An Evaluative Case Study of Curriculum Development and Implementation in PELUM College Zimbabwe

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By

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ABSTRACT

An Evaluative Case Study of Curriculum Development and Implementation in PELUM College Zimbabwe

This evaluative study examined the development and implementation of a multi-disciplinary agro-ecology and community development curriculum by PELUM College Zimbabwe. The college, which emerged to implement the curriculum, comprises of non-governmental organisations, university departments and government agencies coordinated by PELUM Association. PELUM supports participatory ecological land-use management and the curriculum was aimed at community development workers.

The curriculum's four pillars were: community development facilitation; natural resources management; sustainable crop and animal production; and organisational management. The study explored the conceptual integrity of the socially-critical oriented curriculum, focusing on the written curriculum; resource material development; participation; praxis; assessment and accreditation; as well as project planning and implementation by trainees.

The methodology was essentially interpretive, with a participatory and praxiological orientation inspired by the socially critical framework of the curriculum. I gathered data over two years, analysing documents covering a period of nine years, and involving about 75 participants in the research through questionnaires, in-depth semi-structured interviews and focus group discussions.

My key findings were that the curriculum and the participatory process in which it had been developed and implemented had potential to address pedagogical and developmental shortcomings of more conventional curricula. The major weaknesses in the curriculum and its development arose from the under-utilisation of the curriculum framework that should have guided participation and decision-making. I examined tensions in the curriculum implementation, finding them similar to those experienced in other environmental education programmes in the region. In keeping with the praxiological and formative orientation to the evaluation, I conclude with recommendations specific to the case under study.

ACKNOWLEDGEMENTS

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ACRONYMS

AGRITEX	Agricultural and Technical Extension Services Department
IMF	International Monetary Fund
NGO	Non-governmental Organisation
PARD	PELUM Association Regional Desk
PCZ	PELUM College Zimbabwe
PELUM	Participatory Ecological Land Use Management
SADC	Southern African Development Community
TMs	Training managers
UNCED	United Nations Conference on Environment and Development
UZ	University of Zimbabwe

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CHAPTER 1: AN INTRODUCTION TO THE STUDY: ITS CONTEXT, RATIONALE AND AIMS

1.1 Introduction to the Study

This study is an evaluation of the Agro-Ecology and Community Development Curriculum and Course run by the PELUM College Zimbabwe (PCZ) from May 1998 to April 2000. PCZ is an affiliate of PELUM Association, a membership organization that facilitates learning, networking, and advocacy in participatory ecological land use and management in east and southern Africa. Its members are mostly non-governmental organizations who work with smallholder farmers. Research institutes, universities, government agencies and international organizations are also members but have no voting powers.

I was involved in the course as a curriculum developer, course coordinator, Board member (ex officio) and now, as evaluator. My interest in evaluating the course as part of my M. Ed. studies was partly shaped by the participatory action research orientation which informed the course development process: I was interested in contributing to the improvement of this and future PELUM courses through the findings of an academically rigorous evaluation. Moreover, I believe the course is a rather unique case of a participatory programme run by a "college without walls" consisting of a diversity of partners, aimed at addressing the needs of smallholder farmers and the development workers who work with the farmers. The course places emphasis on local context. In this sense, the evaluation has the potential to contribute to the environment and development education literature, in which curriculum development for, and accreditation of an adult education course, and particularly the critical, participatory approaches to adult education underpinning this course, are currently important and contested areas of research in the region (Janse van Rensburg & O'Donoghue, 2000).

Therefore, my aims with this study were as follows:

- contribute to the improvement of the quality, adequacy and relevance of learning that happens during the implementation of the curriculum; and

- raise issues and generate insights that would inform future curricula and courses, within PCZ and outside;

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- contribute to the environment and development education literature, especially in participatory methodologies, curriculum and course development and course accreditation;

- develop a basis for future evaluations of the implementation of the curriculum; and

- develop lessons for PELUM Association members in other countries who have an interest in developing such courses and curricula.

I use the word curriculum to refer to a planned learning programme. I use the word course to mean the implemented learning programme, including the variations that accompany the implementation. It is during a course that learners systematically acquire knowledge, skills and experience. For example course 1 and course 2 may be based on the same curriculum but they could be very differently run because of the availability of human resources, resource materials, learners' attitudes, time available for learning and so on.

The immediate purpose of the research was to improve the quality of training that PELUM College Zimbabwe offered and to draw lessons from it – to learn and do something about what was being learnt. In addition to this professional motivation, I have a personal motivation for this work. My passion for rural development initiatives is informed by my rural background, and by my familiarity with the pressing environmental issues, especially land degradation.

My training in wildlife management emphasized conservation of nature over people but my brief encounter with the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) challenged the notion of conservation without a human face. Later when I participated in some research on the state of the environment in southern Africa (Booth et al, 1994), I realized and appreciated the need for environmental education and development, that is people-centered and context-specific.

During my employ with the PELUM Association, I was exposed to participatory methodologies which I believe make learning more effective, and to emerging sustainable agriculture approaches, which I believe hold some answers to some of the problems the rural people encounter. I therefore, set out to work with others in the college, with academics at Rhodes University and with professionals in the environmental education and development field.

I also drew heavily on environment education and development literature. The research manner followed the participatory action research orientation of the course. In the remaining part of the chapter, I will sketch the context in Zimbabwe in which the course being evaluated here has been developed, as well as the manner in which the course developed in response to this context. The contextual overview will be, of necessity brief.

The study itself is rather broad in scope for a half-thesis. The breath was influenced by my aim to develop formative evaluative insights on the course as a whole. The broad scope of the evaluation areas, (see Chapters 4-6) necessitates a more limited review of context and theory in the early parts of the thesis. Instead of a conventional literature review, the literature relevant to the study will be drawn on more extensively during the discussion of findings, particularly in chapters 5 and 6.

1.2 The course under evaluation

Next, I introduce the course, which formed the focus of this study. In May 1998, the first group of trainees – 19 community development workers – commenced training in the college. They were mostly from development NGOs but one was from government and another from a university outreach programme. All were involved in rural development work with smallholder farmers in Zimbabwe. Only two trainees were women.

Training was carried out at the 15 member organizations of the PELUM College Zimbabwe, which formed the 'college without walls'. The members, dotted throughout the country, were those organizations that had previously participated in the development of the course curriculum in Zimbabwe. The training utilized already existing infrastructure and human resources. It was a two year part-time course with a total contact time of 28 weeks. The training ended in April 2000.

My evaluation covers the entire training period. I coordinated the process of curriculum development from November 1995 to March 1999, after which I remained involved in the course as a mentor to my successors, and as an ex officio member of the college Board. My other role was to assess the feasibility and ways of developing similar courses in other countries of east and southern Africa where the PELUM Association operates.

1.3 The rationale for course evaluation

I undertook this evaluation because I believed that it would produce information that would be useful for shaping the current and future training programmes. Some of the ways in which the evaluation can contribute to an educational programme such as this course have been outlined by Bhola (1990). He noted that evaluating educational programmes could:

- provide useful information to the programme;
- generate an understanding of the means and ends of the programme;
- re-organise the curriculum for more efficiency and effectiveness;
- promote the interests of the various stakeholders;
- (re)solve problems;
- record and document actions and results that would otherwise be lost to collective memory.

1.4 Context of study

There was a limit to the extent to which I could review the context given that this is only a half-thesis and given that the focus of my evaluation is rather wide, which was necessitated by my intention to evaluate the whole course for its improvement. Therefore this part of the chapter is of necessity, a broad introduction, not a deep review.

Educational context

Environmental education is widely regarded as an important dimension of addressing environmental problems. Agenda 21, to which the majority of countries in the world are signatories, highlights the importance of environmental education in sustainable development (UNCED, 1992).

There is also a growing perspective that environment and development education should become more context specific. Stembiso Nyoni, then director of a leading development NGO in Zimbabwe said, "Ideally, training programmes should be developed in our own countries. They should arise out of our work experiences and dialogue," (PELUM, 1995a: i). In Zimbabwe, education has tended to be top-down and centralized, sometimes imported from countries where the context is completely different (Gatawa, 1990).

Formal education in Zimbabwe was imported from Britain and was meant for the few academically talented people (Zvobgo, 1986). Prior to independence in 1980 most of the educational resources went into a small group of privileged people to the exclusion of the majority. Curriculum construction and examination setting for secondary school education were done in Britain. Curriculum was prescriptive. Teachers were not regarded as curriculum developers; they were there to teach what others constructed. A similar situation prevailed in extension work where the government extension workers used the same top-down approach in working with communities. The research-design-disseminate-assimilate linear and top-down approach to development characterized extension work in Zimbabwe during the colonial and post-colonial eras (PELUM, 1997b). Most training in agriculture was oriented towards commercial farming, a feature of an 'elitist' approach to education and training (Zvobgo, 1996).

Prior to independence, there were F2 schools where practical skills were the emphasis. The schools were meant for the less academically able students. F2 schools were introduced by the minority government in black schools only (Zvobgo, 1996). These schools became associated with discrimination and inferiority. Such ghosts had negative effects on how students and parents viewed education-with-production when it was introduced after independence (Zvobgo: 1986), even though the education with production was underpinned by Marxist-Leninist ideologies and was aimed at providing Zimbabweans with an education relevant to living productive lives within the local context.

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After independence, many NGOs emerged, some of them with educational interests in environment and development. They argued more and more for learner-centered education, empowerment and participation of the student as well as needs driven education and extension (Bauer, 1995). It was against this background that the PELUM College's Agro-ecology and Community Development curriculum was conceived and developed.

When Zimbabwe gained independence in 1980, its educational policy led to the development of many new schools and to the schooling of many more people compared to the colonial era. But in the early 1990s, the IMF and World Bank advised the government to introduce cost recovery measures as part of the Economic Structural Adjustment Programs. Many students dropped out because they could not afford the fees (Zvobgo, 1996). Most of these were children of smallholder farmers.

The Agro-ecological dimension of the context of the study

Zimbabwe has been divided into five agro-ecological regions according to their agricultural potential. Region one has the highest potential while region five has the lowest. Most smallholder farmers are found in regions 3, 4 and 5. Chenje, *et al* (1998) note that 74 % of smallholder farmers' land lies in areas where the productive potential is severely limited by soils and low rainfall. The soils lose organic matter rapidly once cultivated and this results in low yields (Elwell, 1986). Torrential rains erode and leach soils, making them less fertile, more acidic, as has happened in most communal lands (*Chenje et al*, 1998). Poor animal and crop husbandry have led to biodiversity loss (Savory, 1991; Booth, *et al*, 1994).

On the other hand, commercial farming has been quite productive but reliant on high input agriculture, which has kept the economy of the country buoyed up. Short-term government agricultural input support to smallholder farmers resulted in the smallholder farmers increasing their share in the grain market in the country. However, the smallholder farmers could not sustain the costs of inputs on their own. The current push for low external input sustainable agriculture by NGOs in Zimbabwe is not just for the sake of a better environment and reduced threat to biodiversity but an effort to reduce the smallholder farmers' dependence on inputs that they cannot afford in the first place. The course under study sought to promote ecological land use and management.

The socio-political dimensions of the study

Another relevant dimension of the Zimbabwean context is the skewed land distribution in favour of commercial farmers both in terms of quality and quantity. This colonial legacy has led to land redistribution after independence, from large-scale commercial farmers to peasant farmers. Twenty years later, it is evident that the land redistribution effort has failed partly because of lack of farming skills by the peasantry. This discrepancy is one area that the curriculum under discussion sought to address.

The socio-political environment within which the curriculum grew was also characterized by growing national and international pressures to eradicate poverty against a background of growing abandonment of the poor people by their governments. International funding agencies such as IMF and the World Bank, through Structural Adjustment Programmes, were pushing governments to reduce public expenditure (Tichagwa, 1998), including removal of subsidies on education and food. Meanwhile, among the civil society, interest in democracy was beginning to assume ascendancy.

The economic dimension

During the 1990s, when Zimbabwe adopted the Structural Adjustment Programme, little economic progress was made. "Agricultural benefits for smallholders are sometimes swamped by other ramifications of structural adjustment, such as increased school fees, health charges, food costs and reduced off-farm income as household members are retrenched" (Whiteside, 1998: 32).

The average rate of inflation in the nineties was 48 % (Tichagwa, 1998) due to high government expenditure, which was financed by internal and external borrowing, the population growth rate surpassed the economic growth rate. Corruption in the public and private sectors reduced the economic performance of the country and the confidence of potential investors in the country. There were good years for agriculture as well as for the tourism sectors but bad publicity and poor governance created insecurity for commercial farmers and tourists. The droughts of the first few years of the decade not only worsened land degradation but also reduced the growth of the agrarian economy (Booth *et al*, 1994). The economic problems were compounded by the fall of the price of gold, which Zimbabwe depended upon for foreign exchange.

Against this landscape, it appears important to embark on development approaches that would help the marginalised people to be able to deal with both local and national matters that compromise the quality of their livelihoods.

1.5 PELUM's response to the context

The development of a regional curriculum framework for a long-term training initiative

From 1992, a group of development workers from NGOs in Zimbabwe, Botswana, South Africa and Kenya began developing a broad curriculum on agro-ecology and community development. The process culminated in the formation and launch of the PELUM Association by 25 organisations from 8 countries in east and southern Africa (120 members in 1999 in 11 countries). PELUM Association is a membership organization that operates in east and southern African. It facilitates learning, networking, and advocacy in participatory ecological land use management for the food security and improved livelihoods of smallholder farmers. Training is among the key strategies of the PELUM Association.

Fig. 1. Showing the Petals of the Purpose of the PELUM Association
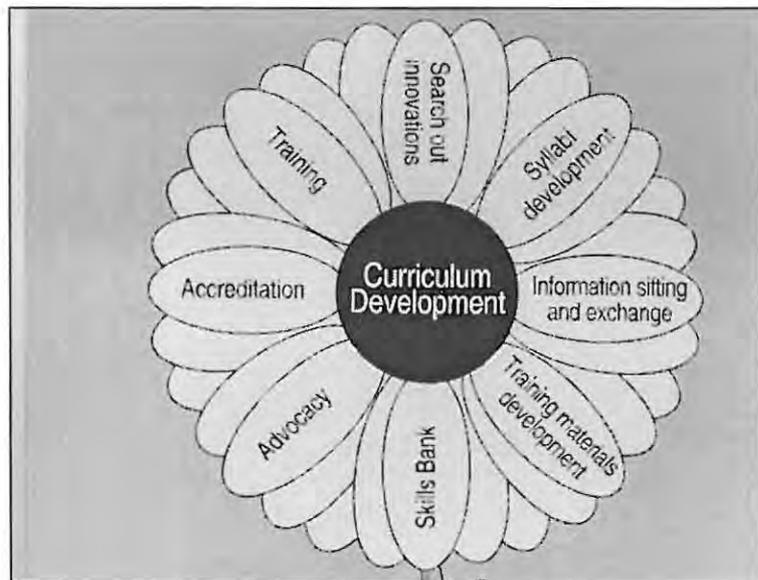
Source: PELUM. 1995c

It is the long-term training component that is of interest to this study. Some PELUM members from east and southern Africa developed a broad curriculum framework for a long-term course in agro-ecology and community development. A curriculum framework can be seen as "an open-ended plan for a course which includes the course orientation and key features of the course, the course materials and resources, the support processes which enable the course curriculum to be enacted in a particular way" (Lotz, 1999: 3). Some resource materials were developed in the process, including some materials on new ecological agriculture such as the Machobane system developed in Lesotho. The plan was for each country which had PELUM members to develop country-specific courses from this broad regionally developed curriculum framework.

