

**A STUDY OF INCLUSIVE EDUCATION AND ITS EFFECTS ON THE  
TEACHING OF BIOLOGY TO VISUALLY IMPAIRED LEARNERS**

By

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## DECLARATION

I declare that the thesis, which I hereby submit for the degree Philosophiae Doctor at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at any other institution.

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## ACKNOWLEDGEMENT

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Although barriers such as ignorance, fear and stereotypes have led and are still leading to blind and visually impaired learners to be unfairly discriminated against in the teaching and learning mediation of life sciences, all of us can take pride in our efforts and endeavours to redress those imbalances so that the blind and visually impaired learners can benefit from life sciences subjects.

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## **ABSTRACT**

### **A study of inclusive education and its effects on the teaching of biology to visually impaired learners**

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Department: Curriculum Studies

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### **AIM AND OBJECTIVES**

The investigation aimed to determine how the learning of the life sciences is facilitated (mediated) in special schools for blind learners and to establish how the lessons learnt from this experience could be implemented to the advantage of blind learners in the Senior Phase and Further Education and Training Band in inclusive Outcomes-based education settings.

### **METHODOLOGY**

Educators and blind learners were interviewed through the use of the Qualitative Inquiry methodology as well as its techniques and strategies for data gathering. Analysis of the transcripts resulted in the development of themes/codes discussed in the research investigation.

### **RESULTS**

Educators spent a good amount of time and effort with blind learners in the biology and life sciences classrooms. It appeared as if the pastoral role of the educator predominantly exceeded the teaching of biology and life sciences to these learners. Further, it became evident that the emphasis did not fall strongly

enough on the achievement of the outcomes envisaged with the biology curriculum but more on the establishment of a caring and supportive classroom environment.

## **CONCLUSIONS**

Biology and other life sciences subjects have much potential for the blind learners in South Africa but they are not offered at some of the schools or efficiently mediated due to educators' reluctance, lack of knowledge and resources. Learning mediation strategies to make biology and life sciences more accessible to blind learners could be explored.

## KEY WORDS

Teaching and learning mediation of science

Blind and visually impaired learners

Inclusive education

Outcomes-based education

Strategies for learning

The importance of life science to blind learners and the society in general

Science process skills

The development of subject system

Competences for discovery

Interaction / social / emotional environment

Guidelines for biology educators

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