

The "ME"-Learning Experience: PDA Technology and eLearning in Ecotourism at TUT

The Tshwane University of Technology (TUT) is the largest residential university in South Africa. Students represent all cultures and the eleven official languages of the country. The purpose of this presentation is to share research on a pilot project to integrate mobile technologies (PDAs - Personal Digital Assistants - and cell phones) with an eLearning environment (eLMS) in Ecotourism.

eLearning coursework was created on WebCT and presented in an online environment. Learners in Ecotourism also undertake field trips into nature as part of their practical training, after which a project is submitted for evaluation. During these field trips the learners work in a cooperative learning environment to gain practical experience of the theory. They receive assignment questions and have to collect information during the trip. Prior to the excursion the educator transfers assignments, tests, relevant information, references and multimedia programs (e.g. Roberts Birds) to the PDA. Learners use PDAs to take notes, find information, write tests, and prepare the final project.

This research will be to determine how eLearning, e-testing and mobile technologies can contribute to a successful 'outdoor' learning experience for both educator and learner. The population for this study includes learners of two different subject groups, Biology I and Wildlife Management II.

The main research question to be answered is:

How can the use of mobile technology support and enhance field learning?

Sub-questions include:

1. How can field experiences be enhanced by the use of mobile technology?
2. How does the use of mobile technologies motivate students to improve their learning?
3. How do students take advantage of and benefit from the tools offered?
4. What features should the mobile computing systems provide?
5. How do students at various levels of experience use the resources?
6. Which assessment methods are appropriate for mobile technology?

Feedback from learners confirms that the use of mobile technology can support and enhance their field learning experience a number of ways.

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Nellie de Crom (PhD)

started her academic career as a zoologist. In studying animal behaviour, she also became interested in the behaviour of human beings. This led her to studies in human behaviour in natural environments. Currently she is a lecturer at the Tshwane University of Technology in the department of Nature Conservation, specialising in the training of Ecotourism students. In 2004 she has been selected as the representative of the Faculty of Agricultural Sciences in the Partners@Work programme. This programme aims to train and empower lecturers in the use of technology in eLearning. In addition Nellie has become interested in the use of mobile technologies when taking students on field trips into nature. This project is a result of her interest and curiosity to enhance the teaching and learning experience for lecturers and students.



Annette de Jager (PhD)

started her career as a Science and Mathematics teacher in Windhoek. She completed her masters degree in computer assisted education as well as her PhD in assessment in outcomes-based learning at the University of Pretoria and became a senior instructional designer for the faculties of Natural Sciences and Agricultural Sciences at Tshwane University of Technology. She has recently been appointed as the researcher and coordinator of the applications of mobile technologies in teaching and learning at the university.

