LOCALIZING THE MEDIUM, MESSAGE AND ACTION:

CAN COMMUNITY RADIO CONTRIBUTE
TO ENVIRONMENTAL EDUCATION
IN WAKKERSTROOM ?

by

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ABSTRACT

The field of development communication has up until recently enjoyed little academic appraisal in the light of emerging environmental discourses within the sociological tradition. No more prevalent is such neglect than on the level of enquiry into the possible roles for community radio, in contributing meaningfully towards environmental education. Proponents of environmental education have to this date been sceptic about transmission pedagogies inherent in the mass media, yet no attempts have been made to consider the position occupied by community radio as alternative to mass media education. This is a pressing concern, since the accelerated development and expansion of this sector in South Africa provides widespread potential for radio initiatives to take up environmental education (in terms of *both* information transmission and action programmes), especially at the level of isolated rural communities.

This study examines the possible reasons for such neglect, by drawing both on qualitative and quantitative approaches to expose and appease the orientations exhibited from the fields of community radio and environmental education. By considering how both fields are inherently critically-inclined and by drawing on the views of an exploratory sample of 45 participants in the Wakkerstroom district, it argues that community radio, as development communication, could provide a meaningful context and multiple roles for the facilitation of environmental education in that locality. Broader calls for the use of such a medium are also reinforced by a discussion on the pressing environment and development challenges facing the study area.

Throughout its theoretical discussion the study surfaces emerging themes. The most significant of these state that community radio's local *modus operandi,* its valuing in principle of action, its call for specificity in broadcast approach, its inherent status quo-challenging temperament, its unique ability to harness interpersonal social interactions and its opportunity to build a sense of community and collaboration on environmental matters, provides for a meaningful context in which to house action and experientially-geared environmental education processes. All these arguments are seen to compliment existing views held on the media and environmental education, by the study's exploratory sample. By repeatedly positioning the two fields within a framework of socially-critical methodology, the study suggests that future initiatives in environmental education should be receptive to grassroots calls for using community radio as an alternative to generalized media broadcasting approaches, in which specific and local contexts could facilitate understandings on environment and development matters. It closes with a broad agenda for such further initiatives, by emphasizing the need to build network, organizational and research links between these two fields.

DECLARATION

I declare that the contents of this thesis, unless otherwise specified in the text, represent my own and original work. Where the work of others has been used, it is duly acknowledged.

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ANC	African National Congress
CASET	Casettes in Education and Training
CODESA	Congress for a Democratic South Africa
COM	Campaign for Open Media
COMNET	Community Media Network
CRFC	Community Radio Facilitatory Committee
CSS	Central Statistical Services
DCFRN	Developing Countries Farm Radio Network
EASY	Environmental Award System for Youth

(List of abbreviations: continued)

ECO-ED	World Congress for Education and Communication on Environment and Development
EEPI	Environmental Education Policy Initiative
EJNF	Environmental Justice Networking Forum
FAWO	Film and Allied Workers Union
GRASS	Grasslands Require Active Support for Servicing
IBA	Independent Broadcasting Authority
Inforeach	Information reaching
KPCA	Keep Pietermaritzburg Clean Association
MBC	Media and Broadcasting Consultants
MEP	Mission on Environmental Policy
MIE	Media In Education
NCRF	National Community Radio Forum
SABC	South African Broadcasting Corporation
TELI	Technology-Enhanced Learning Initiative
UNCED	United Nations Conference on Environment and Development
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
WNHA	Wakkerstroom Natural Heritage Association

ACKNOWLEDGMENTS

... as our thoughts rise fresh upon us, we readily believe them just and original, which, when the pleasure of production is over, we find to be mean and common, or borrowed from the works of others, and supplied by memory rather than invention ... The writer ... is still to remember that he looks upon it with partial eyes; and when he considers how much men who could judge of others with great exactness have often failed in judging themselves, he will be afraid of deciding too hastily in his own favour, or of allowing himself with too much complacence treasure that has not yet been brought to the test, nor passed the only trial that can stamp its value.

Samuel Johnson, *The Adventurer* nos 137-8 (February-March 1754)

CHAPTER 1

INTRODUCTION

1.1 *Why this research ?*

The United Nations Conference on the Human Environment in 1972, laid down the foundation for world-wide debate on the possibilities for and arising from, the establishment of environmental education programmes.[1] South Africa subsequently saw growing interest amongst educators, policy-makers, academics and others in this developing field.

However, in all their depth, what remains unclear from many of these landmark events, is a consideration of the role(s) for development communication or community media, in harnessing and facilitating environmental education processes. The 1992 Earth Summit in particular, led to the publication of 'Agenda 21: Earth's action plan', which only broadly hinted to the role of effective communication in environmental or development education.[2]

With this recognition in mind, it is worth noting the call made by prominent development communicator Saik-Choon:

> *Development communications ... will, as in the past, be shaped and driven by development exigencies of the moment. The late 1980s and the first 18 months of the 1990s have projected to the front ... global concerns that will have major impacts on the development communication agenda ... [one such concern is] the environment [which] tops the list because the solution - sustainable development - a subset of the 'Another' Development model, seems poised to come out of the wings and take center stage (Saik-Choon,*

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[1] This gathering, also known as the Stockholm Conference, led to a series of other international events, most notably the UNESCO-UNEP Moscow Conference, the preparation of the Brundland Report in 1987, and the 1992 United Nations Conference on the Environment and Development, the latter of which Nostbakken (1993:4/5) sees as being most significant in refining the field of development communication.

[2] See Robinson (1993:583). The Earth Summit clearly sees environmental education as linked to socio-economic concerns, therefore calling also for its broader consideration in formal and non-formal education.

1993:123).

The Earth Summit spearheaded other talks on how communication as a process, whether mediated or not, could constitute meaningful change towards sustainability. The World Congress for Education and Communication on Environment and Development (ECO-ED), held in Toronto in 1992, is perhaps most well-known for initiating such debates. However conflicting the discussions, one common theme emerged:

> ... *environmental education and communication in support of sustainable development for citizens of the South, indigenous and minority groups, involves empowering people, providing them with the tools and skills to be able to determine their own destinies, transferring technology and information, and addressing overriding day-to-day survival concerns, manifest in widespread poverty, to prevent people living unsustainably out of necessity* (Gordon, 1993: 99).

Similarly, a more broader call has been uttered by Jagtenberg and McKie (1997:48) for the inclusion of environmental concerns as a 'fourth dimension' to class, gender and ethnicity issues, in communication studies. This study has been interested in converging the orientations exhibited from the fields of development communication and environmental education, by approaching them primarily as methodological issues. It argues for the increased use of the former as facilitatory 'mechanism' and social context in educational concerns. The need for such an exercise is especially significant when considering the apparent growth and expansion of the development communications sector in South Africa along with the recent community-orientation of environmental education, from a recognition to work within smaller, functional social units (O'Donoghue, pers. comm.).

Saik-Choon, in continuing his argument for the 'marriage' between these fields, sets out a proposal for local action. In essence, what he calls for is research which aims at merging the theories and practices of these disciplines (1993:138). This project then, has been an extension of Saik-Choon's call for a mergence. It sought to consider how the medium of community radio could offer appropriate,

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This study's use of the term 'mechanism' in no way serves to demarcate development communication as a technicist field. On the contrary, as shall be seen, its orientation in media thought reclines more towards socially critical methodology (having its roots in Frankfurtian sociology) and Baumanian postmodernism.

facilitatory and empowering roles in environment and development education [4]. It considers a range of international and local development communication experiences and represents an attempt at developing a way forward for a particular locality, that of the Wakkerstroom community in the south of the Mpumalanga province.

1.2 *Research Aims*

Upon launching this study, the following were key aims:

a) To explore the theoretical foundations underlying the fields of environmental education and community radio, so as to develop an argument for the use of the latter in concerns of the former.

b) To survey cases in which the two fields are central, so as to develop a more meaningful model for conceptualizing a central role for community radio in environmental education.

c) To consider from such previous experiences as well as from conditions facing the Wakkerstroom community, how the mergence of these two fields could provide a meaningful context in which problem-solving, consensus and action on development issues, could emerge.

Underlying these aims is the assumption that there does indeed exist a fundamental link between environmental education and community radio. Yet, what appears to contaminate and loosen the link, are sceptic views about the loss of meaningful learning from exposure to media messages and the accompanying lack of purposeful change instigated when designing, producing and broadcasting educational messages [5].

While this project's interest has been informed by the perception of a basic theoretical link between these fields, it has also been motivated by the realization of a lack of prior work done on the link

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[4]

Upon initial investigation, it became generally clear that both the fields of environmental education and development communication, are partly based on principles underlying the 'Another' development model proposed by the Dag Hammarskjold Foundation (see for example Ekins, 1992:99). Chapter 3 considers this model in more detail.

[5]

A fuller discussion of such debates is provided in Chapter 3. The reader will note that the fundamental concern within such debates, is the role and value of education in the 'Information Age'. Webster's (1995) 'Theories of the Information Society' provides for interesting background reading on the concept of the 'Information Age', while more direct implications of the educational dilemma's encountered in such a period can be found amongst the writings of postmodern radicals such as Baudrillard (1983) and Poster (1990).

between environmental education and the electronic or broadband media. O'Donoghue (pers. comm.) elaborates on this point:

> *... the obvious is seldom written down. The whole ideology of messaging others and the whole technicist communications issue is alive and well as shared in a conventional wisdom that simple messages will be received and people will change, if in community. [The idea] is so conventional that it never springs into critical relief for examination but is simply there with acceptance ...*

The argument presented in this thesis goes beyond fixations on message design and focuses largely on the declining significance of social interaction, be it symbolic or personal, between broadcasters and receivers. By revitalizing the notion of media-based social interaction (so that it values interpersonal interaction in learning) and by recurrently viewing community radio as development communication, it is argued that the nature of such a medium presents a unique and meaningful context for the emergence, maintenance and facilitation of participatory environmental/development education processes.

The consolidation of past experiences presented in this study, serves primarily to develop lessons from a limited range of 'educational broadcasting' cases, so as to provide a way forward for a developing process already underway within the Wakkerstroom community. This process, seeks to establish a community radio facility and should benefit from the thoughts raised in this thesis, especially with regards to expressed needs for radio-mediated environmental education.

1.3 *Research Questions*

Throughout the research period, the following were key questions guiding the enquiry:

1.3.1 Do the theoretical orientations underlying the fields of community radio and environmental education appear compatible enough, to call for their mergence as a future possibility in 'environmental communication' ?

1.3.2 What is the current (environmental) educational broadcasting climate in the study area ?

1.3.3 How could such a 'new' orientation in environmental communication be of benefit to the Wakkerstroom community ?

The project then, apart from engaging in some of the theoretical debates concerning the role of development communication and education in social change, also attempts a pragmatic consideration of possibilities at grassroots level.

1.4 *Outline of Chapters*

1.4.1 Chapter 2: Research Methodology

In this chapter issues relating to the design, process and specific methods employed in the research are discussed. While the research may be argued to lack a representative sample, it's strength should be seen in its ability to be adapted to other settings which may also exhibit a need for radio-mediated environmental education. A full discussion of the mixed sampling strategy used, as well as key limitations of the design and methods are considered.

1.4.2 Chapter 3: Media and Development: Debates and Pragmatics

This chapter locates community radio in the context of existing development theory and focuses particularly on its link to the model of 'Another' development. It is argued that the developing nature of the community radio movement as well as its underlying theoretical principles, have produced a context in which meaningful educational processes could emerge. Central to the chapter is the view of community radio as a critical response to the dominance of modern, mass-based broadcasting models. It considers a broad history and critical analysis of the community radio sector in South Africa so as to set a stage for later discussions on how it could realize and improve its development potential.

It also seeks to draw on the challenges exhibited from the nexus of regressive and progressive postmodern thought, to consider how this conflicting field could provide useful insights into the nature of contemporary (educational) broadcasting. By drawing on such challenges, it is argued that a fundamental progressive postmodern attitude, is central to the discussion on the critical and reactionary nature of community media in educational concerns[6]. Part of this chapter considers technical and cost considerations of radio broadcasting and considers the contributions which radio forums could make for

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[6]
Bauman, in 'Modernity and Ambivalence' (1991:271) points to misconceptions with the 'post' in postmodernity and prefers a definition thereof which fosters attitudinal and evaluatory possibilities of modern conditions, rather than the imagining of new figurations and discontinuities to be classified under the label of '*post*-modernity'.

re-enchanting radio listenership with a sense of direct (or interpersonal) interactionism. Such emerging contexts, it is argued, could pave the way for more cost-effective and meaningful educational radio programmes in the study area.

1.4.3 Chapter 4: Environmental Education: Future possibility

Environmental education can easily be viewed as a reaction to the dominance of industrialist, over-productive, exploitative, hegemonic and wasteful cultures associated with modernity and in this way is similar in outlook to community radio, which on the other hand appears to be an emerging attitude against the marginalizing and dominating tendency of modern (commercial) forms of broadcasting. This chapter outlines the nature of environmental education, in order to structure a link to community radio. It broadly considers how environmental education (with its inherent call for sustainability) may just as the community radio movement, be located in the revisionary field of 'Another', more ecocentric development. It identifies previous and emerging trends underlying the concept and considers some past and current experiences as they relate to radio broadcasting, so as to develop a more meaningful context for community radio-mediated environmental education.

Due to time and resource constraints, this research has been limited to a review of only a few cases, of which the most detailed discussion include the Keep Pietermaritzburg Clean Association's Radio Maritzburg environmental talk show and the Ecolink Inforeach Project.

1.4.4 Chapter 5: The Study Area

This chapter provides a background to and broad way forward for the study area, in terms of environmental education and community radio. It explores the town's environmental aspects, especially in terms of ecotourism, so as to justify the establishment of a community radio facility in the area. It argues that for ecotourism to succeed as a viable development option for the locality, it requires local support, which in turn could be cultivated by meaningful environmental education radio (both mediated and direct) programmes. By drawing again on the operational model for community radio, developed in Chapter 4, this chapter argues that such a medium could not only be pivotal in facilitating environmental education programmes, but also in restoring a sense of solidarity so much needed for cooperation in the town's future development matters.

1.4.5 Chapter 6: Research results

This chapter presents the results of the field-based questionnaires, with particular reference to the study's enquiry into the perceived usefulness of existing educational broadcasts to the area, as well as the community's perceptions on community radio-mediated environmental education. It also discusses the process and activities (which are currently still ongoing) of the qualitative action research component in this study, so as to consider recent successes involved in attempting to work towards the establishment of a community radio facility.

1.4.6 Chapter 7: Discussion and Recommendations

Given the results obtained from the survey, this section aims to supplement ideas raised on the mass-alternative media dichotomy, projected in Chapter 3. It argues that besides providing a valuable resource in assuring that local matters receive primary attention on radio, community radio (at least its theoretical dimension) also transcends the criticism of radio as offering a limited interactive and facilitatory resource. By reiterating on the nature of community radio and by contextualizing the views of respondents, this chapter further argues that community radio can as social organization rather than technical medium, offer an appropriate, proactive and interactive context in locally-driven environmental education and development programmes.

It also widens the scope of the study's argument for the relevance of using community radio in environmental education, by considering the broader organizational, infrastructural and networking context in South Africa. In reiterating this study's broad argument and by reflecting again on notions such as 'local' and 'community' [7], this chapter argues for more research which both critiques this project's contentions and transgresses the boundaries of traditional academic conventions on learning for change. Moreover, it calls for the application of the educational radio framework developed in Chapter 4, to other community radio initiatives in South Africa.

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[7]

See for example Bauman (1992:134), who exemplifies the re-emergence of self-consciousness, search for relevance and the lust for communities to become organized, as key indicators of society's contemporary condition.

CHAPTER 2

RESEARCH METHODOLOGY

... there is always a certain level of frustration built into attempts to tease apart the relationship between ... media and society, no matter how simple the question and how well developed the research technique. This is because the ... media are, of course, a part of that society, and it is very hard to separate one part of a complex system of study.

Susanna Priest, *Doing Media Research*

2.1 *Research Questions*

As suggested in the preceding chapter, the approaches and methods informing this study have been guided by the following questions:

2.1.1 Are there parallel orientations existing between the fields of community radio and environmental education ?

2.1.2 What can be learnt from existing radio and environmental education experiences ?

2.1.3 What are the perspectives held by community members, on educational broadcasts to and environmental issues in their locality ?

2.1.4 How could a new orientation in critical 'environmental communication', in which community radio is central, benefit the Wakkerstroom community ?

2.2 *Aims*

With these questions in mind, the study aimed to do the following:

2.2.1 To conduct a literature search for exposing the underlying orientations of the respective fields of community radio and environmental education.

2.2.2 To conduct a survey amongst inhabitants of Wakkerstroom, assessing existing perceptions of the current broadcasting climate in the area, as well as exploring their views on radio-mediated environmental education.

2.2.3 To use the ideas of different theoretical standpoints as well as the responses from the surveys, to develop an argument for the use of community radio in environmental education concerns.

2.2.4 To initiate a process in which the community could consider more actively and concretely the potential which community radio could offer in local environmental concerns.

With regards to the third aim , the study assumed that inhabitants of the study area would indeed be dissatisfied with existing educational broadcasts to the area, on the basis of their lacking relevance to (and weaker action-cultivating tendency in) that local context. This assumption has been pivotal in justifying for the consideration of how alternative community-based radio, due to its nature, could provide a context for more effective, interaction-based and locally-prioritized environmental education.

The study has been designed for the evaluation of existing educational radio programmes, while the subject of community radio has been considered by assessing the perceived potential which such a medium holds, as an agent for positive and consensus-based action in local environmental management. In short, while the survey sought to evaluate existing initiatives with the aim of developing an argument for the use of community radio for more relevance, it also indirectly sought to assess the perceived potential of using the latter medium for more meaningful educational programmes.

2.3 Research Activity Model

In general, two primary areas of activity were identified in the study (see Appendix A for an outline). These are:

2.3.1 Activities which relate to the revision of literature on environmental education, the mass media, development theory and community radio,

2.3.2 and more pragmatic activities relating to the fieldwork. This included the administration of the survey, the action-based activities regarding an attempt at establishing a community radio station in the area, as well as the preparation of this write-up [8].

These activities occurred over a five-month period, while the process seeking to establish a community

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[8] The researcher wishes to emphasize the effort of local inhabitants in Wakkerstroom, who have taken to heart the issue of community radio and have shown considerable initiative and commitment in taking forward the vision of community radio for environmental education.

station for environmental education and other community concerns is still underway. Due to time constraints and the non-existence of a local radio medium for comparative analysis, a detailed consideration of the relative effectiveness of educational programmes via community radio as opposed to mass-based radio, could not be carried out. This study does however set the context for longitudinal research in which, after an alternative station has been set up to broadcast and facilitate field-based environmental education programmes, such a comparison could be conducted.

2.4 *Research Methods*

Given the multi-facetted nature of the study, both quantitative and qualitative methods have been used to attempt at answering the varied nature of the research questions. These methods are outlined as follows:

2.4.1 Technique fostering a quantitative approach: Survey-based audience research

The primary technique employed in the study has been that of the field survey. Forty-five semi-structured questionnaires, thirty of which were self-completed, were conducted between 19-29 August, 12-17 September and 28-31 October. The questionnaire (see Appendix B) contained three sections: an enquiry into the personal background of the respondent, an enquiry into the communication context of the locality, including prompts for perceptions on the concept of community radio and a section exploring perceived links between community radio and environmental education.

The questionnaires, both self-completed and interviewer-completed, were conducted at respondents' homes and places of work. Although the items prompted for responses to predetermined categories or options, it did however include an extra option of 'Other ? Please specify', to provide the respondent with extra space and freedom to raise issues which were not accounted for on initial design of the survey. Questions were therefore not strictly closed, but did possess a limited degree of openness. In the case of those survey's which were completed in the presence of the researcher, the mixed-question approach (i.e close or open-ended), also allowed for the establishment of rapport and a change of pace, which in turn is essential for maintaining the respondent's level of concentration (Newman, 1997:241).

In particular, the following questionnaire items were of special interest in addressing issues regarding the relationship between the media and environmental education:

Part 2, Item k -- 'Do any of the radio stations in the area address Wakkerstroom issues/ issues relating to your locality ?'

Part 3, Item c -- 'Do you hear any environmental issues being addressed on the stations currently broadcasting to Wakkerstroom ?'

Part 3, Item d -- 'Do you think that these stations provide you with adequate information and knowledge to understand and act upon environmental issues and problems ?'

Part 3, Item f -- 'Do you think that community radio could offer a better opportunity for environmental or other education and action? If your answer is 'yes', explain further why you think so ?

As mentioned in section 2.2 of this chapter, the survey served to gather data which would either support or refute claims that there would exist dissatisfaction on the content of previously-flighted environmental education programmes, on the basis that they were too general and did not address environmental issues of immediate concern to the local area. In other words, the research sought to expose conflicts within mass-alternative and generalized-local content dichotomies. Such a claim also implies that the research sample would opt for more support towards the use of an alternative radio medium for environmental education.

Survey-based research offers a range of advantages. It is economical and in the case of self-completed surveys, eliminates the possible biases arising from interviewer-respondent interactions. Little or no training is required if it is self-administered, therefore making it more cost-effective. It also protects the respondent's privacy and convenience while also maintaining a level of standardization. However, although survey-based research remains the most popular technique for gathering data, it does present a range of disadvantages and hence limitations for effective research. Adams (1989:89) sums up these limits as follows. Surveys could:

a) result in the loss of control over the respondents and their selection,

b) result in low item completion and lowered response rates,

c) lead to a danger of misinterpreting the questions,

d) lead to low data quality, especially if the respondent is illiterate.

In addition and with specific reference to audience research, data quality and response rates depend heavily on the respondent's ability to recall and classify the content of previous programmes. This problem is also compounded when asked to recall specific programmes and their content. More critical is the issue that listeners may not be actively engaged in listening to a programme. When listening to radio, one now has to rely heavily on auditory senses to maintain concentration. This concentration is often lowered by the continued functioning of other senses, due to environmental conditions and stimuli:

... The listener is undeniably 'active' in the sense that she has no need to adjust to the daily schedules that radio provides: on the contrary, she imports it into her own daily schedule and often in a casual, fitful way -- at unpredictable times and for unpredictable spells. But predictability must characterize its output, in the sense that its structure should be familiar to her and its content should accord with her tastes, and she must not be made to feel that her use of the medium is causing her to miss out on anything of great importance (Crisell, 1986:216).

Taking the limitations of surveys and problems of listening habits into account, this part of the study has been limited in its ability to be accurate and yield reliable results. These problems also limit the generalizability of the research (Adams, 1989:33). Yet, the study has been more exploratory in nature, instead of attempting to claim and draw inferences towards the entire population.

2.4.2 Technique fostering a qualitative approach

A further facet of the study has, as stated in section 2.2, been to initiate and facilitate a community-driven process of researching the implications and potential benefits resulting from the establishment of a community radio facility. The study attempted to cultivate the concept of community radio amongst leaders and other inhabitants of the area, so that conditions could be set for the community to further this process of refining and placing the idea of such a facility, into local context. The developments over the last three months can more adequately be contextualized into and reflected upon by a qualitative approach. The sampling strategy discussed in the following section also served to compliment the qualitative component of the study.

The approach used to further this process has been that of *action research*, first developed by Lewin (1952) and is essentially marked by a symbiotic relationship between research and community action. In particular, action research consists of four components: planning, acting, observing and reflecting on accomplishments and degrees of progress (Zuber-Skerritt, 1991:xiii). The use of such an approach in this study stems from the realization of existing scepticism against conventional social science research, in which the perception amongst communities is that the researcher merely aims to 'use' the community for further her own academic project. Louw (1982:1) in reflecting on some previous research experiences in Natal, argues that:

At the start of an intensive survey on the life circumstances of farmers, they themselves wanted

to know what possible benefit could result from the survey. No satisfactory answer to this question could be given. All surveys should result in a report of some description, but this had little meaning for these people.

With such a recognition in mind, this study aimed not only at gaining perceptions on issues relating to mediated environmental education, but also served to constitute an opportunity for both the researcher and community to consider the possibility of establishing a radio medium for educational and other local purposes.

A mutual relationship between researcher and researched allows for the sharing of experiences where both role players could collectively contribute to the realization of a vision for establishing a community station. In the case of this study, it was hoped that the results obtained from the survey would add weight to a demonstration that there does exist local need for a community radio facility (for environmental education), as well as to strengthen calls for organizational support for the initiative. It was therefore deemed necessary to build such a preliminary need assessment, although very limited and basic, into the original survey structure. A detailed account of the nature of such a researcher-community partnership, in specific context to Wakkerstroom and its resultant outcomes, will be discussed in Chapter 6.

Louw [9] continues to argue that:

Action research ... does not rely on the superiority of the researchers in any particular field; their specific knowledge in fact plays but a minor role. It relies much more on the researcher's ability to stimulate dialogue and participation amongst those people he is working with.

This does not only apply to activities directly related to the research. It implies more crucially that the researcher should provide motivation for the development of autonomous and independent thought and action. This has been the prime aim of the action-based activities in the study i.e. the project aimed at developing an <u>initial context</u> from which the community could further, more autonomously through dialogue, their vision of establishing a radio facility.

The sampling strategy discussed in the following section, is closely linked to action research, as it paves way

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Ibid, p.5

for encouraging (through association and local ties) the dialogue and participation needed for commencing and sustaining the attempt at realizing that vision.

2.5 *The Research Sampling Techniques*

2.5.1 Towards a working definition of the community under study

Before considering a discussion on appropriate sampling techniques for the survey-based part of the study, it would be useful to consider the way in which the research has viewed the community. It was deemed necessary to develop an outlook of the community as one being consistent with current definitions applying to community radio, or radio in general.

The Independent Broadcasting Authority (IBA) Act No. 153 of 1993, defines 'community' as a geographically founded group, or any sector of the public having a common interest. On the outset of this study, it was unclear how the 'common interest' factor would apply to the locality, therefore creating the necessity to subscribe to a definition of the community as 'geographically founded'.

Such a realization or outlook presented advantages for the strategy used in sampling the population:

a) It meant that any individual in that district had equal chance of being a respondent in the research.

b) Given the absence of an hypothesis and the preferred exploratory nature of the project, the study would not have to devise complex sampling frames or quota's, in order to maximize generalizability. This inevitably meant that the geographic outlook would ease the study in terms of the given time constraints and could avoid the costly processes accompanying probability and parametric sampling techniques.

The use of a sampling approach which emphasizes geographically founded communities is common to audience research. Its fundamental concern lies with ensuring that radio reception is the crucial factor or criterion determining the sampling method. This study's subscription to such a sampling approach, together with its exploratory tendency, meant its marginal concern with generating detailed descriptive and comparative data, as is often the case with probability or quota sampling. Quota-based and stratified sampling strategies present a range of disadvantages of their own, the most pertinent of which include their danger of developing systematic bias, as a result of over- or under-representation.

2.5.2 From working definition to sampling strategy

Given the primary emphasis on the geographic component and criterion of reception, as well as on the recognition of the relative isolation of the study area [10], it should not be difficult to conceive of the locality as a closely-knit network of direct and indirect social relations. The strategy deemed at taking advantage of this context of social relations and networks was envisaged as the snowball method and was employed for two main reasons:

a) by using such existing direct and indirect networks and acquaintances, the study could be more cost-effective and timely,

b) the 'snow-balling' strategy would benefit the second facet of the fieldwork i.e to cultivate the idea of community radio for environmental education, by allowing the spread of the idea through these relations and networks.

By identifying key individuals who have a substantial knowledge of the local community and its networks, the process of snowballing could be assured to proceed to other respondents for information or for becoming a participant. This method of sampling does not necessarily lead to a sample which is characterized by direct acquaintance and therefore does not necessarily lead to selection bias. Newman (1997:207) comments by arguing that:

> *[the interconnection] does not mean that each person directly knows, interacts with, or is influenced by every other person in the network. Rather, it means that, taken as a whole, with direct and indirect links, most are within an interconnected web of linkages.*

However, not all the respondents have been obtained by way of this strategy. The Wakkerstroom community consists of two main residential areas: the 'Town' area and the adjacent Black township of eSizameleni. Most respondents from the township have been obtained through this method, while only a small degree of the 'Town' sample has been derived through snowballing. These differences are noted in Table 1 (pg. 16).

