CHAPTER 5

FINDINGS AND RECOMMENDATION

5.1 Summary

This study aimed at investigating the General Education and Training Band (Middle Schools) of the Bojanala East Region in the North West Province in terms of teachers’ competence and perceptions regarding the implementation of Environmental Education.

Chapter one gave the background to the purpose of the study, by outlining concerns that societies needed to be aware of regarding the environment and its associated problems. It also highlighted the need for reasonable measures to be taken worldwide to deal with these problems.

Chapter two provided a brief summary of environmental problems and their extent, positing Environmental Education as one of the major responses towards the solution of these problems. It outlined various directions and trends being taken by Environmental Education, up to a point where Outcomes Based Education and a training approach of Curriculum 2005 and the National Curriculum Statement has to be used as the best means of implementing Environmental Education within the South African schools’ curriculum.

Chapter three explained how and why qualitative research, as opposed to quantitative approach, was chosen as the research design for this study. Semi-structured interviews and observations were selected as the tools to collect data, which was subsequently analysed through qualitative content analysis methods. Measures taken to ensure validity and reliability were also outlined in this chapter.

Chapter four presented the content data analysis report of the interviews conducted at the three Middle schools involved in this research. The following seven categories of codes were used in the analysis process to guide the presentation of facts:
5.2 Findings of the study

Chapter five provides a summary of the main findings on the ways in which teachers at the Temba District schools of Bojanala East Region in the North West Province plan their Learning Programmes to include Environmental Education themes, as has been categorized in various codes outlined in the summary above. It will also provide for some tentative recommendations of the solutions to challenges faced by teachers at these schools, in their attempts to implement Environmental Education practices.

The interviews conducted for this research revealed valuable information and insight into the practice of Environmental Education by teachers teaching in the General Education and Training Band in a specific geographical area in the North West Province (Bojanala East Region). The data illustrates that teachers on the ground level do not have sufficient knowledge of what the concept ‘environment’ entails, nor what Environmental Education is all about. Although the literature review in chapter two provided options as to the best way is to integrate Environmental Education into the school system, the results of this research revealed that very little has been done to this effect. If teachers lack the basic background information about the environment itself, it will be difficult to expect
them to know about the education part of it. The findings will be presented here with a brief reference to the data presented in chapter four.

5.2.1 Teachers’ general understanding of the term ‘environment’

It was noted in chapter four that most of the teachers understood the term ‘environment’ as entailing the biophysical aspect (see chapter four, paragraph two of 4.1.2.1). They seemed to know little about the holistic view of the environment, not knowing that the social, political, economic, cultural, scientific-technological, personal and biophysical aspects should all be interrelated (see Van Rooyen’s model in chapter two). Most of the respondents talked about the environment as ‘the surroundings’.

5.2.2 Teachers’ perceptions about the effect of environmental issues within the school’s environment

Teachers could not relate some of the socio-economic problems they encounter with their learners to being essentially of an environment-related nature. The only main concern they thought could have a relationship with environmental problems was that of littering (see Appendix 1.5, schools 1, 2 & 3). They associated this with instances of pollution, a problem which they did not even see could be used or translated into a practice to be solved through classroom activities. According to them, taking learners out of the classroom, to surroundings where they would pick up littered material, would be enough. This is what one teacher had to say in this regard:

“I don’t see my school being affected. We have bins, people who clean the environment, so littering, even if it is a problem; we have a solution to it”.

(See Appendix 1.5 school 2)

This shows that teachers do not know that they should be concerned about their learners’ socio-economic problems; hence they do not mention them, not even to say that they should have a role to play in addressing these plights. The following responses from the interviews support this assertion around the code:
“Our learners care very little about the environment in their life i.e. they are not keen to learn about the environment because most of their learning process stays on abstract things. They don’t do these things practically like being involved for instance in gardening where they can understand what the environment is all about but because they take everything that is literally abstract only, and existing in the learners material they use in textbooks. These are things that cannot practically be done by them, especially if there is no subject on the environment”.

“I think our learners’ progress is affected because they don’t have knowledge. If the environment itself becomes a subject at school and experts are brought, teachers who have environmental knowledge are brought at school, that’s the only way they can have knowledge and sure case about the environment. For now, we don’t have anything in our Learning Areas addressing the environment, I don’t know about other Learning Areas, but with the subject I am teaching, we don’t have”.

(See Appendix 1.5, school 1)

5.2.3 Teachers’ skills, knowledge, attitudes and values regarding Environmental Education

The data revealed that teachers felt that it was not going to be possible for them to include environmental themes across the whole curriculum, as they were not Environmental Education specialists. Their feeling was that Environmental Education or Environmental Studies should first be introduced as school subjects, then the implementation by all the teachers would follow (see Appendix 1.5, school 1, 2 & 3). This identifies a serious inability of teachers to translate the environmental discourse into classroom practice. One of Ramsarup’s respondents, in her research, was found to be having the same perception as the respondents of this research:

“We need to have a background on environment only then as a teacher will I be able to plan projects that incorporate these things…[we] need theoretical background on how to develop actual lessons”.