The regional curriculum framework identified the educational and developmental philosophies that would underpin training, the main objectives, the content of the curriculum (broadly), examples of resource materials needed and suggested teaching methodologies (PELUM, 1995a). The curriculum drew upon emerging participatory methodologies such as participatory rural appraisal and training for transformation (ibid). It derived from emancipatory, problem-solving education and from sustainable agricultural approaches (ibid). The curriculum was also a product of a growing interest in sustainable development. It built on the work of people such as: Capra and his living systems theory which emphasizes holism and integration (Capra, 1988); Paulo Freire and his transformative and liberating pedagogy (Freire, 1972); Jan Smuts and his notion of holism (Savory, 1991) and Robert Chambers who promoted the notion of people-centered development (Chambers, 1993).

The features of emerging development approaches that PELUM, and the curriculum framework it developed in the early 1990s, shared are:

- the recognition of the complexity of living systems;

- recognition of the uniqueness of each situation;

- taking economic, social and ecological factors into account when analysing problems and developing solutions;

- recognition of the subjectivity of science;

- advocating for the importance of building on local skills and knowledge;

- addressing the underlying causes, not just the symptoms of development issues;

- people-centered development, participation of people in their own liberation and growth;

- empowerment of land users;

- respect for indigenous knowledge;

- creativity and innovation;

- commitment to action and impact;

- support for the struggle against exploitative practices;

- gender sensitive development; and

- self-criticism (PELUM, 1995a).

The curriculum was intended to help community development workers to understand environment and development education better and to work with smallholder farmers more effectively by helping them solve the practical problems they faced as well as by encouraging them to solve their own problems. Although not explicitly states, the epistemological assumption underpinning the curriculum was that knowledge is a social construct (PELUM, 1995a). It is both found and created.

The four pillars of the curriculum were the modules of: Community development facilitation; Natural Resources Management; Agriculture (sustainable); and Organizational management (PELUM, 1997a). The curriculum was to be multi-disciplinary, in acknowledgement of the complexity of environmental problems and solutions.

The regional curriculum framework informed the curriculum which was developed by PELUM College Zimbabwe from 1995 to 1998. The plan was to use lessons learnt from implementation of this curriculum in the PCZ in other countries in the region interested in establishing PELUM-type colleges – one of the reasons for undertaking this evaluation (see 1.1).

Introduction to the history of Agro-ecology and Community Development Curriculum in Zimbabwe

PELUM members in Zimbabwe, were the first, and so far the only members of PELUM to develop the regional curriculum framework further to suit local conditions and needs. It took us three years (1995-1998) to produce the written /planned / intended curriculum. In the thesis, I will use the words actual curriculum, implemented curriculum and the course interchangeably. Both the written curriculum and the course flowing from the curriculum will be examined in the study. The scrutiny will be in the form of an evaluation.

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In order to ground the curriculum in Zimbabwe, I undertook a survey of learning needs for community development workers in 1995. From this survey (Mukute, 1995) the need for training community development workers in a wider and more meaningful set of skills emerged. One of the reasons for implementing the curriculum was to help those who had been disadvantaged by a lack of formal education but who had the necessary experience in agriculture, rural development, social work or natural resources management, have access to further education (Wilson, pers. Comm, 1995).

Following this survey, the development of the Agro-ecology and Community Development Curriculum began in 1995, involving 11 NGOs, two universities, an institute of environmental studies plus two government departments (PELUM, 1997b). I coordinated the process of curriculum design and development, which officially ended in May 1997.

In 1996, the organizations that participated in the development of the curriculum agreed to be its implementers and to assign one another sections of the written curriculum – to teach.

Training commenced in May 1998, and in 1999, I designed a study to evaluate various aspects of the written curriculum and of the course. In the early phases, the evaluation was broader, and I collected data on different aspects of the course. Through progressive focusing (see 3.4), I came to narrow the study on four aspects of the curriculum: the written curriculum, the projects conducted by trainees, the resource materials, and assessment and accreditation (see chapter 4). I also explored three themes, which run across the four areas. They are praxis, participation (see chapter 5), and curriculum coherence and integration (see chapter 6). One of the key analytical lenses involved a comparison of the curriculum as written and implemented by PCZ, and the regional curriculum framework drawn up by the Association. In the next chapter, I provide a thorough review of the regional curriculum framework, and the curriculum development process in Zimbabwe, as well as an indication of the way in which I understand the use of the terms curriculum, curriculation, curriculum framework, written curriculum and implemented curriculum and course.

CHAPTER 2: THE HISTORY OF THE PELUM COLLEGE ZIMBABWE AGRO-ECOLOGY AND COMMUNITY DEVELOPMENT CURRICULUM

2.1 Introduction to the chapter

This chapter intends to:

- delve into the curriculum design process that produced the written Agro-ecology and Community Development curriculum;
- provide a brief history of the setting up of the PELUM College Zimbabwe which was basically the strategy to operationalise the written curriculum;
- discuss the product of the curriculum development process;
- delineate the scope of the case study as far as the written curriculum is concerned; and
- tell the story of where the curriculum originated and the circumstances that gave rise to the curriculum.

2.2 The background to the Agro-ecology and Community Development curriculum

In 1991, Fambidzanai Training Centre, a Zimbabwean NGO consulted with the Permaculture Trust of Botswana on how each could enhance the effectiveness and impact of its training. Both institutions were training in Permaculture, a land use system that emphasises symbiotic relationships. Their evaluation revealed a discrepancy between the planned outcomes and the achievements. Two great weaknesses emerged: that Permaculture alone was too narrow a focus to prepare community development workers adequately for the demands they experienced in the field; and that the two week period of training used at the time, was too short to allow for deep comprehension and acquisition of skills (PELUM, 1995a).

The two organisations consulted other training, agricultural and development NGOs in Tanzania, Botswana, South Africa and Zimbabwe who also reflected that their training was inadequate. Even those training in participatory methodologies such as participatory rural appraisal were facing similar problems. There was need for a deeper and more holistic approach to training for rural development (PELUM, 1995a).

A workshop held in November 1992, and attended by NGOs from Tanzania, Botswana, South Africa and Zimbabwe, defined the scope of the curriculum based on what the participants believed development workers needed to know. The result was a curriculum framework (see 1.5). I call it a curriculum framework not curriculum because it contained only the history and context, the rationale, the orientation including values, broad themes and objectives, and recommended readings (Lotz, 1999). A curriculum framework therefore gives the broad parameters of a learning programme. The framework was enriched by a subsequent regional workshop in June 1993.

The development of the curriculum occurred within a landscape characterised by:

i) Continued land degradation due to bad land management;

ii) A top-down extension approach in rural areas which was accompanied by removing the decision-making and innovation from the rural dwellers;

iii) Emerging technologies and approaches such as Permaculture, Holistic Resource Management (Savory, 1991), Bio-intensive gardening, and Low External Input Sustainable Agriculture (Mollison and Slay, 1993) as well as the introduction of participatory approaches to training and research (Chambers, 1993), including Training for Transformation (Freire, 1972);

iv) Growing realisation that neither formal education and training nor short-term training by NGOs was adequate to address the multi-disciplinary rural development needs of smallholder farmers;

v) Smallholder farmers' increasing dependence on fertilisers, seed and pesticides, which they could not afford;

vi) Growing consensus on the importance of community empowerment and sustainable resource utilisation (PELUM, 1995a);

These were the contextual factors, which shaped the regional curriculum framework between 1992 and 1995. They are still prevalent in Zimbabwe and other countries in east and southern Africa (Chenje et al, 1998).

2.3. The orientation and content of the regional curriculum framework

Given the above context, the values of the PELUM Association (see 1.5) and its understanding of how best to address these issues, certain philosophical, epistemological, ideological and methodological ideas were drawn on to shape the curriculum framework. The subsequent orientation of the curriculum

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framework reflected on valuing of community needs above all others. The departure point for the curriculum framework was for community development workers to be more effective in community development work. The values that underpin the curriculum framework are spelt out in 1.5.

As noted in Chapter 1, the curriculum was informed by the work of people such as Capra (1988) who promoted a living systems theory to development – shifting the emphasis from parts to wholes, structure to process, truth to approximation; and from seeing science as objective to seeing it as value-based too. Robert Chambers' (1993) work also informed the curriculum to put people first in development. So did the work of Paulo Freire's (Freire, 1972) who saw education as having an emancipatory interest and where the teacher and the learners learn from each other.

The curriculum framework reflected strong features of socially critical educational theories. Fien (1993: 12) outlined the characteristics of critical pedagogical practices as:

- a holistic view of the environment;
- a historical view on current and future environmental issues;
- cause and effect analysis that looks at social, ecological, economic, ideological and technical issues;
- emphasizing the development of problem-solving and critical thinking skills through interdisciplinary learning experiences in reality;
- promoting political literacy that supports local action.

A close look at the PCZ Agro-ecology and Community Development Curriculum and its implementation reveals a high level of congruency between a socially critical education orientation and the curriculum under discussion. The curriculum's underlying assumption about knowledge is that it is socially constructed, and is not given, that education is carried out for understanding, changing the oppressive structures and systems of society and to enable the development of critical thinking. The curriculum framework explicitly challenged dualism, mechanistic development and fragmentation as a way to understand the whole (PELUM, 1995a). It cited and criticised the work of Newton, Descartes, and Bacon in shaping these latter features of our current worldviews. It also challenged the banking model of education, in which the learners are treated at empty vessels to be filled in with knowledge by the experts

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(PELUM, 1995a).

Doll (1993) noted that a curriculum framework outlines the norms and values that must be followed. Lotz (1999) identified some of the essential framework features of emerging environmental education and development curricula as participatory, open-ended, reflexive and flexible. The PCZ Agro-ecology and Community Development Curriculum has a framework characterised by the four features.

2.4. Curriculum content suggested by the framework

The curriculum was called Agro-ecology and Community Development. The curriculum framework, in the rationale, lists and describes the sustainable agriculture and participatory education and development approaches that inform it, before outlining a number of themes, topics and broad objectives. Towards the end, the document carries abstracts of books and magazines that could be used as resource materials. The suggested literature covered all specifies areas (below) except human, financial and administrative management.

The eight content themes outlined in the curriculum framework were:

a) Participatory processes;

b) Historical perspective and comparative awareness;

c) Ecological understanding;

d) Land use design;

e) Management (biological, human resources and financial and administrative)

f) Technical skills (land management, food processing, and water harvesting, seed; pest management)

g) Species knowledge; and

h) Environmental economics.

The themes were further divided into 114 topics. The content suggested transdisciplinarity of the curriculum by combining social, ecological, political, economic and agricultural themes. It revealed the

complexity of the nature of the problems the curriculum was to respond to.

The regional curriculum framework was regional because it was developed by people from a number of countries in east and southern Africa, responding to the contexts from which they came and because it was meant to be 'owned' by the different PELUM members in east and southern Africa. Each country was to decide on what to take from or add to the framework to design local, country-specific curricula. However, the only country that had worked on its own curriculum by end of 2000 was Zimbabwe. In the next section, I describe how PELUM College Zimbabwe went about doing so. I will note that the above curriculum framework was not as influential in shaping the eventual curriculum as had been anticipated.

2.5. Curriculation process in Zimbabwe

Introduction

In 1995, the PELUM members in Zimbabwe invited other interested organisations to develop the regional curriculum framework into a curriculum, which would suit the rural development training needs in Zimbabwe.

Rogers and Taylor (1998) say a curriculum deals with the context, content, methods, aims and objectives and the way in which their effectiveness is measured. Carl (1995) gives a similar definition in which the components of curriculum are: a systematic and effective planning of action with objectives, goals, situation analysis, selected and classified content, learning and teaching methods and student evaluation. However, some of the aspects of a curriculum noted by Carl were not addressed in the curriculum development process, and I will discuss them in Chapter 3. These descriptions basically refer to a written curriculum. What I call the written curriculum, Cornbleth (1990) has called " a curriculum plan" which she likened to the blueprint of an architect (see also 4.1). However, in our case, because of our value of praxis (see chapter 5), it would not be a blueprint but a plan subject to change through reflection, action and theorising.

Fragmentation of the curriculum framework

In April 1995, the section of the regional curriculum that contained the subject areas, topics and objectives

was separated from the rest of the curriculum (history, rationale, context, underpinning values and suggested resource materials) and circulated for comments in Zimbabwe among 35 organisations. The separation happened because the framework was treated as a given which was not to vary between countries. This segmentation has endured and has resulted in people developing a curriculum without reference to the description of a broader context within which it was being developed. The detachment of a segment of the curriculum framework 'de-contextualised' the curriculum (see 4.2). Excluding the context created a kind of vacuum for the curriculum, removing the roots upon which the curriculum was to stand and be anchored (see 4.2).

The document was circulated as PELUM Long-term Training Programme, Draft April 1995. (PELUM, 1995b). It had no overall objectives and started with content based on the eight subject areas already identified. Twelve organisations responded giving both substantive and editorial comments.

Enrichment of selected fragments of the curriculum framework

Following the comments at the November workshop, the curriculum was revised further and a draft was produced in May 1996. This time it carried an overall aim and four main objectives. These were:

Overall aim: "to contribute towards the development and improvement of training in agro-ecology and community development in an holistic way" (PELUM, 1996: 1).

The major objectives were: "The training programme should produce someone who is able to:
- use and integrate participatory ecological land use planning and management tools at individual, community and organisational level;
- facilitate at any level using participatory and activity oriented training skills;
- understand, analyse and communicate development, resource management, organisational issues in a holistic and discerning way;
- Understand ecological and social processes so as to be able to operate in a different, creative and flexible manner." (PELUM, 1996: 1)

The eight subject areas were condensed to four, namely:

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- Community Development and Facilitation;
- Management and Development of Natural Resources;
- Projects (essentially agriculture);
- Organisational Planning & Management.

Those areas that were not seen as important to the situation of community development workers in Zimbabwe were dropped. The organisational planning and management section was a broadening of small business management to take into account the possibilities of working in bigger organisations and leading other people, motivating them and developing management systems and structures. The small business management appeared to have arisen from the cooperative movement that came with the scientific socialism. The broadening seemed to be a radical departure from the initial stance.

The actual content was slightly broadened with the addition of: disturbances in ecological processes; basic research skills; and wildlife. At the same time some topics and sub-topics were lost: Word-processing, home-building skills and farm repair and maintenance. The reasons for exclusion were that the topics were not of immediate value and importance to the community development worker. At the same time, the reasons were not dealt with to any depth and there was no framework used to retain or reject ideas and topics. Trainees later asked for inclusion of word processing. One section was renamed and reconstructed from Team-building to Personnel management, which implied a shift towards a more managerial approach and professionalisation of the community development worker. Team-building would form part of personnel management.

The second set of changes to the Zimbabwe curriculum occurred in 1997 with the "final" curriculum being produced in May. This was the curriculum that was implemented in 1998-2000 during the first course. The draft curriculum was different from its predecessors in that it has three levels of aims right at the beginning: overall, broad and subsidiary. The changes reflected a greater refinement of purpose, which left the curriculum in a better form for implementation. These were:

Overall aim: "to equip trainees with a comprehensive set of skills in participatory ecological land use management at individual, community and organisational level(s)".

Broad aims:

"1.(to) develop the skills of trainees in production, delivery and evaluation of training programmes;

2. develop the trainees' knowledge and skills in designing, management and integration of land -use projects;

3. understand ecological and social processes to be able to operate in different environments in a creative and flexible manner;

4. enable trainees to understand and apply resource management and community facilitation skills as connected elements of a holistic approach to development;

5. equip trainees with organisational planning and management skills needed in community development" (PELUM, 1997a; 1)

What was interesting about the overall and broad aims was that they encouraged the inter-relatedness of the subjects. Most of the Broad Aims were the aims of the curriculum while the Subsidiary aims below reflected the intended learning outcomes.

