

## Two Universities Join Hands to Delivering an eLearning Environment For Community Health Workers

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**University of the Western Cape (UWC) and Neu-Ulm University of Applied Sciences (HNU) successfully developed an eLearning environment for Community Health Workers (CHW) of the HOPE Cape Town Association.**

Senior academicians from both universities guided students during the week in a process culminating in an “eLearning Framework for HOPE”. From 21-25 May, a delegation from HNU comprising 14 students and 4 professors, as well as 6 students and 2 professors from UWC Economic and Management Sciences Faculty, formed joint project groups to research pre-requisites and design a mobile course framework for Community Health Workers. As a scientific basis, they created a six layered model of learning integrating the learning styles and conditions of the target group, as well as the technical and organisational circumstances. In interviews and usability tests the user’s needs, learning circumstances, previous knowledge, as well as ICT skills and interaction with the content and design of the courses, were analysed. The outcome was benchmarked with existing initiatives of other South African and international organizations for similar target groups.

The students formed four teams, dealing with a specified theme related to the project, namely Learning Styles, Learning Technologies, Learning Prototype development and Organizational Aspects and the Ecosystem of the project.

The team on **Learning Styles** (Prof. Olaf Jacob) created a profile of HOPE's workforce in order to understand their learning needs and the most desirable learning methods and interventions. This was done to ensure that the product of all the other initiatives captured not only the needs of the workers but also their capabilities. This information was also used as a basis for the analysis of the appropriate learning technologies that could be used for teaching and learning within the confines of the environment of the health workers. To achieve this, the students had interviews with all the community health workers, as well as HOPE's medical staff. This was further reinforced by visits to the various duty stations where the community health workers are based.

The team on Learning System and **Prototype Creation** (Prof. Danny Franzreb) created and tested the Moodle based medical courseware on different mobile technologies. They were required to test, akin in a lab environment, how the health workers interacted with the various learning technologies, their technical and informational needs and capabilities, as well as preferences. At the end, a series of far reaching recommendation were made on how to design courseware for the health workers with a complete demonstration on how that can be achieved for mobile devices, as well as computers. The Moodle based learning system was in addition extended with a view for mobile devices e.g. the iPad that can be used already today.

The team working on **Learning Technologies** (Prof. Heiko Gewalt) provided recommendations how to best deploy eLearning to the CHWs in their diverse working conditions. Furthermore the implications of eLearning on their daily jobs have been assessed and recommendations were derived to optimally support the CHWs in order to achieve a long lasting and sustainable impact on learning techniques and habits. The team geared up to visit HOPE and UWC in a couple of months again to see how the recommendations influenced the learning process and to derive further recommendations in order to enhance learning success for CHWs.

The team covering the **Organizational Aspects** (Prof. Ulrike Reisach) put emphasis on the sustainability of the whole project. Before coming to Cape Town the team had already benchmarked the content and design of existing learning courses with other South African and international providers. Since HIV/Aids and its successful treatment are closely connected with the ability to earn one's living in the townships, they also included learning of basic economic and entrepreneurial skills which enable CHWs to become multipliers of this knowledge in the communities. After interviewing the CHWs and testing some of the platforms with them, the team developed recommendations on building a self-sustaining ecosystem for learning, including job descriptions for the author, mentor and eLearning manager within HOPE Cape Town Association. Additionally they suggested forming a network of expertise among the CHWs, to support this via mobile devices and nurturing the partnering network with universities, governmental and non-governmental organisations based on the contacts that were made during the project week.

Attendants, including those from other universities and institutions, were impressed by the comprehensive scientific approach the joint teams from UWC and HNU applied to the very practical needs of the Community Health Workers.

**Dr. Monika Esser, HOPE Cape Town Chair**, said: "This enthusiastic collaborative effort provides exciting opportunities for blended education of our Community Health Workers. The extensive investigation of available and applicable resources has brought together international but also local role players. We envisage that this partnership will lay the foundation for a realistic and sustainable plan towards an innovative eLearning program for our Community Health Workers which could also serve as a model for other Health Care Worker Training Programs in South Africa."

According to the **HNU President Professor Uta Feser**, the structure as well as the outcome of the project could well serve as a best practice for other countries and will certainly be spread through HNU's initiatives on Health Care Management in Africa.

**Professor Louis Fourie, Chair of the Department of Information Systems at UWC**, said that seeing the results of the efforts of those young and promising people to improving the living conditions of the poor gives him confidence for South Africa and the world.

**About HOPE Cape Town Association ([www.hopecapetown.com](http://www.hopecapetown.com))**

*The HOPE Cape Town Association, a registered Non-Profit Organisation, is active in HIV/AIDS treatment since 1999. It cooperates and practices in the University of Stellenbosch's Faculty of Health Sciences and Tygerberg Hospital. Additionally, HOPE Cape Town trains and places a network of 24 HOPE Community Health Workers (HCHWs) in selected township clinics.*

**About UWC ([www.uwc.co.za](http://www.uwc.co.za))**

*The University of the Western Cape is a national university based in Cape Town, South Africa that is alert to its African and international context as it strives to be a place of quality, a place to grow. Its Economic and Management Science Faculty aim at developing graduates who are well equipped for the world of work, but who are also fully rounded citizens who will play a leading role in the future development of their societies.*

**About HNU ([www.hs-neu-ulm.de/en](http://www.hs-neu-ulm.de/en))**

*Neu-Ulm University of Applied Sciences in Germany (HNU) has a long-time experience in international cooperation in the field of health care management. HNU's Information Management Faculty aims at developing the student's skills in IT, user centred design, organizational and intercultural management which enable them to work in challenging international projects.*

**Student's voices:**

This was one of the most exciting projects that I have worked on. It enabled African students and German students to prove that integrated learning is possible and that in working together we were able to be successful. *(Monique Blouws, UWC)*

The cooperation of all participants and teams, their flexibility, their communication, their effort and dedications contributed to the big success of the project. The experience motivates me to continuously improve my scientific and international skills. *(Sonja Denzel-Schneider, HNU)*

It was an exciting project and I am really happy to evaluate in October how the work of different teams and different people influenced the learning of the Community Health Workers. The social aspect gave a personal benefit for all of us. *(Markus Brust, HNU)*

**Observers' voices:**

*As an educator who has been involved in open and distance education in South and Southern Africa for the past twenty years, I am convinced that the integrated model developed for the purpose of the research study can be applied more globally to inform and guide the design and development of any e-learning module or course. (Christina Randell, Education Consultant des South African Institute for Distance Learning (SAIDE)*