(See Appendix 1.5, school 1)
5.2.4 The role of schools in addressing environmental problems

None of the three schools sampled had an Environmental Education policy. Teachers were saying they relied on the National government's environmental programmes, such as Arbor week, Water week and Tree Planting Days, to participate in environmental matters. Apart from this, it would be up to teachers with a strong enthusiasm for this field to get environmental projects running.

“We have no policy as such so far. We have affiliated with the Wildlife Environment Society of South Africa. Our school is a member and we have some educators who have formed this environment group in which they are involve. Like today we have two parents, two teachers who have undertaken a trip to Botanical gardens for learning about the environment”.

(See Appendix 1.5, school 1)

It has been found that even if there are teachers who are willing to contribute towards the betterment of the environment, they do not receive support from the management, making it difficult for them to even go all out to raise funds that can be used to assist the most disadvantaged learners at school:

“Basically we do not have a policy. It is improvisation. We don’t have funding, support from government, business, council, etc. All these things start basically from school. It is only four of us who have identified learners who are talented. We give learners from needy families skills training for them to survive. We have identified some projects and do them after school. It is just our efforts through the fundraising that we do, like selling the cultural beads, asking for donations, do car washes. We just say it is for the school because we raise funds in the name of the school. The only disappointment is that the donations we asked for, hoping that we will buy equipment’s and cultural attire, and to feed learners, once it is within the schools coffers, it is not easy to get it. Even now, people who gave us donations, they will be shocked to know that the money is not used for what it was asked for; “to help needy pupils”. The office is reluctant to use money that was raised for these kids. It will now be used to pay for telephone bills as this is important more than to assist these learners”.

(Ramsarup, 2005:89)
“Most of the time, at the end of year, we do a Business Plan with management. They are aware of everything we do. Most of the things we do during school hours; like holding meetings with the donors, sometimes the principal is also invited on those meetings. To the issues of finance getting into the school coffers, there we are together with the principal. Once the funds are available, that’s where the problem starts. Once the money is in, it is in. They will tell you about the school not having this and that. They forget that we did not request funds for the things they are mentioning. There were so many teachers who were involved by using their money to help these needy learners, but they are losing hope because sometimes you may find that even teachers themselves do not have pocket money, hence they supported the fundraising, but now, they feel they are taxed”.

“Projects are identified, budgets are set aside, but they normally don’t reach the intended goal. Maybe it is because we lack knowledge about procedures. That is why I believe that if educators with knowledge can be engaged, the current educators can also access knowledge that can assist in meeting all these requirements placed on our shoulders”.

(See Appendix 1.5 school 3)

It seems as if the requirements of the current education policies did not take into consideration the barriers teachers are faced with. Situations such as overcrowding in the classroom pose very serious challenges to teachers, who thus fail to implement some of the policy regulations, for example, the one saying the child should not repeat the class twice, unless an intervention has been conducted to prove that the learner cannot perform, or the learner has a learning barrier. Teachers thus do an injustice to the system, with serious shortfalls for the learners, in the sense that they avoid doing what is right and pass all the learners, even if they know there are those who still cannot read and write:

“The intervention can’t happen because of workload. It involves remedial specialists. We don’t have them, or do you know of any remedial specialist, or are you now going to be one of them? You see, the whole system needs to be restructured where each school has to have its specialist to be able to deal with these issues? In the past, we used to have those
specialists, even though they were only two to deal with more than hundred schools, it was better than nothing. However, they still couldn't cope. So we need support. If you are one allocated for a larger area, how do you cope, transport wise, etc?"

(See Appendix 1.5, school 1)

5.2.5 The approach to Environmental Education within the schools' curriculum

The findings of this research reveal that teachers are not aware of their local environmental issues; as a result, their Learning Programmes do not have room for any environmental themes. Their Learning Programmes do not foreground the underlying principles of the Revised National Curriculum Statements, foregrounding the issues of poverty, inequality, race, age, disability and challenges as HIV/AIDS. There is no evidence of knowledge regarding the interrelatedness of the issues of social justice, human rights and a healthy environment, in what they regard as their way of planning their teaching and learning activities.

