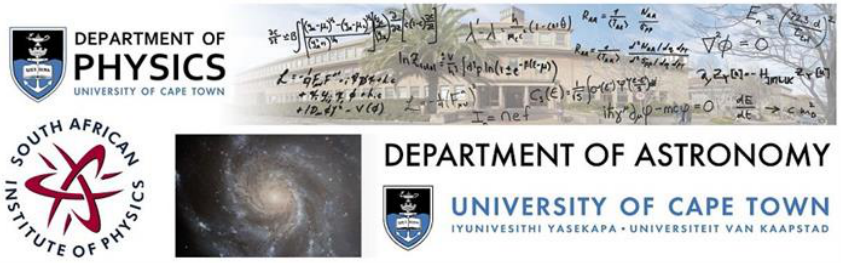

Contribution ID: **137** Type: **Oral Presentation**

The development of learners' views on the nature of science in a science enrichment programme

Wednesday, 6 July 2016 09:40 (20 minutes)

Abstract content
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This paper presents results of the study conducted with a group of 82 Grade 10 applicants to a science enrichment programme at the University of Pretoria. The Views on the Nature of Science (VNOS-Form C) questionnaire composed of eleven open-ended questions was used in examining learners' views on seven aspects of the nature of science. The initial study investigated the influence of students' social background on their views of nature of science (NOS). We discuss the results obtained and investigate the correlations between the learners' performance on the test and parents' level of education, school performance, and marks in school subjects, home language, and culture. Findings showed no significant difference in the test scores between genders. The strongest influence on the scores was found to be the educational background of the parents. Also, learners with English as a home language performed better. A follow up study was performed on the same group of learners two years later. This group included learners that had attended the science enrichment course (the experimental group) as well as the learners that had not done so (the control group). The second study provided the opportunity to investigate the effect of attending the science enrichment on the learners' views on the NOS. The follow-up study showed that both groups had a more informed view on the nature of science. There was a small difference in the scores obtained between the students that attended the science enrichment programme and those that did not. This is in agreement with results obtained by Abd-El-Khalick & Akerson (2005), Akerson, Abd-El-Khalick, and Lederman (2000) and Khishfe & Abd-El-Khalick (2002) who found that learners' scores on VNOS were not significantly influenced if the NOS was not explicitly taught.

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Session Classification: Physics Education

Track Classification: Track E - Physics Education