probes, describes and offers recommendations about the potential impact of the Fourth Industrial Revolution in the Western Cape
- research that uses the technological advances associated with the Fourth Industrial Revolution to address pressing social, economic or environmental issues in the Western Cape.

No proposals were received from UCT for this call.

## **Institutional grant**

A call for proposals went out on the 20 August 2019. UCT received nine applications which were reviewed internally and a final recommendation was sent to CHEC.

### **Partnership with the City of Cape Town**

In 2015 a similar research initiative was launched with the City of Cape Town, with funding from the four universities and the City. The City is particularly interested in the development of new knowledge, approaches and solutions to challenges faced, increased efficiencies, and enhanced service to citizens. Emphasis is given to projects that provide evidence and arguments to inform policy and practice – i.e. .strategic uptake and implementation.

In March 2019 the CHEC-City of Cape Town institutional grant to the value of R100 000 was awarded to A/Prof Abimbola Windapo (Department of Construction Economics and Management) for her project titled:

*Evaluation of the challenges to project delivery confronting project leaders in the dynamic human settlement environment. For this call, 8 applications were received from the UCT community.*