Subsidiary aims:

"At the end of the training, trainees must be able to;

1. design course and programmes for community development;

2. develop training materials suitable for community use and development;

3. facilitate and mediate community development;

4. describe soil organisms and ecosystems and to apply (the) knowledge to land use management;

5. understand (the) history of land use and relate it to current land use systems;

6. explain different land tenure systems in Zimbabwe and how they affect land use;

7. explain the importance of land use and ownership on sustainability;

8. design land for sustainable and productive farming system(s);

9. produce, raise, harvest, store, process and market a variety of crops and animals in different ecological regions of Zimbabwe;

10. run organisations effectively" (PELUM, 1997a; 1)

There were also some significant changes in the content. An example is: Under the topic of Sustainability

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in the first two drafts there were three items under content: Background; Resource Distribution and Consumption Patterns; and Indicators. In the curriculum that was eventually implemented, the content changed to seven items: Definition and Background; Concepts and Issues; Approaches and their Strengths and Weaknesses; Resource Availability and Use; Spatial and Temporal Distribution of Resources; and Population and the Environment. The inclusion of concepts showed an intention to deepen the understanding of trainees on the concept under discussion. The inclusion of population was a better reflection of the multi-dimensional nature of the issues of sustainability. Assessing strengths and weaknesses would allow trainees to engage in evaluative work, an important cognitive skill.

Another important addition was Integration under each agricultural topic to emphasise relatedness of topics. Marketing of produce was given more prominence, an indication of greater attention to the range of issues development workers deal with. The activities listed also suggested methods that the trainer could use such as role plays and demonstrations.

2.6 The hitherto hidden stakeholder

Alongside the above curriculum development process, the issue of accreditation of the learning also became a consideration. In trying to make the curriculum accreditable by the Ministry of Higher Education in Zimbabwe, we submitted the written curriculum to the Ministry, who required an attachment listing with the following: a preamble that would give the rationale of the course, title and level of award, consultation (people and organisations consulted in curriculum development), course structure and duration (in hours), mode of study, entry qualifications, assessment, grading and resources.

The requirements presented us with an opportunity to incorporate the framework that the curriculum had lost. We did not utilise the opportunity because we did not see it as one. In fact, because of the orientation of our curriculum, we saw a lot of restrictions in the Ministry's requirements but we could have lobbied.
The requirements stated in the above paragraph are in keeping with curriculum details as outlined by Gatawa (1990) and Carl (1995). In fact, Carl lists 16. The requirements forced (us) curriculum developers to rethink the curriculum and to add the missing details. However, the additions were not thought through and the consultation and participation of trainers and training managers from participating organisations was rather minimal.

The question of entry qualifications had not been resolved, those of assessment and grading not discussed. Given the time constraints, I had to devise these myself. This was one of the moments I was not participatory although I did subsequently circulate the documents to training managers. However, nearly two years later, the Assessment committee (see below) came up with similar decisions as those I had made at the time, so the lack of broad consultation on these matters, did not affect the curriculum in any way.

2.7 Development of the curriculum implementation strategy

In November 1995 the PELUM regional office in Harare convened a workshop to review the curriculum 'fragment' (see 2.5) and the substantive and editorial comments received from 12 respondents. The workshop was attended by NGOs, most of them PELUM members, the University of Zimbabwe's Education Department, as well as the Africa University's Faculty of Agriculture and Natural Resources, and the agricultural extension arm of the government, AGRITEX.

The workshop identified strategies of implementation and target groups for training, which I will introduce below. The strategy of implementation identified were: training sessions, attachments, project implementation by trainees, exchange visits, and study tours. The main potential groups of learners were identified as "O" level holders; holders of education and agriculture certificates and diplomas and promising farmers. But we could not agree on the single most important group of learners.

The establishment of a "College without walls"

Curriculum implementation is the operationalisation of the planned curriculum (Stenhouse, 1975.) It was not until February 1996 that a broad implementation strategy was adopted. The organisations that participated in the curriculum development in Zimbabwe decided to carry out the training themselves. Each organisation would contribute to the training according to its particular strength. Together they formed PELUM College Zimbabwe (PCZ). Each organisation can be seen as a satellite campus.

The organisations that made up the college could be put in four groups:

i)   Seven Community-based NGOs: Association of Zimbabwe Traditional Environmental Conservationists, Nyahode Union Learning Centre, Chikukwa Ecological Land-Use Community Trust, Weya Community Training Centre and Zvishavane Water Project).

ii) Six NGOs with a national orientation: Fambidzanai, ACTION, Africa Centre for Holistic Resource Management, Zimbabwe Environment Resource Organisation, Zimbabwe Institute of Permaculture Research and Environment and Development Agency.

iii) Three university groups: The Agricultural Faculty at the University of Zimbabwe (UZ) and the Institute of Environmental Studies also at UZ and the Agriculture Faculty at the Africa University.

iv) Two government agencies: The Training Branch of the Government Agricultural Extension service, AGRITEX and the Zimbabwe College of Forestry.

Many of the participating organisations were PELUM members but not all and the question of ownership was resolved by agreeing that the PELUM Association was the owner of the project. The organisations developed a PCZ constitution. I coordinated both the development of the implementation strategy and the curriculation.

Allocation of topics and issues that emerged

In order to allocate participating organisations areas of responsibility in the curricula, I was tasked to visit all participating organisations and make recommendations. In addition to the recommendations, my report on the visit (Mukute, 1996) also made some observations that were linked to the preparation for implementing the curriculum.

Problems to solve were:
   a) Institutional considerations:
■ inadequate accommodation facilities;
■ timing the training to suit participating organisations;
■ long-term future of participating organisations; and
■ fees determination.
   b) Curriculum considerations:
■ topic allocation criteria;

- work to learning ratio of part-time trainees;
- adapting the syllabus to the realities on the ground;
- overlaps of organisational strengths in relation to the curriculum and to allocation of topics.

   c) Trainee considerations:

- ideal trainee group size for all organisations;
- ensuring attainment and maintenance of high standards of training and education

   d) Logistical considerations

- financing of the training;
- determination of a rewarding system for participating organisations and communities;.

I presented the findings to a meeting of training managers who used it for the subsequent allocation of topics to participating organisations.

Setting up a management structure for PCZ

PCZ was managed by many actors. At policy-making level, a Board was set up which was made up of elected members from participating organisations. Then at professional level, it established the Training Managers' Committee made up of training managers from all participating organisations. They were responsible for developing and implementing the curriculum. Other important sub-committees of the Training Managers' Committee were the Accreditation Committee responsible for searching for and recommending accreditation options for PCZ, the Assessment Committee responsible for developing and implementing assessment systems and the Curriculum Review Committee responsible for the increased and continued relevance to the Agro-ecology and Community Development Curriculum in Zimbabwe. The PCZ coordinator was responsible for seeing to the whole process of curriculum development and sat on all committees.

The other key stakeholders in the college were trainers. These were the group of course implementers who were not involved in the process of developing an understanding of the full context of the training that was to happen. They assisted training managers in conducting the training. They were employed in the participating organisations and were called on to give lecturers, demonstrations and other forms of teaching as and when needed. There were a few topics in the curriculum where the college lacked competencies. Other organisations and individuals would be hired by the college coordinator to fill in the

gaps. Often this category of trainers also lacked adequate orientation to the nature of training being offered by the PCZ.

The trainees would move from one institution to another learning different aspects of the curriculum. The institutions were far apart and found in different agro-ecological regions and political provinces. In one training session of two weeks, trainees could move between two institutions that were 300 km apart. Altogether, the course was about 960 hrs of contact time over the two years.

In relation to the improvement of facilities, a three-day workshop was held for caterers and administrators from organisations participating in PCZ in January 1997. They came up with guidelines (see Mukute, 1997) to help themselves deal with PCZ demands on catering, transport for trainees, communication facilities and recreational facilities (ibid).

In relation to accreditation, which in fact was a regional issue, three researchers were commissioned to look into accreditation options for the college in east; central and southern Africa. Their recommendations centred on the conventional options through existing government and academic institutions. The University of Zimbabwe, as part of the college could offer the college affiliate status if PCZ met certain criteria, which it did not. At another level, we approached the Ministry of Higher Education and they advised us on how to register both the curriculum and the college (see 2.6). Later we were referred to the Ministry of Agriculture who recommended we approach Ministry of Co-operatives because we were not just about agriculture. The issue of accreditation was not resolved, which motivated me to make it one of the key curriculum areas to consider in the evaluation (see Chapter 4).

Fundraising

In relation to funding for the training, I went to the UK, Belgium, Germany, The Netherlands and Denmark for the month of July 1997 to fundraise for the PCZ. I returned without cheque or cash but had built some linkages that were helpful later. Other efforts included the development of budgets with the Board and with training managers and then developing project proposals. We also considered setting up a Fund from the fees that would come from trainees from outside the region.

It was not until late 1997 that a funding partner who had limited funds to give accepted the first proposal. In the end, we agreed that the sponsorship would be used to fund five trainees. The donor wrote a letter of support to other donors to whom we sent a proposal. Early 1998 another donor agreed to fund four trainees. Before April, 1998 yet another donor agreed to give scholarships to eight students, including their indirect costs on the understanding that some of them would be from non-PELUM members. We agreed to this and in May 1998 started the training with 18 trainees because the funds for four could cover a fifth trainee. The 19th trainee got funds from yet another donor. A new chapter in the history of the college had been opened. It was, for me, a big achievement.

2.8. Some reflections on the history of the PCZ curriculum

The participatory nature of curriculum development

The process of curriculum design described above suggests that, in addition to the conventional top-down, centre-to-periphery curriculation process referred to in Chapter 1, there are alternative, creative ways of designing curriculum that are responsive to the needs of communities and the environment, and involve people who are close to the ground. Of particular worth was the way in which the curriculation process opened paths between and among participating organisations and helped them develop better courses. The process built trust between and among the participating organisations.

To an extent, it revealed the value of participatory approaches and made this tangible to the participants, which was important for the training to follow. The process also enhanced a feeling of ownership of the college among the participating organisations. It was an excellent opportunity for the training managers, the Board and the directors to learn from each other. And even with the tensions and contradictions that usually exist between the rural-based organisations and the urban-based, the academic and the implementing, the huge bureaucratic institutions and the small, bridges were built between the participating universities, government, CBOs and NGOs.

Issues for further discussion

I also realised the importance of grounding a curriculum within a kind of framework and to then build the

strategies on the philosophies of the framework. The importance of curriculum framework became apparent and an area of my research focus following my experiences in the development of the PCZ curriculum. I also began to feel that the government can either enhance innovative learning programmes or stifle them by putting difficult requirements. This is part of the reason why I decided to also focus on accreditation systems and their bearing on knew courses (see chapter 4). The process of curriculum development also raised my interest in the notion of praxis – the theory and the way it was applied in the college. The interest coincided with the fact that praxis was one of our values even though we may not have called it that.

Pattern that emerged from the curriculation process

In searching for patterns or a 'model' within the curriculation process, I did not see cycles of planning-acting-observing-reflecting as proposed by proponents of action research (McKernan, 1991). Neither did I see the "cycles within cycles" as described by Lotz (pers. comm. 1998) as typical of development and education, with components of continuous and purposeful reflection and action (praxis). Instead, I saw layers and rings. In terms of process I saw rounds and rounds. I saw circles on top of other circles. I also saw phases of brainstorming, initiation and organisation. There were plans we did not re-plan, as there was action that was not implemented before it was changed. I call them circles because there were meetings and workshops that started and ended in themselves and were often not completely linked to previous or subsequent workshops. The different events were marked by some discontinuity although they were related. This is discussed further in Chapter 5. Cycles, to me denote rhythm, and it is very difficult to identify any rhythm in the process described above.

CHAPTER 3: RESEARCH METHODOLOGY

3.1. The orientation of the evaluation

Introduction

This chapter outlines how I went about carrying out the research. It explains the research orientation and aligns the methodological framework with the data collection and analysis. My research methodology was influenced by the values and orientation underpinning the curriculum I was to evaluate, the role this evaluation was to play in the development of the course, my insider role in the course, the time available and other pragmatic considerations. I collaborated with various stakeholders in the evaluation of the written and applied Agro-ecology and Community Development Curriculum by the PELUM College Zimbabwe. The collaborators included the training managers in the college, the trainees, and the assessment committee, the College Board, the mentors, and the college coordinator.

The research methodology

The research methodology is the philosophical framework that guides any research activity (van Manen, 1990). The methodology I chose could be called collaborative naturalistic evaluation. I have chosen a naturalistic evaluation model.

The naturalistic evaluation model is based on the assumption that the world is both 'found' and 'made' meaning that people construct meaning that others encounter, use and reconstruct (Lincoln and Guba, 1985). It seeks first to describe before developing insights, which can be used elsewhere (Smith, 1998). In a naturalistic evaluation, we tend to generate qualitative data (Bhola, 1990). The naturalistic evaluation is holistic not reductionist, value-embedded, not value-free. The research questions are developed by both the evaluator and the participants who are normally the stakeholders. The setting is natural, say a community, not a laboratory. The sample is purposeful, the size is determined in use and the sample is exhausted when new information adds nothing much. The evaluator is the tool of data collection (ibid.).

The report from a naturalistic study tends to be interpretive, typically, a case study (Smith, 1998). It generates insights and analogies. A naturalistic evaluation is responsive, adaptable, holistic and humanizes the evaluation (Worthen & Sanders, 1987; Bhola, 1990). It reveals multiple realities. In the study, the views of different stakeholders are discussed although there has been a tendency towards convergence (agreement) on issues rather than divergence.

My methodology is informed by interpretivism and by socially critical theory (Horton & Hanes, 1993). An interpretivist research orientation has the following features: reality is seen (Smith 1998) as context specific, knowledge and meaning are personally constructed; research findings cannot be generalized to general populations. To these features, which informed my research, a critical orientation to research adds that people's subjective views are shaped by social forces – not just individually constructed (Robottom & Colquhoun, 1992; Lather, 1991). Another important difference is that from a critical approach, research has an emancipatory interest – "how to turn critical thought into action" (Lather, 1991: 12). It seeks to make the oppressed aware of situations, choices and action through knowledge acquisitions. Critical inquiry is openly ideological, and brings scholarship and advocacy together, so as "to generate new ways of knowing that interrupt power imbalances" (ibid.).

Neither of these orientations is value free. "There can be no neutral research" (Lather, 1986: 257). These research orientations have "logic in use" which informed my research in the following ways:
- adjusting the research questions as the research progressed;
- narrowing on issues that mattered to the key stakeholders;
- holding a workshop with training managers after failing to get their responses on my research findings through the post and;
- feeding my findings in the external evaluation of PCZ when the opportunity arose.

The first two points were also part of my other strategy in the research – progressive focusing which eliminated the less central issues and brought into sharper focus, the important issues and questions.

I also tried to be rigorous in my research. Howe and Eishenhart (1990) identified three principles of procedure that must be followed to ensure rigor:
- a good understanding of the values and assumptions that underlie the research methodology;
- congruity between research philosophy and method; and

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- effective application of specific data collection and analysis techniques.

These procedural principles served as my compass in this research. The values underpinning the study are congruent with the values underpinning the course curriculum I was to evaluate. Two of these values are 'collaboration' and 'praxis' (see chapter 6).

Collaboration as an aspect of the methodology

Firstly, a participatory approach to the research was in keeping with the participatory methodologies promoted in the curriculum framework (see 1.5), and which guided the curriculation process described in Chapter 2. Collaboration in the research was also meant to enhance the potential utility and quality of the deliberation, which the study sought to encourage. Reid (1979: 189) defines deliberation as "an intricate and skilled intellectual social process whereby, individually or collectively, we define the questions to which we must respond, establish grounds for establishing answers, and then choose among the available solutions". The collective process of critical reflection on the curriculum is not only likely to lead to better questions but also to generate better and more binding solutions.

Most of the issues raised in this research had already been raised by stakeholders in conversations, informal and formal meetings; in a sense, we had already collaborated on the questions demanding answers even before the research started. The study therefore provided an opportunity to work through these issues more thoroughly. Thus, it was addressing real issues as they were arising (see also Praxis below).

I have been trained in the element of collaborative work, have worked in a participatory organization as team leader, and have run workshops on participatory methodologies. This enabled me to collect data in a participatory manner.