With regard to the number of respondents derived from a random sampling strategy, the researcher selected

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[10] See Chapter 5 for a background to Wakkerstroom. The map in Appendix G should give the reader an idea of the relative physical isolation of the community, in which the nearest town is 27 kilometers away. Its position within in a trough, adjacent to a wetland and surrounded by hills and grasslands, should provide an idea of the relative confinement and compression of its habitat.

TABLE 1: The number of respondents generated by sampling methods

Method	'Town' Neighbourhood	eSizameleni Neighbourhood
Using Snowball method	2	19
Using the Random Method	15	9

these from their homes or places of work. The criterion of a geographic community was still preserved within this group. As can be seen from the table, this part of the sample outnumbers those who have been derived via the snowball method. This is assumed to be the case, since the network of social relations within the 'Town' setting appeared to have been overridden by the individualistic nature of such residents. This limited overall effect of snowballing within the community in the survey phase of the project, did however not hamper the cultivation of community radio idea, as shall be seen in Chapter 6, although it may be argued that the cultivation of the concept and vision has been less rampant within the 'Town'. The lack of snowballing amongst 'Town' dwellers could however be seen as a stumbling block towards more intensive popularizing the idea.

It is also clear from the figure above, that 62,3 % of the sample has been generated from the township, not only because of the weak snowballing effect already suggested, but also because the overall community is dominated by a Black population [11]. Yet, this variation in the racial composition has not been a concern, taking into consideration the geographical component and exploratory nature of the study.

2.6 *General Limitations of Research Design and Methods*

The design discussed above assumes that the (environmental) educational programmes flighted to the study area at the time of conducting the fieldwork, were actually being listened to, no matter how basic or limited the listening pattern. Its lack of a treatment exercise, in which there is a guarantee that the programmes were being followed, subject then to an immediate post-test survey, limits the reliability of the data obtained in this study. In addition, given the fact that survey responses may not be complete and truthful, the validity of

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[11]

On initiating the study, little accurate demographical data was available from which to work. The background data used in Chapter 5, have been based on 1995 figures, from the Development Bank of Southern Africa. This absence of updated supplemental data made the construction of the sample size all the more difficult and has in fact been the chief reason for preferring an exploratory sample, rather than one based on outdated parameters.

responses are also endangered, therefore weakening the claims resulting from the study.

The small sample size, together with the use of the snowballing method, limits the generalizability of the results. In consequence then, any generalizations arising from the data, needs to be tentative (Schutt, 1996:164). Although this has been a major setback of the study, its exploratory nature overrides interest in drawing inferences to the entire population. Its concern has been with developing a framework within which radio mediated environmental education could work and has in no way sought to infer this developing context to the entire community. Moreover, its concern with building an operational framework for community radio, has created the opportunity from which such a developing context could be further refined to local conditions.

The strength of this research approach and design lies with its attempt at developing a complimentary relationship between the qualitative and quantitative components. The selection of the snowball sampling technique to constitute an added benefit to the action-based activities, albeit in a limited form, should be viewed as the study's overall concern not only with furthering the disciplines of community media and environmental education, but with generating debate, dialogue and action within the community. Snowballing not only allows for timely research, but also raises the chance of the research activities becoming 'the talk of the town', a key strategy used to develop a dialogical climate in this study.

The following two chapters represent the outcomes of the this project's theoretical enquiry into the orientations underlying the fields of development communication and environmental education, as shown by the research model in Appendix A. Their primary contention has been to argue that since environmental education harnesses a predominantly socially critical orientation, any communication strategies deemed at contributing to such educational processes are required as well, to value such a critical approach. Community radio is here seen to exhibit potential for such an inclination.

CHAPTER 3

MEDIA AND DEVELOPMENT -- DEBATES AND PRAGMATICS

As the information society develops, it will not be possible to achieve the goals of citizenship, or to exercise the appropriate rights, in the absence of an information base and the opportunities for access and participation for all citizens.

James D. Halloran, *Media Development, Vol. 39-40*

3.1 *Setting the Scene*

During the pre-war period, there existed a misleading conception of the media as all-powerful moulders of social consciousness, into dominant conservative values [12]. Conceptions of the media into 'bullet' and 'hypodermic' models have rested largely on simplistic stimulus-response outlooks, criticized mainly for over-emphasizing process and neglecting the broader social matrix and interaction between sender and receiver of media messages. These models have wrongly viewed the receiver of messages as passive and have led to alternative outlooks, viewing the public as manipulating, rather than being manipulated by messages. Alternatives, such as the 'two-step flow' hypothesis by Lazarsfeld, place more emphasis on the diverse interactional context in which the media operate and less on the medium itself (McQuail and Windahl, 1993:63).

The theoretical media-society relationship, has ever since the stimulus-response outlook, evolved into various conflicting strands. The 'agenda-setting' model (McCombs and Shaw, 1972), the 'uses and gratifications' approach (Blumler and Katz, 1974), the 'communications-gap' argument (Tichenor, 1970), and more deeper and pessimistic concerns with plurality and media images (Baudrillard, 1983) could be seen as emanating from broader debates on the relationship between the media, information and social change. More recent pluralistic accounts have been devoted to considerations of the rise of the alternative media in education and in reflecting the diversity of social existence. Nigg and Wade's (1980) focus on 'community

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Such views rest largely on Marxism as their disciple. Here the media becomes ideological terrain for and against the struggle of indoctrination into a state of 'false consciousness'. The media are here also not necessarily seen as having power, but as mechanisms through which power operate, be they repressive or constructive. Murdock (1981:156), although not fully subscribing to strict stimulus-response approaches, does for example, still support their deeper, ideological nature.

media', Jankowski's *et al.* (1992) focus on 'local radio', Nostbakken and Morrow's (1993) effort in locating media in debates on development and Girard's (1992) survey of a range of international 'community radio' initiatives, bear testimony to changing paradigms in the field of communication. What links all these projects, is a consideration of how alternative media constitutes a service to range of interested-and-affected-parties in development programmes.

The post-1970 era produced growing pessimism on the nature and direction of development and role of the media in facilitating that change. The grand narratives of communication for development, Schramm (1964) and Lerner (1958), have neatly placed communication within existing modernist discourse, which in turn has been criticized for being far too logocentric, unilinear and destructive to indigenous, often nature-loving modes of thought. This lead to others such as Rogers (1976:8) who originally favoured a modernist innovation dissemination model, to admit that 'many development theorists feel it is not possible to specify the exact direction of development'. These contributions show ongoing paradigmatic changes in approaches to communication, whilst still maintaining its role as engineer and navigator of development processes.

Yet, such views were born out of mass media studies and fails to acknowledge that community media, due to its endogenous nature, may enable the clearer specification of direction and local control in development. This is partly true when considering that recent trends in communication for development appear to emphasize the greater efficacy and appropriateness of smaller functional media units in development education. McLuhan [13] (1994:23), while being reputed for his previous pessimism with the media, does for instance in his recent work on 'hot' versus 'cool' media (in which the latter are more participative), indirectly refer to the rising importance of the alternative media.

It is worth noting such paradigm shifts to smaller media as structural and functional units, in the work of those who have originally opted for the dominant modernization paradigm. Schramm's (1977:228) work on the selection of media for educational instruction, shows clear empirical evidence of the growing support for 'little media' such as radio, in development campaigns. While the focus of this thesis is on community radio and not regional or national radio, it should be clear from Schramm's big-little distinction, that the view of media size has been very influential in strengthening arguments for the use of community media for

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[13]

While McLuhan subscribes to the critical outlook of the Frankfurt School, his prophecy of 'the medium is the message' appears similar to Baudrillard's (1983:30-41) outlook of 'hyper reality', in which the media message is devoid of any meaning and leads to mere fascination with the medium. This is ironic, given the (perhaps wrongful) view that the postmodern court remains hotly opposed to critical social thought.

greater efficacy in development and non-formal educational broadcasts.

The conception of media-development relationships has, as result of critiques against the simplistic and often ideological nature of the modernist dispositions favoured by Schramm and Lerner, as well as by Rostow (1960) in forecasting universal and idealist development processes, subsequently undergone clearer refinement. A clearer discussion of the link between communication and development now follows, with specific consideration of the position held by community radio.

3.2 *Community Radio as Participatory Development Communication*

In considering the evolution of the field of development communication, Bessette (1997:3) argues that alternative media approaches emerged from realizations of the inadequacy of the mass media models to provide relevant and appropriate services in development programmes. Mass communication has been seen as extending the project of modernity, in which top-down, centralized and expert-lead approaches were rampant. As declining conditions and relations of dependency emerged in Latin America for example, it became clear that alternative development approaches were needed. In this way, the idea of participatory development was born.

Thomas (1993:49) argued that such a shift towards participation involves communication with 'changed epistemological, political and theoretical positions that emphasize community, dialogue, reciprocity, and understanding based on mutual respect'. By the early 1970's, the field of participatory development communication, or communication in service of development, became widely adopted as an alternative to mass-based, modernization models. Saik-Choon (1993:117-119), in drawing on the work of Nora Quebrel, provided a clear account of the links between development paradigms and media broadcasting models (see Table 2, pg.21).

In essence, what has been occurring was the declining emphasis on the centralized, city-based radio station, to the rise of smaller operations within smaller communities [14]. The evolution of development communication, has been one from a shifted use of interpersonal and cultural strategies, to a mediated

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Indeed, Mowlana and Wilson's (1988) view of development communication appears to favour a focus on communities, rather than conforming to dominant views about communication of the 'masses' or nation-states, as is evident in works falling within the Western liberal media framework. Moreover, in a more recent work, Mowlana and Wilson (1990:90/155) contends that recent paradigm shifts in communication, were fuelled by crises in such Western liberal and Marxist orientations and further argues for local perspectives on communication.

strategy, in which radio represented the earliest success. Experiments were carried with community radio, with special concern for participation and access (Nigg and Wade, 1980:7), in which the interpersonal strategy in communication was still preserved.

TABLE 2: The Evolution of Development Communication

Development Model	Communication Model	Broadcasting Approach
Modernization (1950-1960)	Top-down Diffusion	Farmers' Radio
Basic Needs Growth	Horizontal Grassroots	Radio Forum
Dependency	"Conscientization"	News Exchange
"Another" Development	Participatory	Community Radio
Modernization	Social Marketing	Edu-tainment

Adapted from Saik-Choon (1993:117-119)

The concept of participation, within the emerging field of community radio, became an all-inclusive term. Whereas participation has initially been defined from the point of view of 'talk radio', it is now concerned with more than mere interactive telephonic talk. Girard points out that 'while listeners of commercial radio are able to participate in the programming in limited ways -- via open line telephone shows ... community radio listeners are the producers, managers, directors, evaluators and even the owners of the stations' [15] (1992:2). In other words, this leads to a blurring distinction between audience and broadcaster, in which 'the approach soon became one of stimulating and enabling the downtrodden to do alternative communication by themselves and for themselves' (Beltran, 1993:27).

Oosthuizen (1996:416) in arguing that participatory radio could be highly effective in disseminating and facilitating information and education programmes [16], also provides a useful comparison between national and participatory (or community) radio (see Table 3 below). Essentially, what emerges from such

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[15]

Kumar (1991:22) in considering a non-Western approach to the media, shares this view with Girard, but focuses specifically on the way in which media education could lead to the democratization of communication itself, in allowing participation in levels of production, distribution and exhibition of community media messages. Such approaches view communication as a process and not as a means to an end and are indicative of falling dominant Liberalist (capitalist) and Marxist (socialist) media orthodoxies, which in turn aimed at defensive and status quo seeking perspectives (Mowlana and Wilson, 1990: 27/44).

[16]

This may sound attractive, but Oosthuizen subscribes here to a technicist, linear 'transmission' approach, which critical theory aims to reconfigure for more interaction-based explanations.

considerations is a view of community radio as having a strong potential to support relevant, people-driven development processes. The concept of participation, while determined largely by epistemological inputs of liberation, as well as changed power-equations, also requires organizational support, which may in turn remain the largest stumbling block to effective development communication (Thomas, 1993:57). At a practical level then, 'participation' may be highly complex, which some see as a mere ideal to which many community stations continue to struggle towards (see for example Dladla, 1996).

TABLE 3: A Comparison between Community and National radio

National Radio	Community Radio
Programme content based on producers assumptions	Content based on audience need and field research
Broadcaster works independently for programme production	Team mode of production, including community involvement
One way -- top down	Two way
Programme content is general and of wide scope	Content is detailed with specific objectives
Information orientated	Participatory and action orientated
Programme topics sequencing ad hoc	Serial approach with continuity of topics
Sporadic evaluation	Continuous pretesting, feedback and evaluation
Broadcasting in general	Narrowcasting to specific audiences

Adapted from Oosthuizen (1996:416)

Community radio has been shown to support socio-economic development, as is the case of Mahaweli Community Radio (David, 1992:132-139), in which the station facilitated dialogue and the coordination of projects relating to an irrigation scheme along the Sri Lankan Mahaweli River. As a broader concept, development communication can harness cultural preservation, political freedom, or gender consciousness, as shown in the respective cases of Radio Soleil (Georges and Fortin, 1992: 95), the Mexican-based 'Voice of the Mountains' (Valenzuela, 1992:150) or Moutse Community Radio (Naughton, 1996:12).

The concept of community radio was exported from North America ever since the 1940's and has been the culmination of efforts in the West, to establish stations which are 'non-commercial, democratic organizations aiming at community involvement (Prehn, 1992:257). This view literally expresses the importance of participation, although there evolved conceptual variations and thus further implications for

using the concept in Europe. Such variations are notable in the use of concepts such as *municipal radio, local radio, closed radio, free radio* or *non-commercial radio*. Apart from such variations, what unifies all these forms, is an emphasis on community involvement in the practices and mission of the station, and a recognition that existing mass-based media are inadequate in catering for local interests. Given this view, it should be of no surprise that development communication with its particular emphasis on the small community as an operational level, has taken to heart the potential for community radio in facilitating endogenous (and therefore more appropriate) development.

3.2.1 Community Radio and Another Development

In 1975, the Swedish-based Dag Hammarskjold Foundation published a document entitled 'What Now? Another Development', which had its roots in the Cocoyoc Declaration of Self-reliance in 1974 (Carmen, 1996:30). The foundation's move towards adopting an alternative to existing development models, arose from the realization that development processes which are geared towards mere economism and physical growth, do not address immediate basic needs and are therefore meaningless. What was needed was an approach which stresses the development of human consciousness and values, which in turn are prerequisites for people-driven processes and should not be dominated by external interference.

In its 1977 follow-up publication, the foundation identified five essential components to 'Another' development. Development should be:

- *Need-orientated*, that is being geared to meeting human needs, both material and non-material.

- *Endogenous*, that is, stemming from the heart of each society, which defines in sovereignty its values and the vision of its future.

- *Self-reliant*, that is, implying that each society relies primarily on its own strength and resources in terms of its members' energies and its natural and cultural environment.

- *Ecologically-sound*, that is, utilising rationally the resources of the biosphere in full awareness of the potential of local ecosystems as well as the global and local outer limits imposed on the present and future generations.

- *Based on structural transformations*, required, more often than not, in social relations, in economic activities and in their spatial distribution, as well as in the power structure, so as to realize the conditions of self-management [including autonomous action] and participation in decision making by all those affected by it (Dag Hammarskjold Foundation, 1977:10).

These components were important for communication researchers who emphasize decentralization and participatory democracy, grounded in the levelling of power equations. The idea of participatory communication has thus been spearheaded by the overraching innovations presented by 'Another' development. In consequence, a clearer link between 'Another' development and community radio might argue that:

> ... "the paradigm of another development" ... emphasizes not only material development but also development of values and cultures ... it emphasizes the small media operating in networks [such as the National Community Radio Forum] and the use of grassroots [capacity-building] communication approaches. One of the models attached to this paradigm is the methodology of community media (in Bessette, 1997:5).

Table 3 (p.22) should give the reader a clear idea of 'Another' development's decentralized, sharing and self-reliant principles informing community radio. Of special significance to the study is the promotion of people-driven and ecologically sound development, also key components of this paradigm. It should be clear that since 'Another' development remains influencial in development communication and hence community radio, there does exist an indirect orientation of the latter in promoting the principle of sound ecological management. It is in this sense that a consideration of the role of community radio in environmental education becomes significant, since both these fields have at their roots, a 'development by the people' principle, promoted by the Swedish foundation.

The field of community media may also be inherently critical. The key project underlying critical methodology is essentially that of transformative action in which the goal of humankind is emancipation towards betterment (Giroux, 1993:19). It seeks ways in which individuals could liberate themselves, through positive reflection and subsequent action. It is enlightenment and progress based on critique (Fay, 1987:29).This argument is especially relevant in the context of democratizing communication, and hence the rise of community radio, in which existing social figurations and conditions become questioned. It rejects unilateral transmission mindsets and emphasizes the 'conscientization' principle developed by Freire (1973), in which action in educational concerns is stressed, thereby relating to the critical and transformatory outlook of 'Another' development.

While community radio may allow for the endogenous acquisition of knowledge and skills through involvement, it also promotes dialogue, understanding and mutual respect between 'I and Thou' relationships outlined by Buber (1966). It is clear then, that community radio, while being located in the

matrix of 'Another' development, does exhibit tendencies towards a critical school of thought, be it grounded in Frierian pedagogy, or broader Frankfurtian-based critical theory. The project towards democratisation of the airwaves, a feature of South African media activism (Currie, 1993:40) is characteristic not only of the emancipatory ideals proposed by Freire, but also grounded in the persuit for transformation and endogenous critique against existing mass-based media institutions. Community media bases its relevance on criticism of the distortion and marginalization of communities by larger media structures and offers a need-based alternative, in which such communties could seize communication for their liberation.

3.2.2 Community Radio in South Africa: a Distinctive Flavour

The development of South Africa's community radio movement cannot be isolated from the broader political transition which the country experienced ever since the early 1990s [17]. Ever since the formation of the Viljoen Task group to investigate the existing broadcasting climate, the Film and Allied Workers Union (FAWO), embarked on its own campaign to argue for one, that the restructuring of broadcasting should be dealt with as a constitutional matter, in the context of existing political discourse in the country (Currie, 1993:41). In August 1990, FAWO and the Campaign for Open Media (COM) organized a march onto SABC territory, to express disatisfaction with the secretive and political bias of the Viljoen Commision.

The context for the emergence of community radio has been set by the activities of various organisations working within the democratic movement. Most notable is the work of CASET which in the reppressive broadcasting climate if the time, used audio-casettes to cover political conferences, a form of mass communication which was not easily controllable by oppressive forces. By March 1991, CASET had proposed the launch of a Cape Town-based community station, Bush Radio, which arguably remains the first community radio initiative in South Africa (Gorfinkel, 1992:208).

In August of that year, the *Jabulani! Freedom of the Airwaves* conference was hosted by the anti-apartheid movement in the Netherlands and was attended by a range of leftist South African media activists. The proceedings of the conference addressed a range of broadcasting policy issues, the most pertinent to this study being its conceptual delineation of (and regulatory proposals for) the emerging community radio sector. The conference recommended the following definition:

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Until the late 1980s, the only challenge to the monopoly of the then, state-owned SABC, was the ANCs Radio Freedom, which operated in shortwave from neighbouring countries.

Community or participatory broadcasting is initiated and controlled by members of a community of interest, or geographical community, to express their concerns, needs and aspirations [or actions] without outside interference, subject to the Independent Broadcasting Authority (in African European Institute,1991:67).

Subsequent confusion with the differences between community and public broadcasting services were occasionally addressed. The Independent Broadcasting Authority's (IBA) Act No. 153 of 1993, contends that a community broadcasting service:

(a) is fully controlled by a non-profit entity and carried on for profitable purposes,

(b) serves a particular community,

(c) encourages members of the community served by it or persons associated with or promoting the interests of such a community to participate in the selection and provision of programmes to be broadcast in the course of such a broadcast service.

(d) may be funded by donations, grants, sponsorships or advertising or membership fees, or by any combination of the aforementioned. (IBA, 1997:1)

The public-community broadcasting debate still continues, with some writers placing primacy on the differences between their broadcasting scope and extent to which the media in general are able cater for local interest (Mpofu, 1996:9; Loydd, pers. comm.). However, other international onlookers have argued that within the concept of 'community radio', still lies the preservation of public broadcasting:

When we refer to mass communication as public communication the problem regarding the conceptualization of community communication can be solved: community communication is then a form of public communication, of making public and creating public within the context of a specific community ... community media usually operates on a smaller scale (in Hollander and Stappers, 1992:19).

The key to understanding community radio, apart from misleading conceptions of scope, lies with notions of participation and access, as enabled by 'communication in restricted circuit' (Beaud, 1981: 13). Like public broadcasting, community radio presents a difference in priority. They are not dictated by commercial interests. Moreover, it is focussed towards community action, where matters are best dealt with by local authorities. Marais (1990:14) emphasises the community-commercial dichotomy and the critical orientation of the former more clearly, by adding that 'community radio is an open and implied criticism of mainstream

[commercial or even public service] radio'.

The Viljoen Broadcasting Task Group set up by the South African Broadcasting Corporation, who although did not consider community radio in their investigations (see for example their report of 1991), did provide a push towards more purposeful discussions on the subject of 'community radio'. The 'Free, Fair and Open Media' conference of 1992 [18], held after recognition of the growing importance of broadcasting issues in the political transition by the Convention for Democratic South Africa (CODESA), provided an important opportunity for activists to consider the community radio issue more systematically.

As mentioned earlier, because of its development within the leftist framework in the political transition of the early 1990s, the community radio movement is by its very nature, a socially critical movement in which slogans such as 'freedom of the airwaves' and 'the people shall broadcast' are evidence of the emanicpatory and empowerment projects underlying critical social thought [19] . This is also evidenced by journalistic comments such as:

> *The community radio platform provides the freedom that extends to socio-political discourse*
> *that our country needs as we hammer out the destiny of our liberation. It is freedom for the*
> *community to extend human enquiry to the arts, science, religion, philosophy or whatever*
> *alse captures their imagination.* (Mashinini, in The Sowetan, September 1997)

At present, the IBA has approved 82 community broadcasting licences, of which 76 stations are already on air. It is possible to distinguish at least four broad categories of these stations based on their nature. These are ethnic, religious, student-based and development-orientated stations (Media and Broadcasting Consultants, 1995:26-27). One of the many outcomes of the struggle towards setting up a community radio sector, was the formation of the National Community Radio forum (NCRF) to coordinate and address various projects and grievances within its development-orientated radio sector. Furthermore, ever since the first community radio projects were initiated, various supporting structures have come to the fore, to assist in the coordination, technical, financial and training aspects relating to the sector. Appendix C provides a

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[18]

This gathering led to the formation of the Community Radio Working Group, to further lobby for its inclusion as a subject in the wider broadcasting policy discussions, which were in turn already underway.

[19]

Louw's (1991) consideration of how community radio could offer an 'empowering' role through grassroots information transfer, also testifies to the movement's inherent critical nature.

list of these organizations.

The community radio sector is currently faced with a range of problems. First is the problem of distribution. Louw and Rama (1993:77) comments that 'no real initiatives about radio [have been] taken by grassroots groups themselves' leading to the skewing of the movement towards metropolitan areas (MBC, 1995:67). This is especially true when taking into account the dependence of the sector on available city-based resources. Such a bias in distribution undermines the very nature of the sector, since it is often isolated rural communities who exhibit more of a need for information so important for their betterment.

Although there does exist a strong support-base for training would-be community broadcasters, what often is neglected is the need for training such media workers with the appropriate research techniques required for developing, planning, assessing and evaluating their development efforts. Little has been done to evaluate the activities of existing development-orientated stations. The weakness here is largely a lack of internal expertise as well as the lack of funds to commission or contract research agencies for evaluatory purposes. Where formative and summative evaluation was carried out, it generally appears that listener support does exist for community-orientated radio education [20]. More work is therefore needed in exposing the development track record of community stations, although in principle and theory, it presents a powerful potential as a localized development and educational tool/context.

3.3 *Radio and Education: The 'mass' opens way for the 'local'*

There exists numerous documents and reports detailing the use of radio as an educational tool. The Electronic Media Forum (1994) for instance, prepared a report on the role of broadcasting in education and development. Although it has focussed largely on public broadcasting, it does make mention of the role of community broadcasters in responding more effectively to local educational needs (*ibid.*,p.17). A more recent consideration of the role of radio in education is the Technology Enhanced Learning Initiative in which it is estimated that 'some 1,5 million adults have no education at all' (Department of Education, 1997:31). Whether in support of structured or for non-formal education, there does exist the need to use mixed media strategies, stemmimg from the fact that radio is a non-visual medium and that learning is enhanced when visual cues are included into the strategy (Human Sciences Research Council, 1984:18).

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See for example, the report by the Community Agency for Social Enquiry (CASE, 1995). In evaluating the effectiveness of educational productions by the Ulwazi Radio Project, the research found that 94% of Alex FM listeners, claimed that they learned from the 'Dark City' educational radio production (p.12).

Based on the lack of evaluatory studies, there does also exist the generalization that in its current trajectory, community radio provides a predominantly informational role. From the few reflections given, such as the consideration of Radio ECCA and OU Community Education by Kaye and Harry (1982), there does exist evidence of the role for community radio in adult basic education. In his study on using radio for primary health care, Urgoiti (1991:117) notes the success of projects on commercial stations and adds that since listenership increases when radio is community-based, the way forward would be to move towards community-based radio for educational campaigns. Moreover, it is also generally known that programmes become more appealing when placed into the context of listeners immediate social environment:

> *Localness means the extent to which familiar voices, music and events are heard. In the trade-off between localness and proffesionalism, localism can win* (in Theroux,1987: 6-7).

As discussed in Chapter 2, this study sought to explore the study area's perceptions on the usefulness of educational programmes produced for broadcast on a range of SABC radio stations [21]. This part of the study has been geared towards the exploration of this local-regional/national dichotomy, in which the issue of catering for 'local' interest remains the primary strength and reason for justifying the use of community radio for development/educational activities. A clearer discussion of these issues will be covered in Chapter 6 and 7.

In sum, the experiences of mass-based radio, as is evident in the above-mentioned citations, provides a way forward to consider how community radio could constitute a more meaningful educational radio medium.

3.4 *Radio Forums: a way forward for more effective educational radio*

In reflecting on various cases in which radio served as a strategy for facilitating educational processsess, Rogers *et al.* (1977:361) points out that:

> *A radio forum is a small listening and discussion group that meets regularly in order to receive a special radio program, which the members then discuss. On the basis of the program and discussion, they decide what types of relevant action to take.*

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[21]

At the time of writing up this work, the SABC has been in the process of conducting a range of focussed group discussions throughout the country, on matters relating to their radio and television educational programmes. No evaluatory information has therefore been available for reflection in this study. See Appendix D for a summary of the SABC's environmental education programme schedule.

Appendix E provides a diagramatic representation of the structure of a radio forum. Schramm (1977: 237-26) in assessing the advocacy of using such forums in development, differentiates between specific types, these being the 'deciding group', the 'study group' and the 'discussion group'. All of these are nevertheless geared towards community action [22].

These forms of listenership organization offers an opportunity in which learning and debate are guaranteed when receiving media messages. They serve to maximize participation in technology-mediated programs and are therefore highly favoured as standard strategies for organizing group learning around radio. Ong (1982:136-137) argues that the 'secondary orality' brought about by the electronic media, has fostered a sense of group spirit and participation, which is striking similar to 'primary orality' or interpersonal communication. Although media such as radio may employ a culture of print, Ong's argument implies that the orality associated with radio listening, leads to a group-minded consciousness in which the discussion and debate of issues could assist developing the mutual understandings of issues in a broader social context. Such a recognition holds special opportunities for ensuring the fundamentals of debate and dialogue in radio-mediated environmental education processes, which in turn have an overaching concern with cultivating and directing action programmes.

