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Factors influencing Grade 7 teachers' implementation of outcomes-based approaches in the National Curriculum when teaching 'Human Reproduction'

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A thesis submitted to the Faculty of Science, University of the Witwatersrand, Johannesburg in fulfilment of the requirements of the degree of Doctor of Philosophy

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Abstract

Outcomes-based education was introduced into South Africa almost 20 years ago amidst much controversy. During the period of my study, a modified version of the outcomes-based curriculum was in use, i.e. the Revised National Curriculum Statement Grades R-9. In this curriculum, critical and learning outcomes were described and a learner-centred approach advocated which would enable learners to achieve the outcomes. Human reproduction was introduced as one of the content areas in the senior phase of the Natural Sciences. Human reproduction is a sensitive but very relevant topic in South Africa where HIV/AIDS, teenage pregnancy and child abuse are prevalent and so was selected as a Grade 7 topic in one educational district of Gauteng.

In my study, I was interested in finding out what factors influenced Grade 7 teachers' implementation of outcomes-based approaches when teaching Human Reproduction. I explored the use of learner-centred approaches and the extent to which the critical and Natural Sciences learning outcomes could be achieved through these approaches. Firstly I wanted to know to what extent Grade 7 teachers used outcomes-based and learner-centred approaches when teaching human reproduction. Secondly I was interested in the factors that influenced the teaching of human reproduction. Thirdly I set out to find which factors affected the use of outcomes-based and learner-centred approaches during the teaching of human reproduction. Lastly the influence of teachers' behavioural, normative and control beliefs on their teaching of human reproduction in outcomes-based and learner-centred ways were of interest. My theoretical framework took into account the above-mentioned factors and beliefs about the influence of these factors and their possible impact on teaching human reproduction in outcomes-based and learner-centred ways.

My research involved a workshop for Natural Sciences teachers on the teaching of human reproduction to Grade 7's, followed by a survey. Forty teachers completed the survey questionnaire in which they recorded their perceptions of the expected influence of the learners, the learning environment and support structures, as well as teachers' beliefs, on the teaching of human reproduction. Ten of these teachers participated as the case studies in my multiple case study, forming a convenience sample.

I used a mixed methods approach in my investigation, starting with the survey questionnaire and then narrowing my focus to the ten case study teachers and becoming a participant observer in their classes. I recorded my data in field notes and as digital recordings of class discussions and when teachers had completed teaching human reproduction, I interviewed them. The data from the questionnaires, interview and lesson transcripts and field notes were analysed and conclusions drawn.

I used profiles to assess the achievement of the critical and learning outcomes by each teacher and to assess the extent to which each teacher used learner-centred approaches when teaching human reproduction. A cross case analysis enabled me to compare the teachers with regard to each outcome and learner-centred feature. Some quantitative data from my surveys and mostly qualitative data from my observations and interviews were used to explore the influence of factors internal to the teacher, i.e. personal and professional factors, and those external to the teacher such as the learners, the

learning environment and support structures. I also used the qualitative data to identify the influence of behavioural, normative and control beliefs about teaching human reproduction in outcomes-based ways on practice.

My findings were that all teachers taught towards some outcomes and used some learner-centred approaches and these differed amongst teachers. The profiles enabled me to identify overall strengths of each teacher as an outcomes-based and learner-centred teacher, and the cross-case analysis indicated which outcomes were being met by learners through the teaching and learning approaches used. I found that the learning environment, and in particular the provision of or lack of learning support materials and other resources, impacted on the achievement of the outcomes. The school principals, colleagues, parents and friends proved to be mostly very supportive of the teaching of human reproduction and the need for strong communities of practice became evident. The choice of language was seen as a dilemma but my findings pointed to the use of home language or preferably code-switching to promote conceptual development and the development of English language skills. Cultural beliefs of learners contributed to their prior knowledge, and religious beliefs influenced some teachers who promoted more conservative values amongst their learners regarding sexuality. The need for clear boundaries on what could be discussed in class became evident, to protect both the teacher and learner from intrusion into their personal lives. Group work was seen as an important approach for this sensitive topic, and the need for workshops to strengthen teacher's subject content knowledge and thus their self efficacy when teaching human reproduction and to build strong communities of practice in which ideas and experiences could be shared amongst teachers, was a finding of this study.

In conclusion, some teachers were more outcomes-based and learner-centred than others. Subject content knowledge, choice of an appropriate language or language mix for teaching and learning, suitable learning environments with adequate learning support materials, school, district and parental support for the teaching of human reproduction all promoted a teachers sense of self-efficacy and made a difference to their teaching of human reproduction using outcomes-based approaches.

Keywords

outcomes-based, learner-centred, Grade 7 Natural Sciences teachers, human reproduction, teachers, learners, support structures, learning environments

Declaration

I declare that this thesis is my own unaided work. It is submitted for the degree of Doctor of Philosophy in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other university.

.....

Megan Caroline Doidge

..... day of ....., 2014.

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List of Abbreviations & Acronyms

AS	Assessment Standard
C2005	Curriculum 2005
CAPS	Curriculum and Assessment Policy Statement
CO	Critical Outcome
DO	Developmental Outcome
DOE	Department of Education
DBE	Department of Basic Education
EMS	Economic and Management Sciences
F	Field Notes
FAMSA	Family and Marriage Society of South Africa
GDE	Gauteng Department of Education
GET	General Education and Training
GICD	Gauteng Institute of Curriculum Development
HIV/AIDS	Human Immunodeficiency Virus / Acquired Immune Deficiency Syndrome
HOD	Head of Department
I	Interview
INSET	In-service Education and Training
LO	Learning Outcome
LT	Lesson Transcript
LOLT	Language of Learning and Teaching
LSM	Learning Support Material
LSEN	Learners with Special Educational Needs
NCS	National Curriculum Statement
NQF	National Qualifications Framework
NS	Natural Sciences
OBE	Outcomes-based Education
PEI	President's Education Initiative
PTD	Primary Teacher's Diploma
PRESET	Pre-service Education and Training
RNCS	Revised National Curriculum Statement
RQ	Research Question
S	Survey
T	Teacher in Survey
STDs	Sexually Transmitted Diseases
STIs	Sexually Transmitted Infections
STS	Science and Technology in Society
ZFI	Zone of Feasible Implementation
ZPD	Zone of Proximal Development