Praxis in the research

Praxis was not only an important value in the curriculum framework and an area I chose to trouble (see 2.8) but it became an approach I used in my own research as it was in keeping with the nature of what

I set out to evaluate. Praxis is a reflective relationship between theory and practice, which is non-linear, and where planning, acting and evaluating are integrated Lotz, 1998: 31). The principle informed my research in that some of the findings of the research were applied to the course curriculum, during the implementation process. Similarly, research insights were drawn from practical course activities. Perhaps the most significant changes were the revision of the second course to enable better sequencing and organization of the course by increasing the sessions of learning from two weeks at a time to three months. Other changes to be incorporated included teaching research and project planning skills near the beginning of the course and involving the mentors more intimately in the development and implementation of trainee projects (see 4.3). Changes made during the course included developing a module on research skills when trainees felt that one day was too short to comprehend the module without back up materials (see 4.5). Another example is the inclusion of topics such as gender and the development of resource materials to support its teaching (see 5.2).

As part of praxis in the research journey, I had hoped to follow an action research methodology in which I wanted to find traces of action research and see how the cycles were shaped and how thinking-planning-acting-reflecting improved the course systematically. However, I realized that it was not possible given the time available for the research and the anticipation that the possible cycles within the research would need much more time. Nevertheless because I know that the curriculum had always had an interest in action research, I looked for traces of an action orientation throughout the evaluation. In some sense, I see this study effort as a cycle within the broader action-reflection process of curriculum development.

3.2. The research as a case study

The research method I chose is that of a case study. The study of a single case, in-depth, is consistent with the interpretivist, naturalistic evaluation introduced above. My rationale for using a case study can further be explained by the following reasons:
- PCZ, as far as I know, is the only example of collaborative curriculum development and implementation by several independent institutions ranging from government, NGOs and universities and drawing on their different strengths. As far as I know, the course is the only one of its kind and therefore provides a unique opportunity to study alternative approaches to

participatory curriculum development, the establishment of a 'college without walls' and intentioned, multi-organisational collaboration in curriculum development and implementation;

- PCZ is also a pilot programme for other countries in east and southern Africa where there are PELUM members. Insights generated from the research are of potential use not only to the college in Zimbabwe but also to other future possible colleges elsewhere in the region;

- Finally, I chose a single case study because Yin (1989) encourages novice researchers to start with a case study, which tends to be simple and straightforward compared to multiple case studies.

3.3. Data collection techniques

The case study method lends itself to the use of multiple data collection techniques. I chose several techniques because they help secure a deeper grasp of a situation (Worthen & Sanders, 1987). The techniques I used for data collection were document analysis, observation, semi-structured interviews and focus group discussions. Table 1 (see below) provides a summary of techniques used for various purposes, and the data sources, which I tapped.

Document analysis

This technique – which formed the basis for much of the description in Chapter 2, as well as other findings – helped me to illuminate the history, the context and the patterns in the development of the curriculum and the college. I analyzed documents such as minutes of meetings, the PELUM Association constitution, terms of reference for committees, letters examination results, training managers' reports and the coordinator's reports for congruency between and among PELUM values and their underlying theories, the curriculum promise and performance, the trainees' expectations and accomplishments, respectively (see table 2). Altogether, excluding letters, I analysed over 80 documents produced in the college.

Observation

I used observations to gain first-hand experiences when I visited participating organizations, by

observing teaching sessions and when I participated in meetings of the various stakeholders. I made observations on the relationships between training managers and trainees and among training managers. I planned to use the technique on project visits but could not because of the fuel problems during the time I had planned to visit them. Fuel problems gripped the country for most of year 2000 because the country had limited foreign currency to buy fuel from abroad. Zimbabwe meets all its fuel requirements through imports. I took descriptive field notes and wrote reflective notes based on the field notes.

In-depth semi- structured interviews

I chose this technique because it allows the interviewees (participants) not only to respond to my questions but also for me to respond to theirs and for them to ask new questions (Kvale, 1986). Such was the nature of the spirit of participation built into the study. The in-depth, semi-structured interviews were carried out with the following research participants:

- the course coordinator;
- one of the pioneers of the curriculum development process;
- 8 training managers and trainers,
- 10 trainees
- one employer;
- 2 mentors; and
- one donor.

Focus group discussions

I used focus group discussions to build on questions originally directed at individual trainees, partly to check on the original answers as part of a triangulation strategy (see 3.4). The issues for discussion in focus groups emerged from responses to questionnaires, observations and interviews. Morgan (1984) said the hallmark of focus group discussions is group interaction to produce data and insight not possible to generate without group interaction. It brings different perspectives into contact with one another. However, Morgan (ibid.) also argued that homogeneity in background fosters discussion. The

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focus group discussions were therefore held among two separate groups of trainees and training managers. The technique allowed a group of participants to draw on one another's experiences.

Each focus group discussions lasted for at least two hours. I carried the first focus group discussions with 17 trainees in 1998 and the second with 12 training managers in 1999 and 8 training managers in 2000. I then held the third focus group discussions with 16 trainees in year 2000 at their initiation. Focus group discussions are a useful way of focusing on an identified, specific area of the problem being investigated.

Questionnaires

I used questionnaires to generate data, which then informed in-depth interviews and focus group discussion questions. Most of the questions in the questionnaires were informed by my research methodology, literature review readings, document analysis and issues picked from informal discussions with course participants and other college stakeholders. I sent questionnaires to all training managers, trainees, employers of trainees, and mentors. I received 18 trainee (100 %) responses in year 1999, 10 (59 %) trainee responses in year 2000; five training manager responses (33 %), five mentor responses (33 %) and four employer responses (26 %). Responses were high (above 50 %) when the questionnaires were handed directly and collected at the end of a given period.

Table 1: Summary of information on data collected

Objective (Derived from Research aims in chapter one)	Data sought	Sources	Strategies for data collection
1. To develop an insight into the nature of participation of stakeholders at various stages of curriculum development.	Coherence and nature of participation in curriculum development.	Reports, letters Interviewees	Document analysis, in-depth interviews and focus group discussions
2. To assess the adequacy of the written curriculum.	Coherence of the curriculum against the framework, the overall objectives and its trans-disciplinarity.	Written curriculum (all versions)	Document analysis.
3. To assess the suitability of training materials	Adequacy of resource materials in terms of quality and quantity, and consistency with curriculum values.	Text books, handouts and recommended readings, trainees and training managers.	Literature analysis, interviews, questionnaires with training managers and trainees.
4. To assess the quality and relevance of trainee projects.	Quality of project write-ups, worth of projects to various stakeholders and consistence with the curriculum orientation.	Trainee project reports, comments by training managers, mentors and employers, plus assessment reports.	Project plans analysis, project report analysis, and interviews and questionnaires.
5. To record and assess the adequacy of monitoring and assessment mechanisms.	Effective assessment systems that are consistent with a participatory educational programme.	Assessment system and structure, performance results and stakeholder opinions.	Assessment systems analysis, results analysis, interviews and questionnaire.
6. To assess the coherence of curriculum implementation against the curriculum framework.	The coherence and consistency of the curriculum between and among the participating organizations, and over time.	Reports.	Literature analysis, interviews, workshops and questionnaires.

The selection of sources of documents for analysis was informed by my knowledge of the issues and of the filing system within the PCZ. The selection of interviewees was informed by gender balance, different organizational settings, performance in the training so that the trainees come from the top, the middle and the bottom performers gave their views. It was also informed by my

perceptions of interests of stakeholders in participating in the curriculum development and implementation. My perceptions were informed by my knowledge of the different actors and by interviews I carried out with some stakeholders in 1996 (Mukute, 1996). In this kind of evaluation, samples are purposeful (Bhola, 1990).

I believe that the samples assisted with bringing balanced findings, which, even though context specific, should be helpful elsewhere.

3.4. Data analysis and interpretation

Data analysis involves, organizing, breaking-down, synthesizing, searching for patterns, isolating the important and the lessons. Collective data analysis meant negotiation and joint decision-making (Lotz, 1996).

Although I had the primary responsibility to analyse the data and interpret it, I made a serious effort to ensure that the process was collaborative. After collecting data with and from the research participants, I tried to have it analyzed with them during focus group discussions involving the coordinator, training managers and the trainees, all of whom I treated as the critical reference groups in the evaluation. I sent them the information generated time and time again. The response rate was generally lower than 10 %. I sent my recordings and analysis to all training managers for comment and validation. The responses were scant. My intention to take collaboration to great heights, reinforcing the notion of participation at every stage of the study was only partially realized.

The differences and divergences I expected to arise from different interpretations of data and from the different backgrounds and positions of people in the participating organisations, did not. I used different methods and groups of stakeholders to triangulate data, which is essential for trustworthiness of data (Chambers, 1998). I exercised transparency and respect for research participants and collaborated with them as equals in the research journey. By and large, my role was of a participant in the research, as well as a co-learner. I generated the learning through initiating the research, thesis writing and through interactions around data collection and analysis.

One of the most challenging tasks I faced was managing the huge amount of data that was there and that I generated. The large quantity of data arose from the breadth of area that my thesis covered. In the end, I did a lot of my analysis separately and coded it. The clustering of text was done around key events. For examples, TM.1 means the first meeting of training managers. There are several issues that emerged in each of the several events described. The codes then made it more manageable to present my analysis and to cross-reference.

After analyzing the text from the various indicated sources, I scrutinized the text for emerging issues using mind maps that showed the linkages existing, first within the issues and themes, and later between the themes and issues. It was from this that issues of projects and mentoring, accreditation, and resource materials emerged (see Chapter 4). The issue of the written curriculum had already emerged from document analysis. I used a different method for coming up with issues discussed in subsequent chapters, that is, chapters 5 and 6. I looked for lenses through which to analyse the issues that were emerging. What appeared most useful use the curriculum framework. 'Participation', and 'Praxis' were two key features of the curriculum that formed part of its uniqueness. These are two values I also felt needed to continue if the curriculum development was to evolve adequately to meet the current and future demands in the education and development field. In evaluating the curriculum using the two above values, as well as other values (see 5.1) I reasoned that I needed yet other lenses -- coherence and consistence, which form the basis of chapter 6. This way, I managed to bring about a certain measure of depth in my analysis of the curriculum and its implementation.

Table 2: List and description of analytical texts (coded)

CODE	Description of analytical text	Data analysed
TM.1.	An analysis of training managers' workshop held in August 1999. The workshop focused on reflecting upon the past and planning for the future of the course.	Training managers' Workshop report, August 1999.
TM.2.	An analysis of training managers' workshop held in February 2000 which focused on changes to assessment and to future courses.	Training managers' Workshop report, February 2000.
TM.3.	Analysis of training manager's responses to a questionnaire administered in June 2000 asking about the past changes and future plans concerning curriculum implementation.	Training managers' 'responses to a questionnaire
TM.4.	Analysis of training managers' responses to the findings as shown in chapters four and five.	Training managers' focus group discussion in September 2000.
TRNP.1.	Analysis of project write-ups by trainees on the courses.	Five trainee project reports.
TRNP.2.	Analysis of the report compiled by the college assessment team from the college who visited nine trainee projects for analysis.	Assessment team reports on project assessment.
ACC.1.	Analysis of a report on a research into accreditation options for the curriculum implemented by the college.	Dr. Lungu's (consultant) report on accreditation options for the college. Feedback to the report.
EMP.1.	Analysis of employers' responses to questionnaires and to an interview.	Interview with employers. Questionnaire responses from employers.
RSN.1.	Analysis of reasons given for participating in curriculum implementation.	Participating organizations' responses to questions on motivation to join PCZ.
ALL.1.	Analysis of allocation of topics among participating organizations in year 1996 before curriculum implementation.	Report on the visit I carried out in July 1996. Workshop report of training managers held in July 1996.
MNT.1.	Analysis of mentors' responses to interviews and questionnaires.	Interview with mentors. Questionnaire responses from mentors.
TRN.1.	Analysis of trainee responses to a questionnaire and of a focus group discussion on what they felt about the course in year 1.	Questionnaire responses by trainees. Short exam testing understanding of key concepts in the curriculum. Focus group discussion.
TRN.2.	Analysis of trainee responses to questionnaires administered in June 2000 a week before they sat exams.	Responses to questionnaire.
ASS.1.	Analysis of examinations in years one and two, including analysis of trainee performance	Exam questions, examination results and examination system

Please note that I have attached three samples of analysed text: Appendix 1 (ASS.1); Appendix 2 (TRN.1) and Appendix 3 (TRN.2). The sample help give one an idea of the analysis process.

To summarise the configuration of my analysis (see fig 2), I use the metaphor of a landscape with underlying rocks made up of five of the values of the PELUM Association which underpin the curriculum framework. These are: sustainability, empowerment, smallholder farmer interests, integrated and holistic approach to development and consideration of multiple realities. Sitting on the rocks and growing as plants deriving nutrients from the values, are facets of the curriculum on which I focused the research (see chapter 4), namely trainee projects, written curriculum, assessment and accreditation, and resource materials. Hanging on the horizon is a rain-bearing cloud which releases water on the four facets to ensure growth. The cloud represents participation and praxis. The whole facets were also looked at in terms of participation and praxis – two very central values of PELUM. And representing the sun, which illuminates all that can be seen and discussed is the sun representing coherence and consistence. It is evident that I looked at the four facet from various angles and I did this for rigour.

CHAPTER 4: FINDINGS ON FOUR FACETS OF THE CURRICULUM

4.1. Background

When I started my research journey, I had an idea of the purpose and the methodology but not of the configuration of the terrain, that is, what I would see and evaluate. For purposes of the development of the PELUM course, I needed to evaluate a broad range of curriculum facets. For the M.Ed. thesis, I could focus only on a few facets but my challenge was which to choose, when all seemed important and interrelated. I focused the evaluation progressively as I listened to curriculum stakeholders, read relevant course documents and education literature and observed curriculum implementation before identifying and focusing on four features for evaluation. These were the written curriculum, the projects, assessment and accreditation as well as resource materials. All four facets – among others – are part of curriculum as planned and guided learning experiences for the systematic reconstruction of knowledge and experience (Tanner and Tanner, 1980), under the auspices of the school and educational provider, and aimed at the development of the learner (see also 2.5).

The codes below are described in the previous chapter (see table 2). Under each of these curriculum facets I decided to focus on some dimensions, which appeared important;

- written curriculum: the content, the curriculation process, as well as strategies of implementation;
- trainee projects: mentoring, utility, and educational value (TRNP.1., MNT.1., EMP.1. and RSN.1);
- resource materials: development, types and adequacy (TM.1., TM.2., TRN.1. and TRN.2.);
- assessment and accreditation: structures and systems, quality, and outcomes (ASS.1., ACC.1. and ALL.1.).

The four facets, though separate and distinct, are closely interrelated and should not be seen as separable components. I have separated them for ease of analysis. For example, the written curriculum informed most areas of the implemented curriculum. Another way of looking at the findings is to see the written curriculum on one hand and its implementation – the course on the other.

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4.2. The written curriculum

Introduction

When I initially set out to do this study, a critique of the written curriculum developed throughout the process described in Chapter 2, and completed in 1997, seemed unnecessary. However, when I engaged in the writing, it became clear that for one to evaluate a curriculum implementation of this nature, a look into the given curriculum itself is imperative.

The title of the written curriculum was: Agro-ecology and Community Development (see 2.4). The written curriculum informed the implementers of what should be taught and to an extent, how it should be taught.

Gatawa (1990) outlines the factors, which influence curriculum decisions:
- ideology which broadly defines the direction of development and the social realities;
- the history or past in that it shapes current thinking;
- psychological findings help in the sequencing of learning, organisation of content and levels of curricula for different learners;
- sociology by reflecting the problems of society and doing something about them (though generally it embodies and promotes the lifestyles and aspirations of the dominant class);
- industry and commerce, for education produces people to provide the needed goods and services of a country (manpower needs);
- the requirements of examining Boards also shape the curriculum, pupils want to pass; and
- epistemological positions also determine what goes into the curriculum.