A local study (Centre for Continuing Education, 1992:36-37) showed that radio forums could not only be an effective strategy for offering sustained support for educational radio, but could also lead to follow-up action, so that practical outcomes surpass critiques of mere passive listenership. Moreover, it is also felt that such forums could be more effective when the programme content addresses people's immediate felt needs. In this way, the group nature of radio forums could not only lead to broader understandings needed in environmental education. If used more rigorously by community broadcasters, it could develop the critical thought required for facilitating understanding, therefore placing community radio more closely to the consensus-seeking and need-based ideals of 'Another' development.

3.5 *Some Technical and cost considerations for community radio broadcasting*

It is generally agreed that the broadcast media is a less capital-intensive industry. Once the basic infrastructure is set up, especially in the case of community stations, its economic and social benefits depend largely on the use of the facility. Community stations often develop from low set up costs, to the increased

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For pragmatic purposes, the reader is referred to Crowley, Etherington and Kidd's (1987) manual for planning and conducting such forums.

emphasis placed on higher operational costs. This is especially true when the station has a clear development mission in which liason, mediation, networking and more importantly, community action, are built into the parameters of its operational budgets.

Radio is also a more popular medium than television. Statistics for example, show that the percentage of radio ownership is more than double the amount for television, amongst Black South Africans (Central Statistical Services, 1996:19). With community radio, success also depend on the availability and need for human and material resources. Lusigan and Parker (1976:446) comments on this point, with specific reference to development-orientated community radio:

> *If the goal of development is to stimulate the effective mobilization of brainpower and labor power in society, then those goals should be reflected in the production [and training] as well as in the messages of development media.*

Increased costs may also surface from the need to be responsive to community feedback. The violation of feedback ideals often plague existing community stations, from lacking financial resources to purchase appropriate infrastructure (such as telephone hybrids and field equipment) and indulge in practical community issues. This also raises the need for clear development or business plans within stations, as well as more material support, otherwise community radio's 'Another' development orientation of encouraging community action, is hampered by lacking self-sufficiency.

The production transmitter company, Sentech, has already since 1995 been working on the production of low-power transmitters, which in turn could mean an added benefit for capital cost-effectiveness. More recently, the Cape Town-based BayGen company has been working on the reintroduction of the wind-up/clockwork radio (see Fig. A, p.32), characteristic of receiver technology a few decades ago. Two models have thus far been marketted and are summarized in Table 4 below.

TABLE 4: Models and capacity of the Wind-up radio.

Model Number	No of Winds	Minutes per Wind	Internal Power Source	Output
FPR 1	60	30	B-Motor Carbon Steel	4W (Max)
FPR 2	60	60	B-Motor Textured Carbon Steel	5W (Max)

Source: Carstens (1997, Fax)

FIGURE A: The Revived Wind-up Radio

Courtesy: The Natal Witness Echo Focus, 27 November 1997
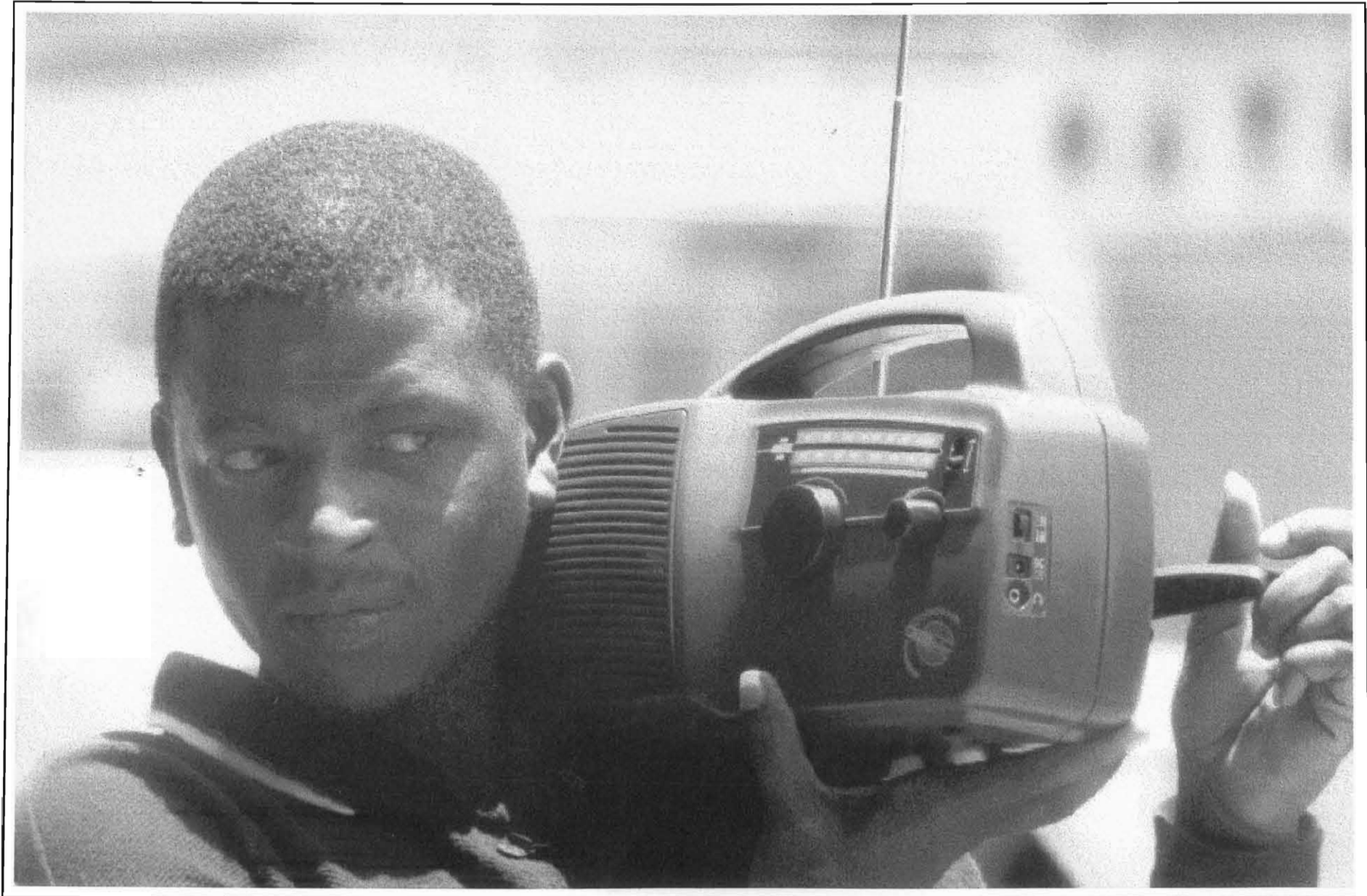
Carstens (1997:2) maintains that some non-governmental and community organizations have considered using the 'innovation', because of its complete unreliance on battery-operated or external power [23]. Moreover, these receivers present a breakthrough for educational radio, since it is often noted that the attainment of maximum benefit from a programme is hampered by low purchasing power (for batteries) of those in lower socio-economic classes.

Furthermore, wind-up receivers present a potential breakthrough for audience research methodologies. It may to an extent operationalize 'the act of listening' or 'level of concentration/commitment' to a programme by assessing the effort or amount of winding done by the listener of a programme. In short, the act of winding could present a key indicator of listenership interest in an educational programme.

BayGen has already considered sponsoring such receivers to educational and other community-based organizations. It is the researcher's contention that organizations supporting the community radio movement should seize this opportunity in using wind-up radio sets, for the group-based listening activity described in the preceeding section.

In essense, continuing attempts at developing simpler radio technology suggest that the community radio movement could well be on its way towards the provision of cost-effective, community-based education. Should this be done in the context of dialogical and interaction-based radio forums, it could become a powerful medium for non-formal and life-orientated education.

3.6 *Educational Community Radio and the Postmodern Challenge*

It is generally agreed that the term 'postmodernity' is equated with a condition of chaos, uncertainty, nihilism and outright rejection of any given signs of order. While such conditions may be argued to indeed manifest themselves in our contemporary social fabric, the misleading application of the term to communications research, has left media enthusiasts to reject any such ideas. In the case of optimists who advocate a meaningful place for the media in social change, Baudrillard (1983:100), who argues that 'the media do not bring about socialization ... but the implosion of the masses', remains the prime culprit in instilling sceptism with postmodern ideas.

However, a deeper reading of postmodern thought reveals parallels with the Frankfurtian-based critical

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The wind-up receiver also prevents pollution resulting from the disposal of batteries, which often leak when buried or disposed of in water.

school of thought, although possibly for different reasons. To recap, the arguments presented thus far have sought to expose the critical tendency of 'Another' development and hence community radio, so as to argue for its meaningful place in environmental education concerns. What remains to be seen is how such a critique of mainstream development theory or mass communications, relates to postmodern thought. Furthermore, it would be useful to consider the implications of adopting such positions as 'postmodern broadcasting' in a study of media and education such as this.

Although postmodern discourse has largely focussed on the role of visual media (hence Baudrillards obsession with images), it is possible to discern at least six distinctive features of postmodern broadcasting relating to radio. These are:

- *decentralization of media institutions; the top-down broadcasting approach weakens,*
- *the focus on catering for a segmented public; narrowcasting to specific communities,*
- *a tendency for media institutions to become more self-regulatory,*
- *more emphasis is placed on the audience, rather than broadcaster,*
- *broadcasting begins to assume a more <u>interactive</u> character,*
- *broadcasting assumes a more open structure, is more free-flowing, allowing many voices to surface. (in Fourie, 1997:270-273).*

These features appear strikingly similar to that exhibited by community radio. Furthermore, Bauman (1991:271), argues that:

> *Postmodernity does not necessarily mean the end, the discreditation of the rejection of modernity ... [it] is no more than the modern mind taking a long, attentive and sober look at itself, at its condition and its past works, not fully liking what it sees and sensing the urge to change ... [it] is modernity coming of age: modernity looking at itself from a distance ... a self-monitoring modernity...*

The following year, Bauman published another work arguing that 'postmodernity ... is ... the age of community: of lust for community, search for community, invention of community, imagining community' (1992:134). With these points in mind, as well as the postmodern broadcasting tendency shown earlier, there appears to be an inherent critical orientation and reconfiguration of the media in localized contexts, underlying the postmodern attack on existing media and forms of social organization. In the context of

broadcasting, there appears to exist an open criticism against the mass-based, uniform and centralized broadcasting organization. On the other hand, Bauman also exemplifies the re-enchantment of a sense of community, in which Peters (1995:135) sees the 'reconstruction of relations which give significance to the presence of the other', as a prerequisite in emancipatory and empowering educational activities.

Consequently, here emerges a blurring of the once agree-upon dichotomy between the Enlightenment project of systematic and structured liberal education and the postmodernist's rejection thereof. What makes Bauman's communinalization tendency more striking, is its implication that a subject such as the emergence of community media could very well be a postmodern discourse in the making, while being oblivious to the very liberal and critical nature of such media [24]. Such confusion with the relationship between postmodernity and critical thought is best summed up by arguing that there does exist parallels between these two camps, in so far as postmodernity does imply a place for democratization and liberation (Rorty, 1989:63). This has not only been recognized by other writers such as the pessimist Mark Poster (1989:12), but more so amongst writers of 'postmodern education' such as the affirmative Peters (1995:122).

What remains to be seen from such revitalizations is an account of how alternative radio, with its critical theoretical and liberatory nature, could constitute a place within the postmodern nexus of anti-(modernist) foundationalism [25]. The assumption here, given the key characteristics of postmodern broadcasting outlined earlier, is that the mass-based media with their uniform, centralized and often authoritative nature, may very well be considered as dominant modern figurations, similar to the 'grand narratives' which Jean Franscois Lyotard (1984) seeks to marginalize. A postmodern stance to alternative media could entail a challenge towards the economism [or social marketting approaches] of modernist communication, for approaches such as 'Another' development which focusses on two-way dialogical communication and self-determination (Jacobson, 1994:67).

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[24]

Recall the discussion on the distinctive activist and political flavour of the developing community radio sector in South Africa. Such communication projects have been largely concerned with democratization not only of the airwaves, but also the very nature of the political transition experienced in the country. The sector has come to be equated with community consciousness and empowerment, which are characteristic of critical social thought.

[25]

Baudrillard, himself being a 'grand narrative' (of the postmodern literature),that which radicals of the Left aim to deconstruct and reject, is of little concern in the study. His (and others such as Mark Poster's) work has focussed on the visual media in the West. It could therefore be an immature exercise to consider his case in a country with a mix of Third and First World conditions. He does however see audiences as active (1983:42), but not from the point of view of being able to participate in media activities, as is the case instead with community radio. Therefore, this study's subscription to postmodern thought, does not imply inspiration with the entire field of postmodern discourse.

In consequence therefore, there does exist implied links between postmodernism and the liberatory projects associated with socially critical education (Sholle and Denski, 1994: 36-37), with the latter also appearing to have an anti-modernist stance. While both are primarily viewed as critiques and attitudes towards existing and often destructive orientations, they also pave the way for the principles of reflection and revitalization, in which issues such as the ecological crisis becomes an important agenda-setter for educational media and environmental managers. The rise of 'Another' development, which has fostered a context in which community radio could develop and operate, has developed a stage for the media to invoke critical reflection of and become agents for holistic education, under ecological management principles.

'Another' development has inherently subscribed to and been motivated by the postmodern emphasis on risk. The alternative outlook of emerging subaltern, peripheral voices and community agency, may appear consistent with the emergence of the community radio sector in challenging amongst others, the dominating and centralized perspectives of mass-based media institutions. Postmodernism, community media, 'Another' development and community education can therefore be viewed as a complex web in which the ultimate concern is with the nature and direction of education-for-sustainability. Taylor (1996:67) sums up such a links in part, by arguing that:

> *The community education movement [having roots in the critical pedagogy of Freire] wanted*
> *to ... create dynamic, issue-based, working class education which spoke to people's real felt*
> *['Another' development] needs and through education, give communities both the confidence*
> *of knowledge leading to power [through liberation], and its actuality [or Bauman's*
> *consciousness].*

Criticism, community consciousness and liberation are all therefore interlinked. The challenge for community radio is to re-orientate itself towards the construction of such links. However, regressive postmodernists are certain that the media, whether mass or alternative, could not fullfill such a role in empowerment. Poster (1995:62) for instance, argues that electronic media leads rather to 'destabilized and fragmented' identities, that the use of media technologies merely leads to self-amusement and emancipation from the dominance of print/text culture. What Poster fails to realize, even in his 'mode of information thesis' (1990:6) is that, within a mixed delivery strategy in which community radio presents one possibility, there may be simulated as well as direct communication, therefore raising the chance of knowledge gains and agency. The 'destabilization' effect which he imagines may indeed not apply to community media with

its encouragement of interpersonal communication. Ong's orality described in an earlier section, provides a more optimistic view of the strengths and potential of (forum-based) radio-mediated education. Moreover, McLaren and Hammer's (1995:172-173) emphasis on media knowledge leading to human agency, clearly implies that media organizations could very well promote action in educational concerns.

It is from such an affirmative (or positive) critical postmodern attitude [26] on notions such as agency and media knowledge, that ideas of change develop against the hegemonic tendency of transmission orientations. Postmodernity is loaded by the critical body of thought from which it emerged, therefore implying that it is much more than the mere imagining of social figurations. It is in Bauman's (1992:vii) sense, foremost a purposeful 'state of mind'. Contrary to its rejection of any possibility for change and progress, postmodernism is a dialogical culture and context from which arizes reflection and revitalization. The idea of progress may but only be swung into a different trajectory. It is within such a trajectory that educational media could become more agency-orientated [27]. From such a reflexive moment, community radio could turn back and evaluate itself, finding itself launching into a more meaningful experiencially-based orbit.

When viewed fom the point of view of critical, agency-orientated postmodernism, a context for radio-mediated environmental education becomes clear. It is the community not only communicating environmental messages, but local environmental experience, in which the goal is to transform or maintain people-environment relationships. The principle of 'on the ground' action by community radio, together with its call for participation in local matters, adds more weight to McLaren and Hammer's (1995) contention on community agency.

3.7 Conclusion

This chapter attempted an elementary search for evidence of the development project underlying

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[26]

Sim (1992: 85) agrees that postmodernity should be viewed essentially as an attitude towards modernism. It is not an era in itself, but a critical stance towards an historic era. This solves in part the criticism that ideas of postmodernity are not applicable to non-Western contexts. When using the concept to mean a positive state of mind and not a regressive condition, the 'postmodern' would not necessarily employ misleading conceptions such as 'industrialized', 'Third World' etc., to imply causal links between physical conditions and cultural abstractions.

[27]

This raises further possibilities on the potential for forum-orientated community radio to harness Outcomes-Based Education, due to its potential context for fostering community agency. This possibility however, goes beyond the scope of this study.

community radio. Its underlying theme maintains that in all their misleading guises, the orientations described thus far, do exhibit a primary attitude of criticism. Such criticism is perhaps most evident in the rise of the community radio movement in South Africa, against previous dominating ideologies.

Two key future considerations remain as definite challenges to the sector in post-Apartheid South Africa: its development potential, as well its potential for meaningful environmental education (given its subscription to the principle of promoting ecologically sound practices within the 'Another development paradigm). Being located in the field of participatory development communication reputes community radio with a unique possible role as agent in education for sustainable living, from a shift of conventional views of audiences as mere receivers and objects of development programmes, to a conception thereof as subjects and actors who define and themselves direct such programmes. By drawing from the inspirations of successful action-geared community radio projects in Latin America, Europe and Malaysia, South Africa's sector could more effectively consider revisiting its development and educational role.

The following chapter seeks to consider the dominant methodological orientation underlying environmental education in South Africa and considers cases in which attempts have been made to use radio in the practices of the discipline. It builds on the weaknesses of such experiences to develop a framework for an argument on how the nature of community radio could hold special opportunities for community-based environmental education. This framework should be seen as a broad operational model in which this study attempts to contextualize the future roles of community radio in Wakkerstroom, and has at its centre a preoccupation with viewing community radio as action-gearning organization.

CHAPTER 4

ENVIRONMENTAL EDUCATION: A FUTURE POSSIBILITY

[the] reawakening of enthusiasm for the quality of the environment in early adult life ... may be fuelled by ... the media ... [Its role] has been crucial to many in channelling this enthusiasm into positive action.

Joy Palmer and Philip Neal, *The Handbook of Environmental Education.*

As a medium to which many of the nation's poor have access, the radio transcends both literacy and financial constraints, with the potential to become the most powerful medium through which to transmit environmental education.

Farieda Khan, *Contemporary Environmental Response.*

4.1 *Background: Trends and Orientations*

Just as the rise of the community radio movement could be viewed as an implied criticism of modern broadcasting ideologies, so too is environmental education a product of modernity. It arose out of recognition for changing existing social ethics and values associated with modern culture. The 1970 Nevada Conference, held by the International Union of the Conservation of Nature (IUCN), spearheaded realizations on the need for and clarification of the purpose behind environmental education:

[It] is the process of recognizing values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the interrelatedness among men, his culture and his biophysical surroundings. [It] also entails practice in decision-making and self-formulation of a code of behaviour about issues concerning environmental quality.

Department of Education and Science (1981:7)

This definition became widely accepted mainly because of its all-inclusive nature, explicating the relatedness between humans, empowerment and the natural environment while at the same time subscribing to the principle of participation in transformation. It subscribes more towards an interpretive approach to change, one which has been preferred over 'social engineering' approaches currently still being adopted in education settings. Environmental education is here more seen as a process and has become largely

influential in the work of some who opt for anti-positivistic/mechanistic approaches [28] to change.

Debates on the objectives, principles and approaches to environmental education were further refined in later gatherings, most notable of which include the United Nations Conference on the Human Environment (UNCED) in 1972, the preparation of the Belgrade Charter in 1975, the 1977 Tbilisi Conference, the World Conservation Strategy of 1980 and other international events mentioned in Chapter 1. What appears to be clear from such events was the need for education in support of sustainable development.

Throughout the developments in this field, environmental education evolved semantically from its equation with 'conservation education' and 'wildlife experience', through 'outdoor education' (Irwin, 1990:4), to one which recognizes varying socio-economic and political contexts. It's 'practices' are therefore open and flexible for adaptation to varying and specific settings [29]. However, concern with the track record of the field has led others to review such practices. This lead to debate over the appropriateness of various methodologies and orientations. Janse van Rensburg (1996:68) comments on existing orientations by saying the:

The view that research results can be 'applied' to improve situations ... is in keeping with modernistic notions of science, knowledge and progress as neutral, cumulative and context-free tools for progressive enlightenment ... The conventions which have dominated environmental education research ... described as instrumentalist, behaviourist and technocratic ... form part of a web of utilitarian and uncritical assumptions about research, knowledge, education and social change.

This debate has largely been amongst those who call for orientations which emphasize experiential learning and community-based problem-solving. As a response to the crisis of modernity [30], it is understandable that

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28

See for example O'Donoghue's (1996) subscription to Eliasian sociology, in accounting for the development of environmental education in eastern southern Africa.

29

The Natal Working Group document (1994), also known as the 'Natal Document', also provides for reading on changing conceptions of environmental education ever since the 1970's.

30

For a deeper reading of environmental education as a crisis of modernity, see Beck (1993). The work of Zigmunt Bauman, cited in the preceding chapter, also provides for an interesting conceptualization of our contemporary revisionary condition (as is the case with Beck), in which 'modernity', the primal culprit, is at question.

its focus would be to challenge the hegemonies of existing status quo's which have partly contributed to the crisis. It now appears to take a strong socially critical form, which in itself is geared towards the transformation of existing positions. Given its project of scepticism against modernity, environmental education should employ approaches which surface modernity's destructive hegemonic nature and call for alternatives in which sustainable development is an envisaged outcome. Its concern with rectifying the injustices (both against humans and nature) of modernity, on 'real' and day to day hardships and its promotion of sustainability, places it neatly within the nexus of revisionary thought underlying 'Another' development.

Moreover, the debate is marked by a concern that change cannot be initiated by way of the same technicist and authoritative educational strategies which have contributed to humankind's domination over nature [31]. Although it may be argued that environmental education does not take a clear postmodern stance, Orr (1992:x) argues that '[environmental] education must [now] have a different agenda, one designed to heal, connect, liberate, empower, create and celebrate'. This challenge against existing orientations is also echoed by Firth (1996:22) who draws from critical pedagogy and Foucauldian postmodernism to challenge the dominant modern development paradigm underlying much of environmental education [32]. Moreover, others such as Usher and Edwards (1996:45) argue that the challenge against existing educational foundations within environmental education might well lead to the valuing of different sources of knowledge in postmodernity, in which experiential learning represents one such source.

Debates on the nature and purpose of environmental education are therefore by implication much more concerned with the question of 'what should be taught', but also with the teaching contexts and communicative strategies best viewed at maximizing learning, on various environmental experiences. Here it may well be argued that existing class-based settings, with their tendency towards the mere transferal of

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[31]

Here the debate touches on concerns of the subject-object separation in modernity, where nature is viewed as an object to be manipulated for human good. A revisionary attack on such a view would entail a reconfiguration of subject-object positions, as is evidenced in definitions of environmental education, in which humans are seen as part of a system of socio-environmental relationships with each placing limits on the other. Such debates are of key interest in the postmodern (and at times pessimistic) concern with epistemology i.e. how we view social reality and how we consequently seek to make sense of its constituent parts.

[32]

Others such as McLaren and Hammer (1989) have broadly built on this postmodern challenge against existing educational institutions, by retaining the positive, revisionary aspects of postmodernity. Central to their argument for a critical postmodernist pedagogy of liberation, lies the rejection of a postmodern ahistoric condition and the commodification of signs or educational messages (p. 39) for mere self-amusement.

'packaged' information, and at times thought-discouraging climates, may limit possibilities for active and experientially-geared learning activities on issues in their real socially problematic environments.

It is clear from such conflicts (about education and communication) that no universal approach to environmental education exists. Consensus lies instead with the need for orientations which emphasize critical reflection, transformatory action [33] (whether revolutionary or guided by systematic interpretive research) and the varying contexts in which environmental problems occur.

Of deeper interest in this debate is this study's consideration of the position taken by the media in environmental education's positivist-interpretative debate. It is assumed that the media subscribes to a technicist orientation, seeing change in terms of simple messaging between educator and subject, with little transformatory tendency. A consideration of this position follows, with particular reference to a discussion of how community radio could constitute a revision of such criticism.

4.2 *Radio-mediated environmental education: Force or False utopia ?*

Mediated communication has for long now been wrongly equated with mere information transfer. This criticism has been taken up by environmental educators (EEPI, 1994:9), who argue against the mere creation of awareness. The media have been reputed to relay images which do not necessarily raise awareness and hence do not advocate attitudinal or behaviour change. Such views grew out of obsessions with assumptions that media organizations in their modern form, are not action-orientated and therefore could not contribute meaningfully towards transformation. In essence, the roles of the electronic media in environmental matters have been reduced to mere information transfer. Media structures have been denied any practical, grassroots role by the legacy of regressive writers such as Baudrillard and Poster mentioned in the previous chapter, as well as the philosopher Gianni Vattimo (1992).

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[33]

The call for transformation in educational research, requires in Bauman's (1987:143) sense, an 'art of civilized conversation' amongst various educators and conflicting academic conventions. This is a distinguishing call expressed by a postmodern dialogical culture, on issues relating to boundary transgression. Popkewitz's (1984) consideration of the ideologies underlying educational research, so as to expose those which exhibit more transformatory tendencies, may be seen in the same light -- the socially critical approach he sees as providing the strongest ability, itself requires a noble art of civilized debate and is contrary to views of postmodernity as a radical Leftist position. Such an art already exists within environmental education, in which the over-rhetorical nature of transformatory action has raised concern that the field may merely be establishing itself as another hegemonic institution (Janse van Rensburg, pers. comm.), with the same instrumentalist rationality exhibited from the modern (educational) bureaucracies it seeks to challenge. This paradox is also evident in the field of community radio. Seen from this view, it would become pivotal to ensure the continuation of such a culture of dialogue and reflexivity, in which such paradoxes could be addressed.

The wrongful delineation/separation of communication from educational processes, was evidenced by the formation of two separate commissions to debate the future of these two courts, at the Environmental Justice Networking Forum's (EJNF) Second Biennial Conference of November 1996. This intentioned split is understandable, given points raised earlier on the conventional positivistic orientation underlying the media. Yet, the commission on communication and information stressed the need to focus on community level issues and raised the potential of community radio to function effectively at voicing community level environmental concerns (EJNF, 1996:38-41).

However sincere such criticisms against 'technicist transmission pedagogies' (see for example Paxton, 1994:9), they remain inherently contradictory as many environmental education/information initiatives rest on the use of the media (both print and electronic), while simultaneously claiming popular support for such information-driven educative processes. Paxton's work on the Enviro Facts project, which overlooks the inadequacy of print culture [34] in discussions of the distribution of Share-Net's print-based materials, neglects an important criticism against printed resources. Such materials run the risk of becoming locked at the levels of non-governmental organizations and elites, even though the adaptation of such materials to specific grassroots contexts is encouraged. This suppresses exactly that call for popular awareness and action promoted and fostered by environmental education, with those in need of education or information having no guarantee of such printed 'messages' even reaching their localities.

The sceptism with messaging and resultant call for interpersonal and action-based learning has in no way clearly been considered for debate, so that the present situation fosters existing assumptions and distortions about appropriate communication strategies for doing environmental education. What is required is not a rejection and substitution of media structures for 'hands-on' approaches, but a search for those media contexts and inclinations which do harness direct interaction and a socially critical orientation towards action.

4.2.1 Radio and environmental education: Some cases

Environmental education in its current form, remains oblivious of changing orientations within media

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[34]

By 'inadequacy' it is meant the inability of print culture to stimulate critical thought amongst many South African's who are either illiterate, impaired by sight or largely from orally-focussed traditions. The Enviro Facts project has received pressure to extend to oral forms of communication, in which the then Radio Zulu (now Ligwalagwala FM) attempted to transform the print material into auditory form (Paxton, pers. comm.).

thought itself. The trend towards alternative, smaller and action-based media structures, provides an interesting hint for supporting environmental education at community level. In presenting potential advantages over print-based initiatives and valuing of action-based problem solving, community radio raises the possibility of its convergence with current critical and transformative orientations exhibited by environmental education. With increasing support and networking potential, it represents the earliest and by far advanced community media sector [35] in South Africa. What needs to be investigated, is how the interactive and action-orientated principles of both these fields could unfold at a practical level.

