

CHAPTER 6

6.1. CONCLUSION

The literature review section in this research tends to point to the fact that environmental education has now reached schools and communities. It documented in detail the drastic move from environmental education **about, in** and **for** the environment to the current **sustainability** and **empowerment education**. This shift has been paralleled with the shift in education pedagogy and perspectives. There was a shift from positivist beliefs to behaviourism, to social constructivism, to critical social perspectives. These shifts tend to suggest that current initiatives, the Millenium Goal in environmental education, for example, are making impact in schools and communities.

Again current literature claims that environmental education is really making an impact in schools. Enviro Teach (2000: 32) claims “currently environmental education is reaching out to poor communities”. Delta (1999:76) is saying that “we are successfully incorporating environmental education into learning areas”. The Department of Tourism and Development claims (2005, 32) “our booklets are changing lives in schools”, and NEEP-GET policy (2002:17) says “we are successfully coordinating environmental education in schools”. The picture one gets from all these commentaries is that environmental education is understood and implemented in schools. All these claims might be true at some level, but they sound very generalized, unfounded and unrealistic.

The research findings and analysis here suggest that on paper progress is being made but in reality lot of work still needs to be done. One of the findings in this research was that national environmental projects, NEEP in particular, have not reached schools in Gauteng and made an impact there. It has been argued that the Department of Education lacks capacity and strategies to carry out this national project. The Department does not have environmental education officers to implement and run environmental education in schools. Delta and other institutions had to jump in to claim this responsibility. But Delta dealt worked only with a few selected schools. So the majority remained unattended to.

Second, Area district officials facilitating environmental education in schools are not suitably qualified to do the job. They are natural science coordinators and language practitioners and not environmental education specialists.

It was also very evident from the research discussion that there were some other factors that prevent the implementation of environmental education in schools. These are: environmental education is poorly defined in schools. It is still associated with ecology study. Second, teachers are not yet fully empowered to initiate and run environmental education projects. Projects of this nature are not reaching their schools. Third, at times teachers are required to attend environmental education workshops after school hours. All interviewed teachers complain that they are uncomfortable working after hours. They feel that they are overworked and exploited by the government. Finally, some teachers are still uncomfortable with OBE and therefore with environmental education. These teachers tend to question the space for environmental education in the curriculum and the role of environmental education in schools.

6.2. Recommendations

National and local environmental education policies and initiatives in South Africa need to be considered critically. The country has to fiddle with plans, methods, strategies, to deal with challenges that impede the success of the promotion and implementation of environmental education in schools. The challenges range from problems of poor coordination between the Department of Education and schools to teachers' poor commitment to the incorporation of environmental education into learning areas. With rapid and fundamental social evolution in education, the time is now probably as right as it ever will be for environmental educationalists to achieve widespread adoption of sound environmental education principles and practices in the region. The following recommendations explain how environmental education can be improved in schools, at the district level, at the provincial education level, in environmental centers and in communities.

Shifts in perceptions and thinking in Environmental Education

- a) It was very clear from the fieldwork interviews in schools that environmental education is still defined as environmental management, ecology studies, conservation study, and ecosystem management. This is the technocentrist; understanding of what environmental education is all about. Today's OBE teaching methodology suggests a move away from learning **about** the environment to learning about attitudes, skills, values, and knowledge. In other words, the new methodology suggests the need for environmental "scientism" to acknowledge its wider socio-political context and shake off all vestiges of its former elitism. Natural scientists should acknowledge the importance of social sciences in environmental policy and planning debates. Instead of clinging to the conservative, old fashioned styles of teaching of "chalk and talk", of the teacher being the authority figure in the classroom, progressive environmental education projects need to be established in schools, again acknowledging the socio-political context in which they work.

Teacher Vulnerability

- b) Research findings confirm that teachers are still peripheral to environmental education policy initiatives. For example, environmental education cluster meetings are optional and they are held after schools. Some teachers are unable to attend these late meetings, as they are not paid for hours they spend there. Some teachers are still struggling to cope with OBE demands, let alone the RNCS. The introduction of environmental education within OBE scares them away from participating in environmental education issues. To respond to this problem, long term plans to empower vulnerable teachers need to be established in this new curriculum reform and these teachers need to be included into the processes of curriculum innovation and planning. To add to that, teachers need to be encouraged to be involved in research on environmental education. This will, in

the long run encourage them to be actors in environmental education issues. As Stevenson (2004: 58) puts it, an essential aspect to bringing about this vision is to encourage educators to become critical scholars who through engaging in research, will be involved in matters such as development of appropriate curricula and educational policy as well as identifying ways in which schools and communities can be more intimately and constructively linked.

The Need for Self-Empowerment

- c) Of eight schools interviewed only two had functional environmental education committees. The observation points out that the Delta Environmental Centre and the District officials' vision of promoting environmental education is not making impact in schools. It is time teachers take initiatives themselves and be in the forefront of school projects development and should liaise with the GDE.

Teacher Appraisal Strategy

- d) There is also a need for the introduction of environmental education teacher-development appraisal strategy. Environmental educators who do best in school projects can be rewarded through incentives and support services. The appraisal strategy, as evident from Swaziland, according to Makuri (2001:24) empowers and encourages environmental educators to develop projects and become linked to private sectors and the non –governmental organizations. This will give teachers and learners the urge to want to start environmental education projects and this will also help local communities (both urban and rural) to be able to participate in environmental initiatives.

Environmental Advocacy

- e) Environmental education is not in the classroom only. Its impacts should be seen in working areas, at home, in the community, in learning institutions. In a nutshell, it should be everywhere as “the environment” forms part of the basis of our survival. Given this insight, local experts, working groups in the field of or related to, the environment, should also play their part and visit schools to teach them about environmental awareness. Eskom, Pikit Up, to mention a few companies, are already doing this, but on irregular basis. There is a need for educators to include in their year programme visiting speakers from companies to address learners in particular environmental themes, e.g. making use of environmental friendly products, how to save energy at home, etc.

Sustainable Development

- f) Related to the issue of sustainable development is the need to help learners to “think globally and act locally”. Learners need to be exposed to the global environmental problems such as ozone depletion, deforestation and global warming. They should be helped to be able to relate these problems to their local environment. Thus, they should know about the consequences of burning coal, cutting trees, etc. On the whole environmental education should help learners to be environmentally sensitive and take initiatives in combating environmental disasters and risks. This thinking calls for a need to incorporate sustainable development in the national school curricula and teaching methodology. In fact, sustainable development should be the core focus of environmental education in schools. Learners need to be taught from their early childhood that the untimely use of resources such as water limits the chances of the coming generations to use them. Learners must be taught to be sensitive and aware of some of the environmental problems (e.g. garbage waste and littering) that are immediate to their surroundings.

All the themes explored in this research do not have clear-cut answers or solutions. This research dwells much on documenting the existing institutional hierarchy behind environmental education policy initiatives and curriculum development in the Gauteng province. As this research analysis was informed by the critical social theory, institutions and their core practitioners in the field of environmental education for Gauteng were investigated and discussed. The research also discussed how environmental education is run and coordinated in the Gauteng region. And by so doing it opens itself up for criticisms, falsification to pave way for other research in this topic. This according to Popper (1978) in Swann (2000:131) will lead to progress in environmental education.