These suggestions are useful in assessing the adequacy of a curriculum and I have used some of them, namely, history, sequencing, sociology, requirements of examining Boards and epistemological positions which appeared immediately useful to enrich the quality of my analysis.

Content of the written curriculum

The written curriculum, produced in May 1997 and implemented from 1998 does not include an outline of the curriculum context, or the context in which it was developed and to which it was responding. This was a serious omission given that those who implement the curriculum may do so out of context, particularly given the range of institutions from where they came. This omission removed the realities to which the PCZ was intending to respond (contextuality) from the curriculum. The values, principles and history also were missing. Nothing was said about what educational and developmental theories underpin the curriculum. The absence of these also meant that a crucial compass was unavailable to guide implementers. The values could only be found in the regional curriculum from which the PCZ curriculum was derived. The omission was fundamental and I later discuss it as the major source of inconsistencies in the curriculum.

The curriculum statement does, however, have well-defined overall and specific objectives, outlines the activities and methods. The outcomes of the curriculum are spelt out. What is missing is an indication of the resource materials that could be used. The strategies for implementation are not spelt out either. For example, the project that each trainee must carry out was not mentioned anywhere in the curriculum. Guidelines for an assessment system and the accreditation at the end of the course were neither in the regional curriculum nor in the Zimbabwe curriculum. From the exclusion of some key aspects of a written curriculum, I concluded that there was fragmentation from the regional curriculum to the Zimbabwe curriculum (see 2.5). However, John Wilson (pers. Comms. 2000), who was one of the leading curriculators, added that the curriculation was also characterised by "an enrichment of the curriculum." I recommend the inclusion of the missing elements, for reasons, which will become clear below.

Curriculation

As explained in Chapter 2, the development of the written curriculum involved many stakeholders over a three-year period. Most came from NGOs, some came from government and others from universities. The written curriculum drew on the experiences and insights of training managers, education experts, employers, two potential trainees, a member of parliament and some funders who insisted that the trainees do a project with the communities because donor funds were available for community development work only. Some resource people were hired to give input. As concluded in Chapter 2 there

was therefore a good measure of participation in the development of the written curriculum.

Participatory curriculum development is underpinned by the notion that the learning process is enhanced if it is owned by many stakeholders, including students (Rogers and Taylor, 1998). It happens where the philosophy and ideology underlying the curriculum has a socially critical orientation (Smith, 1998) which is the case with the intended curriculum under scrutiny. The ideology certainly influenced the direction of the curriculum in the sense that a participatory approach to curriculum development was taken.

Rogers and Taylor (1998) and Gatawa (1990) say the formulation of a curriculum is informed by what the curriculators believe about the learners. During the curriculation the curriculators did not quite know who the learners would be. However, there was a general understanding that the clientele would be community development workers whom the curriculum would develop into "well-rounded community development workers" (PELUM 1997a).

Strategies of implementing the curriculum

The sequence of the written curriculum is different from that of the training schedule. There was a separate document that dealt with that because the training had to take into account the geographical location of the training institutions, the topics they taught in relation to neighbouring participating organisations and their availability to implement the curriculum of the realities on the ground. The training schedule was constructed with the active participation of those who were to implement the curriculum.

Borrowing from learning theory derived from psychology, as suggested by Gatawa (1990), the sequencing of the course should have been based on one of the following: move from known to unknown; simple to complex; concrete to abstract; and from real experience to constructed experience or logical organisation. The basic argument for sequencing is that there must be a method to the organisation of the learning experiences for efficiency of implementation and effectiveness of learning. Given the nature of the curriculum, and the backgrounds of the students on the course, most of whom had tremendous experience in community development and agriculture work, moving from experience appears to have been the most appropriate basis for sequencing.

The main sequencing strategy in the PCZ course was, however, not based on educational considerations, but according to the availability of personnel and space at participating organisations to implement, and in some cases, on the availability of the objects of learning such as pests (topical sequencing). This kind of sequencing led to another form of fragmentation as bits and pieces of topics were split between organisations and over time. What worsened the segmentation was that each training session was to be two weeks and the two weeks were normally shared by one to three organisations responsible for different topics. To overcome this, during this study I recommended, longer sessions, of a minimum of one month's duration.

Sequencing was also possible at another level, in each organisation that was allocated topics to teach. A decision was made for each participating organisation to organise delivery through a scheme of work but only a quarter of the organisations submitted these to the co-ordinator. Some of the training managers I interviewed felt that it was not really necessary even though they did not raised their reservations during the discussions. There were also others who had not participated in the making of that decision. The college coordinator, unlike a conventional principal of a college, did not have powers to ensure compliance with resolutions. Mechanisms to control resided with the college Board but there were instances, like this when they did not intervene.

Issues arising from the nature of the curriculum

One of the key challenges that we faced in putting together the planned curriculum was identifying the unifying principle around which to build the trans-disciplinary curriculum. The planned curriculum could justifiably be seen as lacking conceptual integrity and such problems tend to be common in trans-disciplinary curriculum. Luswata (1991: 7) pointed out that trans-disciplinary curricula are tricky to develop: "The tendency is usually for one to stress the significance ... of their discipline. And usually the most forceful persons get their ideas incorporated." She identified the key issues for trans-disciplinary curriculum as: depth and breath, sequencing while maintaining the inter-relationships of disciplines, continuity in the sense of the learning experiences forming a continuum as well as the articulation of the interrelationships of the different curriculum aspects. In short, the challenge was to construct the thread that would run through everything.

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The other tricky area referred to by Luswata was that of achieving balance between the disciplines -- that is, not privileging some over others. Balance here means giving enough and fair attention to all disciplines in terms of topics covered, time allocated and weight given in assessment. In this regard, much more time was allocated to crop and animal production and yet mark allocation was the same as two other subjects with far less time allocated to them. I recommend that the allocation of both time and marks be revisited by the training managers and trainees.

An observation about the planned curriculum is that the organisation of content is vertical, intra-disciplinary. But the schedule of training depicts a transverse (multi-disciplinary or thematic) character. I recommend a re-organisation of the actual training to maintain a flow and order in the implementation of the curriculum. This could be achieved by increasing the size of each session from two weeks to at least a month (see same point above). The participating organisations should not tack the course on but make it part of their overall plans so that some necessary adjustments can be made.

An important dimension not included in the written curriculum but found in the actual implementation and to an extent in the training schedule is evaluation. We all knew there was going to be an evaluation but did not consider it to be part of the written curriculum. So as far as we were concerned then, we had not made an omission. But from educational literature and from the accreditation requirements of the Ministry of Higher Education, we realised evaluation had to be part of the intended curriculum.

When I interviewed trainee mentors, and when they responded to the questionnaires, they indicated that they felt that the curriculum was fragmented, had too many players and that there was need for consolidation and streamlining (MNT. 1). During informal interviewees and in focus group discussions, training managers also raised the issue of the written curriculum being scattered (TM. 1, TM. 3). Trainees raised similar concerns on three separate occasions (TRN. 1, TRN. 23). I agree that it should be re-organized for conceptual integrity (see 7.2.4).

Conclusion

What emerged is that the intended, planned or written curriculum was a mere part of whole, a fragment. It lacked some of the attributes of a written curriculum as already pointed out in previous discussions (see

2.5 and 4.1). The fragment that discussed in this section is made up of its own smaller components, which are the objectives, activities and teaching methods. The other parts of the original whole were the history, context, rationale, assessment and accreditation, and suggested readings. In an attempt to address this shortcoming, I sent the context to all trainees and training managers in the college. I also sent my findings on the 'fragmentation' in the written curriculum to all training managers in the college. At least five training managers expressed their appreciation of the material I sent and one said that he was using some of the materials for his own training outside the PCZ curriculum (Marufu, pers. comm., 2000). This was part of praxis in my research.

In 4.2, the discussion has focused on the intended curriculum. In subsequent sections (4.3 to 4.5) I discuss the course which was informed by and which operationalised the written curriculum. The course, which shall be the basis of the discussion on curriculum implementation in subsequent chapters, is for community development workers who are already employed and have some experience. The stated basic minimum entry qualification was five "O" Levels. However, for those coming from organisations participating in the college, a concession was made, allowing people access even when they had lower academic qualifications. This was an inconsistency, the implication of which will be discussed under 4.4.

4.3. Projects

Introduction

The rationale of the course under discussion was, "to upgrade the skills of trainers in participating organisations (members of the college) through offering certified training which should improve the trainers' effectiveness as individuals and the effectiveness of their organisations in working with communities who are the ones that should ultimately benefit" (PELUM, 1996a). The rationale was developed by a committee of five and distributed to training managers. It was not discussed or formally adopted which meant it could be unknown to some training managers. Such lack of continuity of discussions shows up regularly and I recommend that it be addressed by the college coordinator. It not only violated the value of participation but also that of praxis, both of which are central in the curriculum framework (see 1.5 and 5.1).

One of the central questions in the implementation of the curriculum was how to make the connection between the learners and the communities whom they would serve. In the end, trainee projects were seen as the answer. Projects were also introduced for another reason: it was the idea of trainees carrying out community-based projects during the course that attracted sponsorship from donors.

Each trainee was required to plan and implement, in a participatory manner, a project with a community he or she already worked with. Prior to being accepted onto the course, each trainee's employer undertook to support the trainee in implementing a project. The project was to contribute to trainee final marks.

The project topic had to be selected in consultation with employers and with the participation of community members. A project plan was produced by the trainee and sent to the training managers for critiquing and approval. The process of critiquing the plans highlighted the need for a more intensive orientation of training to project plan writing. Over 50 percent of the project plans had to be re-written because they lacked clarity of purpose and most had little substance on the methods that were used to arrive at what project to work on and on the methods for implementing it.

During a meeting of training managers, which was held partly to review project plans, the training managers admitted that they were not clear among themselves about what exactly they expected the plans to contain (TM 1). The mistake was acknowledged and guidelines were subsequently developed and sent to trainees together with comments on their project plans. This was a trace of an action learning orientation taken by the course developers. See 3.1 for my intention to look for traces of action learning.

Mentoring

Role clarification

After more than six months into the course, the need for people to mentor trainees in the implementation of their projects was raised. Each trainee was asked to choose a mentor at his or her institution, and already working with the trainees, to help with project planning and implementation. No

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other guidelines on the selection of mentors and on how they would interact with trainees were developed. No direct consultation between the college and the mentors happened either. However, in less that 50 percent of the cases, the chosen mentors also happened to be training managers who were already involved in the college.

In an interview with mentors (MNT 1) they indicated their role as:
- guiding project formulation and implementation;
- reading and marking project write-ups;
- referring trainee to relevant literature and resource people;
- giving filler material to supplement what they were getting from trainers and training managers;
- holding meetings to establish gaps and address them;
- facilitating networking with other agencies.

No mentor mentioned more than three roles, which suggested that mentors were not adequately prepared for their task.

In response to a questionnaire distributed at the end of the course (TRN 2), 90 % of the trainees said they understood the role of the mentor, 70 % said they got adequate support from their mentors while 9 out of the 10 respondents indicated that their mentors challenged them to think in more deeply about the project.

Looking at the role of mentor as discussed by Standing (1999) 1 recommend that the following functions be included:
- Teach: role modeling, informing, confirming, questioning and prescribing;
- Sponsor: protecting, supporting and promoting the mentee;
- Encourage: affirming, inspiring and challenging;
- Counsel: listening, probing, clarifying and advising; and
- Befriend: accepting the mentee and relating with him or her in a positive manner

This would imply greater orientation provided to mentors, on issues I discuss below.

Problems encountered in mentoring

Responses from five mentors (MNT 1) revealed the following as problems they experienced in mentoring and weaknesses in the way in which mentoring was coordinated:

- there was no well-thought through process of selecting a mentor;
- the college did not educate the mentors on what was expected of them;
- assistance and assessment of the trainee was not done systematically;
- there were inadequate systems for tracking the progress of the trainees in conducting their projects;
- there was no deliberate mentor-to-mentor interaction; and
- there was no clarity as to who mentors were accountable.

Mentoring and Project Assessment

In February 2000, the PCZ coordinating unit sent a request to mentors, asking them to mark the projects. The guidelines for assessment were: "creativity, commitment, coordination of project activities, communication, any other comments". The mentor's mark contributed 3.75 percent to the overall mark (20). I found the guidelines to be rather general and not very helpful for assessment.

The coordinator later met with training managers and developed a clearer set of questions for assessing projects by a team of three members of the assessment committee whose mark would contribute 16.25 percent to the overall mark (to make a total of 20 percent). I met the coordinator to make additional contributions on how the assessment could be done (process) and some of the questions that could be asked (content).

I reviewed three mentors' reports (the first ones received by PCZ) as part of this evaluation. All three projects were highly rated. Two of the trainees scored over 75 percent. Despite the high marks scored, one of the mentors felt that his mentee needed strengthening in data collection and analysis. This suggests that lack of clarity on what to assess and what to give weight affected the rating of projects.

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A chance meeting with a head of the organizations that employs one of the three trainees revealed that there were some tensions between the mentor and the mentee at her station. The mentor appeared to be jealous of the trainee. She felt it was because the mentor had applied for the same course and had failed to get a place. So, the report that was sent to the PCZ coordinator was, in fact, compiled by somebody else not by the "official" mentor. Given this background, questions of professional conduct and accountability would be important to address in the training and orientation of mentors in future.

The college coordinator, in 2000, sent a letter asking about the experiences and expectations of the mentors for future courses. I found this to be an important reflection and improvement on the part of the college, for these are the stakeholders who had been kept on the margins in the past. This is another instance of an action learning and reflective orientation being evident in the course implementation. It is also a case of curriculum implementation as ongoing curriculum development. The role of evaluation in this process also helped in creating learning moments, which led to the improvement of the curriculum being implemented.

Conclusions

The data suggests that:
- the role of mentoring needs to be adequately recognized and clarified;
- mentors need an orientation and clear guidelines on various aspects, including project assessment (if they are to continue playing this role in this regard).

The role of the Project in the course

Locating projects within education and development discourse

Projects deserved attention in this research because they were a place where interests of various stakeholders in the college intersected: the trainees, the mentors, the employers, the providers of scholarships, the communities and the training managers – in essence, the whole college. They were a place where theory and practice could interact (see 5.1). They could be a place for reflection and action. Including project work in a sustainable agriculture training curriculum draws on a philosophy

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which accepts methods of science for seeking understanding and solving problems, as inductive as opposed to deductive (Elias and Merriam, 1984).

Stories from project write-ups

As part of troubling the relevance and usefulness of the projects, I studied five project write-ups (TRNP.1). I based my selection on diversity. I selected projects representing different social and ecological contexts, different themes, men as well as the only woman (the other had died) on the course and trainees who had passed very well, moderately as well as those near the bottom. The selection criteria were meant to give me a general idea of the trainees' performance on the ground.

I found one of the five write-ups to be more thoughtful than the others. This was the project written by the only woman who completed the course (TRNP.1). Because of its depth, I give it more attention.

The project report openly declared its values, thus reflecting a socially critical research orientation. It also showed an emancipatory interest by pushing for the valuing of the disvalued indigenous knowledge systems (Weston, 1996). It was disvalued in that there were systematic attempts by colonial regimes in the country to discredit anything local to the country, including knowledge systems, as backward and not worth to retain and develop (Chigwedere, 1995). Projects sought to address the problems in the villages. Furthermore, the report showed the writer's keen awareness of gender considerations in development. She noted the central role of women in seed security. She also showed the power problems between the poor farmers and the rich seed companies. The socially critical theory notion of challenging structures and seeking structural change came through well. The notion of liberation manifested itself in that the historical analysis of seed is based on a time line covering the periods before Zimbabwe's war of liberation, during and after.