One of the primary motivations for the use of radio in environmental education is the realization of the need to extend such concerns beyond the classroom setting. In keeping with its broad nature, environmental education should extend to rural settings, where it is delivered and manifests in activities such as agricultural extension, ecotourism, wildlife management, craft-based industries, adult education and capacity-building (MEP, 1994:122).

The use of radio to facilitate and support such activities represents but one possibility, because of its already-established infrastructure and support base. Bramwell and Lane (1994:106-108) has shown how radio could cover and enhance rural tourism, while Allen (1987:3-6) has shown how the environmental education broadcasts, in forum settings, could change existing distortions about the extent of Tanzanian desertification. A survey conducted after flighting the educational programmes, in the case of Allen's study, showed that the sample number of 41% who believed desertification not to be excessive, was lowered to 18%. Moreover, after the programmes there has been a 13% increase in radio ownership (p.5-6). Woods (1993:25) in arguing for a place of communication technology in Third World development, shows how the Rural Radio Programme in Liberia has contributed to field-based agricultural advisory and management services.

All these cases have at their centre, the use of community radio which capitalizes not only on close proximity to community members, but allows the process of learning to be in the hands of the community members themselves. The blurring distinction between broadcaster and audience implies that the station is the

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[35]

The Rural or community television sector is virtually non-existent in South Africa. For more on this medium's development potential see Burton (1994). The use of community theater may also represent a valuable resource to facilitate understanding on environmental matters. All these strategies may expose and defy the skewed tendency of environmental education towards schools-based activities. While they may inherently support the idea of sustainability (hence the focus on youth), they extend concerns to all age groups in communities.

community. It is therefore directly implicated in action resulting from its educational or facilitatory efforts. It is worth discussing local cases in which there is an attempt to use community radio for environmental education purposes.

The Radio Maritzburg EASY Chat Show

The Education Subcommittee of the Keep Pietermaritzburg Clean Association (KPCA) launched the Environmental Award System for Youth (EASY) programme in November 1996. Key objectives of the programme are :

- *To develop a better understanding of the relationships among demographic dynamics, technology, cultural behaviour, natural resources and life support systems;*

- *To emphasize the needs for linking population and environmental activities;*

- *To establish a forum to serve community interests around environmental compatibility.*
                                                                              (KPCA,1997a)

The EASY programme employed a mixed media strategy to develop educational resource materials for schools and the broader community. The local community radio station, Radio Maritzburg, flighted a regular weekly discussion programme called EASY Chat, to address environmental and population issues. An estimated total of over 52 narrowcasts have been planned in the programmes' first year of operation. Table 5 (p.46) provides details on the programmes flighted between 31 July and 10 October.

The overall programme recognized the need to communicate environmental issues to the broader Pietermaritzburg community by offering a channel for debating environmental education issues, via the local community station. According to the presenter of the talk show, the EASY Chat programme 'aimed at encouraging pupils to become more involved in environmental activities' (Shelembe, 1997b). The radio talk show served to compliment practical activities undertaken by schools within the Pietermaritzburg-Msunduzi area, by offering an opportunity to reflect in local environmental issues success as well as by pushing for further enthusiasm within the broader community.

At an evaluatory workshop held at Midmar Dam on 8 October 1997, various issues relating to the overall EASY programme were discussed. Participants expressed consensus on the need for improving the quality of the radio programme, as well as to engage in more field-based programmes (KPCA, 1997b). Moreover,

there also appears to be a growing need to promote the initiation of such programmes in other regions with community radio stations. Members of the association have already expressed such a concern at workshops in Gauteng and Transkei.

TABLE 5: The EASY Chat Programme Schedule (July-October 1997)

DATE OF BROADCAST	PARTICIPATING ORGANIZATION	TOPIC
31 July 1997	Rate Payers Association (RPA)	Conservancies
7 August	Sobantu Environmental Club (SEC)	Environmental Clubs
14 August	Society for the Prevention of Cruelty to Animals (SPCA)	Environmental Clubs
21 August	Department of Health and Welfare	Rural Litter Problems
29 August	Natal Parks Board (NPB)	Arbour Day
5 September	Wildlife Society	Share-Net Activities
12 September	*Unknown*	Permaculture Projects
19 September	Tatum Art Gallery	Art issues
26 September	Tatum Art Gallery	Golden Scenario
3 October	S.P.C.A	Fireworks and animals (Zulu)
10 October	S.P.C.A	Fireworks repeat (English)

Source: Shelembe, 1997a

However, the primary weakness of the radio programme [36] is its lack of evaluatory research to demonstrate the extent to which it facilitates and promotes further enthusiasm in environmental education . Nevertheless, it needs to be commended for its attempt at encouraging participation among youth, industry and environmental organizations. This is evident in the diversity social groupings it attempts and succeeds at 'voicing' within the talk show. Moreover, the recent push towards field-based programming provides a key indicator of the commitment to action exhibited by the radio staff. Herein lies a developing context in which the station becomes part of the attempts at promoting action-based learning (through activities which expose

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[36]

The previous chapter has already expressed the need for more formative or summative audience research with respect to community radio. The lack of appropriate training in this sector limits a more systematic consideration (with evidence) of the cultivating effect of radio-mediated educational programmes.

the youth to the complexity of ecological relationships), with its staff who reflect on these issues themselves undergoing a process of experiential learning. The use of field-based programming creates a context in which direct exposure and interaction develops a platform on which more meaningful problem-solving could occur.

Inforeach and Rural Community Radio Stations

'Inforeach', an acronym for Information Reaching, is a regional network node for the Developing Countries Farm Radio Network (DCFRN), which came into being in South Africa in February 1996. It operates under the administration of the environmental education organization, Ecolink, and aims at using radio media to distribute and flight Rural Resource Pack's on a range of environmental and development issues [37]. It particularly involves the production of radio scripts on topics such as agriculture, health, nutrition, water and soil conservation, gardening, pest control, family planning and appropriate technology in development. Figure B (p.48) shows a model of Inforeach's mode of operation.

To date, Inforeach has resourced 350 scripts from the DCFRN and developed four packages (containing 11 scripts) with continuing guidance from broadcasters, listeners, community extension workers and research organizations (see Appendix F for a script sample). Moreover, these packs have been distributed along with educational booklets and feedback questionnaires to 14 community radio stations in South Africa (Simukonda, 1997). The scripts and resource packs are flexible, so as to allow for interpretation and adoption in local contexts.

Figure B shows a strong feedback and evaluation structure within Inforeach, to ensure that its activities and products are relevant and driven by community need. However, the regional network is relatively in its infancy and still has to conduct a significant amount of audience workshops, to assess not only the relevance of resource materials, but also to extent to which the ideas portrayed in the scripts and booklets were being adopted into practice. In addition, as a networking body Inforeach has limited direct control over the broadcast of the educational material. It therefore runs the danger of producing materials which, for various reasons, would eventually not be flighted at all [38].

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[37]

The network's primary target market is the rural woman subsistence farmer.

[38]

This is also compounded by the fact that its focus on rural areas tends to conflict with the urban strategy of some of its recipient stations. As mentioned in the previous chapter, the skewed tendency of these stations towards cities presents

FIGURE B: Inforeach Mode of Operation

INFOREACH
NETWORK

Scripts and other
Information

Feedback (infopols)
Materials and Ideas
for news Scripts
Requests for
Information

PARTICIPANTS

*Community Radio
Extension Workers
Teachers
Health Workers
etc.*

Information in form
of programs,
publications, lessons
etc.

Feedback
Inquiries

AUDIENCE
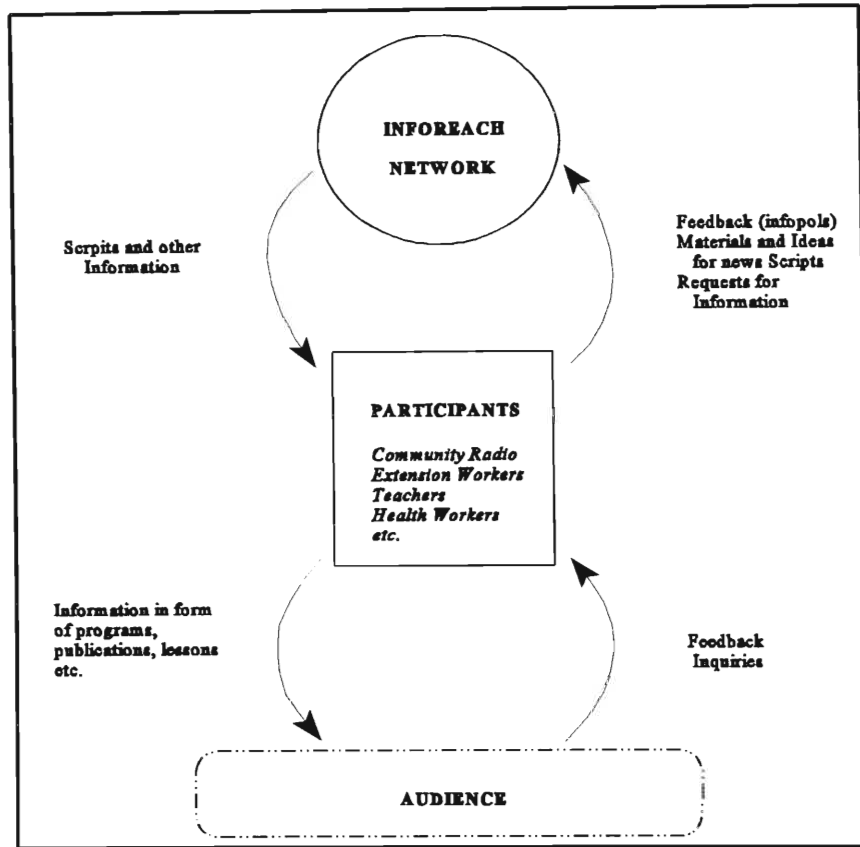
Source: Simukonda, October 1997.

Furthermore, at the time of conducting the investigations into the network's activities, it was found that stations currently flighting the programmes have not yet carried out any meaningful evaluatory work on the programmes.

The strength of the networking body however, should be seen in its pioneering attempt at using community radio as the primary medium for steering its environmental education activities. It has also shown commitment in promoting a broad concept of environment education, as is evident in the varied content covered by the resource packs. What remains to be seen, is a clearer commitment on the part of broadcasters,

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a problem in terms of marketing for Inforeach. Some stations have indeed preferred not to flight the programmes because of its conflicting urban market strategy. Bush Radio represents one such station (Bush Radio Programme Director, pers. comm.).

to ensure that listeners do get maximum benefit from broadcasts. It would be useful for recipient stations to conduct audience workshops and strengthen already-existing listener-broadcaster and broadcaster-network feedback mechanisms, so as to arrive at a clearer conception of the potential and existing educational track record of such stations.

4.2.2 Towards a clearer interactional context for learning

As emphasized in the previous section, the primary limiting factor to a consideration of the positive role played by community radio in environmental education, is the lack of prior evaluatory work done on existing initiatives. Any educational radio project needs to develop a clear idea of the desired outcomes. In the case of environmental education which values experiential learning, any radio project needs to evaluate its contribution from the point of view of cultivating such action. Provisions have to be made, as in the case of Inforeach, to assess the extent to which ideas on nutrition or conservation for example, have been adopted into practice.

Such indicators of programme effectiveness have to assess ways in which it has developed understandings of environmental issues. Apart from direct and observable changes in behaviour patterns, such as the cultivation of land for home-grown medicinal plants, a key to understanding the extent to which radio has contributed to educational processes is to assess the degree to which it has promoted and encouraged dialogue, debate, criticism, interaction and transformatory action in community environmental issues. The key issue then, is the extent to which it has employed and further developed a direct interactional strategy and context in community matters.

Problem solving is best likely to succeed when the communication processes underlying it are more direct than mediated. Community radio by nature provides a place for both mediated and interpersonal interaction. Direct interaction may be evident in (grassroots) face-to-face and field-based programming, while the realm of symbolic or mediated interaction may be located in the use of broadcasting technologies [39]. Direct field-based programming and feedback techniques employed in the Radio Mensaje Project (Evans, 1987) are examples of strategies which aim at direct communication by media workers, for raising local development

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[39]

In its current form, community radio has overlooked its direct interactional ability and has swung itself into a trajectory in which it capitalizes on the misleading existence of 'technologies of amplification'. It has grown to be oblivious of its underlying principle of utilizing all communication strategies for interaction. Such neglect may have developed from its desire and inspiration to conform to commercial radio, which in turn has virtually limited any form of direct participation and interaction.

(or environmental) knowledge. The existence and promotion of such strategies represent contrary arguments against pessimistic educators who exaggerate all radio to be either technocentric or passive cultural apparatuses which exhibit no role in transformatory action.

The potential for community radio lies not so much in the advocacy offered by broadcasting equipment, not with stereotypical traits of simulation and sensationalism associated with the electronic media, but with the extent to which it could employ face-to-face strategies at street level. This direct context could be enhanced by community radio's inherent participatory nature, as well as its being part of a social system and therefore directly implicated in community action. By distancing oneself from generalizations and distortions of community radio as adopting purely instrumental and mechanistic positions, a scene may be set in which the underestimated context of direct interactional ability may provide a crucial link to action-based, community-level environmental education.

A clearer balance between the use of direct and indirect interaction, of which the latter is more prone to passive engagement, could pave way for more action-based, radio-mediated environmental education. This is shown in Figure C (p.51), in which radio's role becomes more central in community action, utilizing effective feedforward and feedback mechanisms and ensuring active involvement in debate and action. This requires the station's activities to transcend studio-based work towards more involvement at the level of direct environmental experiences i.e. to both promote and engage in 'aesthetic experiences', which Denzin (1992: 134) sees as being 'capable of integrating the individual with the environment in new ways'.

It is important to note that this context requires input and support from various development and educational organizations and networks, who in collaboration with the local community should maintain clear project management principles and ensure community involvement in monitoring and progress. If local action for change is the primary criterion or indicator for success, then local expertise and communication should be of maximum support for the sustainability of educational programmes.

The emerging context for radio-mediated environmental education , with 'radio' as an organization and not a collection of signals and wired-up equipment, bases its relevance on the primacy of dialogue and local knowledge-sharing in social change. This represents a shift consistent with criticism against expert-intervention approaches and is consistent with a participatory ethic which values local experience and knowledge. Moreover, it is a context which emphasizes decentralized and informed decision-making on environmental matters, consistent with the fundamentals of 'Another' or locally-driven development.

FIGURE C: A context for Interactive, radio-mediated Environmental Education
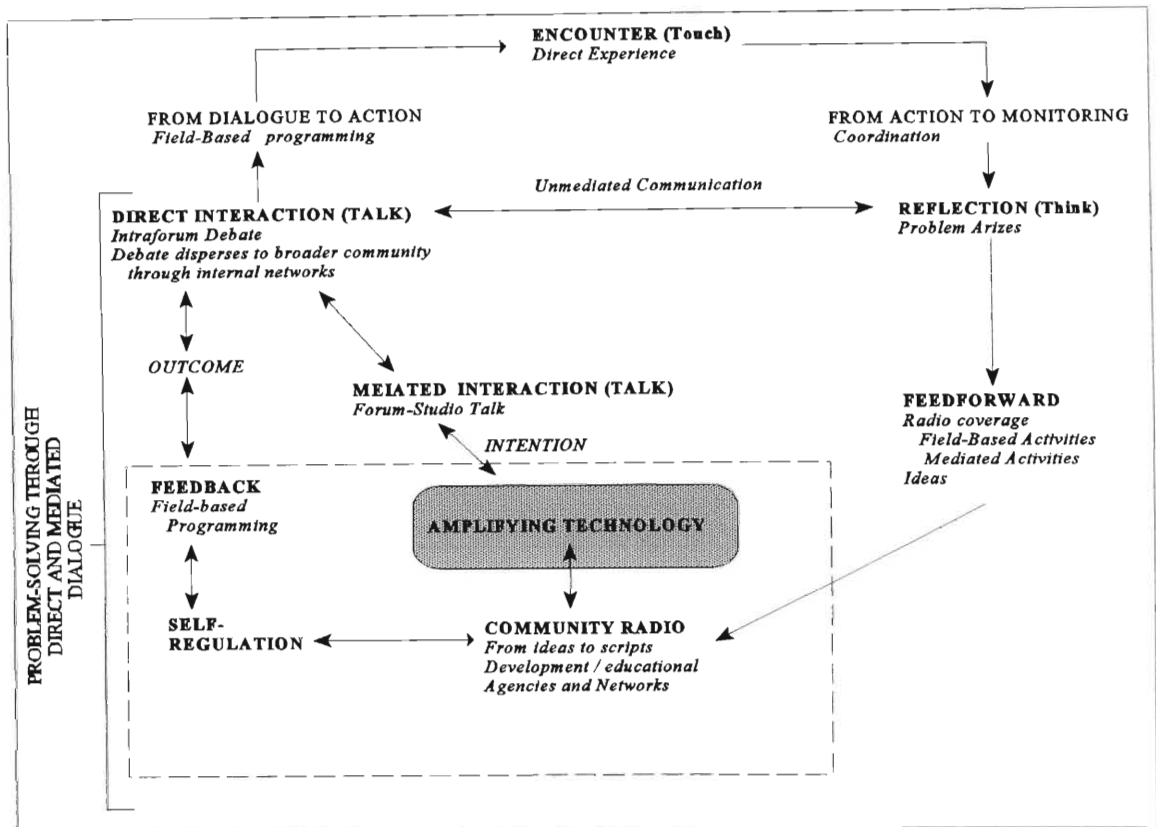
Constructed by the author

In sum then, a focus on extra-mediated strategies towards environmental education not only solves in part the dilemma of a technicist media orientation, but also reinforces direct interactional ideals valued within environmental education. Mediated strategies should partly be seen as supplements for cases in which direct interaction becomes costly and logistically problematic, while at the same time providing motivation for involvement [40]. It provides a means for further debate and reflection. However, it is the use of direct interactional strategies which provide for action and experience. The former should be seen as a way of complimenting and reinforcing the potential for action, while the latter should enhance project direction towards envisaged outcomes. Both strategies are mutually-supportive and in practice, such a mixed

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Radio provides a means for such motivation because of its appeal to affective domains of listeners (Mbali, pers. comm.)

communication strategy should pave way for more meaningful and effective radio-mediated environmental education.

4.3 *Conclusion*

In building on ideas about the critical and transformative nature of community radio, set out in the previous chapter, this part suggests that such an orientation is indeed similar to the outlook of environmental education. It suggests also that views about the alternative media should transcend misleading technicist orientations and focus on the element of direct interaction amongst participants. Such an orientation is by far more prevalent in local or community media and should both be enhanced and employed in community-based environmental education, especially when foreseen outcomes lean towards cultivating ecologically-sound practices/experiences.

More critical is this chapter's call for more effective evaluation of existing radio-mediated environmental education programmes. This should enhance self-regulation on the part of community stations and further intensify responsiveness to community interests. The scene has now been set for a broad context or framework in which community radio could operate in environmental education. The following chapter seeks to present the pragmatic side of the study. It considers firstly, a background to the study area, and discusses how a community radio station (given the framework outlined in this chapter) could contribute towards environmental education by firstly reinstating a culture of open dialogue and cooperation so much needed for problem-solving. It also reflects on the qualitative component of this research, by critically discussing the ways in which the action research component has contributed towards the community's vision for a community radio facility.

CHAPTER 5

THE STUDY AREA

5.1 *Background*

The town of Wakkerstroom is situated in the south eastern reaches of the Mpumalanga province, just north of the Kwazulu-Natal border. It is located at latitude 27^021^1S and longitude 30^008^1 E, from which the nearest town (Volksrust) is 27 kilometres away (see Appendix G for a map of the area). Since its establishment in 1895 by Dirk Cornelius Uys, the town has undergone constant demographic changes, noted by a rise and continuing fall in certain demographic figures. This is shown in Table 6 below.

TABLE 6: Changes in Wakkerstroom population (1911-1970)

Race	1911	1921	1936	1946	1951	1960	1970
Whites	654	793	805	821	858	625	426
Asians	--	29	20	24	24	27	28
Africans	850	1,142	1,551	1,294	1,497	1,829	1,522

Source: Peters et al.(1995:11)

The recurrent trend in demographics reveals a growing Black population with a decline in numbers, of the White population. Moreover, most of the White population is dominated by elderly people of which approximately 45% are retired and live in the nearby Dana Te Huis home (Peterson *et al*, 1997: 26). More recent statistics imply that Wakkerstroom's declining quality of life and economic conditions are compounded by the increase of the Black population. This is shown by current demographic figures which suggest that there are now approximately 2200 Whites and 9384 Blacks residing in the magisterial area [41]. In addition, approximately 45 Indians also reside within the town. In essence, the combined population of Wakkerstroom lies in the region of 11650 people.

The most notable forms of economic activity in the area are those directly related to land use. Apart from a small business sector comprising mostly of secondary trade, Wakkerstroom is also known for its surrounding privately-owned agricultural lands and its council-leased livestock farming areas. Within such land use patterns, the Black population comprises of small subsistence farmers, while all White farmers are

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[41]

These estimates are based on Vermaak's (1996) observation of the population at 2000 Whites and 8000 Blacks, with a per annum growth rate (since 1991) of 11,1% for Whites and 17,3% for Blacks, in the town.

commercially-inclined (Morrison *et al.*, 1997:7).

In addition, the Townlands of Wakkerstroom, including private and short-term leasehold plots, also exhibit potential for agriculture. However, population growth in the 'town' suburb and adjacent township of eSizameleni places growing pressure on available primary and secondary sectors to cope with the flooding of the local job market. This is partly due to the contention that the primary land use patterns such as agriculture have not been realized to their full potential, therefore limiting the scope for employment. As a result, many residents have sought to gain employment elsewhere. This has resulted also in a fairly mobile population, especially with regards to those residing within the local township.

Although there exists possibilities for coal mining and other secondary industries in the area, these have been rejected mainly because Wakkerstroom remains an area noted by biological diversity, deemed to be threatened by harmful economic development. These issues are now considered in more detail.

5.2 *Problematic Environmental Aspects*

Wakkerstroom's surrounding district falls part of the uThaka River Catchment in which the Tugela, Pongola, Usutu and Vaal Rivers depend on runoff generated by surrounding highlying areas (Greeff, 1993). It is also more closely associated with the Grassland Biome, particularly the Moist Sandy Highveld area characteristic of southeastern Mpumalanga (Bredenkamp and van Rooyen, 1996:42). This renders the area useful for crop production and livestock grazing. Moreover, its location within the Grassland Biome has resulted in Wakkerstroom being rich in biodiversity. Seven of the nine endemic bird species of South Africa for example, are to be found in the area (McAllister, undated:1).

Of considerable interest also, is the wetland (see Figures D and E, p. 55) lying adjacent to the town and in the upper reaches of the Tugela Catchment. Besides it being an important habitat (and context for biodiversity) for wetland dependent bird species such as the Cape Weaver, Wakkerstroom's wetland also serves to control soil erosion, purify water and regulate stream flow (Donnelly *et al.*, 1997:4). Considerable time has also been devoted by these (and other) researchers, to consider the constraints of Wakkerstroom's natural environment for any further development in the town. The reader is therefore referred to such documents for a deeper reading of the biophysical context of the area. Such papers do however, point to the need for communicating such constraints, so that better understanding and consensus (and therefore support) could emerge from chosen development options in the area.

FIGURE D: The Wetland viewed from north of 'Town'

**FIGURE E: The Wetland viewed northeast of 'Town',
showing eSizameleni settlement in the background.**
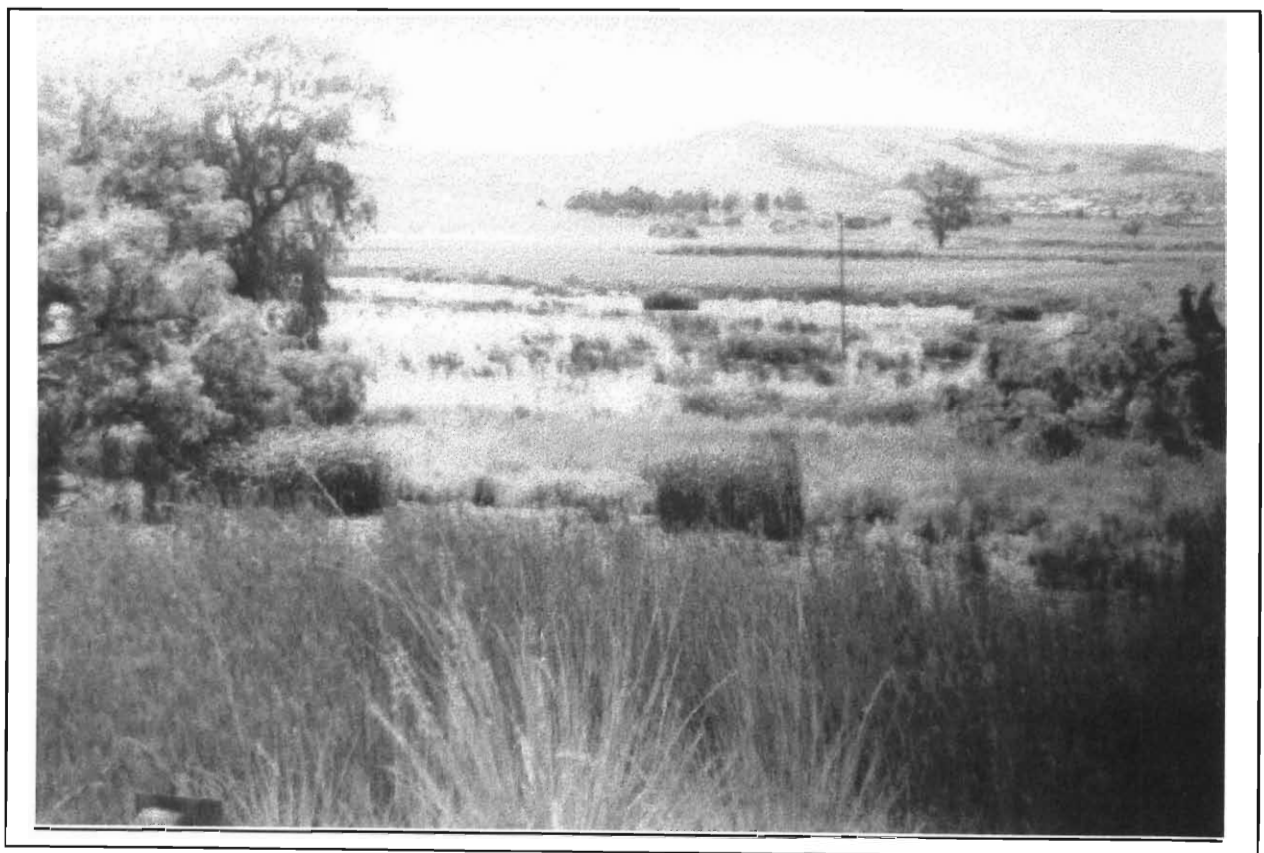
The continued existence of the wetland remains pivotal in supplying water, via the nearby Zaaihoek Dam, to Eskom's Highveld Power Stations. A group of locals formed a non-governmental organization called 'The Wakkerstroom Natural Heritage Association' (WNHA) in 1991, to manage and push for a recognition of the wetland's status.

In essence, the environmental context of the Wakkerstroom municipal area, as briefly outlined above, exhibits a tremendous sense of dependence. The numerous plant and animal species which depend on the presence of the Grassland Biome and wetland, as well as human and economic benefits arising from the water supply, has merited Wakkerstroom (at least in its biophysical sense) as a centre for continued existence. Yet, the increasing pressure from its inhabitants for local employment, as well as temptations for industry, afforestation and expansion, has lead to a dualism in which there exists a need to balance between development and conservation. The formation of the 'Grasslands Require Active Support to Service' (GRASS) Initiative in Wakkerstroom, also highlights the plight for awareness on the fragile nature and need for conservation of the area's grasslands, from any harmful development.