Teachers think that Environmental Education should be treated as a separate subject within the curriculum, and should be taught by Environmental Education specialists. They are under the misconception that Environmental Education is a subject specific instructional plan aimed at achieving subject-specific goals. They are not aware that Environmental Education is a process of education for which all the subjects can be dealt with. It is in fact a process of education for which all subjects can be vehicles. There is evidence of the inadequacies of teachers to implement Environmental Education within the entire curriculum, as an interdisciplinary cross-curricula approach. To them, Environmental Education is a subject or product with a narrow perspective, associated only with nature study and conservation education. They do not see how it can be associated with the built environment or the critical examination of the effects of cultural, economic, political, scientific-technological, personal and biophysical practices on the environment and the people. To them, environmental knowledge is a prerequisite for one to investigate an environmental issue. They think that elements of Environmental Education can be addressed only in some Learning Areas, such as Technology, Life Orientation, Social Sciences and Natural Sciences.
The problem noted above was also noticed by Takalo, 1991 (in Blignaut, 1993:54) as cited below, highlighting some of the things she believes to be constraints inherent in most of South African Black schools:

“a predominant amount of teaching, particularly in Black schools, is narrative and induces a sit-still-and-listen behaviour in the pupils and suppresses their critical and creative skills. Pupils are meant to believe in the ‘irrelevant’ knowledge dispensed by the teachers and textbooks, which they must use in future. They are required to remember, they are rarely encouraged to ask substantive questions or to perform any intellectual operations that require original thought as the teacher’s limited understanding is threatened and they are merely relating someone else’s story”.

Teachers are still used to their subject teaching and day-to-day practice they learned from their training institutions. They cannot view the curriculum as holistic, or interrelated, still thinking of it in isolation and struggling to keep abreast of educational developments and new methods of teaching. It is thus not going to be so easy for them, by themselves; to detach themselves from these habits and adjust to new imposed innovations within the very poorly resourced schools in which they work. Environmental Education is thus seen as just another workload being imposed, with little or no relevance to them and their learners.

5.2.6 Compliance with environmental learning as a NCS principle and relevant school policies / Approaches to working with policies

The assessment approaches and methods teachers use also indicated lack of reflection on learners’ skills, knowledge, attitudes and values, in regard to the environment. Fragmentation and lack of integration is promoted because each teacher uses his/her discretion to choose the approach or method to assess learners. Examinations are still considered the measuring tool for the achievement of learners. There is no room for flexibility and holistic and integrative learning. The following quotations attest to these assertions:
“I don’t know what to say except that your questions seek the information on something that is still experimental. We are still waiting for the end product because we have not yet reached the end product because RNCS is not yet in Grade twelve. Isn’t it that we use these exams as a measuring tool to see if this is effective or not. Can we claim that we are successful about RNCS and that it is better than OBE? We don’t have a tool to measure, but my problem is that most learners who are the product of this new curriculum can’t read and write. Maybe it is because of me being still in the old school of thought. That is why I am questioning some of the things, which happen. I am not very comfortable with some of the things because our children are not able to read and write. OBE says… Phasa feela “pass all” so at the end of the day most of the children can’t cope. They can’t read and write. That is why I am having a problem with it.”

(See Appendix, 1.5 school 1)

Curriculum links with the integration of environmental flavour, as called for by the new curriculum policy approach of the Outcomes Based Education and Training, is largely ignored. Teachers do not know how they can become community champions and agents by designing learning activities that position them and their learners in roles within the community. Parents seem not to have interest in assisting schools to develop policies that can assist in addressing their local environmental problems. There is little if any contact between teachers and the community, and a clear indication that teachers lack adequate knowledge and understanding of the policies governing their daily practices. This will prohibit them from getting an opportunity to experience the translation of Environmental Education discourse into their daily practice, as required by their policies.

The root of the problem identified in this research is that Black schools do not have good teachers who can teach better. Schools lack skillful teachers who can work collaboratively to infuse Environmental Education into their teaching and be more accountable and effective in what they do. There is lack of effective utilization of a creative teaching talent in an already existing pool of teachers who have potential. As a result, the attitude and behaviour of most teachers towards the teaching field has been so negatively changed that it has led to most of them loosing interest in it altogether.
The discrepancies are due to teachers not being properly qualified, and yet they are expected to perform miracles in the not so favourable conditions they are faced with. Teachers, especially in Black schools, are not skillful because they lack the right qualifications that could assist them in dealing with constraints, such as the following:

- high teacher-pupil ratios because teachers are being redeployed to other schools
- school communities not collaborating with schools because of having different norms from those offered in the curriculum,
- lack of encouragement from national and local education bodies
- lack of resources
- lack of opportunities for teachers to develop their own sensitivity to their environment and their own environmental attitudes and values
- lack of competencies to see the importance of Environmental Education as a process within their Learning Areas
- lack of confidence
- lack of the ability to deal with overload and other related stresses

5.3 Recommendations

This study highlights that teachers need to have their skills harnessed so that they become more effective in developing the qualities required for a more progressive teaching. There is a need for a rigorous teacher training that can remove the constraints hindering the successful implementation of Environmental Education.