The project implementation had a very strong participatory orientation with focus group discussions in workshops being a main data gathering and data analysis tool. The techniques she used included group discussion, matrix ranking, semi-structured interviews, gender analysis and preference ranking.

The research identified key problems related to raising, keeping and multiplying seed. In the

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workshops, she was able to identify what farmers learnt, what they did not understand and what could be done to bring about the understanding. Farmers had opportunities to share knowledge and experiences. They identified the seed they wanted to have.

The project also established a Seed Savers' Network. It taught farmers some technical skills on seed production. The report had a lot of supporting evidence including pictures.

The recommendations showed an interest in letting the farmers take responsibility for improving their conditions. It raised gender-related questions about the need for more men to be involved. She also encouraged farmer innovations and experimentation. There was strong evidence that she applied many aspects of the curriculum, including:
- a participatory development orientation;
- gender sensitivity;
- attempts at increasing farmer capacity to manage their own affairs through raising their own seed;
- participatory and visual learning techniques;
- attempts at empowering farmers to organise themselves and to work together.

After reading this project report, the idea that the college should offer a Diploma became more appealing (TRN. 1). Even though this trainee possessed less than the required entry qualifications for a Diploma, it appears that her accumulated experience in the field was tremendous. At this time, however, there is no system in Zimbabwe of recognizing prior learning outside of the formal education system. In South Africa, there are serious attempts to address the discrepancy.

The trainee project report, however, did not discuss lessons learnt from project implementation, a reflection, which could have enhanced the educational value of the project. This omission was also true of the other four project write-ups (TRNP.1). Praxis or reflection in action was missing altogether even though it was one of the values espoused in the curriculum (see 1.5 & 3.1).

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Comments on the projects and on the project write-ups

Some of the key weaknesses in the other four project reports were:

- there was generally little attention to the discussion of processes or the methodologies that were used. Such an omission was significant given that participatory development introduced to trainees was process- oriented;
- analytical writing skills were not evident. This was linked to the first point.
- Some of the tools used to arrive at conclusions were questionable. There may be need for greater attention to be paid to the learning of the use of research tools and techniques.
- a lack of rigour in presenting and arguing cases. In some instances, statements were made without follow-up or support. There was little attempt at triangulation – only single sources of evidence were drawn on, making some of the conclusions questionable;

There was also evidence of community involvement in trainee projects as shown by 19 women coming to meet the assessment team visiting one project, villagers from a resettlement team met the team in a separate project, and a village political leader accompanying village members in yet another project. One donor was so pleased with one of the projects that he pledged continued support towards the college (Ruswa, pers. Comm. June, 2000).

There was also evidence that some of the projects created immediate and direct benefits to the communities. One vegetable production project directly benefited 41 children while the other benefited 35 families (TRNP.2).

All trainees whose questionnaire responses (TRN. 2) I analyzed (10) expressed a positive feeling about projects. They said the projects benefited from what they learnt from the course. Nine of the 10 trainees who responded were supported by their organizations in project implementation (TRN.2). This suggested that employers were supportive of the trainees and of the course. However, even though one case of lack of support is statistically insignificant, it is still important to ensure that all trainees get the necessary support from their employers in implementing projects.

There appears to be need for the college to formalize agreements with employers about support for

trainees on project implementation before trainees are accepted on the course. This could entail signing a contract pledging support to the trainee in project planning and implementation. The time implications such as demands on the trainee in addition to her normal duties should be calculated and circulated.

Conclusions

The projects seem to play an important role – or a potentially important role – in the course, which can be improved and supported in a number of ways including: orientation of mentors to the curriculum philosophy and making them serve educational interests of trainees in addition to addressing problems faced by community members.

Some of the strengths manifested in the five project reports (TRNP. 1), which future projects can build on were:

- the building of partnerships between the trainee, the mentor, the community and the training manager during project research and implementation;
- the projects have the potential to live beyond the duration of the course, thus supporting the notion of sustainability which underpins the curriculum;
- the projects address problems faced by smallholder farmers and so put the farmer first, in keeping with the curriculum orientation;
- they value and are dependent on local inputs and the focus was largely decided on by farmers, which gives them more stake in the project. Such an approach is empowering (TRNP.1).

4.4. Assessment and Accreditation

Introduction

This section looks into assessment of learning. The course had four major ways of assessing learning: continuous assessment, written end-of-year examinations, project assessment and end of year exams - practicals (ASS.1.). The approach to assessment was integrated in the sense that different strategies were combined and used.

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Table 3 showing mark allocation in Year 2

Area of assessment	Mark allocation
Course work	35 percent
End-of-year exams	35 percent
Project	20 percent
Practical exams	10 percent

The equal weighting of exams and course work highlighted the importance placed on continuous assessment.

At the end of the course, the graduates received a certificate in Agro-ecology and Community Development issued by the college. The college is not a recognized accrediting body. The entry qualifications of five "O" levels (passes after four years of secondary education) were not followed in recruiting trainees, which meant that there was no standard entry-level in the course. Prior learning from informal or non-formal schooling or experience is not recognized in the formal education and training system in Zimbabwe where exit qualifications are partly determined by the entry qualifications.

Initially, the intention of PCZ was to train those development workers who could not access formal education due to their limited academic qualifications but who had the experience and the aptitude. The tension between recognition of the training by accrediting bodies and addressing the gaps in the present qualifications framework in Zimbabwe began to work in favour of the former. And as will be noted later in this chapter, trainees persuaded PCZ to award them recognized certificates too.

The system of assessment

The course work marks came from tests that were administered by training managers and marked by them. In addition, training managers from participating organizations compiled the questions for the two end-of-year exams. These were sent to the Assessment Committee, which was responsible for final synthesis and allocation of marks to the questions. The Assessment Committee was made up of six training managers who had a diversity of strengths, in such a way that there was expertise in each

area of the curriculum. The assessment committee marked the written and practical examinations. This was a good case of stakeholder participation. A moderator from outside the college was meant to give opinion on the marking. The process of engaging an external moderator is, however, not clearly spelt out anywhere and none has been engaged so far.

A trainee had to pass if he/she was to be awarded with a certificate by the PCZ. Trainees who failed to get a mark of at least 50 percent in written examinations in a given subject would re-sit. For any re-sit, it is important that the trainee passes the course work and the project. Any one who passes when they re-sit cannot score a mark above 59 percent. In other words a person who re-writes an examination cannot get a Distinction or a Credit but can get a Pass no matter how well the person performs.

As pointed out earlier there were two groups of people who marked the projects – the mentors and the Assessment Committee. After mentors had submitted their marks, a smaller team of three members from the Assessment Committee was tasked with visiting and assessing projects. Assessment included interviewing community members, the employer and the trainee and observing the actual project. Each of the three members of the team gave a mark, which was then moderated by the team. The assessment team also met to mark the project write-ups. It was not clear how the marks from the assessment of the project were related to the mark for the write-up – that is – what would carry more weight and what would happen if there were inconsistencies between the two. For example, if the report was not a true reflection of the project on the ground.

Assessment Outcomes

Nine trainees failed at least one subject in year 1; while only three failed at least one subject in year 2 (ASS.1.). However, during a workshop to validate my research findings with training managers (TM. 4) one of the training managers said no one failed the final exams in year 2 after internal moderation was done (TM.4). All trainees passed course work and practical exams.

The marks on the projects were not yet available at the end of September 2000. At that time only nine projects had been visited for assessment. The remaining seven could not be visited because of lack of funds and shortage of fuel in the country. This revealed a timing inconsistency and could have been

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avoided by better planning and preparedness to be flexible. It meant giving some trainees more time to work on their projects than others. It also meant that the other seven trainees and their organisations had to sustain their projects for at least four months more.

Table 4 showing assessments by four employers of five trainees

Areas where trainees registered improvements in their organizations	Areas needing improvement
■ making clear work plans; ■ executing them effectively and meeting deadlines; ■ effective use of participatory tools; ■ animal husbandry; ■ "maturity and confidence".	■ in record keeping; ■ horticultural production; ■ financial management; ■ budgeting.

The Dean of Agriculture and the Vice Chancellor from one university, who was a member of a regional accrediting body (Lungu, 1997) showed interest in the project idea by accompanying the assessment team to a project site. The Dean would be useful to involve in seeking accreditation options (ACC.1).

Other outcomes of assessment are discussed in the first three paragraphs under 5.3.

From the above, there was evidence of integrated assessment – which uses a range of formative and summative assessment methods and which is in keeping with the curriculum orientation – valuing integrated approaches and holism.

Evaluating Assessment

Assessing course work and exam questions

The exam questions set for the first year were for three hours per subject save Organizational Planning and Management, which was two hours long. Each paper had two sections. All questions in Section A

were compulsory (ASS.1). The questions sought explanations and descriptions of main concepts. In Section B, trainees selected two out of four questions. The questions required interpretation and application skills. Each section carried 50 percent of the marks. There was a split of the subjects from five in the original plan to seven at the end of year one then back to the same five at the end of year two (ASS.1).

In the second year the only change regarding the structure of the examination was that Section A made up 40 percent of the mark while Section B made up 60 percent. In the first year each section was 50 percent. This meant a shift towards giving more marks to the higher order, cognitive of skills which were assessed in Section B. This shift might be linked to the idea of awarding a Diploma instead of a Certificate where the predominant interest of learning is developing analytical skills and the ability to adapt to different situations (Lungu, 1997). Trainees indicated that assignments completely tied in with course objectives (TRN.1 and TRN.2.) which suggested that the planned curriculum objectives played an important role in guiding assessment.

Assessing the system

I see an assessment system as all the components of the assessment that are carried out in the course and at the end of the course, including processes and products. Ninety percent of the students felt that the assessment system was being fairly administered and fair in itself. However, 30 percent said they did not understand the assessment system (TRN.2.) even though some of them perceived it to be fair.

Among the concerns raised by trainees (TRN. 2) were that some sessions were too short to be assessed on – especially those lasting less that a day. Trainees were also concerned with the structure of continuous assessment because the weighting of marks for continuous assessment appeared to be inconsistent (TRN.2.). Training managers recommended the development of a system and format for continuous assessment (TM.3.).

At the time of project assessment, there was no clarity about how many marks, of the 20 allocated for the project, were to go towards the actual project and how many to the report on the project. It was

also not clear how remarks from the community members, employers and other stakeholders were to be valued and weighted, if at all (ASS.1.). Such an omission can be seen as an inconsistency in participation and praxis. I recommend further reflection and clarity on the assessment of projects both in terms of the content and the process.

I further recommend that assessment criteria and questions should draw from the curriculum framework. For example, in the case of projects, include questions on methodology, values and key assumptions, development orientations and learning value. The learning value of the projects was neither highlighted nor discussed (TRNP.2). I recommend that future projects should not only serve the pragmatic needs of communities, employers and funders but also the educational interests of the trainee. And the emphasis on the learning value of the projects should be reflected in the assessment system. This could be done by allocated marks to different components of the project such as how community members value it, how well the report is written up and the learning value of the project to the trainee. Such a change would build in the projects, the value of praxis in its full sense.

Evaluating Assessment outcomes

Informal interviews with students revealed that the high rate of failure in Organizational Planning and Management in year one resulted from exam questions that were contained in the written curriculum but had not been taught. The college coordinator (Ruswa, pers. Comms, May, 2000) confirmed the inconsistency. The basic problem was that there was inadequate communication between the training managers who developed the questions, the organizations that taught the topics and the Assessment team, who compiled the questions.

Implicit in this problem was another of communication and coordination. It would appear wise to develop a process of developing examination questions. The process should include criteria for question selection from those submitted by training managers. The lack of coordination that seemed to have caused the inconsistency should also be addressed. This could be done through having reports on what would have been taught kept at the coordinating office, to build institutional memory which can be seen as an investment in future courses.

Conclusion on assessment

What emerged from the evaluation of the assessment system was a well-integrated assessment process -- in terms of who assessed and in terms of the types and timing of assessment. Assessment was carried out *throughout* the two years by training managers, the assessment committee, mentors, employers, and project assessors in consultation with the community members. Here was a good case of stakeholder participation. The notion of participation thus extends to include monitoring and evaluation, touching on the entire learning landscape. Ownership of the assessment resided in the college.

The change of the number of subjects from five to seven and back to five in two years was symptomatic of a deeper problem – uncertainty in the PCZ regarding handling and facilitating processes of praxis in groups rich with diverse backgrounds and perceptions. During a workshop to validate my findings with training managers, a similar change was suggested and accepted without adequate and systematic consideration. A training manager suggested that the future trainee selection processes should include a psychometric test and this was adopted. One training manager asked the reason behind this suggestion, was not answered and still the proposal was taken up. There are other examples of decisions taken in such fashion (see Chapter 5). In a curriculum development initiative where participation was central, it was easy for participants to accept new proposals without duly interrogating them first – especially when time was perceived to be limited. For assessment, it hinted that there may not have been adequate thought in selecting questions for examination which links in well with trainees' complaints about the inclusion of questions on topics not covered in the course (ASS.1).

Drawing from the above, and on a more general note, I propose the development of a system where each new proposal in whatever area of the curriculum is justified and troubled before it is accepted – including proposals on assessment systems and issues. The justification should be linked to the curriculum framework and should be documented. For example, since the course promotes low input sustainable agriculture (see 2.2), the examination should be based on an understanding and application of such knowledge as opposed to testing trainees on high input sustainable agriculture which is what happens in conventional agricultural colleges. Another example is the value of

innovation. The practical examination or the project should also assess the trainees' abilities to innovate or to bring out innovativeness in others. Rigour in assessment in particular, and in praxis in general, is what I am proposing.

Accreditation

Background

Accreditation refers to the awarding of a qualification which is, in turn, "a planned combination of learning outcomes which has a defined purpose or purposes, and which is intended to provide qualifying learners with applied competence and a basis for further learning," *(Norms and Standards for Educators*, 2000: 23).

In 1997, in preparation for accrediting the training from the curriculum, the PCZ Board, together with the regional desk of PELUM Association, hired a consultant to look into accreditation options.

In his report, the consultant (Lungu, 1997) made certain important remarks and recommendations:
- Accreditation is important if the graduates are to go into an open job market but not really important if training is for self-employment;
- A formal qualification is seen as an important "leverage in encouraging and influencing others in the community" (Lungu, 1997: 58);
- PELUM Association could set up an in-house accrediting Board made up of subject specialists;
- The two universities, which are part of the PCZ, should, in the long run, accredit the training as part of continuing and adult education;
- Accreditation options should be explored with progressive universities outside Zimbabwe;
- All training managers in the PCZ should hold the necessary qualifications;
- Since government colleges were phasing out certificate training and seeking to employ diploma holders and above, offering a certificate in the training was going to disadvantage graduates who may wish to join government later. The rationale for the government decision was that there was need for "more analytical minds capable of dealing with the complex modern farmer and farmer situation" (Lungu, 1997: 60). The government of Zimbabwe is a big employer of graduates in the

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development arena;

- A diploma qualification would be better remunerated;
- Ensure involvement of potential employers so that they approve of the training and the certification; and
- The most radical or cutting edge recommendation was that the PELUM Association should work towards changing the curriculum of conventional education and training institutions;

This set of recommendations raised questions around the purpose of training and education, questions of relevance of training and of who drives the training. In looking at nearby South Africa, there is evidence of the pressure of interests of industry and commerce in the outcomes based education in determining the taught curriculum (Lotz, pers. comm. 2000). These interests are important given the globalization drive, which is part of South Africa's context. It would appear that in reviewing the curriculum in future, globalisation as a contextual factor should be troubled and responded to.

Looking back now, I realize there was a lot of value in the Lungu report that the PCZ could have made good use of and I recommend that the college once again considers the recommendations he made.