The work of such organizations such as the WNHA and GRASS has lead to the development of a strong environmental lobby and are able to assert themselves more strongly than pro-development community members. By implication then, local economic development in the area is virtually non-existent, resulting in a continued lowering of the quality of life, of especially the Black population. In addition population growth in eSizameleni places pressure on existing social care and economic sectors. This is also compounded by pressure on surrounding natural landscapes, from physical expansion.

There does however exist a recognition that the most suitable development option for Wakkerstroom, given the constraints placed upon the community by grasslands and the wetland, may be that of ecotourism. The scenic and biodiverse surrounding qualifies the area as a definite ecotourism destination. Apart from suggestions such as the formation of a local market to act as a service centre for the sale of products from small-scale agro-industries, as well as activities such as flower growing, leather goods production or apiculture (Peterson *et al*, 1997: 78), there does exist the realization that Wakkerstroom's rich natural heritage could be central in creating a flow of funds into the town. However, should ecotourism be a likely and pursued alternative, it still remains to be seen that local residents are fully supportive of such a move.

The researcher's activity in the town reveals a small degree of apathy and non-concern on issues relating to tourism, by some members of the community. Besides being residents of the same locality, there does exist

a strong sense of 'othering' [42], in which some have come to distance themselves from the town's activities. This raises a concern for any ecotourism initiative in the area, in which potential success could be hampered by some degree of non-involvement.

This issue has been of primary concern in this study's consideration of how community radio could constitute a meaningful role in re-enchanting the area with a sense of dialogue and community, and hence assist in the development of a context needed to harness understandings and consensus on preferred development paths for the locality. Wakkerstroom's state of lacking development and progress has not only developed a sense of disbelonging on the part of some locallers, but has also developed a climate of silence which further hampers the extent to which ecotourism could be fully-supported locally.

The Mpumalanga Tourism Awareness programme emphasizes the fact that tourism is a 'people orientated industry' (Mkhize and Briedenhann, 1996:23). It should be self-evident that for tourism to be a successful development option for a town, it requires active support on the part of locallers. This cannot occur in contexts where there exists growing apathy and non-concern, from realizations that the often favoured growth-orientated development is simply not occurring. Apart from growing environmental problems such as pollution and soil erosion resulting from overgrazing, there also exists a *lack of dialogue* on issues relating to development in the area, a problem which this research sees as the central stumbling block against any chances of united support for progress.

Informal discussions carried out on initial scoping of the study, suggest that there exists a tremendous sense of pessimism with regards to the future of the town. This contradicts contentions held by more prominent community members and officials who create an optimistic portrayal of future development in the town. The problem therefore, on initial investigation boils directly down to how environmental (and hence development) issues are communicated, discussed and debated within the community. The problem moreover, relates not so much with the question of whether there *is* communication in the area, but with the extent to which existing strategies *are effective*.

42

By 'othering' I mean that there has developed a transparent boundary within the community, in which proponents of ecotourism constitutes one camp, with others showing limited or no interest. This is evident in informal discussions with the researcher in which there exists a strong sense of semantic delineation in their usage of concepts such as 'they', 'the Parks Board guys', 'our community', 'the wetland people' etc. The researcher also wishes not to overstate this claim, as there does exist a strong sense of need for environmental education (see following chapter) amongst ordinary citizens, despite the general existence of such apathetic views. A possible explanation for such non-concern is perhaps the view that ordinary citizens are not seeing any immediate gains normally associated with economic development, viewing development instead in terms of a proverbial 'here and now' outlook.

This research argues that development (or conservation) concerns and strategies cannot be isolated from communication strategies. Such a contention has already been recognized by others such as Hamid and Wilson (1990:51) who provide accounts of the ways in which development-communication relationships have been viewed. The study informing this thesis has avoided the view of the two as being separate, causally-linked domains and favours instead, a view which emphasized communication as ongoing interactions within the field of development. Communication *is* therefore development. This view has been central in motivating for a consideration of the rightful place of communication strategies within the context of Wakkerstroom's development.

This chapter has thus far considered a brief context from which to consider communication as being central in the future of Wakkerstroom. Given the dissolution of the sense of community in the area, its fragmenting sense of unity and pessimism with long-awaited development promises, its constraints from the natural world and impending state of stagnation, any further hopes for the future should have at its centre clear communication strategies for revival. While environmental debate will be central to any further discussions on the future of Wakkerstroom, there will also be a need to extend such debate and discussion beyond the confines of existing organizational structures operating in the vicinity. Environmental management activities and their link to further development in the town would need to devise effective communication strategies for ensuring the popularizing and extension of debate, discussion and feedback from those who will be affected.

With the recent establishment of the Imvelo-Yethu Environmental Club, operating from the new local branch of the Department of Environmental Affairs and Tourism, the prospects for educational campaigns relating to Wakkerstroom's natural heritage appear brighter, as members and staff gain more experience in this field. Moreover, Donnelly *et al.* (1997:30) pointed to the potential of this centre to indulge in environmental education campaigns on the pro's and con's of ecotourism in that area. Given the close link and dynamics between social (e.g health and population) and biophysical issues determining the future of Wakkerstroom, it will be important for the local club and centre to build debate and discussion on these dynamics in their future activities, instead of subscribing to orientations which emphasize mere 'wilderness experience' [43]. This also implies that educational campaigns transcend their initial concern with youth and focus more on those

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[43]

As mentioned in the previous chapter, there exists a need for environmental education approaches which emphasize the development of understandings on human-biophysical relationships and how these link to political and economic conditions. Such an approach could be invaluable to the Wakkerstroom because of the need to clarify such dynamics in local context.

(such as commercial and subsistence farmers) who interact more directly with the biosphere.

The presence of the Imvelo-Yethu Club, the WNHA, GRASS and the Mpumalanga Parks Board and other women's, cultural and environmentally-aware groups in the area could offer a strong support-base for environmental education programmes. These programmes should expose locallers to the dynamics of people-environment relationships in local context as well as sensitize the community to the potential benefits of ecotourism in the region. However, such activities require effective two-way communication strategies which aim not only at sensitizing and raising awareness (as the media are reputed to do), but also at motivating for active involvement in environmental matters.

5.3 *Community radio for Wakkerstroom*

At present, the only form of radio reception in Wakkerstroom is that offered by SABC stations such as Radio Jacaranda, Ukhosi FM., Radio Ligwalagwala and Radio Sonder Grense. Being public broadcasters, these stations have to reflect a diversity of issues, not necessarily (if at all) dealing with the Wakkerstroom environment. Such stations follow strict and compressed flighting schedules in which it becomes difficult to consider issues in detail, unless of course if broadcasts of certain topics occur on a regular basis. The schedule of environmental programmes shown in Appendix D, testifies to the short duration of programmes on regional/national stations.

The difficulty of such stations to ensure two-way, interactive communication limits their ability to be of much meaningful assistance in facilitating continued discussion and debate on development at the level of the Wakkerstroom environment. With such stations, it also becomes difficult to facilitate and reflect on local action, which in turn is a key project underlying environmental education. In addition, given the large elderly population as well as the existence of a disabled group, any communication strategy which hopes to maximize involvement in local debate needs to be sensitive to internal limitations of mobility.

Community radio for starters, is located directly within a community and allows for greater interaction than larger broadcasters. Given its nature in Chapter 3, it should be clear that community radio could play an important facilitatory and empowering role in Wakkerstroom's environmental education activities. Its motivating potential and appeal to affect could provide a context for which a reinstatement of a sense of community could be developed. Such a context is pivotal for any chances of increasing the receptive ability of locallers to environmental issues. By building on such a context, environmental education in Wakkerstroom could also appear to gain more involvement and support. Such ripple-effects could eventually

develop consensus, through debate and dialogue, on the preferred nature and direction of development in the area.

By developing strong on-the-ground programming and extension activities, in which all the above-mentioned organizations become active, community radio could harness a context of dialogue, critique and reflection in which environmental education becomes both mediated and personal. This motivating source and channel could break the developing culture of silence in the area so that locals could begin to understand their socio-economic situations in the context of environmental problems and constraints in the area, as well as devise shared understandings on ways forward. In other words, if such a medium is to be used as both a context to house interaction and a tool for voicing, it would not only lead to the crucial dialogue needed for understanding human-biophysical-cultural relationships, but also provide a cathartic release of repressed and pent-up views of issues relating to Wakkerstroom's future. In so doing, distorted perceptions and views could be surfaced to provide feedforward regarding appropriate strategies and educational content, for renewing knowledge on local issues.

The development-facilitated context shown in Figure C (p.51), reveals a practical role for community radio. Herein lies its conventionally-viewed role as 'mechanism' in facilitating dialogue and debate, as well as its innovative role as a grassroots action-gearing organization. These functions and roles are emphasized by the mediated (conventional) and direct (innovative) communication strategies employed by the station, to constitute a source of motivation for action [44]. Here field-based programming would not be used to mean 'getting the story', but to mean 'getting debate, consensus and action'. Summative evaluation of efficacy and formative evaluation of station activities could be done from the point of view of cultivating qualitative action and interaction. Moreover, all these strategies reveal the nature of community radio not so much as a channel or mechanism, but as a function and context which could house environmental and development education processes.

Within such a dialogue-enabling context, a primary function could include the stimulation of interaction through group processes (which in turn increases the likelihood of internalizing broader understandings), with such functions supporting secondary concerns of education. Such a context could lead to a cyclical process of dialogue, interaction, community action and reflection, in which the latter activity serves to

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[44]

Indeed, Hornick (1988:9-10) has shown how development communication, and hence community radio, could serve as an organizer and accelerator of social interaction, while at the same time acting as an agent for motivation in development campaigns.

maintain a sense of purpose and direction. This in turn has to be based on clear project management principles in which the station develops a clear and practical mission statement. Such purposeful and practical activities have already been portrayed in the Figure C.

The call for relevance of such functional roles for community radio in Wakkerstroom, lies also with the limits of existing mass-based communication strategies in the area. Mass community meetings are seldom held, while telecommunications infrastructure is limited especially in the adjacent township. Community radio could to an extent supplement for inadequate meetings by both motivating for and hosting forum-based discussions. It could also ensure that improvements in existing public communication infrastructure could occur, as has been shown by the case in which Mohodi Community Station successfully lobbied with Telkom to install more telephones in disadvantaged areas (Loydd, pers. comm.).

5.4 *Conclusion*

This chapter attempted a simple portrayal of the biophysical and socio-economic aspects of Wakkerstroom with the aim of arguing for environmental education which encompasses a systems approach to the area. Such a need it is argued, stems primary from the fact that for any development option to be supported within Wakkerstroom, in which ecotourism seems a likely route, it must be aimed at developing understandings of human-biophysical relationships in the region. Within such an objective, the clarification of such dynamics should in principle lead to consensus and resolution of existing (and fairly concealed) conflicts about future development in the town.

It is also argued that such outcomes require a context for motivation and social interaction, which the study believes to be a potential exhibited by community radio. Its nature and international track record provides a pool of experience which grassroots initiatives in South Africa could learn from. A community radio-mediated environmental education programme would serve multiple functions such as:

- the development of a community spirit, marked by mutual respect amongst inhabitants [45],

- the provision of a means for channelling and organizing local debate on development issues,

- the provision of a context for empowerment in local action, in which evaluation transcends concerns

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[45]

The participatory culture harnessed by community radio could indeed lead to a sense of community, which Selznick (1992: 316) sees as a moral obligation and ideal leading to the construction, renewal and reinforcement of internal community relations.

with message design and focuses on celebrating local experience and cultivating action,

- the sustainment of a culture of dialogue and cooperation, which in the context of group activity should lead to shared understandings and problem-solving on matters relating to future development of the town,

- the housing of a climate in which socially-critical and systems-based environmental education processes could manifest themselves.

These however, need not be *the* ideal functions of a community radio facility in the area. The basic principle underlying such a medium is that local conditions determine the nature, structure and purpose thereof. This chapter only sought to place its relevance in the broad framework of pressing environment-development challenges in the area. Its exact future roles are as important as the roles of environmental education in the area, in which activities relating to both these fields should result from the culmination of a process of prioritization [46]. By offering mediated and direct educational programmes, in which community radio is pivotal also in extra-broadcast activities (e.g as on-the-ground organizer and facilitator), its contribution to experiential learning and understanding could become highly valued.

The following chapter seeks to present results relating to the enquiry into the existing communication context in Wakkerstroom. It considers the views and perceptions of inhabitants on issues relating to the media and environmental education, so as to consider later, how the call for establishing a community station, is motivated by such views. The reader should also note that the following chapter serves also as a preliminary need assessment, in which the information has been used for strengthening the community's case when lobbying for organizational support for the facility's establishment. These results are by no means applicable to the entire community and as shall be argued, more collaboration and community support needs to be built for realizing a vision of relevant radio for environmental education.

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The researcher recognizes that his role throughout the study has been mostly one of facilitation. The nature of community radio (and environmental education processes) must be informed by the context in which it occurs and it was envisaged that the local community understands their dispositions more concretely than the researcher. Therefore, this study has purposefully taken a broad framework within which future activities in the area could be guided by its principles. It is up to the community to clarify the exact roles and purpose of community radio for environmental education. In this way, the processes themselves could become more relevant and supported.

CHAPTER 6

RESULTS

6.1 *Introduction*

As mentioned in Chapter 2, the study attempted both qualitative and quantitative forms of enquiry into radio-mediated environmental education (see Section 2.4, Chapter 2). In this section descriptive statistics relating to the survey, as well as the study's attempt at fostering an action research climate in the study area, are presented.

The descriptive statistics presented herein, although weak on generalizability, should be seen as basic indicators of expressed needs for community radio in Wakkerstroom. As shall be seen, the perceptions and needs exhibited from the sample also imply a relevant place for community radio in environmental education concerns. Some reasons for such inclinations will also be considered, in specific context to those who have been interviewed by the researcher. The consideration of such reasons in the case of the self-administered sample will not be considered in detail, as responses on this issue has been unclearly recorded.

6.2 *Descriptive Statistics : The Survey-based data*

The administration of the survey as outlined in Chapter 2, served to explore perceptions and perspectives held on media-environmental education issues. Given emerging themes such as the mass-alternative and generalized-localized media dichotomies discussed in Chapter 3, the study presumed that there would indeed be dissatisfaction with the efficacy of existing educational broadcasts to the study area [51]. The explorations of such dichotomies from the perspectives of listeners provides an interesting base on which to consider the relevance of community radio in environmental education. This section is primarily concerned with assimilating the responses to those items which sought to explore these dichotomies of media structure and content.

Within the sample the dominant age category was '20-29yrs', represented by 35,6% of the sample. The category of '30-39yrs' represented 28,8% of the sample, while other categories were skewed towards

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[51]

This claim should not be seen as a hypothesis, but merely as a point of departure from which contextualization of community radio in such dichotomies could be considered. The shortfalls of sample size has limited the study's ability to test any hypotheses derived from such presumptions/propositions and claims.

respondents of 50yrs and over. Only 4,4% of the sample was represented by the category of '10-19yrs'. A comparison of the sample between the two suburbs in Wakkerstroom according their demographical characteristics, is provided below.

TABLE 7: Sample Characteristics by Suburb

Town Sample (37,7%)			eSizameleni Sample (62,3%)		
Dominant Age Catego.	Female to Male Ratio	Total number of Respond's	Dominant Age Catego.	Female to Male Ratio	Total number of Respond's
50-59yrs (29,4%)	1:1,125 (47%:53%)	17	20-29yrs (46,4%)	1:1,15 (46,4:53,6%)	28
Total number of respondents = 45					
Overall Female-to-Male ratio = 1:1,14 (46,6%:53,3%)					
Town-to-eSizameleni sample ratio = 1: 1,64					

As indicated, the amount of eSizameleni respondents was almost double that of the 'town' sample and positively correlates with the actual population estimation/comparison of the two areas (see Chapter 5). Only 47% of the town sample fell within the age range of 10-39yrs, while this category was represented by 82,1% of the eSizameleni sample. This parallels the actual demographics of the area in principle, such that in general the town suburb is dominated by an older population with the opposite occurring within the township.

6.2.1 Existing Radio context and Listening habits

Item 'a' of Part 2 in the questionnaire asked respondents about information sources in Wakkerstroom. Responses suggest that friends are a dominating source of news and information relating to Wakkerstroom. Radio features fourth in terms of priority and is favoured over television, by 26,6%. With specific reference to radio, 95,5% of the sample claims that they have access to receiver sets, of which 75,5% listen to on a daily basis. The graph in Figure F (pg. 65) compares the popularity of various information sources in Wakkerstroom.

FIGURE F

Popularity of Information Sources

Frequency of Source across Sample

25

20

15

10

5

0

Information Sources

Family (31.1%)

Friends (51,1%)

At Work (48,8%)

Community meetings (46,6%)

Traditional Leaders (22,2%)

Television (11,1%)

Radio (37,7%)

Entertainment Gatherings (8,8%)

Other (11,1%)
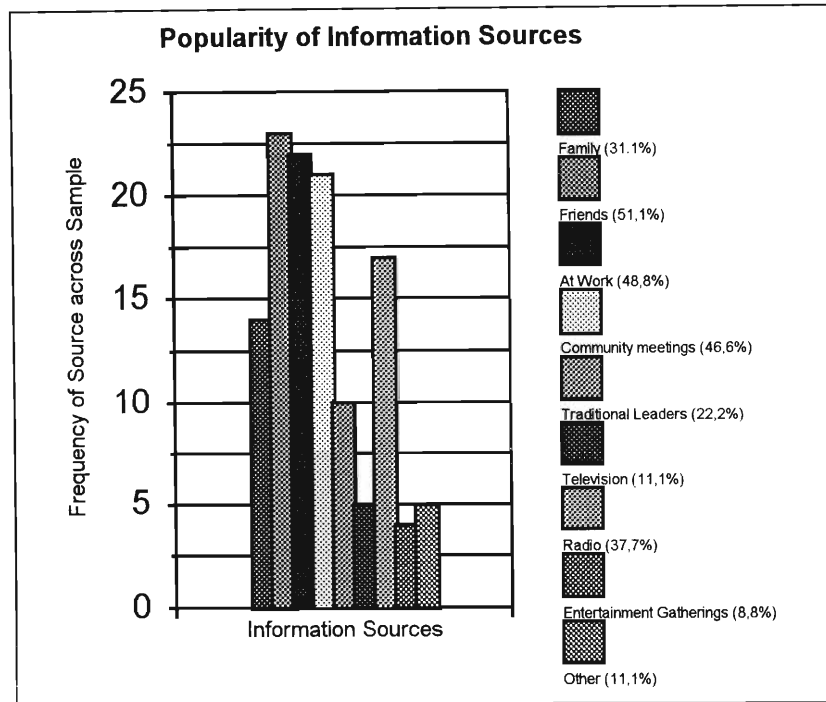
The most common reason for listening to radio is its 'local news coverage' favoured by 42,2% of the sample. Educational programmes have been favoured as a listening priority by 28,8% of those who have access. International news coverage and advertising generally appear as low priorities, featuring only between 11-20% of the sample. Moreover, although most respondents claim the existence of 'local' news coverage by received stations, 62% claim that such radio stations do not address issues relating directly to Wakkerstroom. It appears that the term 'local' has here been used to mean 'regional' or 'provincially-based' content. When asked whether the lack of local content represents a problem for the community, the responses generally appear to point to the need for media structures to consider the immediate living conditions of locals. In other words, respondents have emphasized the general-specific or regional-local dilemma associated with public broadcasting. Such oppositions are evident in responses such as:

Respondent 2 -- " ... every time we are forced to listen to other area's issues rather than our own."

Respondent 24 -- " ... [existing stations] do not represent our community because they are not willing to put our community problems and issues on the radio."

53,3% of the sample claims also that existing stations do not provide an adequate context from which to

understand and act upon environmental issues and problems. 28,8% were unsure on this question, while only 17,7% claim that existing public service broadcasts are sufficient in leading to an adequate understanding of environmental problems.

With regards to listening habits, 31% argues that they listen to radio 'mostly in groups'. Such habits are similar in nature to radio forums discussed in Chapter 3, and their possibilities and potential will be further considered in the following chapter. While only two respondents have indicated that such habits are used specifically for listening to educational programmes, it should become clear that a context does exist for the development of radio listening groups in Wakkerstroom.

6.2.2 Community Radio, localness and environmental education

The sample has been dominated by varying degrees of 'familiarity' with the concept of community radio, with 24% being 'very familiar' and 26,6% claiming 'vague familiarity' with the concept. Only 4,4% did not answer this question.

When asked about perceived meanings of the concept, responses ranged from definitions involving 'radio for a specific community' to 'radio for addressing local matters'. The considerable amount of emphasis placed on definitions which express local and specific social groups is summed up by a particular respondent who argues that 'it [community radio] is all about us, as a community'.

57,7% of the sample felt that more environmental education programmes (which emphasize social and economic issues as well) are needed in the area. Item 'f' of Part 3 in the questionnaire probed for the perceived efficacy of community radio in providing more effective and action-orientated environmental education processes. As shown in Figure G (p.67), an overwhelming amount of respondents have argued that community radio's role could be more effective, primarily due to its localness and higher ability to be more responsive to local concerns and problems than national or regional broadcasters.

This description of community radio has not only been evident at the level of its nature and structure, but also at the level of programming. 64,4% of the sample has emphasized its ability to flight more local programmes which address immediate social conditions. There has therefore been an emphasis on programmes which are specific and relevant to immediate community experiences, in which it is maintained that community radio could contribute to understandings of issues relating to the local context.

FIGURE G
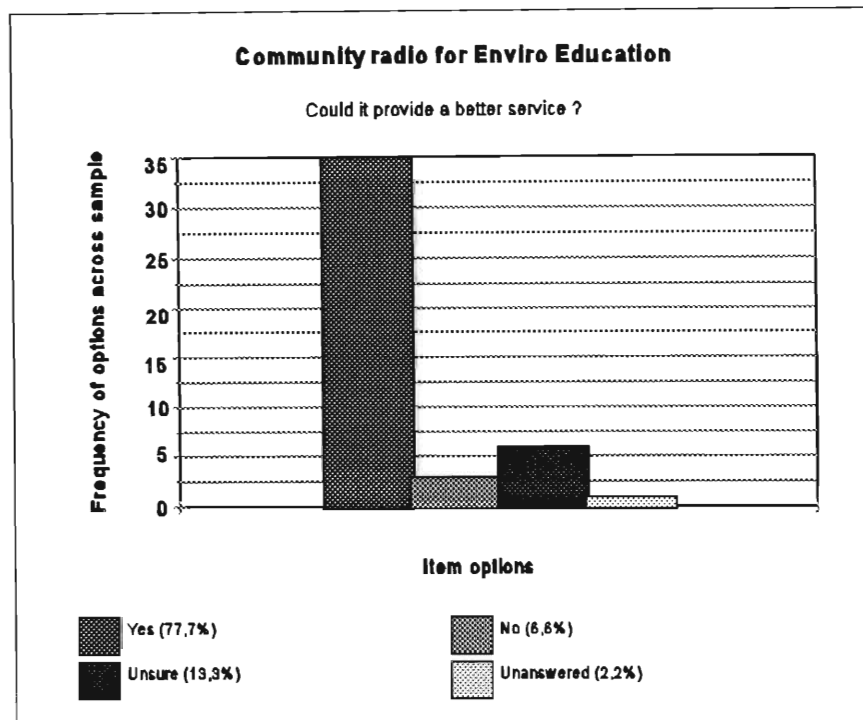
Moreover, 62,2% of the sample called for educational programmes as a production priority. Of third priority has been the need for establishing a community radio facility for addressing and discussing local problems. This argument was exhibited by 51,1% of the sample. Respondents did however also express the need for regional and international news coverage, as well as programmes which reflect local culture. Participants were also asked about their perceived contributions, should a community radio facility be established in Wakkerstroom. 48% maintains that they would participate by 'giving views' and debating broadcast issues, while 55% have argued that they would 'encourage support for the station from others'. 44% claims that they would 'assist in the preparation of local programmes' and fieldwork activities, while 20% would assist in managing the station.

In sum then, perceptions relating to radio and environmental education have centred around problems of relevancy associated with existing broadcasts. This essentially points to impasses within national/regional-local or general versus specific binary oppositions. From the interviewer-administered surveys, it is clear that the support for community radio-mediated environmental education lies with its ability to value and strengthen the local context, a context which despite exhibiting development problems, still remains a proud heritage by some conscienscious Wakkerstroom community members. Respondent 9 elaborates on local relevance by adding that:

... many environmental issues are specific to place and general environmental programmes would not necessarily address these ... people are not inclined to think something is applicable to them unless it is very specific and related to their circumstances.

A recurrent theme which emerged from survey's and discussions then, is that the success of any environmental education programme, be it carried out through interpersonal or mediated interaction, needs to be informed by local development contexts and experiences. Such a contexts it is generally argued, would facilitate understandings on problematic environmental issues. Other key responses relating to community radio and environmental education are presented in Appendix H.

6.3 *Qualitative Enquiry: From perceptions to Action research*

Throughout the survey-administration phase, it became clear that more respondents came to express needs for an alternative medium, to address and facilitate discussion on locally-prioritized issues. One of these priorities discussed in the preceding section and chapter, is that of environmental issues and their link to socio-economic development in the region. The study found it necessary to follow on the preliminary findings and develop a context in which the community itself could consider taking the community radio issue forward for more in-depth investigation. This particularly entailed an investigation on the part of community members, on the potential and implications of establishing such a facility. This section seeks to outline such activities carried out by the researcher and community correspondents, and is argued to exhibit general principles of action research.

The fundamental argument for allowing the community to take the process further, has been motivated by a recognition that any attempt at considering community radio should be marked above all by community initiative. The aim in this process has been to gradually allow the unfolding process to be in the hands of the community, since any consideration of its potential at the local level should be informed by input on the availability of local material and human resources to realize its establishment.

6.3.1 Key players in the Process

As a starting point, the researcher found it necessary to target existing organizations in the area, so that leaders from these structures could provide expertise and motivation for researching the implications and further potential of establishing a community radio facility. Representatives from the local council, the Department of Environmental Affairs and Tourism's Directorate of Environmental Education, the Environmental Education youth Club, Mpumalanga Parks Board, Mpumalanga Tourism Authority and

others representing religious, cultural, business and other community interests were of importance [52]. The overriding aim of the process was to establish a working group which could research and reflect upon the various aspects of community radio, including management, financial, legal, technical and other issues, as well as lobby for further community and organizational support. The envisaged outcome of the research process was to gain a clear idea of the potential benefits and implications which could accrue from the establishment of such a facility.

6.3.2 Research, Action and Reflection

Following from the study's survey-based activities, the community radio issue had by the end of September found itself in informal discussions amongst local officials. This has been spearheaded by a visit of an IBA representative, to discuss the possibilities of establishing a facility with a local government official.

On the 3 November 1997, following the circulation of the notice and invitation, a meeting attended by various community and organizational representatives initiated debate on the nature of community radio, in which consensus was reached on the need to establish such a facility. A significant outcome has been the formation of a taskforce (the Community Radio Facilitating Committee) which sought to propagate the concept within the broader community, especially in the township (Dhladhla, 1997:minutes). Such a decision highlighted the need for holding community workshops and forums, in which to discuss in a transparent manner, the nature and implications of having a local facility.

Subsequent actions included public discussions of the issue, more notably within the township, resulting in the election of more eSizameleni members, onto the CRFC. Furthermore, the taskforce operating at the level of the township also initiated talks with staff of both the primary and secondary schools in the area, so as to constitute a further facilitatory and pressure group for community involvement.

Discussions held on the 5th and 24th November dealt with issues relating to logistics of and deadline for community radio license applications [53]. However, given the demand for technical expertise in completing

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Although these representatives have been targeted, not all have earlier been introduced to the researcher's activities in the area. It was deemed necessary to let the local council circulate an introductory letter and invitation to attend a preliminary brainstorm meeting, in which the researcher supplied a list of targeted organizations and leaders as well as background material on the community radio movement. A copy of the circulated letter is provided in Appendix I.

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This meeting has been motivated for, in light of conflicting information on the IBA deadline, in which the researcher received incorrect information of the application deadline as being 7 November 1997. The meeting sought to reflect

and submitting the application, the researcher found it necessary to forge relationships between the committee and the National Community Radio Forum (NCRF), so that meaningful input could be given with regards to the application and other preparatory activities. This lobbying and information dissemination role of the researcher lead to a meaningful relationship between these bodies, so that future preparatory processes could be supported by already-established organizational structures operating within the community radio sector.

