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The impact of the National Environmental Education Policy initiatives in South African schools

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CHAPTER 2

2. RESEARCH METHODOLOGY

2.1. Research Design

This study is located within the qualitative paradigm. The research is descriptive and non –experimental since it aims to describe and evaluate programs (Kitchin and Tate, 1999; Wiegand, 1993). Following this thinking, Kemmis (1986:331) argues for a greater enquiry based, practitioner based approach to environmental education. This research uses critical social enquiry to explore the implementation of environmental education policy initiatives and projects in schools.

2. 2. Research Approach

A descriptive case study approach was employed in this study. Case study researchers aim to observe the totality of the situation with the intention of painting a picture, portraying features for a reader (Roberts, 1996; Huckle, 1995; Yin, 1994). In this research an attempt has been made to describe in detail the present status of environmental education in schools, how teachers and principals define environmental education and how they are responding to policies and demands. This is done by exploring the discourse that exists between environmental education policy and practice as seen by those who are involved in it. The link that exists between the Department of Education, its district offices and schools is further investigated and debated. To guide the reader towards a balanced understanding of the state of environmental education, a triangulated descriptive model has been used. This method can be described as the process whereby data sources are pitted against one another to cross check the data and interpretation (Bechtel, 1987; Patton, 1990). According to the triangulation model, in this research schools are at the centre of the triangle, at the top is the Gauteng Provincial Department of Education and at the opposite sides are the Area Districts and the Delta

Environmental Centre. The triangle helps to clarify that schools cannot be viewed as isolated entities but in relation to other government departments. An advantage of using this approach is that the researcher views a given research unit as a whole rather than isolated elements (Roberts, 1996).

In all the interviews conducted in schools, at the Department of Education and at the Area District, a face to face, semi-structured method was used. Semi-structured interviews were conducted with an open framework, which allows for focused, conversational, two-way communication. The advantage of using the semi-structured interview is that it allows for new unplanned questions to arise from the discussion (Corney, 1997). Discussing environmental education themes with my respondents gave them room to go beyond the planned themes and explored other issues related to school education. The advantage here is that teachers and principals could easily express their emotions and feelings about the state of environmental education and that of general education at large. Their wishes and frustrations provided an indication that political and social issues of schooling are also linked to environmental issues.

2.3. Interviews with key informants

Participants: Teachers and principals from schools in Orlando, Department of Education officials, District officials, DACEL official and Delta Environmental Centre personnel were my participants.

First interviews: principals and teachers

The school based interviews were conducted at high schools, in Soweto`s two townships, Orlando East and West. These interviews were done over a period of eight days. Two educators (the principal and a teacher) were interviewed from each school. Each

interview lasted for about an hour. After analysis of the research findings follow-up interviews were conducted.

The second interview: GDE official

The interview was conducted at the Gauteng Department of Education offices in Johannesburg. The interviewee was a Natural Science curriculum coordinator for the Department. She is responsible for coordinating environmental education in schools and at the district. According to her, she was the only person who did environmental education at a post- graduate level and was shouldered with the responsibility of coordinating it.

The third interview: DACEL official

It was conducted at the Department of Agriculture, Conservation, Environment and Land Affairs. Here the Director of that department was interviewed. The interview lasted for an hour.

The Director is currently involved in coordinating the designing of environmental education learning resource materials that are to be distributed to schools before the end of 2005.

The fourth interview: **Area District official**

It was held at the Braamfontein Area District for education. Two language practitioners were interviewed. The interview lasted for two hours.

The District officials, with the help from the Department of Tourism and Development and DACEL, are coordinating environmental education in schools.

The fifth interview: **Delta Environmental Centre**

The Delta Environmental Centre played a major role, on behalf of the Gauteng Department of Education (since 1999), in curriculum design, policy initiations and implementations. The center also played an important role in resource material development and teacher support strategies. It was therefore important to learn from them, what is happening in schools related to environmental education. It should be noted this sampling procedure neglected other teachers who also might have had a role to play in environmental education.

2. 4. Data sampling

Sample number for schools: there are less than 11 high schools in Orlando East and West. The eight schools interviewed are a representation of the majority of schools in Orlando.

All principals were interviewed. By virtue of their status and responsibility, principals coordinate all school activities. They also keep record of files and circulars of their schools. It was important to learn from them about all documented activities related to environmental education in their schools.

Principals selected teachers to be interviewed. In most cases, the principals selected teachers from Biology and Geography backgrounds and those belonging to environmental education committees. These were trusted teachers who had some ideas on environmental education.

2.5. Data Analysis

Analysis is essentially about making sense of the data collected and using the results of this process to answer research questions. Thus, one makes sense of separate pieces of data by studying them carefully and categorizing them so that patterns begin to emerge

(Wickham, 2000). The first thing to do in this case, according to Tilbury (1995:57), is to record each observation and finding onto a data sheet. These data are then recorded broadly; then themes are developed, categorized into groups and further refined.

These were steps followed in data analysis:

2.5.1. Developing themes: these were developed from categories and codes. Themes developed from these were: the definition of environmental education in schools, teacher`s perceptions of environmental education in schools, the role of environmental education School Policy Packs, educators` knowledge of NEEP –GET, the relationship between schools and the Gauteng Department of Education, between schools and the District offices and, between schools and the Delta Environmental Centre.

2.5.2. Other themes developed from the Provincial and District level were:

The role of the NEEP-GET in schools, policy support at the provincial level, lack of institutional capacity, capability of environmental education facilitators to run projects in schools, lack of accountability at the district level, the space for environmental education in the new school curriculum, and the definition of environmental education.

2.5.3. Presenting and analyzing data:

The descriptive approach, according to Roberts (1995:104), is used in qualitative research to present and analyse data. A critical social approach, adopted from Lean (1999:104), is used here to explore the complexity of environmental education policy initiatives and projects. Literature and more interpretative work were used to supplement data analysis. These were steps used in data analysis: a) revisiting some perspectives and theories underlying environmental education, b) then exploring contestations around these, c) and then marrying them with real case studies from the field. In all these steps undertaken it was necessary to keep on checking whether these debates and contestations were really

answering the research questions. There was a need in this regard to keep on checking the fieldwork notes, themes and responses.

2.6. Summary

A qualitative research design was chosen for this research to document environmental education trends and policy initiatives in South Africa. The descriptive approach was used to explain the relationship between environmental education policy and practice as seen and practiced by those (researchers, facilitators, teachers) who are involved in it. With the aid of multiple participants (education officials, teachers, Delta personnel) and multiple data gathering instruments (e-mail, face to face, and telephonic interviews) the data was triangulated to get a sound understanding about the state of environmental education from interviewees. The data was analysed into themes extracted for presentation and discussion.