DEAKIN UNIVERSITY

When:

Tuesday
28 October

Venue:

ic3.108
Waurn Ponds

Time:

1-2.30pm

Educational Futures and Innovation RPA
School of Education
Deakin University Burwood,
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Educational Futures and Innovation
Research Priority Area, Deakin University

Seminar Series 2008

Deakin University's School of Education Research Priority Area - *Educational Futures and Innovation* invites you to attend the following seminar:

A Questionnaire Instrument to Assess and Interpret East African Students' Dispositions Towards Learning Science

Composite Instrument for Assessing Disposition for Contextual Learning of Science (CI_ADCLOS)

Dr. Samson Madera Nashon S.
University of British Columbia, Canada
Visiting Scholar

Abstract

Like many developing countries, Kenya has in its 1997-2010 Master Plan on Education and Training (MPET) the goal of attaining industialised nation status by the year 2020. This goal is unlikely to be attained without reforming the science and technology curriculum to connect to locally evolving industries. Jua Kali is a small-scale manufacturing and technology-based service sector, which comprises jobs ranging from servicing to small-scale manufacturing for local use in Kenya. It has become the most direct pathway for securing employment by Kenyan high school graduates. Yet, there is no strong curriculum link between activities in Jua Kali, which have come to characterise the socio-cultural environment of many young Kenyans and their ways of knowing. The view in this paper is that classroom knowledge should have relevance to real world contexts. However, any attempt to link classroom science to the real world of Jua Kali activities cannot be successful if there is no understanding of students' ways of learning and knowing. In this paper, ways of knowing are understood to embellish the values and assumptions inherent in the development and interpretation of scientific knowledge. This is what underlies an ongoing research study investigating East African (EA) students' ways of knowing in science discourses. The study has as one of its key aims to develop and validate an instrument to assess EA students' dispositions towards science and how the instrument as an intervention affects their worldviews of science learning. Therefore, this paper reports on the development, validation, and interpretation of a questionnaire instrument called: "Composite Instrument for Assessing Disposition for Contextual Learning of Science" (CI_ADCLOS). The instrument is intended to assess students' dispositions towards contextualized learning of science and as an intervention, to evoke the students' worldviews of science learning.

Biography

Dr. Nashon is an Associate Professor of Science Education at the University of British Columbia in Vancouver. He is a Kenyan citizen and has been involved in some significant research projects based in Canada and also in Africa. He writes: *My research focuses on ways of teaching and learning. My area of specialization focuses on students'* alternative understandings that have roots in cultural backgrounds and curricula, and are accommodative of *students with varying degrees of abilities. My research is dominantly qualitative, borrowing primarily from contemporary theories of constructivism. My most recent research projects include the ongoing Metacognition and Reflective Inquiry (MRI), East African Students' Ways of Knowing (EASWOK), The Status of Physics 12 in BC, The Nature of Analogies Kenyan Physics Teachers Use, and Students' Access To Senior Science and Mathematics Courses in Rural BC. Previous studies include, The Role of Practical Work in Science, and The Kind of Science in Kenyan "Harambee" Schools.*

The difference is **Deakin University.**