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Insights into the interaction and discourse in the senior phase natural sciences classroom

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ABSTRACT

This paper investigated interaction and discourse during teacher classroom practices in the Senior Phase Natural Sciences in some of the rural schools positioned in the Vhembe District of the Limpopo Province, South Africa. Research method employed was qualitative interpretative multiple case study design. Two schools were selected and one Natural Science teacher from each school participated in this study. Classroom observations and interviews were used to collect data from Senior phase Natural Sciences teachers. Natural sciences teachers were interviewed in their schools and they wrote observed during their classroom practice. The findings of the study show that the type of discourse observed from Natural Sciences teachers was authoritative discourse and the pattern of discourse employed was Initiation-Response-Evaluation. Furthermore, teacher questioning was used to develop the lesson and evaluate learner understanding. Teachers used an interactive-authoritative communicative approach during their lesson presentation. The consequences of the approaches the teachers choose to use limit the opportunities for learners to interact amongst themselves and the subject content. It is recommended that besides a focus on subject matter knowledge during continuous development programmes, there is a need to focus on interactions and discourse too. Furthermore, there is a need to conduct further studies on a large scale so that a suitable intervention program can be designed for in-service teachers.

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Introduction

South Africa's national research and development strategies are intended to heal human capital development in the field of sciences (Department of Science and Technology, 2002). Even though the strategy was developed and published in 2002 there are still glaring challenges in its implementation for the production of human capital, in this case learners who take science-related subjects (Parmin, Saregar et al. 2020). It is therefore important that as many learners as possible who have interest in the subject take Natural Science in the further education and training phase (FET). This is crucial if they are to contribute meaningfully to the Millennium Development goals. Furthermore with the numbers of learners enrolled in science-related subjects in the FET phase decreasing, it has become more critical that learners are taught meaningfully and in an attention-grabbing manner in the senior phase (El Islami, Nuangchalerms, & Sjaifuddin, 2018). Obviously, teachers play an important role in the teaching of Natural Science.

In South Africa the government has made enormous efforts in producing qualified science teachers in rural areas such as in the Limpopo Province. However, there are still schools in rural areas that are lacking teachers who specialise in Natural Science. Obviously, such teachers experience challenges when teaching the subject (Nkanyani, 2018). This paper focused on the nature of classroom interactions and discourse of Natural Science teachers. The researchers hope that the findings of the study will assist practicing teachers in moulding their classroom practices as well as provide a foundation for in-service support programmes by researchers and stake-holders who are interested in the continuous professional development of Natural Science teachers.

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The Interaction Of Sciences In The Study Of The Ea

Raffaella Di Napoli



The Interaction Of Sciences In The Study Of The Ea:

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