Throughout these activities supporting documentation relating to community radio and its broader organizational support climate were made available by the researcher, so that practical activities relating to the committee's investigations could be informed by wider developments within the field. Moreover, the researcher-to-committee informative and pragmatic activities have been pivotal in gaining support from the NCRF (who as a network body could lobby for technical and human resource support) and other organizations such as the Department of Environmental Affairs and Tourism. This support has also been furthered by wider realizations of the level of need expressed from the preliminary survey results.

At the time of writing up this study, the committee's preparatory activities were still ongoing, in which priorities included a push for further community and wider organizational support. Moreover, the NCRF has shown considerable interest in further collaborating with the community, so that it could be ensured that an application and hearing could be conducted before the Independent Broadcasting Authority. Judging from current activities, it appears that a current focus on more community consultation would indeed lead to the lodging of an application after the next opening date of May 1998. This waiting period has not so much been viewed as a constraint, but as an opportunity to ensure more purposeful lobbying for local and external support. It also provides an opportunity for interested-and-affected parties to prepare (in collaboration with environmental organizations) for training in radio-mediated environmental education, for that specific local context.

As shown in Figure H (p.71), this part of the study sought to develop an action research framework, marked by the existence of cyclical processes of preparation, action and reflection. Each cycle allowed for the planning and conduction of actions relating to developing understandings of community radio, as well as those actions regarding community consultation. Each cycle has been marked also by the evaluation of previous action, from the reiteration of purpose and intent.

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on latest developments as well as to provide a way forward for clearing up the deadline issue. The researcher's subsequent investigation revealed the deadline as the 5 December 1997.

FIGURE H: A context for Interactive, radio-mediated Environmental Education
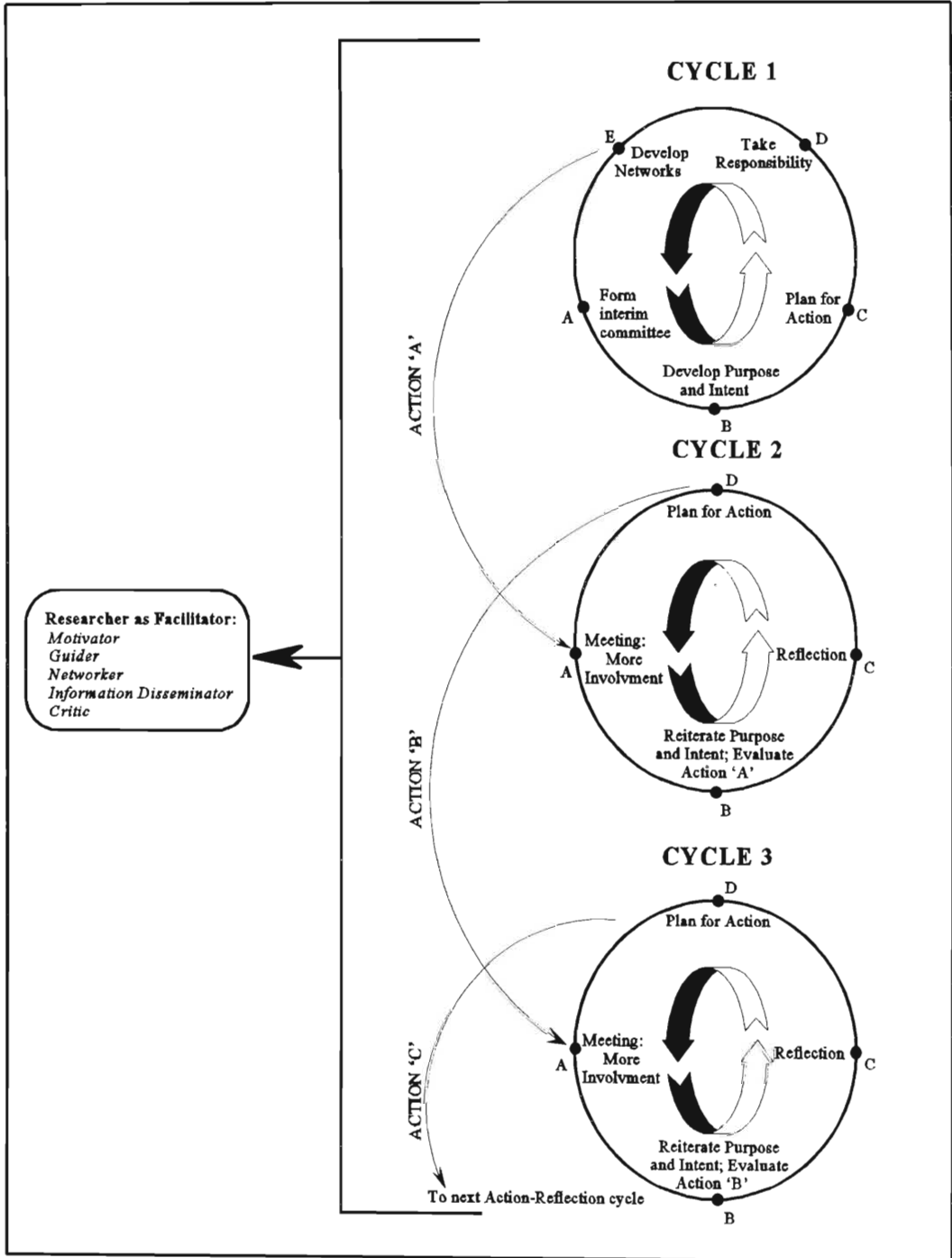
Constructed by the Author

Such cyclical processes allowed for critical reflection in which successes and constraints could be identified to feed into further discussion and action. Moreover, the existence of such small and manageable loops created the crucial contexts needed for debate on the nature and perceived benefits which could accrue from establishing a radio facility. Debate within each cycle should ideally lead to awareness in which participants develop understandings and consensus on pressing and problematic issues, and how the establishment of a facility could contribute to challenging existing status quo's. This should in turn, again determine the redefinition of needs assessment and act as a further source of motivation and pressure to work towards establishing the station.

Throughout these processes, the need for information relating to broader issues regarding the community radio movement became clear. The action research process is itself an information-driven and information-intensive process. Information specific to the community was accessed by members of the CRFC, who themselves were leaders and representatives of organizations in the area. Information regarding issues specifically related to community radio and its broader network and organizational context were made available by the researcher, who also served as facilitator, motivator, guider and critic.

In essence, the emerging picture is one in which a continual spiralling of processes occurred, which aimed at gaining more understanding of community radio in local context, as well as probing for more community support. This spiralling action has initially been slow as participants sought to orientate themselves towards the community radio issue. However, with increasing community involvement and broader organizational network support, the processes would eventually speed up, leading to an overall acceleration of the spiralling processes within and between various learning cycles.

6.4 *Summary of results*

The results indicate that the chief form of information in Wakkerstroom is that derived from friendship ties. Existing radio stations which were viewed as a priority for disseminating information to Wakkerstroom, enjoyed support from a mere 37% of the sample. This, it is argued, is because current broadcasts are limited in the extent to which they address local socio-economic problems. A recurrent theme therefore is that radio should be relevant to a local context, in which it is maintained that understandings on issues can only be facilitated if the content or media approach is sensitive and reflective of local circumstances and experiences. There exist therefore, a direct call for an alternative radio medium which addresses and facilitates solutions to local problems. Such a call from Wakkerstroom has also been reinforced by the exhibition of varying levels of support for a community radio facility, in which most of the exploratory sample indicated their

primary roles as debaters and agenda setters, with regards to media content.

The latter qualitative, action research component of the study reveals a slow but accelerating collection of processes, in which preparation for a community station is driven by community investigation. Throughout this process, the researcher served primarily as facilitator, networker and information disseminator. All these processes are currently still ongoing, with the overriding aim being the maximization of community support and involvement. These are however, slow processes and require as a prerequisite, the construction of rapport within the community.

As a collection of processes exhibiting action research principles, this part of the study is likely to enjoy more involvement, as the CRFC continues to seek and motivate for organizational support. The interest shown by local environmental organizations such as the Department of Environmental Affairs and Tourism and the Imvelo-Yethu Club, together with representatives of other organizations such as the Mpumalanga Parks Board and Mpumalanga Tourism Authority, provides a definite way forward for the preparation, conduction and evaluation of participatory development programmes, centred around holistic environmental education. Interactive community radio would, as indicated by the research sample, be a pivotal context in which these activities and processes could occur.

In the following chapter, the broad implications of these results are considered, with specific reference to their call for an alternative medium in environmental education. It proposes multiple roles for community radio in Wakkerstroom, which are in fact seen as crucial conditions for facilitating understanding and environmental education processes. The most pertinent of these conditions is the need for motivating clear interaction and community reinforcement, given the dissoluding sense of community in Wakkestroom.

CHAPTER 7

DISCUSSION AND RECOMMENDATIONS

7.1 *Discussion*

7.1.1 The Communalization of radio and environmental education

As suggested in Chapter 3, the re-regulation and reshuffling of the South African broadcasting environment has lead to possibilities for the 'communalization' of media structures, which this study in turn views as a positive and meaningful context from which localized radio-mediated environmental education processes could emerge.

The relevance of community radio in environmental education, as expressed by participants in this study, is derived from their valuing of local experience and knowledge and the view that existing educational radio initiatives are inadequate in reflecting the diversity of views and experiences at that local level. The implication of such an emphasis on immediacy and specificity is that any media strategy deemed necessary to raise environmental knowledge (and opportunities for action) needs to break away from the key characteristics of national / regional radio, highlighted in Chapter 3. This raises a direct challenge for community radio in Wakkerstroom, given its very nature as an implied criticism of mainstream radio. In addition, it also appears from the survey that respondents' criticism of mainstream broadcasting approaches, compliments the very theoretical nature of community radio and demonstrates therefore, that there exists (at least in a comparative sense) clear understanding on the nature and purpose of community radio.

The following justifications for community radio-mediated environmental education in Wakkerstroom, can be drawn out from this study:

- Community radio (CR), being located within and encouraging participatory action from its locality, raises the potential to reflect on direct and immediate community experiences, leading to a greater possibility to understand and act upon issues *in local context.*

- CR is inherently critical to existing status quo's/social conditions. By providing a voice to the peripheral and disenfranchised, it is more able to contribute to socially-critical environmental education, in which a greater understanding of social dispositions could lead to a challenge against such status quo's.

- Being located within the nexus of people and immediate need-driven 'Another' development processes, it provides a context within which issues of sustainability could become central to popular debate and action.

- As critical postmodernist attitude and approach, CR is able to provide a context from which communities are able to understand their dispositions as arising from a complex web of relations between power, knowledge and subjectivity [54]. In so doing more broader understandings on how to instill change, could occur from a realization that communities are <u>subjects of their own development</u>. A utilization of productive (power) relations and practices could enable the realization of such change.

The communalization of the media leads to an increased chance for interaction, both in a mediated and non-mediated sense. By focussing on debating or listening groups, such direct interaction on matters reflected through community radio could increase the chance of learning actually occurring. Interpretation of issues on the other hand, depends on the relevance of a message to a context, which in turn may increase understanding of the need for change within that context (Ritchie, 1991:17). The possibilities arising therefore, from localizing the medium and the message is an important theme emerging not only from the theoretical enquiry into community radio, but also from the perspective of communities themselves. Localization allows for greater control from listeners in determining content and further guiding action arising from debate [55]. Such a move to small functional media and social units is a revisionary, reactionary or reflexive moment (consistent with postmodern critique) in which the evaluation of existing conditions may lead to better grasp of development's direction.

The call for localization is also evident on the level of environmental education, where the activities of Inforeach and Share-net (described in Chapter 4) for example, reveals an emphasis on producing educational materials for adaptation to local settings and for specific purposes. While this call for relevance is also

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[54]

Here the work of Michel Foucault, cited in Smart (1985:78) becomes relevant in such a way that power is viewed from the point of view of being positive and productive in leading to change. Foucault's view of power as 'capillary', not confined to sovereign institutions but to ordinary individuals, provides a point of departure for considering a role of populist community radio in instigating positive change.

[55]

The Independent Broadcasting Authority (1995:49) has already taken steps to ensure that community stations produce a sufficient level of local programmes, or those relating directly to addressing conditions and issues of the serviced community.

largely evident in the circulation of print materials, it still has to occur at the level of larger broadcasters, who from the perspective of participants in this study still project environmental education of too broad a nature. The significant amount of respondents (53%) who claim that existing broadcasts do not provide an inadequate context/culture for understanding environmental issues and problems, provides a hint for arguing that environmental education should be directly linked to development issues. Any further such initiatives should maximize the links between development and the environment, since it is often human knowledge of immediate growth-orientated development that facilitates receptiveness to the understanding of environmental problems. Inforeach's environmental education activities (regarding food production, community health etc.) reveals such concerns with the links between development to environmental issues.

Given such critique from potential beneficiaries of environmental education programmes, the move towards the production of flexible and context-specific materials (in which development issues are central) should be encouraged. Moreover, another positive trend is the recognition of a need to use 'voicing' and auditory media to build on the limitations of print culture in education (Dlamini, pers. comm.), as is evident in the attempts made by Inforeach.

7.1.2 From Community radio and Social interaction, to Learning

The meaningful context for community radio-mediated environmental education developed in the latter part of Chapter 4, has at its centre a preoccupation with the forms of social interaction implied in using such a medium. As has been argued, community radio in principle also provides a place for direct social interaction, both in matters relating to the stations activities and with regards to actions in the broader community.

Barnes and Todd (1995:10) have contended that learning is best facilitated in group context, in which talk may assist in modifying old ways of thinking about our surroundings. This also implies that knowledge is never complete and requires for its construction, ongoing exploration and analysis of new experiences. Community radio directly resides within and in fact is the community. It may be seen as a relay station or broad context in which such exploratory social interactions could occur. Moreover, when compared to the mainstream broadcasting approach of 'talk radio' characterizing public broadcasters (see again Table 3, p.22), community radio is more likely to be branded as activist radio, due to its unique history in South Africa. In this way interaction implies much more than mere dialogue. Dialogue becomes a vehicle for or means towards community action and no programme is complete unless the processes implied therein have led to some kind of community activity.

Continuing mediated and unmediated (direct field-based activities) broadcaster-constituency interactions provide a matrix in which the renewal of world views about the environment could occur. Moreover, Selznick (1992:359) maintains that the emergence of a sense of community (which is central for building consensus and unity on development options), is dependent on opportunities for interaction. In this context, community radio could provide a crucial point of departure for building such a cooperative community, should it focus strongly in developing opportunities for activities which value all forms of interaction.

In addition, if taken from the point of view of Giddens (1974) 'communicative social interactions', community radio could also *reproduce and reinforce constructive relations* which are crucial for building consensus on problematic environmental issues [56]. Similarly, Fiske's (1990) work on meaning being generated in social contexts and sustained in social relations adds weight to the contention that community radio, if it develops a context for interaction and relations, could enhance meaning-generation and learning in locally-driven environmental education processes. When we view community radio from such an interaction-enabling angle, the problem of considering its practical role in environmental education becomes clear. Unlike larger mass-based structures, community radio is by its evolving nature a quest for participation, in which participation is itself an entrenched form of communicative action. It does not strip action from education. On the contrary, it should motivate for and facilitate such action in environmental education. It would further the ideal of grassroots involvement in environmental education, by probing for popular participation therein.

In sum, should community radio adopt an approach in which relevance to context, group interaction, community reinforcement, appraisal and clear action are key objectives, learning about the complex relationships between humans and the environment would indeed occur. This is not so much because of the advocacy and promises offered by broadcast technology as mere 'distant talk' [57], but because community radio (as an action-gearing organization) also values the debate-leading-to-action ideals of environmental education as well as the principle of empowerment through involvement, underlying participatory

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Giddens should however not be overstated here, as his work on routine communicative actions, could lead to a misleading conception of community radio as providing such a routinic platform for interaction. What makes his work relevant in this study, is his view of communication as interaction-leading-to-strength.

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Such a distortion brings to mind the view of radio as merely capitalizing on the blurring significance of physical proximity -- as an overstated dream of the possibilities arising from the compression of time and space in contemporary society. The views presented in this thesis should be seen as a revisiting of such distortions, so as to call for revitalizing the declining significance and potential of direct and personal interaction within media processes.

development.

7.2 *Conclusions*

In order to consider the extent to which this study has addressed the place for community radio in Wakkerstroom's environmental or development discourse, it would be important to weigh its outcomes in relation to the research questions and aims stated in Chapter 2. To reiterate, the following were key questions motivating this study:

- *Are there parallel orientations between the developing fields of community radio and environmental education ?*

- *What can be learned from existing radio and environmental education experiences ?*

- *What are the perspectives held by community members, on educational broadcasts and environmental issues in the locality ?*

- *How can a new orientation in critical 'environmental communication' , in which community radio is central, be of benefit to the Wakkerstroom community ?*

Chapter 3 to 6 represents an attempt to address these questions, both in the form of literary criticism and a pragmatic enquiry into the development and environmental context of the study area. These activities coincide with the aims of the study, as they sought to respond to the above-mentioned questions. A consideration of the study's response now follows.

7.2.1 The Study's Response to questions

The underlying principle in considering first and foremost the extent to which the two fields exhibit similar outlooks to development and change, has been the need to explore their underlying orientations. The approach has essentially been to say that a call for a mergence between these fields is very much a methodological one, in which existing scepticism with the potential for using radio in education needs to be exposed for its wrongful stereotypical outlook of <u>all</u> media as being technocratically-inclined and marked by an instrumental (manipulative) outlook on society. The surfacing of community radio's development and socially-critical nature reveals a parallel epistemological outlook with environmental education, in which both fields may be located in the matrix of ecologically-sound and people-driven processes promoted by 'Another' development.

It is envisaged that the distortion between the two fields has been fuelled by over-generalitic views and perspectives of the media as mere awareness-raisers with little inclination for cultivating action. Similarly, there also exists a view that mediated communication leads to message distortion amongst passive recipients of messages, which environmental educators dismiss in favour of experiential learning approaches. Yet, such educators fall into a paradoxical trap, failing to realize that all forms of messaging may be distorted. Moreover, such distortion is even more likely when the message has a general inclination. This study has attempted to transcend such criticism about messaging by arguing that alternative radio, being located in a specific context, reduces the danger of distortion [58]. It has also claimed that such criticism of radio is unfounded if it neglects the important socio-cultural/interactional context (which fuels motivation and understanding) in which the medium occurs. It sought to place radio closer to the direct interactional ideals of environmental education, by arguing that community radio does provide a place for such interaction and motivation.

In response to the first question therefore, this study argues that community radio could in a theoretical sense contribute to environmental education. In principle, and given the prerequisite of developing a direct interactional local context, it could offer the same dialogical, interactional and action-based ideals of environmental education. With specific reference to cultivating action, this study called for more direct association and field-based interactions on the part of broadcasters, so as to constitute a shift away from conceptions of radio as mere 'technologies of amplification'. Such a move away from ideas which foster faiths in technocentrism and instrumentalism would provide a point of departure from views of the media as objective social entities, so as to recognize that alternative media are unable to be isolated from the broader functional and social context in which they occur. Community radio provides an initial starting point due to its intricate and inseparable tie with social life.

Existing radio experiences point to the struggle for relevance to context. The same can be said for print-mediated environmental education in which there appears to be a move towards the production of materials for use in varying local contexts. What separates the two to date, is the failure of environmental educators to acknowledge the potential of community radio in strengthening such relevance, once again due to obsessions with the underlying transmission pedagogies of electronic media. Purposeful considerations of

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Recall the emerging mass-alternative or generalized-localized dichotomy in this study. It is contended that a consideration of smaller media (i.e both in terms of its structure and specificity to context) would provide for more meaningful environmental education or development processes. This emerging theme represents a starting point for deeper analyses of claims such as 'the more "mass" [a medium is], the less efficacy it has.' (Burton, 1994:2).

how specific contexts should inform educational radio initiatives could increase the interactional and hence efficacious potential of such initiatives. Arguments against transmission pedagogies could be weakened by a consideration of the associative context developed by community radio. Moreover, this study's argument for the increased use of 'out there' radio forums, as a strategy for interaction and dialogue leading to action, contributes to a weakening of obsessions with such passivity-infested pedagogies.

It is also contented that scepticism with the potential for using radio is fuelled by a lack of studies carried out on existing alternative media initiatives. This lack is no more prevalent at the level of community radio and is compounded by lacking resources and means to conduct such studies [59]. This research has also been carried out at a time when existing initiatives were in their infancy. The formative and summative evaluation strategies proposed by existing projects such as Inforeach, provides an interesting starting point, which after being conducted, would allow for more concrete reflection and consideration on alternative ways forward for educative radio.

The recurrent themes of localized relevance of educational programmes, the potential of 'smaller' more cost-effective and manageable media, in which the educational focus is on specificity to local experience, and an emphasis on how such tendencies could provide for direct interaction, were central to the general perspectives held on educative media within the study area. Such views have at their centre a dissatisfaction with the existing generalized and mass-based broadcasting climate in the area, which discourages interaction and learning. The argument for specificity, in which community radio constitutes a definite potential for addressing and facilitating action on local issues, has not only been expressed by this study's theoretical discussion, but also directly from those who are supposed to benefit from existing 'larger' media structures. Moreover, since this argument emanated directly from participants in the study, it indicates not a theoretical wish, but a practical need which environmental educators themselves need to consider and be responsive to.

Given the intricate and complex web of environmental and development problems facing the area of Wakkerstroom, in which a developing culture of silence and 'onlooking' appears to be existent, the need for communication becomes more prevalent. Community radio (being the community's voice) provides a powerful citizen-prioritized agenda-setting role. Immediate development and therefore environmental education needs may be more effectively and readily addressed via such a facility. This principle of

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[59]

The task of the National Community Radio Forum (NCRF) and the Community Media Network (COMNET) is now becoming more significant on this issue.

immediacy has already been expressed by community radio's overarching 'Another' development model.

The range of initiatives discussed in Chapter 3 indicates radio's role as voicer, organizer, facilitator, educator and liberator from given constraints. In the context of Wakkerstroom's environmental discourse, such a facility could provide the crucial social and collaborative context needed for debate on and action regarding environmental education in the area. It has already been argued that its role in stimulating debate and support for sensitive tourism (both in terms of conservation and cultural exchange) needs to underpin any environmental education process in the area.

Should all these roles unfold practically in Wakkerstroom, with emphases on debate and action, a contribution to communal understandings of the relationships between development and biophysical constraints would occur, so as to pave the way for consensus on the need to support sensitive ecotourism. Its fundamental role as motivator could lead to the development of a sense of community and togetherness, which above all is crucial for building cooperation on matters relating to the future of the town.

The work of Norbet Elias, in distinguishing 'detachment' from 'involvement' processes, could provide insights into how community radio as an ongoing developing formation could comprise tendencies of destroying blindness to emotional involvement, in pressing human-biophysical issues. Elias maintains that 'detachment has gained the upper hand in human knowledge of non-human nature' while 'involvement remains high in people's knowledge of human society' (1987:xxix). This implies that blindness to pressing environmental issues is to an extent fuelled by distortion and exaggeration of human issues, in which the two knowledge forms may wrongly be seen as isolated entities and not intermeshed processes of interaction. Through developing a context for interaction and involvement, community radio may instigate a challenge against self-perpetuating patterns of detachment, in which learning is marked above all, by exposing links between social and environmental processes. With environmental education which emphasizes social issues, attachment to concerns of non-human nature could be facilitated by existing knowledge forms of human nature and its dissent with non-human nature. Consequently, by housing such environmental education processes, community radio could institute an involvement-detachment balance on matters relating to the local environment.

Such issues of non-concern and detachment at the level of community knowledge or local experiences, reveal a more fundamental role for radio-mediated environmental education. Its role becomes more significant than motivating for environment-development action, and is more fundamentally linked with its potential for addressing and framing a prerequisite sense of collective experience, in which the proverbial 'we're all in this

together' outlook becomes significant.

With itself being viewed as an expanding 'playground for the rich' and place of growing prevalence of alienation and self-restraining patterns of non-concern, Wakkerstroom requires more urgently, strategies which push for motivation and a re-enchantment of a sense of community. A facilitatory role offered by emotion-appealing radio, together with the purposeful blurring of the demarcation between human and natural concerns, expressed by socially-critical environmental education processes, would undoubtedly contribute to the mobilization of the community as a grassroots environmental justice movement [60]. Without such a potential for community spirit-building, any initiatives best viewed to be taken forward as development strategies would but only lead to the self-perpetuation of accepted views about fate and 'othering' (and hence non-concern), which in turn hampers any potential for community agency.

As has been mentioned, community radio's functions may vary and may include a host of other roles including cultural enhancement, developing a climate of responsibility and transparency, addressing gender issues etc. which all fall within the wide umbrella of environmental education. Such roles may have their strength in indicating via issues in local context, the relatedness amongst humans, their culture and their natural and social/economic environments and hence, possibly leading to better understandings on how to conceptualize their common future.

In sum, community radio provides an emerging theoretical and practical court in which to house environmental education with social overtones, in local context. By focussing on its unique potential for harnessing direct interactional communication, as well as its normative use of technologies of amplification, a scene may be set for people-driven learning and action processes (see again Figure C, p.51) which have at their heart a concern beyond mere messaging or voicing. Community radio by nature, is a realization of the need to extend processes beyond dialogue to local action. Such action should be of a holistic nature (i.e linked to a broader programme of economic-socio-ecological development) and should transcend pure conservation orientations. This action tendency calls for community radio's role to be tested in action-geared

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Environmental justice movements are very much concerned with social issues such as health, class, inequality, race etc, which were and still continues to be traditional modus operandi for analyzing society in mainstream sociology. They intentionally seek to blur the delineation between once-agreed-upon modernist and simplistic binary oppositions such as society-nature, urban-natural, us-them etc., with the aim of reconfiguring such dualisms to awake popular involvement in environmental matters, as socially significant discourses implicated in concerns about social change. Di Chiro (1995:298-320) provides an insightful account of how the surfacing of community environmental experiences, with which this study is concerned, should be marked by interpersonal and cultural exchange, so as to develop a context for coalition building in local environmental justice.

environmental education, in which understanding is more likely to arise out of familiarity with local experiences.

7.3 *Limitations of the study*

The qualitative methodological approach employed in this study could have been enhanced by the use of focussed group discussions to explore more deeply the subjective aspects relating to the reception of educational programmes. Such an approach would also have yielded more in-depth insights into other possibilities for using community radio in the study area. However, this study has been plagued by lacking resources, which eventually limited its ability to explore more concrete and specific problems facing Wakkerstroom.

This study has for various reasons such as neutrality [61], opted to bear all costs on the researcher, so as to maintain a degree of freedom in engaging with the subject. This route had its effect also on the possibility of considering a detailed investigation into other community radio-mediated environmental education initiatives. Of the 76 community stations who are already functional, it would have been useful to conduct a detailed survey or content analysis of such station's programmes. Moreover, the lack of updated central databases or archives on community station's programming has contributed to constraining such a possibility.

In addition, the practical community-level activities in which attempts are being made to set up a community radio station have also been constrained by the impending application deadline. Given the long periods required for initiating and establishing a self-sufficient station, the mere two months available for the community to conduct their own investigations, lobby for community and organizational support as well as consider logistical and technical issues such as proposed management structures etc., was not sufficient to develop a supportive case required for a successful application. Should this study have been initiated at least two months earlier, a more fruitful reflection would have been given in this thesis.

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[61] Another pressing limitation has been the apparently sceptic tendency of research organizations to sponsor academic work on community radio. Being a developing field, which only recently seems to be finding itself as subject in tertiary level curricula, it is understandable that attempts at conducting academic research on the topic will be hampered by conservatism and insecurity on the part of potential funders, who in turn suffer from an acute fear of the 'uncertain'. As Bauman contended (1987:120) there exists a need for 'legislative' academics to reconcile to and acknowledge the difficulties of life under incurable uncertainty, and make adjustments rather, to be open to many and varying kinds of subjects in an interpretive sense.