The decision on accreditation

Considering the options available in the short term, PCZ Board decided on offering a certificate in Agro-ecology and Community Development for the two-year part-time training. A PELUM Accrediting Body was to do the accreditation. This was never really set up. In September 2000, the most likely option seemed to be registration with the Ministry of Higher Education. The college has already submitted most of the documentation required including certificates of training managers, the written curriculum, and an application letter. The option to accredit the course with universities within or outside Zimbabwe was not pursued. Neither was the option to seek accreditation with a regionally recognized body. Since the training provides for people from outside Zimbabwe (see Chapter 2), for portability of qualifications, I recommend that the college pursues registration of curriculum with a relevant SADC body.

Some challenges in accreditation

The certificate offered by PCZ does not formally provide a basis for further formal learning because it is not recognized. Yet, accreditation is about recognition (Janse van Rensburg & Le Roux 1998) including having access to higher education. They report that in the Rhodes University / Gold Fields course in environmental education, the following were given by course participants as reasons for wanting a formally recognized qualification: The need for:

■ recognition of certificate by employers for security, promotion or remuneration purposes;
■ improve one's chances for getting employment;
■ professional recognition among peers;
■ academic recognition to do further studies.

Generally, compared to a certificate, a diploma carries more weight in dollars, in power and in recognition by different groups of people. In the PCZ course, trainees sought a diploma to replace the certificate (TRN. 2) but in vain. The requirements to train at diploma level are stricter and the college was not ready to meet them. What the trainees were saying, in fact, was that they were not just being trained for self-employment but also for further education and for the job market.

When the college idea was mooted, the training was intended for those people who could not have access to formal education because they lacked academic qualifications even though they had the experience of working in the field. To train only the formally qualified would be to abandon the original beneficiaries. The problem appeared to reside not in the college but in the accreditation system of Zimbabwe where prior learning and experience outside the formal education system were not recognized.

I propose that the PCZ explores the possibility of dual accreditation within the same course to cater for different interest groups. This means some would get certificates while others get diplomas, based on differential entry qualifications and performances in the course. The nature of the contact sessions, assignments and examinations would have to be different. A similar course format has been

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considered for the Rhodes University / Gold Fields Course in Environmental Education in South Africa (Janse van Rensburg pers. comms. 2000).

Conclusion

Moving onto another plane of discussion, I would recommend the accreditation committee of the college to explore long-term options for changing the accreditation system in Zimbabwe, to one which would address the lived realities of education and training needs in the country. Borrowing from the South African experience *(Norms and Standards for Educators,* 2000), I recommend that they lobby for a change in the qualifications framework of the country so that:

- prior learning experiences are recognized irrespective of where they were acquired;
- learning achievements are accredited within an accreditation system which facilitates access to as well as mobility and progression within training, education, and career paths;
- opportunities are created for those who failed to access education in the past but have experience and interest to learn and get recognition for their learning through accreditation.

4.5. Resource materials

Introduction

Resource materials for the course emerged as a focus of evaluation because:

- many trainees were concerned about some aspects of the resource materials they received (or failed to receive) on the course (TRN. 1 & TRN. 2);
- the written curriculum under discussion omitted the section on resource materials (see 4.2);
- there were notable differences in the manner in which teaching and learning materials were approached by training managers;
- at the end of the second year, training managers were beginning to focus more on developing what they called 'modules' which meant notes clustered around closely related topics;
- they could fill in the gaps created by limited contact time between learners and their teachers;
- resource materials could be used for orienting trainers and new training managers to the curriculum.

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Types of resource materials

The resource materials available in the college were: text books, handouts, what training managers in the college called modules, working examples on the ground such as water harvesting designs of land, planned grazing management and nurseries. Books have their merits such as tending well-researched material, being well written and edited and being more easily and widely accepted but they lack flexibility as it is expensive to re-develop them regularly. Books are generally perceived as carrying the truth, and can create a sense that knowledge is 'fixed' and that what is bound between their covers, is all the trainee needs to know about a particular topic. Handouts and working examples on the other hand are more flexible and responsive as they can be adapted and changed from year to year, to meet changing needs and accommodate new insights and information. However, handouts may not receive as much editing for both substance and language. They are therefore often perceived as less authoritative sources of knowledge.

The other resource materials identified by training managers and trainers, but not yet available, were: a trainers' guide, a training manual and a trainee manual.

Adequacy of resource materials

Trainees were generally pleased with the quality of resource materials, but not with the quantity (TRN.1. and TRN.2.). They expressed the need for more textbooks, access to libraries and for study tours to see more working examples. They were concerned about the delays in the provision of the resource materials. Ninety percent of the trainees said the resource materials were in line with course objectives, supported class work and fieldwork and that they were pitched at the right level.

In my own opinion which is informed by my analysis of resource materials (see table 1), however, resource materials generally failed to reflect the trans-disciplinary nature of the curriculum. There was, of course, a limit to the extent to which linkages could be made partly because training managers compiled notes separately and partly because they were no guidelines for determining how and the extent to which the different topics and themes could be integrated without undue repetition. Secondly,

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despite the trainees' comments, the resource materials were not adequately adapted to suit the predominantly rural communities that the curriculum seeks to address. For example, handouts on motivation would draw on Maslow in a typical industrial setting and not adapt the materials to suit the predominantly rural trainees working in rural areas of a Third World country. Where resource materials are not meaningful to learners, or where they are pitched above their level of understanding, it is important to consider introducing and discussing them before distributing them (Molose,2000). She observes the Rhodes University / Gold Fields Course in Environmental Education in South Africa, materials ended up playing a less important role, because they were not explicitly introduced and worked through with course participants.

Resource materials development issues

Training managers planned to produce modules collectively (TM. 3). Louw (1998) in her reflection on participatory materials development in the Ebenhaeser community noted that different interests of participants can thwart materials development efforts, and so does time limitations and budgetary constraints. I saw the major challenge in resource materials development as a lack of common orientation among training managers and trainers. This is a conceptual problem which needs to be ironed out otherwise it could result in some friction between different authors, especially on the same or similar topics. Limited funds were another problem

In response to an invitation for comments on the Research Skills module (Mhlanga, 1998), most trainees indicated that it was too technical for them and that the language should have been simplified. Simplification was subsequently attempted and more visuals were added to illustrate points – an example of an action learning approach to resource materials development.

The need for guidance from a curriculum orientation showed up in two 'modules' developed by different training managers. One module was developed by a training manager who worked with a community-based organization (Sacco, 1998). The same training manager was involved in the curriculum development process through. By contrast, the other 'module' was developed by a trainer who worked with a university and who had had little orientation to the curriculum (Mhlanga, 1998). Sacco's 'module' had a transformative, activist orientation. For example he writes, "Going in quietly at the base of the

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community, the activist spends as much time as possible listening, watching [and], learning. Perhaps the faction that called him/her in is the oppressor who wants the activist to support his/her oppressive position" (Sacco, 1998: 32) The other was expert-based in orientation as well as technicist. For example she wrote on 'randomisation, "This is a procedure for assigning experimental units or subjects to treatment groups without biases for unrecognised, uncontrolled variables that may influence the trait or characteristic being measured ... You must assign treatments completely at random without any favours or biases" (Mhlanga, 1998: 19). The different tones of the 'modules' defined the tension that existed in curriculum implementation. Such tensions are not necessarily negative but they need to be explored with trainees. The same tension suggested the need for developing a framework that should guide those who compile resource materials.

Given that participation and praxis are central in the curriculum framework, I think that suitable resource materials should reflect an interactive model of dialogue-encounter- reflection. Resource materials consistent with such a change are those that stimulate active exploration (such as hands-on booklets), debates on contested issues, interaction, practical participation and active engagement (Janse van Rensburg and O'Donoghue, 2000).

My recommendations would be:
■ PCZ should conduct a training materials needs analysis;
■ based on the resource materials needs, an assessment of the college capacity to develop such materials be carried out;
■ use internal expertise to develop the resource materials collectively and in line with the curriculum framework;
■ contract external resource people to develop other resource materials within a clearly defined framework;
■ arrange for trainee access to relevant libraries;
■ where the resource materials are already available, buy them and set up a comprehensive PCZ library;
■ acquire a TV monitor and a video player for showing relevant films to trainees;

I would recommend the use of some guidelines for developing resource materials as suggested by

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Taylor (1997), who troubled the question of resource materials in environmental education:

■ before developing new resource materials assess existing materials and adapt them to save time and resources;

■ resource materials should carry local issues to increase their relevance;

■ pre-test the resource materials prior to mass production to enhance quality and relevance. In her analysis of resource materials development in the We Care Primary Project in South Africa, Lotz (1986: 233) also highlighted the importance of pre-testing when she wrote, "The developing and pre-testing of activities provided a good focus for developing the skills needed for reflective practice. Developing resource materials through this interaction provided an added dimension to the process". Considering this point, I suggest that training managers should collectively reflect on what they teach and why. They should also engage in processes of trialling of their materials, otherwise their comments and those of trainees would not be translated into useful changes to the materials;

■ produce resource materials in a flexible and more adaptable format so that they can be used in diverse contexts and in different ways.

Conclusion on the four facets

Based on my analysis, I think that the current gaps in the written curriculum can be bridged to a very large extent. Per haps the most important improvement that could be made is reconstructing the written curriculum so that it is more complete (see 4.2). In addition, the curriculum framework should be reworked so that its different components such as the epistemological assumptions, the environment and development values, the context are more clearly articulated and aligned. There were instances where it took knowing the history of the curriculum framework to understanding what exactly was being talked about. Other significant improvements could also be made in the identification, conceptualisation, mentoring, implementation of trainee projects so that they benefit trainees educationally as well as benefit communities materially and intellectually (see 4.3). Assessment should continue to be used for learning as well as for determining mastering of required skills and knowledge at the desired levels. The assessment system should be responsive to the curriculum framework. The adequacy and suitability of the assessment system ought to be investigated further. The accreditation systems in Zimbabwe and in the region should be explored further first, so as to work with the best

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system available and second, so as to influence the development of more appropriate accreditation systems – appropriate for the kind of training that PCZ offers. And finally on resource materials the most important improvements are needed in getting the right kind of materials pitched at the right levels of the students, especially considering their backgrounds and the contexts within which they work and live. At another level, the curriculum developers should continue to read their environment and to respond to it in a way that promotes their environmental education and development interests.

In the next chapter, I move beyond the four facets and I use two important dimension of the curriculum framework to analyse curriculum implementation. This way, I hope to get a more penetrating grasp of how the curriculum was implemented by PCZ. The next chapter provides a second angle from which to look at the college and its first course – the four facets discussed in this chapter being the first angle.

CHAPTER 5: PRAXIS AND PARTICIPATION

5.1. Introduction to participation and praxis

In Chapter one, I highlighted the values that underpinned the curriculum as:
people-centered development (smallholder farmers); empowerment of land users (currently marginalised); respect for indigenous knowledge; creativity and innovation; commitment to action and impact; support for the struggle against exploitative practices; gender sensitive development; regional cooperation and positive self-criticism, an integrated approach, recognition of the existence of multiple realities and sustainability. In looking at some of the values closely and based on my personal involvement in their development, I decided to combine some of them for purposes of this discussion. I combined 'people-centered development' and 'gender sensitive development' to form the value I called participation by which I mean the active involvement of people in determining what they want and in developing and implementing solutions to achieving their hopes and aspirations so that they create, own and control the process and the results of what they desire. When made specific, participation can be associated with the 'empowerment of land users' and with 'respect for indigenous knowledge systems'. I also combined commitment to 'action and impact' with 'self-criticism' to form the value I called 'praxis' – which can be associated with creativity and innovation and well as with struggle against exploitative practices. As Lather (1986) noted, praxis has an emancipatory interest. Both participation and praxis, as values, were derived from adult education and Freire's approach to education, which was emancipatory.

Praxis is the relationship between theory, practice and being critical in which being critical involves scrutinizing the theories within our practice and the social structures, which shaped them (Janse van Rensburg and Le Roux 1998: 37). Praxis can be associated with what O'Donoghue (1993) calls reflexivity, which means critical social process of an experiential nature. Grundy (1987) defined praxis as:

■ a dialectical, non-linear and reflexive relationship between reflection and action;

■ something that takes place in a real world, that is, existential and concrete not merely intellectual;

■ acting with, not upon others;

■ construction and reconstruction of knowledge which includes critique of all knowledge; and

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■ a meaning-making process which sees meaning as a social construction.

Cornbleth (1990: 27, 28) adds other dimensions by describing curriculum as praxis: "Curriculum is constructed and reconstructed in situated practice ... Context both situates and shapes curriculum; thus changing (or developing) a curriculum involves changing (or responding to its context...) There is no generic curriculum context, no fixed set of parameters or invariant grid that can be imposed on any curriculum". This implies that if the value of praxis continues to prevail in the curriculum under study, then there is need to continue responding to the continuously changing and dynamic context. It also implies that the other countries where PELUM Association operates should not take the PCZ curriculum and implement it without first scrutinizing and adapting it for local relevance.

Participation was another critical value. Hope and Timmel (1986) saw participation as dialogue based on the sharing of perceptions, opinions and ideas as well as having the power to make decisions or recommendations. (Sachs, 1992: 127) wrote that participation implies recovery of one's inner freedom to freely articulate feelings and thoughts, to learn, listen and share without fear of predefined conclusions so that one's life flowered and contributed to other people's struggles for better lives. The assumptions underlying participation are:
■ if people participate in their development, most current obstacles would be overcome;
■ participation allows the will of the majority to find expression;
■ more humane and effective development can be peacefully attained;
■ dialogical interaction helps people organise themselves in a way best suited to their needs (ibid.).

In order for genuine participation as opposed to artificial participation to happen, there must be trust that the people can think, plan and act. This does not mean abandoning them and not sharing one's view and knowledge as a facilitator of development.

The concept of participation has four interests according to Sachs (1992: 121-122):
■ cognitive, where it seeks understanding realities as human and social constructs, drawing new meaning from the realities;
■ political, by empowering the voiceless and creating bridges between establishments and the communities they serve;

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- instrumental value, by drawing on new tools and techniques to address problems faced by society; and

- social function of wiping out all forms of poverty.

In this chapter, I will look at praxis and participation in relation to curriculum implementation.

5.2. Praxis and the curriculum

Introduction

In this section, I will focus on the processes in the curriculum development and implementation that reflected features of praxis. The idea is to see the extent to which praxis happened with a view to improving future attempts at making praxis part of the curriculum development process in a more deliberate, constructive, coherent and effective way. After evaluating praxis, I will then evaluate participation in curriculum development. Separating praxis and participation has been done to simplify the writing otherwise the two values of the PELUM Association are closely interrelated.

As a way of encouraging praxis among training managers and trainers, I circulated reports on the chapters I compiled based on this review of curriculum and course decisions and invited comments. I sent these to training managers in particular.

In going through the documentation and in reflecting upon my participation in curriculum development, I identified eight major 'rounds' of praxis between 1996 and mid-2000. The ninth round, which I will not discuss was incomplete by the end of year 2000 – it was an evaluation of the first course by an external evaluator. Some of the main findings of this report fed into the evaluation.

In Chapter 2, I explained why I did not call the 'rounds' of reflection and action, cycles. I also explained what I meant by 'rounds' (see 2.7). In the paragraphs below, I will outline what each round contributed to the development of the curriculum. Although the choice of 'rounds' was subjective, it was well considered and training managers who reviewed the 'rounds' agreed to my selection of key rounds (TM. 4).