It has been highlighted during the interviews that the pre-service and in-service training, conducted for the teachers to familiarise them with new policies, is apparently ineffective and unsuccessful. These workshops offer very little help to teachers because they are held for a short period of time, maybe for one or two weeks, while at the same time they are done in a cascaded way. Teachers do not get the firsthand information from the subject matter experts because they rely on people who are trained on their behalf, so that they later get a cascaded training on
any new developments around policies and curriculum issues. Teachers are not trained by the right people. It is thus difficult to see how these workshops can deal with the common practices teachers have inherited from their training colleges of education. The manner in which teachers have been trained has always prohibited them from being able to see a holistic view of teaching and learning. Their responses gave a suspicion that the colleges from where they have trained as teachers did not have the theoretical models to assist teachers to adapt to situations requiring any criteria imposed upon them. It seemed as if they are used to a more subject-orientated than learner-orientated approach.

Therefore, there is a need for teacher training that will provide teachers with skills to enable them to use techniques for planning and organisation of teaching, learning and assessment. Training could provide them with foundational knowledge to enable them to recognize their local environmental issues, so that they can include an environmental flavor in their Learning Areas. Training can equip them with methods and strategies they can employ within the varying contexts of their schools, while at the same time taking their community needs into consideration. It is however noted that teacher training would still not suffice if it is to happen in environments where there is no proper resource allocation, or enough time made available to support and assist teachers to deal with their attitudes and the passive resistance brought about by the change imposed through new curriculum developments.

The Department of Education has to develop national guidelines in the form of learning materials and supporting audio-visual programmes that are user-friendly to develop in teachers, skills and augmented knowledge for the implementation of Environmental Education in an already established curriculum. Schools will then be able to take it step further by developing their contextual local Environmental Education policies.

The results of this research revealed that none of the schools where interviews were conducted had formally prepared policies on Environmental education. Although there were a few of teachers who would go out of their way to make some Environmental Education development traces without such policies, however, lack
thereof leads to difficulties for schools to secure funding for Environmental education projects, teachers training, as well as for production of resource materials.

It is therefore recommended through this study that the Department of Education should attempt to positively influence teachers’ attitudes and perceptions towards the need to know, understand and develop skills towards addressing environmental issues, making Environmental Education compulsory for every school. It should also engage other government departments and agencies with environmental focus and interest to assist schools to develop Environmental Education policies that will encompass budget allocation for the holistic Environmental Education development and practice.

The above recommendation should be seen as a serious collaborative change in attitude of both government and school communities towards the environment. Teachers need to be assisted to develop materials from resources that are easily accessible and adaptable, and without great cost. This calls for them to work collaboratively to bring about systemic change in attitudes and behaviour, with simultaneous social change in values, as well as direct management from national and local education bodies.

This study generally supports recommendations made by Ramsarup (2005:98) that there is a need for professional development of teachers and development programmes that focus on:

- improving foundational knowledge of environmental issues and risks;
- developing a deeper understanding of the environmental focus in the Learning Areas;
- planning and developing learning programmes, work schedules and lesson plans that bring out the environmental discourse; and
- deeper understanding of how the principles of social justice, human rights, a healthy environment and inclusivity are enshrined within the Revised National Curriculum Statements.
5.4 Limitations of the study

Ideally, this study was supposed to involve a wider range of South African schools, but due to time, financial resources and a prescribed word-limit for a mini-dissertation, it was confined to Temba District of Bojanala East Region in the North West Province, near Hammanskraal in the north of Pretoria. There are both urban and rural schools in this area; however, the research has been conducted in the urban schools which are closer to the Babelegi industrial site, an area which I believe does make a contribution to the creation of the environmental legacies in this Township.

The research has concentrated on the Middle schools, where Outcomes-based Education and Training approach of the new education policy is being implemented throughout the whole phase—that is from grade seven until grade nine. This report does not overrule the possibility that different results may have been found if the research had been conducted in other Middle Schools with different biographical and geographical characteristics.

5.5 Conclusion

This study has reported on the findings of the implementation of Environmental Education themes within the Learning Programmes of teachers at the Middle Schools or the General Education and training Band of the Bojanala East Region in the North West Province. It has illustrated that little or no Environmental Education is being conducted at these schools. This has been found to be influenced by the fact that teachers lack skills to interpret and use the National Curriculum Statements of the Outcomes Based Education and Training approach to deal with their local and contextual schools environmental issues.

It has been recommended in this report that proper teacher training that can equip teachers with critical thinking and creative skills, as well as the meaningful support from government through the Department of Education, can be the solution to the problems identified. It is believed that this can motivate
teachers in becoming prepared to put in more effort and to carry out new activities as introduced through curriculum innovations.