The action research conducted by community members was also not built on clear project management principles. A lack of timeliness has been a significant constraint, leading to an initially slow process. More purposeful community consultation has only been increasingly evident after approximately two months, in which the preceding period has mostly been occupied by investigations into the financial and technical aspects regarding community radio.

7.4 *Recommendations*

The pragmatic activities [62] of the study have raised the need for the following considerations to be taken up in any other community radio and environmental education initiative :

- Given the lacking track record of the development-orientated community radio sector, it would be important for existing and future initiatives to build their activities more concretely and clearly around Participatory Action Research (PAR). Not only will this lead to better documented accounts of progress within the movement, but it would also ally the emerging discipline more closely with empowerment and ensure receptiveness to community participation and input. This in turn should reinstate a sense of appropriate direction on the part of broadcasters and associate the field more closely with its informer, 'Another' development.

- Environmental education organizations and networks need to recognize the calls made by communities and extend their mode of operation beyond the centrality of print culture. A starting point would be for networks such as Share-Net to develop relations with community radio networking bodies such as the NCRF and Inforeach, even if this means a humble move towards sharing and making print materials available to support studio-based radio-mediated environmental education programmes. Their strength lie also in making print materials available for use in the context of discussion groups/radio forums.

- The NCRF could indeed benefit from experiences of environmental education networks, in

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In contrast to these activities, a broad recommendation can be made for future theoretical and academic work regarding the media and environmental education. One could call for studies which explore the ways in which environmental education discourses appear to be manifesting and unfolding themselves within media and cultural studies. The strategy of 'cognitive mapping' pioneered by Friedrich Jameson (1988) seems applicable here, given its implication that the increased significance of electronic communication (in education) together with its associated cultural aesthetic, may determine the evolving nature of conventional approaches to environmental education. Jagtenberg and McKie's (1997) 'Eco-impacts and the greening of postmodernity' paves way for such an emerging discursive formation by considering postmodern (or mediated) forms of interaction on ecological matters.

developing databases on issues relating to the community radio movement. This would not only provide a supportive base from which on-line information could be readily available to would-be broadcasters and educators, but also in offering a supportive role for business or academic studies, which in turn may provide the crucial reflection necessary for furthering the emerging discipline.

- Such networking and research bodies also need to develop research partnerships with tertiary -level educational institutions, to explore possibilities in 'environmental communication' in more detail. Moreover, a more supportive climate in terms of research grants is needed, especially with regard to academic studies on community radio.

Such recommendations have at the centre a preoccupation with the need to reconsider the existing organizational and resource climate in which community radio and environmental education activities occur. Such calls also express a recognition that a revisiting of both fields should be driven by the following question : *How can we mobilize human and material resources in such a way so as to consider the truth behind the claim that the (largely theoretical) interactional context behind localized radio could unfold practically and facilitate / enhance development or environmental education processes ?*

The collaboration between networks and organizations could also provide for a sharing of broader experiences and to develop strategies for local action, thereby doing justice to the catchphrase 'think globally, act locally' (see for example Cock and Koch, 1991). However, by utilizing and celebrating the expertise and successes of local initiatives, there may very well be a reduction of the overstatement in 'think globally', within that catchphrase. An emphasis on 'thinking' (or reflecting on) and honouring local achievements could serve as input for other initiatives, in which the contribution to be made by alternative radio-mediated environmental education could become a tangible reality and adopted in other settings. Learning from the 'localization of the medium, message and action' could very well serve as a lesson and input for initiatives to emerge elsewhere. For it is often such specific and localized struggles and contexts which lead to the motivation for and facilitation of understandings, as well as needs for broader action, on environmental matters.

REFERENCES

Adams, R.C. (1989). *Social survey methods for Mass Media Research*. London: Lawrence Erlbaum Associates.

African European Institute, (1991). *Jabulani! Freedom of the Airwaves*. Amsterdam: African European Institute.

Allen, I. (1987). 'Environmental education for survival: the use of radio among nomads' in *The South African Journal of Environmental Education*, No.5, pg 3-6.

Barnes, D and Todd, F. (1995). *Communication and Learning Revisited: making Meaning through Talk*. Portsmouth: Boynton / Cook Publishers.

Bauman, Z. (1987). *Legislators and interpreters*. Oxford: Basil Blackwell.

Bauman, Z. (1991). *Modernity and Ambivalence*. Cambridge: Polity Press.

Bauman, Z. (1992). *Intimations of Postmodernity*. London: Routledge.

Baudrillard, J. (1983). *In the Shadow of the Silent Majorities*. Trans. by Foss, P., Johnston, J. and Patton, P. New York: Columbia University.

Beaud, P. (1981). *Community Media ?* Report of the Council of Europe Symposium. Strasbourg: Council of Europe.

Beck, U. (1993). *Risk Society: Towards a new modernity*. London: Sage.

Beltran, S. (1993). 'Communication for Development in Latin America: a 40 year Appraisal', in Nostbakken, D. and Morrow, C. (Eds) *Cultural Expression in the Global Village*. Malaysia: Southbound.

Bessette, G. (1996). *Development Communication in West and Central Africa : towards a research agenda*. Available from http://www.idrc.ca/books/focus/802/bessette.html ; Internet; Site created on 15 July 1996; Accessed on 22 July 1997.

Blumler, J.G. and Katz, E. eds.(1974). *The Uses of Mass Communications*. Beverley Hills: Sage.

Bramwell, B. and Lane, B. eds.(1994). *Rural Tourism and Sustainable Rural Development: proceedings of the Second International School on rural development.* Clevedon: Channel View.

Bredenkamp, G. and van Rooyen, N. (1996). 'Moist Sandy Highveld Grassland' in Barrie Low, A. and Rebello, A. (Eds) *Vegetation of South Africa, Lesotho and Swaziland.* Pretoria: Department of Environmental Affairs and Tourism.

Buber, M. (1966). *I and Thou.* 2nd ed. Trans. by Ronald Gregor. Edinburgh: Clark.

Burton, S. (1994). *The Great Leap forward ... into the unknown: an assessment of the rural television network as development communication.* M.Soc.Sc thesis. Pietermaritzburg: University of Natal Press.

Carmen, R. (1996). *Autonomous Development: Humanizing the Landscape.* London: ZED.

Carstens, D. (1997). *The Baygen Freeplay Radio.* Facsimile to researcher.

Central Statistical Services. (1996). *Statistics in Brief.* Chapter 19, Pretoria: Central Statistical Services.

Centre for Continuing Education. (1992). *Learning to Listen, Listening to learn - experiences from a SA Radio Forums Research and Development Project.* University of Witwatersrand : Centre for Continuing Education.

Cock, J. and Koch, E. eds. (1991). *Going green: People, politics and the environment in South Africa.* Cape Town: O.V.P.

Community Agency for Social Enquiry. (1995). *"They talk like us...." - an evaluation of the effectiveness of radio programmes produced by the Ulwazi Radio Project.* Johannesburg: Shereno.

Crisell, A. (1986). *Understanding Radio.* London: Routledge.

Crowley, D., Etherington, A. and Kidd, R. (1987). *Radio Group learning manual.* Botswana: Friedrich-Ebert-Stiftung.

Currie, W. (1993). 'The People Shall Broadcast! The Battle for the Airwaves', in Louw, E.P. (Ed) *South African Media Policy: Debates for the 1990s.* Bellville: Anthropos.

Dag Hammarskjold Foundation. (1977). *Another Development: Approaches and Strategies*. Uppsala: Dag Hammarskjold Foundation.

David, M.J. (1992). 'Mahaweli Community Radio', in Girard, B. (Ed) *A Passion for Radio*. Canada: Black Rose.

Department of Education. (1997). *Technology-Enhanced Learning Initiative in South Africa: A strategic Plan*. Pretoria: Department of Education.

Department of Education and Science. (1981). *Environmental Education - sources of information 1981*. London: Her Majesty's Stationery Office.

Denzin, N.K. (1992). *Symbolic Interactionism and Cultural Studies: the politics of interpretation*. Cambridge: Blackwell.

Dhladhla, S. (1997). *Minutes of CRFC meetings held on 3rd and 5th November 1997*. Facsimile to researcher.

Di Chiro, G. (1995). 'Nature as community: The Convergence of Environmental and Social Justice', in Cronon, W. (Ed) *Uncommon Ground: Toward Reinventing Nature*. New York: W.W. Norton and Co.

Dladla, B. (1996). 'Community Radio: failing or making it?', in *The Natal Witness: Echo Comment.* 25 February 1996.

Donnelly, M. et al. (1997). *Biophysical Constraints of the Wakkerstroom Environment: Development possibilities, threats and solutions*. Unpublished report by the School of Environment and Development. Pietermaritzburg: University of Natal.

Ekins, P. (1992). *A New World order: grassroots movements for Change*. London: Routledge.

Electronic Media in Education Forum. (1994). *Broadcasting in Education and Development*. Unpublished report submitted to the Independent Broadcasting Authority.

Elias, N. (1987). *Involvement and Detachment*. Oxford: Basil Blackwell.

Environmental Education Policy Initiative. (1994). *Environment, Development and Environmental Education: A working document of sources for policy and curriculum initiatives in formal education.* Howick: Share-Net.

Environmental Justice Networking Forum. (1996). *Regional Co-operation in Environmental Governance: Conference Proceedings.* Broederstroom: EJNF.

Evans, D.R. (1987). *Tabacundo: Battery-powered dialogue - Technical Note 10.* University of Massachusettes: Ecuador Project.

Fay, B. (1987). *Critical social science.* Oxford: Basil Blackwell.

Firth, R (1996). 'Knowledge and Power: The illusion of emancipatory pedagogies within environmental education', in *The South African Journal of Environmental Education*, No 6, p10-25.

Fiske, J. (1990). *Introduction to communication studies.* 2nd ed. London: Routledge.

Fourie, P. (1997). *Introduction to Communication: Course Book 6: Film and Television studies.* Cape Town: Juta.

Freire, P. (1973). *The Education of the Oppressed.* Paris: Maspero.

Georges, J. and Forton, I. (1992). 'A New Dawn for Freedom of Speech: Radio Soleil', in Girard, B. (Ed) *A Passion for radio.* Canada: Black Rose.

Giddens, A. (1974). *The Consitution of Society.* Berkley: University of California Press.

Girard, B. ed (1992). *A Passion for Radio.* Canada: Black Rose.

Giroux, A. (1983). *Theory and Resistance in Education-- a pedagogy for the opposition.* London: Bergin and Garvey.

Gordon, D.M. (1993). 'ECO-ED: rhetoric or progress?', in *Futures*, Vol. 25(1), p98-100.

Gorfinkel, E. (1992). 'Making waves with CASET', in Girard, B (Ed) *A Passion for Radio.* Canada: Black Rose.

Greeff, M. (1993). 'Wakkerstroom wakes to conservation', in *Muniviro*, Vol. 10(3), p5.

Hollander, E. and Stappers, J. (1992). 'Community Media and community communication', in Hollander, E., Stappers, J., and Prehn, O. (Eds) *The Peoples Voice: Local Radio and television in Europe*. London: John Libbey and Co.

Hornick, R.C. (1988). *Development Communication: Information, Agriculture and Nutrition in the Third World*. New York: University Press of America.

Human Sciences Research Council. (1984). *The use of radio and television in education and training*. Report by the Main Committee. Pretoria: RGN.

Independent Broadcasting Authority. (1995). *Report on the protection of Public Broadcasting Services, cross media control and local television content*. Durban: Independent Broadcasting Authority.

Independent Broadcasting Authority. (1997). *Community Sound Broadcasting Services: position paper on four-year licenses*. Durban: Unpublished mimeograph.

Irwin, P. (1990). 'The concept of environmental education and the development of environmental education in South Africa', in *The South African Journal of Environmental Education*, No 11, p3-7.

Jacobson, T.J. (1994). 'Modernization and Post-Modernization Approaches to Participatory Communication for Development', in White, S., Nair, K. and Ascroft, J. (Eds) *Participatory Communication: working for change and development*. London: Sage.

Jagtenberg, T. and McKie, D. (1997). *Eco-impacts and the Greening of Postmodernity*. Thousand Oaks: Sage.

Jameson, F. (1988). 'Cognitive mapping', in Nelson C. and Grossberg, L. (Eds) *Marxism and the interpretation of culture*. London: Macmillan.

Janse van Rensburg, U. (1996). 'Policy and research in transformation -- or not?', in *The South African Journal of Environmental Education*, No 16, p68-76.

Kaye, A. and Harry, K. (1982). *Using the media for adult basic education*. London: Biddles Ltd.

Keep Pietermaritzburg Clean Association. (1997a). *"Environmental Award System for Youth"*. Facsimile from the Education Sub-committee.

Keep Pietermaritzburg Clean Association. (1997b). *Workshop Resolutions*. Informal notes recorded by researcher. Howick: Midmar Dam.

Kumar, K.J. (1991). 'Media education for liberation and development: A non-Western approach', in *Media Development*, Vol 38, p22-23.

Lerner, D. (1958). *The Passing of Traditional Society: Modernizing the Middle East*. New York: The Free Press.

Lewin, K. (1952). *Field Theory in Social Science*. Selected papers edited by Cartwright, D. London: Tavistock.

Louw, C. (1982). *Action Research*. Occasional Paper No 4. Centre for Research and Documentation: University of Zululand Press.

Louw, P.E. (1991). 'Media, Media Education and the Development of South Africa', in *Screen*, Vol 32(4).

Louw, P.E. and Rama (1993). 'Community Radio: People's Voice or Activist Dream?', in Louw, P.E. (Ed) *South African Media Policy: Debates for the 1990's*. Bellville: Anthropos.

Lusigan, B. and Parker, E.B. (1977). 'Technical and Economic Considerations in Planning Radio services', in Spain, P.L. (Ed) *Radio for Education and Development: Case Studies*, Vol 2. Washington: World Bank.

Lyotard, J.F. (1984). *The Postmodern Condition*. Minneapolis: University of Minnesota Press.

Marais, H. (1990). 'Talking back - the case for Community Radio', in *Media in a new South Africa*. Occasional papers Series 35. Cape Town: Institute for Democratic Alternatives in South Africa.

Mashinini, G. (1997). 'Community radio for new era of democracy', in *The Sowetan*, 11 September 1997.

McAllister, J. (undated). *Wakkerstroom's Natural Heritage and Potential for Ecotourism*. Unpublished paper: Mpumalanga Parks Board.

McCombs, M.E. and Shaw, D.L. (1972). 'The agenda-setting function of mass media', in *Public Opinion Quarterly*, Vol 36, p18-22.

McLaren, P. and Hammer, R. (1989). 'Critical Pedagogy and the Postmodern Challenge: Towards a Critical Postmodernist Pedagogy of Liberation', in *Educational Foundations*, Vol 3(3), pp29-62.

McLaren, P. and Hammer, R. (1995). 'Media Knowledges, Warrior Citizenry, and Postmodern Literacies', in McLaren P., Hammer R. , Sholle D. and Reilly, S. (Eds) *Rethinking Media Literacy: A Critical Pedagogy of Representation*. New York: Peter Lang.

McLuhan, M. (1994). *Understanding Media: the Extensions of Man*. London: Routledge.

McQuail, D. and Windahl, S. (1981). *Communication Models for the study of Mass Communications*. London: Longman.

Media and Broadcasting Consultants. (1995). *The Community radio sector in South Africa*. Report submitted to the Danish Development Agency. Johannesburg: MBC.

Mission on Environmental Policy. (1994). *Environment, Reconstruction and development in a new South Africa*. Report of the IDRC/ANC/COSATU/SACP/SANCO Mission on Environmental Policy. Draft Discussion Document. Ottawa: International Development Research Centre.

Mkhize, B. and Briedenhann, J. eds. (1996). *Tourism in Mpumalanga*. Nelspruit: Mpumalanga Tourism Authority.

Morrison, L. et al. (1997). *Wakkerstroom: a study of Land Use and Misuse*. Unpublished report by the School of Environment and Development. Pietermaritzburg: University of Natal.

Mowlana, H. and Wilson, J.L. (1988). *Communication Technology and Development*. Paris: UNESCO.

Mowlana, H. and Wilson, J.L. (1990). *The Passing of Modernity: Communication and the Transformation of Society*. London: Longman.

Mpofu, A. (1996). 'The Role of the Public Broadcaster in a Future South Africa. Broadcasting Policy Research: Framework Report', in Mpofu, A., Manhando, M. and Tomaselli, K. (Eds) *Public Service Broadcasting: Policy Directions Towards 2000*. Centre for Cultural and Media Studies. Durban: University of Natal.

Murdock, G. (1981). 'Organizing the imagination: sociological perspectives on radio Drama', in Lewis, P. (Ed) *Radio Drama*. London: Longman.

Naughton, T. (1996). 'Community radio : a voice for the voiceless', in *Agenda*, No 31, p 12-19.

Newman, W.L. (1997). *Social Science Research Methods: Qualitative and quantitative Approaches*. Third edition. London: Allyn and Bacon.

Nigg, H. and Wade, G. (1980). *Community Media: community communication in the UK: video, local TV, film and photography*. Zurich: Regenbogen-Verlag.

Nostbakken, D. and Morrow, C eds. (1993). *Cultural Expression in the Global Village*. Malaysia: Southbound.

O'Donoghue, R.B. ed. (1994). *Environment, Development and Environmental Education: A working document of sources and perspectives in formal education*. Durban: Environmental Education Policy Initiative.

O'Donoghue, R.B. (1996). *Detached Harmonies: a study in/on developing social processes of environmental education in eastern southern Africa*. Unpublished PhD Thesis. Grahamstown: Rhodes University.

Ong, W. (1982). *Orality and Literacy: the Technologizing of the Word*. London: Methuen and Co.

Oosthuizen, L.M. (1996). *Introduction to Communication: Course Book 5 - Journalism, Press and Radio Studies*. Cape Town: Juta.

Orr, D.W. (1992). *Ecological Literacy: Education and the transition to a postmodern world*. Albany: State University of New York Press.

Parker, E.B. and Lusigan, .B.B (1977). 'Technical and Economic considerations in Planning Radio Services', in Spain, P.L. (Ed) *Radio for Education and Development: Case studies*, Vol 2. Washington: World Bank.

Paxton, L. (1994). *An Investigation into the need for environmental information in South Africa: a case study of the Enviro Facts Project*. Unpublished M.A Thesis. Grahamstown: Rhodes University.

Peters, M. (1995). *Education and the Postmodern Condition*. London: Bergin and Garvey.

Peters, W. ed.(1995). *Wakkerstroom - A Conservation Sudy*. Department of Architecture, University of Natal: Durban.

Peterson, Y. et al. (1997). *Quality of Life in Wakkerstroom*. Unpublished report by the School of Environment and Development. Pietermaritzburg: University of Natal.

Popkewitz, T. (1984). *Paradigm and Ideology in Educational Research: the social functions of the intellectual*. London: Falmer Press.

Poster, M. (1989). *Critical Theory and Poststructuralism: in Search for a Context*. Cornell University: University Press.

Poster, M. (1990). *The Mode of Information: Poststructuralism and Social Context*. Chicago: University of Chicago Press.

Poster, M. (1995). *The Second Media Age*. Cambridge: Polity Press.

Prehn, O. (1992). 'From small scale utopianism to large scale pragmatism. Trends and prospects for community orientated local radio and television', in Jankowski, N., Prehn, O. and Stappen, J. (Eds) *The Peoples Voice: Local radio and television in Europe*. London: John Libbey and Co.

Ritchie, D.L. (1991). *Communication Concepts 2: Information*. London: Sage.

Robinson, A.N. ed. (1993). *Agenda 21: earth's action plan*. New York: Oceana.

Rogers, E., Braun J, and Vermilion, A, (1977). 'Radio Forums: A Strategy for Rural Development', in Spain, P.L, (Ed) *Radio for Education and Development: Case Studies*, Vol 2 Washington: World Bank.

Rorty, R. (1989). *Contingency, Irony and Solidarity*. Cambridge: Cambridge Polity Press.

Rostow, W. (1960). *The stages of economic growth: A non-communist manifesto*. London: CUP.

Saik, C. (1993). 'Asian Development Communications in the 1990s', in Nostbakken, D. and Morrow, C. (Eds) *Cultural Expression in the Global Village*. Malaysia: Southbound.

Sholle, D. and Denski, S. (1994). *Media Education and the (Re)Production of Culture*. USA, Westport: Bergin and Garvey.

Schramm, W. (1964). *Mass Media and National Development.* California: Stanford University Press.

Schramm, W. (1977). *Big Media, Little Media.* Beverly Hills: Sage.

Schutt, R.K. (1996). *Investigating the Social World: the process and practice of Research.* Pine Forge Press: California.

Selznick, P. (1992). *The Moral Commonwealth: Social Theory and the Promise of Community.* Berkeley: University of California Press.

Shelembe, B. (1997a). *Radio Maritzburg Easy Chat programme schedule.* Facsimile to researcher.

Shelembe, B. (1997b). *What Easy Chat is all about.* Undated handwritten letter to researcher.

Sim, S. (1992). *Beyind Aesthetics: confrontations with poststructuralism and postmodernism.* Hertfordshire: Harvester Wheatsheaf.

Simukonda, N. (1997). *The Inforeach Network: background.* Facsimile to reseacher.

Smart, B. (1985). *Michel Foucault.* London: Ellis Horwood.

Taylor, R. (1996). "Preserving the Liberal Tradition in 'New Times'", in Wallis, J. (Ed) *Liberal adult education: The end of an Era?.* Nottingham: Continuing Education Press.

Theroux, J.M. (1987). *Effective Educational Radio: An Approach to Analyzing Programs.* University of Massachusettes: Centre for International Education.

Thomas, P. (1993). 'Participatory Development Communication: Philosophical Premises', in White, S., Nair, K. and Ascroft, J. (Eds) *Participatory Comminucation: Working for change and development.* London: Sage.

Tichenor, P.J. (1970). 'Mass media flow and differential growth in knowledge', in *Public Opinion Quarterly,* Vol 34, p 159-170.

Urgoiti, G. (1991). *The use of radio and audiotape as tools for primary health care, in the area of maternal and child health.* M.A Thesis, University of Cape Town: UCT Press.

Usher, R. and Edwards, R. (1996). 'Liberal Adult Education and the postmodern moment', in Wallis, J. (Ed) *Liberal adult education: The end of an Era?*. Nottingham: Continuing Education Press.

Valenzuela, E. (1992). 'New Voices', in Girard, B. (Ed). *A Passion for Radio*. Canada: Black Rose.

Vattimo, G. (1992). *The Transparent Society*. Translated by Web, D. Cambridge: Polity Press.

Vermark, N. (1996). 'Socio-economic Information on Wakkerstroom', in Peterson, Y. et al. (1997) *Quality of Life in Wakkerstroom*, p6. Unpublished report by the School of Environment and Development. Pietermaritzburg: University of Natal.

Viljoen, C. ed. (1991) *Report of the Task Group on Broadcasting in South and Southern Africa*. Pretoria: South African Broadcasting Corporation.

Webster, F. (1995). *Theories of the Information Society*. London: Routledge.

Woods, B. (1993). *Communication, technology and the development of people*. London: Routledge.

Zuber-Skerritt, O. ed.(1996). *Action Research for Change and Development*. Avebury: Aldershot.

PERSONAL COMMUNICATION

Bush Radio Programme Director. Cape Town. 24 October 1997.

Thuli Dlamini, correspondent, Media in Education. Durban. 28 November 1997.

Libby Loydd, Independent Broadcasting Authority Counsellor. Institute for the Advancement of Journalism. 11 September 1997.

Dr C. Mbali, Head of Division of Tertiary Education, University of Natal, Durban. Personal communication on the Open Day of the 'Open Learning Initiative', hosted by the Technical Subcommittee of University of Natal, Pietermaritzburg. 20 November 1997.

Dr R.B O'Donoghue, Senior Proffessional Officer, Natal Parks Board. Pietermaritzburg. 5/8 September 1997.

Linda Paxton, environmental educator, Enviro Facts project. October 1997.

Dr U. Janse van Rensburg, Murray and Roberts Chair of Environmental Education. Rhodes University, Grahamstown. 9 September 1997.

APPENDIX A

APPENDIX A

```
                        ┌─────────────────────┐
                        │   Research Idea     │
                        │   and Questions     │
                        └─────────────────────┘

┌──────────────────────┐                           ┌──────────────────────┐
│ Explore the fields of │                           │ Survey perceptions of │
│ community radio and   │                           │ community radio and   │
│ environmental         │                           │ environmental         │
│ education             │       ┌──────────────┐    │ education             │
└──────────────────────┘       │ Develop claims about │ └──────────────────────┘
                               │ existing educational │
                               │ radio prog's in the  │
┌──────────────────────┐       │ study area.          │  ┌──────────────────────┐
│ Develop argument for  │      └──────────────┘        │ Use survey to reject or │
│ mergence of two fields│                              │ confirm initial claims  │
└──────────────────────┘                              └──────────────────────┘

┌──────────────────────┐                              ┌──────────────────────┐
│ Develop community     │                              │ Initiate and allow   │
│ radio context for     │                              │ community to take    │
│ interactive           │                              │ process of community │
│ environmental         │                              │ radio forward        │
│ education             │      ┌──────────────┐        └──────────────────────┘
└──────────────────────┘      │   Develop      │
                              │ Community radio for │
                              │ environmental      │
                              │ education          │
                              └──────────────┘
```

Research Idea and Questions

Explore the fields of community radio and environmental education

Survey perceptions of community radio and environmental education

Develop claims about existing educational radio prog's in the study area.

Develop argument for mergence of two fields

Use survey to reject or confirm initial claims

Develop community radio context for interactive environmental education

Initiate and allow community to take process of community radio forward

Develop Community radio for environmental education

Theoretical Enquiry

Pragmatic Activities

Research Idea
and Questions

Explore the fields of
community radio and
environmental education

Survey perceptions of
community radio and
environmental education

Develop claims about
existing educational radio
prog's in the study area.

Develop argument for
mergence of two fields

Use survey to reject or
confirm initial claims

Develop community radio
context for interactive
environmental education

Initiate and allow
community to take process
of community radio forward

Develop
Community radio for
environmental education

Theoretical Enquiry

Pragmatic Activities

APPENDIX B

APPENDIX B

THE UNIVERSITY OF NATAL (PIETERMARITZBURG)
COMMUNICATIONS SURVEY: WAKKERSTROOM

Questionaire Instructions   No _____

1) The following questions should be answered by members of the Wakkerstroom community.

2) Unless otherwise stated, they should be answered by placing a cross (X), alongside the range of options provided for you.

3) Please think through the questions carefully, before considering the appropriate answers. Each option/ item/ answer is marked by a reference number on its left. Use this number as a substitute when answering questions which require you to rank the items. A space is provided for your cross, on the right of each option.

PART 1
Demographics and mobility issues

a) Your gender ?

1	Male	
2	Female	

b) Which of the following age categories apply to you ? Place a 'X' within the space provided.

3	10-19yrs	
4	20-29yrs	
5	30-39yrs	
6	40-49yrs	
7	50-59yrs	
8	60-69yrs	

c) Which of the following reflects your marital status ?

9	Married	
10	Single	
11	Divorced	
12	Widowed	

THE UNIVERSITY OF NATAL (PIETERMARITZBURG)
COMMUNICATIONS SURVEY: WAKKERSTROOM

Questionaire Instructions   No ____

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Demographics and mobility issues

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6	40-49yrs	
7	50-59yrs	
8	60-69yrs	

c) Which of the following reflects your marital status ?

9	Married	
10	Single	
11	Divorced	
12	Widowed	

d) Which of the following categories reflect your highest level of education reached ?

13	Lower than Std 5	
14	Between Std 5 and Std 8	
15	Between Std8 and Std10	
16	Technical College	
17	University	
18	Other ? Specify below	

_____

_____

e) What is your current occupation ?

_____

f) Where do you work ? If your answer is item 19, skip questions (g) and (h).

19	Within Wakkerstroom	
20	Outside Wakkerstroom	

g) How often do you return home from working outside of Wakkerstroom ?

21	Daily	
22	over every weekend	
23	once or twice a month	
24	Other ? Specify below	

_____

h) On returning home from work, how long do you stay in Wakkerstroom ?

25	once per week	
26	every weekend	
27	up to a week per month	
28	other ? Specify below	

_____

_____

I) Which of the following languages can you understand ?

d) Which of the following categories reflect your highest level of education reached ?

13	Lower than Std 5	
14	Between Std 5 and Std 8	
15	Between Std8 and Std10	
16	Technical College	
17	University	
18	Other ? Specify below	

_____

_____

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26	every weekend	
27	up to a week per month	
28	other ? Specify below	

_____

_____

I) Which of the following languages can you understand ?

29	English	
30	Afrikaans	
31	Zulu	
32	Sotho	
33	Tswana	
34	Other ? Specify below	

j) Which of the following languages can you speak ?

35	English	
36	Afrikaans	
37	Zulu	
38	Sotho	
39	Tswana	
40	Other ? Specify below	

PART 2
Communication in Wakkerstroom

a) Where do you get information or news of issues relating specifically toWakkerstroom ? Place an 'X' alongside the option suiting you.

41	Family	
42	Friends	
43	At work	
44	At Community Meetings	
45	From traditional leaders	
46	Television	
47	Radio	
48	Entertainment gatherings	
49	Other ? Please specify below	

29	English	
30	Afrikaans	
31	Zulu	
32	Sotho	
33	Tswana	
34	Other ? Specify below	

j) Which of the following languages can you speak ?

35	English	
36	Afrikaans	
37	Zulu	
38	Sotho	
39	Tswana	
40	Other ? Specify below	

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Communication in Wakkerstroom

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42	Friends	
43	At work	
44	At Community Meetings	
45	From traditional leaders	
46	Television	
47	Radio	
48	Entertainment gatherings	
49	Other ? Please specify below	

b) From the items you have selected above, which sources do you consider as more valuable in giving you accurate information ? Rank your answers by listing the item numbers, in order of the accuracy and relevancy of the information they provide you with e.g 46, 43, 48 ....

c) Using the box below, rank the information sources you have selected in (a), in order of their educational importance.

Most Educational	Important	Not so Important	Least Educational

d)   Explain in further detail why you consider some of the items as 'not so important' and 'least educational'.

e) Do you have access to a radio set in your neighbourhood ?

50	Yes	
51	No	

f) How often do you listen to the radio ?

52	Daily	
53	Only at night	
54	Over the weekend	
55	Other ? Specify below	

g) At what specific times do you listen to the radio ? Why these times ?

h) Where do you listen to radio ?

56	At home	
57	At work	
58	At a friends house	

b) From the items you have selected above, which sources do you consider as more valuable in giving you accurate information ? Rank your answers by listing the item numbers, in order of the accuracy and relevancy of the information they provide you with e.g 46, 43, 48 ....

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g) At what specific times do you listen to the radio ? Why these times ?

h) Where do you listen to radio ?

56	At home	
57	At work	
58	At a friends house	

| 59 | Other ? Specify below | |

I) Which radio stations do you listen to ?

60	Radio Jacaranda	
61	Radio Zulu	
62	Radio Metro	
63	Radio 5	
64	Other ? Specify below	

j) Complete the following sentence by placing a cross next to the appropriate answers provided below.
"I listen to the above radio stations, because of their.............."

65	Broadcasting langauge	
66	Local news coverage	
67	Educational programmes	
68	Excellent music	
69	International News coverage	
70	Talk programmes	
71	Religious programmes	
72	Sports coverage	
73	Weather forecasts	
74	Advertisements	
75	Other ? Specify below	

k) Do any of the radio stations in the area address local / Wakkerstroom issues ?
If your answer is 'yes', skip question (l).

76	Yes	
77	No	
78	Unsure	

l) Do you think this issue represents a problem for your community ? Why do you say so ?

| 59 | Other ? Specify below | |

I) Which radio stations do you listen to ?

60	Radio Jacaranda	
61	Radio Zulu	
62	Radio Metro	
63	Radio 5	
64	Other ? Specify below	

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j) Complete the following sentence by placing a cross next to the appropriate answers provided below.
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70	Talk programmes	
71	Religious programmes	
72	Sports coverage	
73	Weather forecasts	
74	Advertisements	
75	Other ? Specify below	

---

k) Do any of the radio stations in the area address local / Wakkerstroom issues ?
   If your answer is 'yes', skip question (l).

76	Yes	
77	No	
78	Unsure	

l) Do you think this issue represents a problem for your community ? Why do you say so ?

m) Which of the following applies to the radio set, to which you have access ?

79	Uses portable batteries	
80	Uses household electricity	

n) Does the power source you have indicated above, have a negative effect on your obtaining maximum benefit from listening to the radio ? If 'yes', please explain why you say so.

81	Yes	
82	No	

o) Are you able to pick up radio signals clearly in your area ?

83	Yes	
84	No	

p) Do you listen to the radio alone or in groups ? If you listen to the radio on your own, skip the next question.

85	Mostly alone	
86	Only alone	
87	Only in groups	
88	Mostly in groups	

q) Tick only one of the following: "When listening in groups, I ...."

89	Listen to specific entertainment programmes	
90	Listen to specific educational programmes	
91	Listen to specific educational and entertainment programmes	

Community Radio

r) Are you familiar with the medium of 'community radio' ?

92	Very familiar	
93	Vaguely familiar	
94	Not familiar at all	

m) Which of the following applies to the radio set, to which you have access ?

79	Uses portable batteries	
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n) Does the power source you have indicated above, have a negative effect on your obtaining maximum benefit from listening to the radio ? If 'yes', please explain why you say so.

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91	Listen to specific educational and entertainment programmes	

Community Radio

r) Are you familiar with the medium of 'community radio' ?

92	Very familiar	
93	Vaguely familiar	
94	Not familiar at all	

s) What do you think it is all about ? Explain in detail.

_____

_____

t) How do you think it can benefit your community ?

_____

_____

u) If it were to be established in your town, how often would you listen to it ? Why these specific times?

95	At specific times per day	
96	On weekends only	
97	Won't listen at all	
98	Other times ? Specify below	

_____

_____

v) Which programmes would you support more on such a radio station ?

99	International news coverage	
100	Regional news coverage	
101	Local news coverage	
102	Educational and health programmes	
103	Programmes which address problems in your town	
104	Sport programmes	
105	Local culture and religious programmes	
106	Entertainment	
107	Other ? Specify below	

_____

_____

w) Rank the items you have selected above, from highest to lowest, in terms of meeting your listening needs / priorities eg. 97, 94, 92, 99...........

_____

x) How would you contribute to such a radio station ?

s) What do you think it is all about ? Explain in detail.

_____

_____

t) How do you think it can benefit your community ?

_____

_____

u) If it were to be established in your town, how often would you listen to it ? Why these specific times?

95	At specific times per day	
96	On weekends only	
97	Won't listen at all	
98	Other times ? Specify below	

_____

_____

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101	Local news coverage	
102	Educational and health programmes	
103	Programmes which address problems in your town	
104	Sport programmes	
105	Local culture and religious programmes	
106	Entertainment	
107	Other ? Specify below	

_____

_____

w) Rank the items you have selected above, from highest to lowest, in terms of meeting your listening needs / priorities eg. 97, 94, 92, 99...........

_____

x) How would you contribute to such a radio station ?

108	Won't contribute	
109	Will contribute by giving my views on an issue	
110	Will contribute by running the station	
111	By encouraging the support of others in our community	
112	By helping to prepare relevant, local programmes	
113	Other contributions ? Specify below	

y) Is there anything you would like to add on the issue of radio in Wakkerstroom ?

_____

_____

Environmental and other Educational Issues:

(a) Which environmental problems do you think exist in Wakkerstroom ?

114	Pollution problems	
115	Farming problems	
116	Water wastage / shortages	
117	A lack of environmental education	
118	Unsure of problems	
119	Others ? Specify below	

_____

_____

b) Which enviromental organisations exist in your area ?

_____

c) Do you hear any environmetal issues being addressed on the stations currently broadcasting to Wakkerstroom ?

120	Yes	
121	No	
122	Unsure	

d) Do you think that these stations provide you with adequate information and knowledge to understand and act upon environmental issues and problems ?

123	Yes	
124	No	
125	Unsure	

e) If your answer to the above question is 'no', please explain why you think they are inadequate.

_____

_____

f) Do you think that community radio could offer a better opportunity for environmental or other education and action?

126	Yes	
127	No	
128	Unsure	

g) If your answer to the above question is 'yes', explain why you say so.

_____

_____

h) What do you think the term 'environmental education' means ?

129	It is education about our natural surrounding	
130	It is broader education about our social and natural surrounding	
131	Other meaning ? Please specify below	

_____

_____

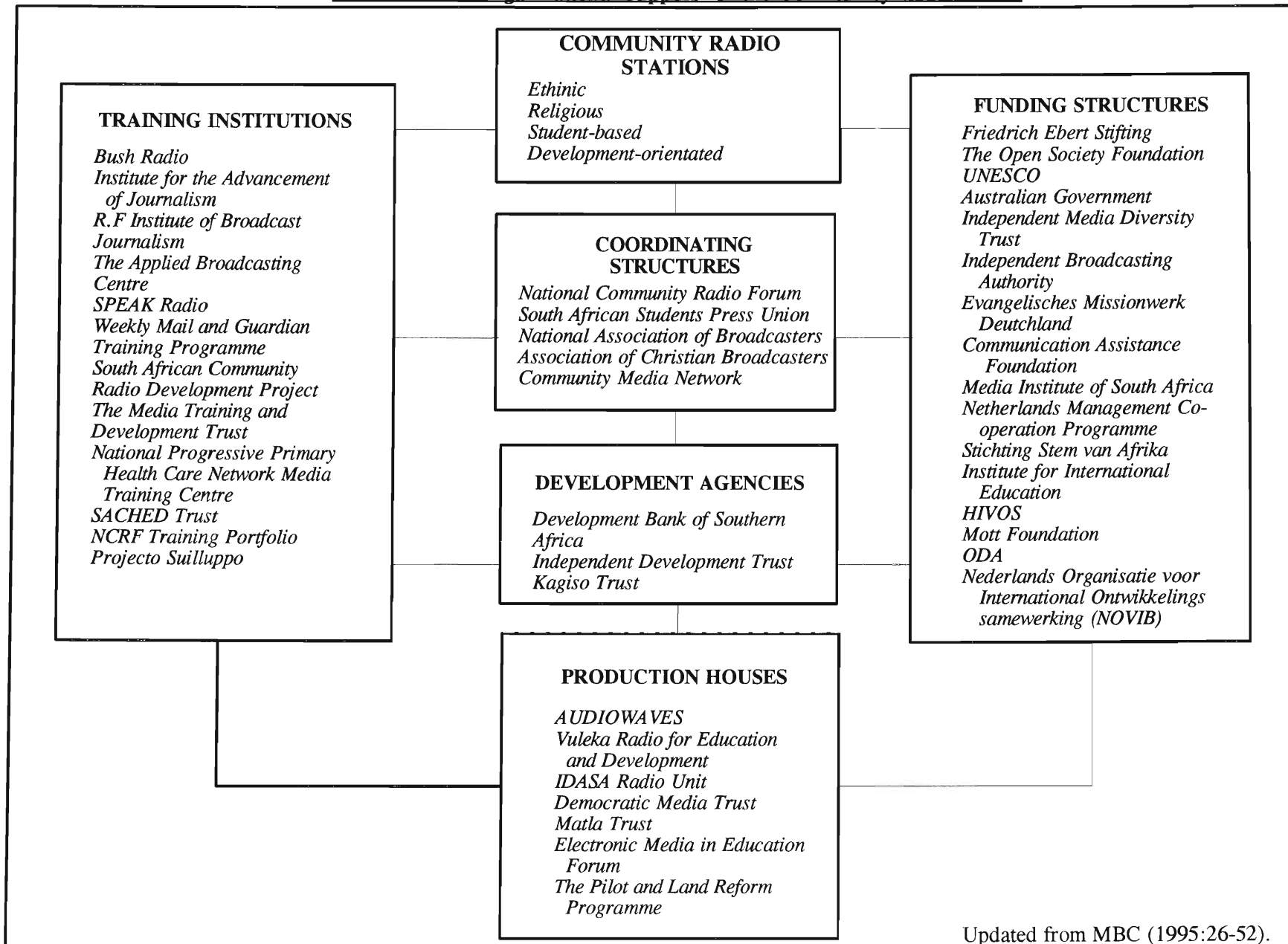I) Do you have any other comments on radio and environmental education ?

_____

_____

_____

THANK YOU FOR PARTICIPATING IN THIS SURVEY..
YOUR RESPONSES ARE HIGHLY VALUED..

APPENDIX C

COMMUNITY RADIO STATIONS

Ethinic
Religious
Student-based
Development-orientated

TRAINING INSTITUTIONS

Bush Radio
Institute for the Advancement
of Journalism
R.F Institute of Broadcast
Journalism
The Applied Broadcasting
Centre
SPEAK Radio
Weekly Mail and Guardian
Training Programme
South African Community
Radio Development Project
The Media Training and
Development Trust
National Progressive Primary
Health Care Network Media
Training Centre
SACHED Trust
NCRF Training Portfolio
Projecto Suilluppo

COORDINATING STRUCTURES

National Community Radio Forum
South African Students Press Union
National Association of Broadcasters
Association of Christian Broadcasters
Community Media Network

DEVELOPMENT AGENCIES

Development Bank of Southern
Africa
Independent Development Trust
Kagiso Trust

PRODUCTION HOUSES

AUDIOWAVES
Vuleka Radio for Education
and Development
IDASA Radio Unit
Democratic Media Trust
Matla Trust
Electronic Media in Education
Forum
The Pilot and Land Reform
Programme

FUNDING STRUCTURES

Friedrich Ebert Stifting
The Open Society Foundation
UNESCO
Australian Government
Independent Media Diversity
Trust
Independent Broadcasting
Authority
Evangelisches Missionwerk
Deutchland
Communication Assistance
Foundation
Media Institute of South Africa
Netherlands Management Co-
operation Programme
Stichting Stem van Afrika
Institute for International
Education
HIVOS
Mott Foundation
ODA
Nederlands Organisatie voor
International Ontwikkelings
samewerking (NOVIB)

Updated from MBC (1995:26-52).

APPENDIX D

APPENDIX D:
SABC Environmental and Health Education Broadcast Schedule -- 1997

Radio Station	Broadcast Time
Ukhosi FM	15:30 -15:45
Phalaphala FM	16:05 - 16:20
Munghana Lonene	17:40 - 17:55
Umhlobo Wenene	17:05 - 17:20
Ligwalagwala	15:45 - 16:00
Ikwekwezi	15:15 - 15:30
Thobela FM	15:20 - 15:35
Motsweding FM	20:15 - 20:30
Lesedi FM	17:05 - 17:20
Radio Sonder Grense	20:00 - 20:15

Note: Broadcast dates of these programmes were 18 March - 27 June, and 8 August - 14 November. All programmes contained 30 original episodes, each of 15 mintues duration. All episodes have been broadcast on Tuesday's.

APPENDIX E

APPENDIX E: The structure and organization of elements in a Radio Forum

	Feedback	
	Logistics	

COMMITTEE AND ADMINISTRATORS	**DEVELOPMENT AGENCIES**	*DISCUSSION*

BROADCASTER	**RADIO**	**LISTENERS**
PRODUCTION AND EVALUATION	*Programme(s)*	*The Group & Group Leader*

LOCAL AGENCIES

Logistics

Printed material(s)

BROADER SOCIETAL CONTEXT
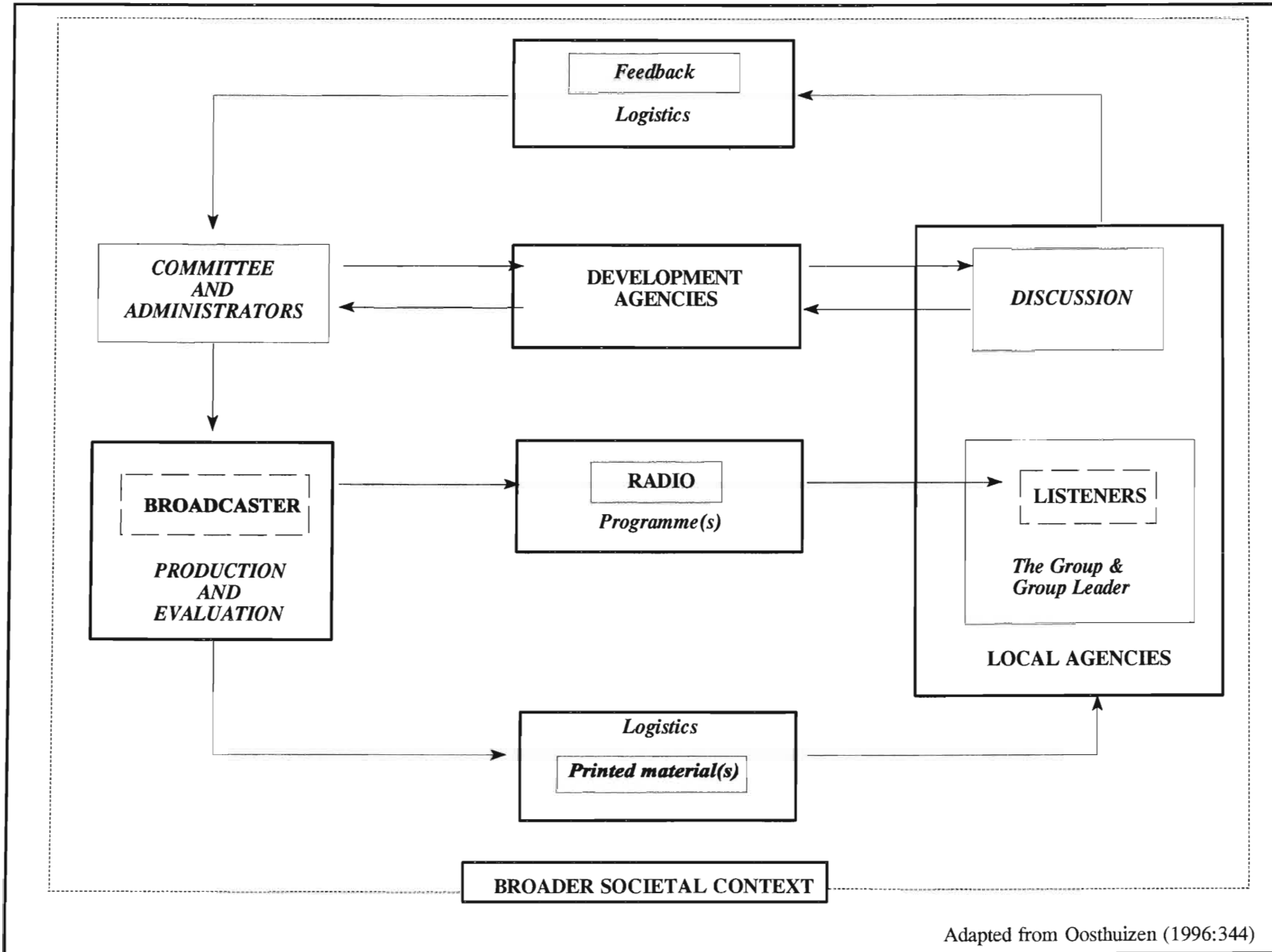
Adapted from Oosthuizen (1996:344)

APPENDIX F

APPENDIX F : Example of an Inforeach Radio Script (Source: Ecolink, Facsimile)

SPECIAL PACK D, *Script #2*
A Fertility trench holds water in dry lands

As a farmer you might live in a place where the land is dry. You might have noticed that the soil blows around and that your crops don't grow, or are stunted. Perhaps you are worried that you will have to keep moving to find better land for farming.

You are not alone. Infertile land like this is spreading like a disease across many countries. This problem is called desertification. First the land looses its green cover of vegetation. Without grasses and trees to help hold it in place, much of the topsoil blows away or is carried away by the rains. Only hard, dry land is left behind. But the problem can be fixed. Many countries have already taken steps to fight desertification and with your help it can be stopped. Listen to the following -- a farming method that can help you regenerate the land, grow crops and make a profit again.

Does your soil in your garden get dry and very hard in the dry season. Is it difficult to grow vegetables because you don't have enough water ? Some farmers with these problems grow very good gardens, even in the dry season. Here's how they do it.

During the rainy season they dig a fertility trench. A fertility trench is a deep trench filled with layers of soil and organic matter. It's like a compost pile, but underground. The rain the falls during the rainy season soaks into the soil in the trench. The organic matter in the trench holds the water for crops to use for after the dry season begins.

It is easy to make a fertility trench. First you dig a trench 1 meter deep and 1 meter wide. Make it about 6 meters long. You can make it longer if you want more growing space, but the first time you try you probably shouldn't make it too long.
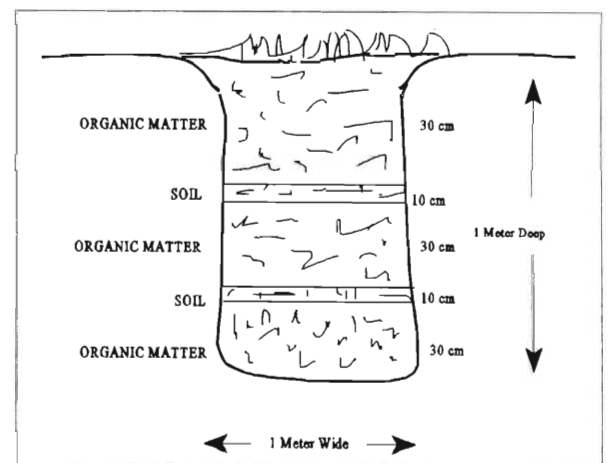
Next, gather some organic material such as weeds and grass, crop residues, kitchen scraps, manure, bones, feathers and anything else that will rot as time passes. Now put a thirty centimeter layer of these organic materials in the bottom of the trench. Thirty centimeters is approximately the distance from your elbow to your wrist. If you have some water to spare, sprinkle two buckets full of water over the layer of organic materials. The water will help the scraps and other organic material to rot.

Next add a layer of soil 10 centimeters deep. Then add another 30 centimeter layer of organic matter. On top of that, put 10 centimeters of soil.
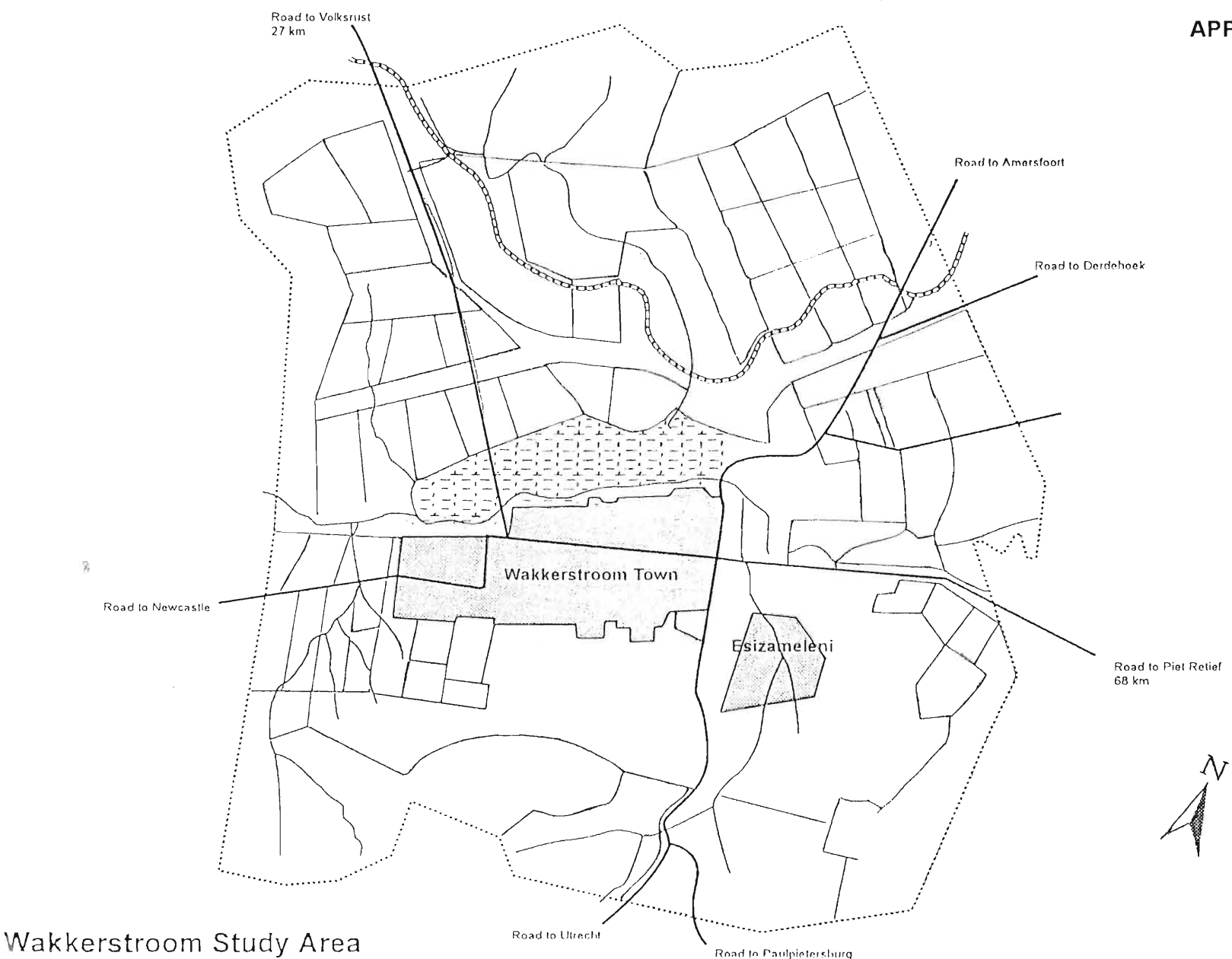
Now put in enough organic matter to fill the trench up to ground level or just below ground level. If the fertility trench is sunk a bit into the ground, water can collect there very easily.

Now cover the trench with a layer of grass and leaves to keep the soil from drying out.

Cross-section of a fertility trench

APPENDIX G

APPENDIX G

Road to Volksrust
27 km

Road to Amersfoort

Road to Derdehoek

Road to Newcastle

Wakkerstroom Town

Esizameleni

Road to Piet Retief
68 km

N

Wakkerstroom Study Area

Road to Utrecht

Road to Paulpietersburg

not to scale

APPENDIX H

APPENDIX H:

Some responses on Radio and Environmental Education
(R ? = Respondent number)

R4: I even thought of starting one [community radio] myself.

R9: If people were to need awareness of what Wakkerstroom has to offer, the best way to gain that awareness would be through radio.

R14: I believe that environmental issues have their roots in social issues and national or even regional radio cannot address local issues.

R26: Most people [or stations] who are trying to make us aware of environmental issues get very little time to do it ... community radio will give such people enough time to come forward and explain issues and teach us ... programmes must be done everyday.

R30: The problem is that no station has ever provided us with relevant information and this is also because we've got no station of our own.

R34: They [other stations] don't talk about my area.

R43: Radio is a wonderful and helpful thing to help save our planet, through educational programmes which not always falls on 'deaf' ears, but on the ears of those who want to help!

APPENDIX I

APPENDIX I:
Letter of invitation to a meeting on Community Radio

Wakkerstroom

Plaaslike Oorgangsraad
Transitional Local Council

☎ 017 - 730 0068
Fax 017 - 730 0070
✉ 25, Wakkerstroom 2480

COMMUNITY RADIO

Your name was given as an individual who have already indicated
enthusiasm in taking the process of Community Radio forward.

What is Community Radio?

Community Radio is not only a source of entertainment, it is also
a communication medium for people at grassroots level. It may
also be used as an effective communication vehicle to identify
and prioritize development needs at local level and to facilitate
development through exposure, pressure, discussions and debate.
This type of radio is owned and controlled by the community and
is operated for the total benefit of the community.

You are hereby invited to a meeting to be held in the Town Hall
at Wakkerstroom on 3 November 1997 at 15:00 to elect a working
group to study all the consequences on the concept-of Community
Radio and what it will involve.

CHRIS A. SMIT
TOWN CLERK
7 October 1997