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The first round of praxiological deliberations

In July 1996, the first main round of reflection by participating organizations occurred. In this process, I visited 14 organizations that had expressed interest in implementing the Agro-ecology and Community Development Training programme. The interest was expressed in November 1995 at a meeting convened by the PELUM Association. The main points raised during my July 1996 visit were that:

- there was need for criteria to assist in the allocation of topics to be taught by each participating organization; The question of allocation of topics was both a technical and a political process. It was seen as critical that the NGOs, who made up the bulk of the participating organizations and who were also the originators of the curriculum, ought to be responsible for a bigger section of the curriculum. Other tensions existed between allocating to rural or urban-based organizations and balancing allocation in the different agro-ecological regions within which the participating organizations were found. I have already alluded to some of these issues in Chapter 2 but in less detail because I felt this chapter was to take the discussions further;

- it was important for the training to balance the learning time and the work time of the trainees so that one does not suffer at the expense of the other;

- the training at each institution should be well timed to avoid congestion. Though a practical decision, it disrupted the flow of learning (see 2.7);

- the written curriculum should be adapted to the realities on the ground. Looking back now, this probably is linked to what Cornbleth (1990) calls contextualised curriculum. Subsequent changes to the planned curriculum were partly a response to the realities on the ground;

- where communities contribute to the learning of the trainees, some form of compensation for the community's time should be made. This would have been quite a unique feature of the college but by the end of the course, nothing of this sort had come to pass;

- there was need for a standardization of the quality of the training that the college would offer. This called for some form of training and orientation of the trainers.

Reflections on the first round of deliberations

Looking back now, I realize I should have interrogated the notion of standardization. Now I have a feeling its meaning could have included the coherence of the curriculum, its conceptual integrity, and

consistence in the orientation of the curriculum whether being delivered at a university or at community-based organizations. The first round of reflection among participating organisations laid the foundation for the implementation of the curriculum. It raised questions that demanded answers in future encounters within the college as will be noted in subsequent rounds of praxiological deliberations.

The second round of deliberations

The second round of deliberations by curriculum partners was about accreditation options for the training. Details are found in section 4.4, which is where accreditation was the main focus of discussion.

The main recommendations from the respondents to the questions on accreditation were that it was important to offer a formal qualification through a recognized accrediting institution such as a university or the Ministry of Higher Education. They also recommended the offering of a diploma qualification instead of a certificate based on their knowledge that there would be more opportunities and higher remuneration for diploma holders, especially in Zimbabwe. However, in the short-term, a certificate and accreditation by PELUM Association appeared to be the only solution. A far-reaching recommendation was that the college should "work towards changing the curriculum of traditionally formal institutions" (see 4.4 for more detail).

By the end of the first course, no arrangements for formal accreditation had been achieved and the college could only offer a certificate for the training. As I discussed in section 4.4, accreditation remained one of the greatest areas of concern among trainees because they could not be awarded a diploma at the end of the course. Since 1997, but especially from 1999, concerted efforts were being made by the chairman of the college, and the Accreditation Committee to register both the college and the curriculum with the Ministry of Higher Education.

Reflections on the second round of deliberations

The second round of reflections resulted in a report on accreditation (Lungu, 1997) and formed a good

foundation for future reflections. However, the report was hardly referred to in subsequent meetings even though the report was widely distributed. The problem of lack of continuity and follow up on issues was a hole that occasionally appeared in the praxis. Efforts to register the curriculum were pursued with the relevant Ministries – but not with other relevant bodies recommended in the Lungu report. Some of the subsequent rounds of reflection described below were indicative of curriculum registration pressures. If the curriculum got registered with the Ministry of Higher Education, any qualifying organisation could implement it. The challenge that remained was to retain the strengths of the curriculum and have it registered, and then to progress to the dream of influencing national curriculum.

The third round of deliberations

The third major round was an important moment for determining the motivation of organisations in being part of the PCZ and of implementing the Agro-ecology and Community Development curriculum. I motivations formed an important basis for any evaluation of the college and the course curriculum. This information (RSN. 1), which I gathered, also gave me an idea about the orientation the organisations had regarding the implementation of the curriculum. Interviews with participating organisations focussed on their motivation in forming the college, which were articulated as follows, to:

- be part of a high quality strategic alliance of organizations with a shared interest in community development in Zimbabwe;
- address the problem of a lack of able community development workers in Zimbabwe;
- take part in promoting productive and sustainable agriculture in the interests of smallholder farmers;
- take development to the people;
- participate in providing practical training to meet sustainability and productivity challenges;
- more directly contribute to smallholder farmer empowerment by training development workers who would be more effective;
- offer training and research services to a national effort; and
- contribute to the training of community development workers which is not possible in the formal training going on in the country.

From the above there is evidence that the participating organizations saw the curriculum as one with a

transformative and developmental intent, with a practical as well as a research orientation.

During the same round of interviews (RSN. 1), the participating organizations identified the role of the college as:

- producing excellent, renowned, employable community development workers;
- producing a "whole" person as opposed to a specialized person;
- in the long run, offering a meaningful alternative to conventional training, influencing government curriculum, change in government educational policy;
- provide opportunities for greater interaction between farmers and trainees leading to a better understanding of each other;
- increasing the relevance of university training to smallholder farmers through participating in the college and understanding the issues. This role was subsequently played by the project component of the course;
- giving the graduates an edge to handle social issues related to development;
- a holistic approach to resource management;
- enable community-based organizations to upgrade staff through broadening their experiences and understanding;

Reflections on the third round

The above was the first major round of reflection by participating organizations concerning curriculum implementation – even before it had begun. The reflection showed the diversity of aspirations within the college – but also a strong transformative thread creating a great sense of common purpose – which should have been regularly referred to during subsequent curriculum decisions, but which were not. When the first intake of trainees finished training in May 2000, the college decided to carry out an evaluation of the course by an external person. I recommended that the organizational intentions above be included in the terms of reference of the evaluator. I presented these to training managers in September 2000 as part of the report-and-respond process of involving them in my research. The report and respond process is about sending reports and analysis to stakeholders and getting their feedback on it. It is a good way of eliciting participation of members. It is also a way of validating

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findings.

The fourth round of reflections

Whereas the first three rounds of curriculum deliberations involved organizations that were to offer training or that offered similar training, the fourth round involved trainees whose course commenced in May 1998. The focus was how they perceived the course seven months into it. The meeting, which I facilitated, revealed the following (TRN. 1):

Trainees were generally happy with the quality of training but they also raised some issues for consideration. They said that some training managers showed a poor understanding of course orientation. It was this comment that highlighted need for a trainers' guide referred to in Section 4.5 on Resource Materials. Another issue highlighted in the reflection was the need for adequate resource materials for trainees and access to libraries. Trainees were happy with the quality of handouts although in some cases, promised handouts were not delivered. Upon recognizing that trainees needed access to libraries, identity cards were developed that helped them access some libraries. In response to the other criticism, some training managers said they did not have funds to photocopy handouts and recommended that the college coordinating unit disburse funds for this purpose in good time. In terms of the course content, trainees generally indicated that there was a good balance between theory and practice but less than 50 % reported that there was not enough development of critical thinking. Trainees said that their training was too demanding for a certificate level. They wanted a Diploma. This demand tallied with the Lungu (1997) report, which I discussed in section 4.4.

Reflections on the fourth round

Having trainees involved in thinking about the course so as to improve it was an important part of the curriculum, an extension of participation, flexibility and responsiveness to trainees. Most of the suggested changes were dealt with except those to do with accreditation. Later in the course, there appeared to be more attention paid to critical thinking as the examination questions and the passes indicated (see 4.4).

The fifth round

Introduction

The fifth major round of reflection occurred among training managers in August 1999, in the middle of the two-year training course. The reflection was done during a one-week workshop by 14 training managers, plus the coordinator. It occurred after a series of inconsistencies in the implementation of the curriculum were observed especially among the resource materials and the approach to learning among training managers (TM.1). There were two types of those who trained: training managers who were involved in the curriculation and in most of the meeting about the curriculum and its implementation and trainers who were just involved in the implementation of the curriculum (TM.1). Trainees, who were represented at this meeting, complained about the latter who had little orientation to the curriculum. It was also against the background of wanting to involve and guide the mentors, who had by this stage been appointed, that the meeting was held. Several important resolutions were made on a good number of aspects of the curriculum. These are discussed below.

Resource materials

At the beginning of this section on praxis, I indicated that I selected what I identified as the key rounds of reflections. There were therefore some meetings and visits that I have left out in these praxiological reflections. One of them had to do with the development of a trainers' guide, which was a subject of discussion during this meeting. The meeting reviewed the draft trainers' guide and decided that it would need a lot of improvement and that it was too poor to edit. TI did not discuss it as a resource material in 4.5 because it was not used for this purpose. I am bringing it in the discussion now because of the lessons that one could draw from it – 'failing forward' (Chambers, 1998). Failing forward basically means being able to learn from mistakes and to not repeat them. An outline of the revised trainers' guide was proposed with seven main areas:

- Topic;
- Context;
- Objectives to be achieved under the topic;
- Content to be covered under the topic,

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- Methodologies of teaching
- Resources and references;
- Monitoring and Evaluation mechanisms.

In the rejected draft trainers' guide, there was no evidence of a structure and the sections on Methodologies for Teaching, Resources and References, and Monitoring and Evaluation Mechanisms were often not dealt with. This was also a response to students feeling that there was a lot of inconsistency in the manner in which subjects were taught by different trainers and training managers.

Written curriculum

An interesting revision and reversal involved the number of subjects. Whereas at the end of the first academic year in April, 1999, the number of subjects had been increased to seven, they were recombined to the original five (see 4.4). While the decision was consistent with the curriculum structure, it raised questions about the basis for decisions around changes. The questions pointed to the need for rigour in reflection so that changes are not just made. It also raised the issue of what praxis should entail – that it was more that just making changes but that the changes have to be thought through and had to emerge from theory and practice.

Assessment

A praxiological change related to assessment was the setting of Rules of Conduct for trainees and invigilators during examinations. This was intended to achieve professional standards, which would also help in the registration of the college under the Ministry of Higher Education.

Curriculum review

A curriculum review committee was set up to:
- Review the trainers' guide;
- Review training modules and manuals;
- Review time allocation to the different topics;

- Identify and incorporate learning needs into the curriculum;
- Analyze and incorporate recommendations from trainers, trainees and from the coordinator of the college; and
- Carry out the field-testing of the manuals, trainers' guide and textbooks and make recommendations.

The major omission within the terms of reference was that the curriculum review committee had no framework for their review and was likely to continue making pragmatic ad hoc decisions, responding to a limited context, which excluded the values, principles and theories that should guide them. There were no guidelines as to how they should operate, and as to what should inform their decisions.

Project implementation

In the August 1999 workshop, for the first time, a serious discussion around the mentor happened. The need for some form of training to bring them to some common understanding of their responsibilities was raised. And it was decided that they also mark the project, giving a certain percentage. Guidelines for a mentor's report on trainee progress were developed. But the mentors themselves were not present (except those present in a different capacity). Their exclusion from praxis was inconsistent with the participatory curriculum orientation.

The meeting also resolved that project implementation by trainees should commence a month after training commenced. This was in response to complaints from trainees -- presented in this training managers' meeting --who had only a couple of months to implement their projects.

Structure and length of the course

The meeting decided that the number of training days for the second intake should be increased from about 120 days to about 150 days, that is, 240 hours more. This was a 25 percent increase in contact time – quite substantial. And instead of the trainees moving from Harare to Masvingo or the eastern districts within one training block, the meeting developed three main groupings of training organizations, namely, those around Harare, those in the Eastern Districts and those in Masvingo

Province. Each training session or block was to be confined to one geographical grouping. This would reduce trainee movements and ensure better flow and organization of training. This was calculated to increase efficiency and sequencing or the course.

Based on trainee comments, gender, horticultural products and indigenous knowledge systems were added to the written curriculum. This informed the kind of resource pack I chose to develop for my Masters assignment at Rhodes University. I worked on a gender resource pack, which I shared with trainees.

Reflections on the fifth round of reflection

The above round of reflection showed evidence of responsiveness and flexibility in curriculum implementation but the foundation of the changes was absent. The changes made were potentially good for making learning smoother. What was encouraging here was continuous reflection. One could see action learning occurring.

The sixth round of reflection

Eight training managers and the coordinator carried out a sixth major layer of reflection on curriculum implementation in February 2000, two months ahead of the second and final examinations for the first intake.

They decided that trainees were to have a whole week set aside for preparation for the exams. During the week, the college would provide food and accommodation and the employers would release trainees from duty. This was in response to trainee requests. It is possible that the high pass rate in the second year (see 4.4) was partially a result of providing time and space for trainees to revise. Having trainees some to the college to study for examinations was a change that demanded some flexibility in the budget.

The meeting also made a new provision in the assessment of trainees: practical examinations. This was to have an overall worth of 10 percent of the total mark. The mark was taken from the Project, which had earlier been allocated 30 percent of the overall mark. See section on Assessment under 4.4.

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Based on the need to satisfy the Ministry of Higher Education requirements – of a course having at least 6 subjects – the following two were added: Small Business Management and the Project was to become a subject in its own right and was called Project Planning and Management. Organisational Planning and Management was reduced to Organisational Planning and the management bit was moved to Small Business Management. These changes would apply to the second intake, now scheduled to start in 2001. The changes were not consistent with earlier divisions in the curriculum and the organisational management subject, which was split, had been allocated the least number of hours and weighted marks.

Based on further trainee responses and demands, information technology and business law were added to the written curriculum that would be implemented in the second intake. A topic on gender was also added even though in practice the first intake had had a session on the same and got a long question on gender and development in the exams.

The meeting resolved that module writing be done collectively with training managers teaching the same theme or topic working together. Individual training managers had made little progress in developing such resource materials. This was another change where the underlying factors were not clearly analysed and documented. Changes ought to have been thought through.

Reflections on the sixth round

The changes described above revealed how seriously trainee feedback was being taken. The changes also showed how the pressures for formal accreditation influencing the structure and content of the written curriculum.

The seventh round

Trainees did a second major round of reflection through responding to a detailed questionnaire, which had both closed questions and open-ended questions (TRN. 2). The idea was for them to reflect about the course and to make some recommendations for improvement. I received and analyzed responses from 10 out of the possible 16 respondents (some had dropped out).

Eight of the respondents rated training managers as punctual, professional in attitude, open to trainee opinion and supportive. However, there were complaints that training managers were not open to the idea of offering diplomas or degrees instead of certificates.

At this stage, there was evidence of a shift in how trainees felt about exposure to critical thinking during the course. This could have been a reflection that when the question was posed the first time, the training was still focusing on other areas of human development such as skills development, and acquiring new knowledge. All respondents said that they had learnt to think critically during the course, that they had improved in teamwork and that they had learnt to apply theory to practice and practice to theory. They had all found the course relevant to their work. Only two felt that they had not developed a good understanding of the four subjects. Ninety percent of the respondents felt that the course was largely participatory, the remainder was uncertain.

Most respondents (80%) felt that there was need for a re-sequencing of the course. Comments on the above were: topics were "haphazardly arranged", "a lot of cross-country trips for lessons", "concentrate on few centres and bring in trainers". The notes were difficult to follow because of moving from one subject to another and then to another, mixing them up. A decision was reached during a training managers' meeting where these concerns were taken care of (see Fifth Round of Reflection above)

Trainees made the following proposals:
- Each subject must be in its own text book;
- Improve the order of course programme;
- Improve coordination of the course by informing participating organizations when trainees will be at their institutions;
- There is need for the prioritization of topics given the limited time;
- Field trips should be provided for in the course for trainees to learn from application of concepts (because where this happened we learnt more);
- Divide agriculture into Animals and Crops because it took up the most time by far and had many topics to cover;
- The college coordinator should facilitate conflict resolution between employers and trainees;

- All training managers and trainers must understand the objectives of the college;
- Administration as a topic should receive more priority;
- Training managers and trainers should prepare for sessions in good time;
- Add writing skills, which would help trainees in writing projects, computer literacy and electronic mail as well as watershed management while paying more attention to food processing and marketing.
- Would appreciate if the college could get funding for the continuation of projects which could be used for getting another qualification;
- Small business management should be added in detail; and
- Provide for interaction with students from other countries.

Reflections on the seventh round

The recommendations made by the trainees showed a great understanding not only of their curriculum but also of what would enhance the quality of its implementation. I agreed with most of their comments but like the comments of the other stakeholders, they were not informed by the curriculum orientation. However, they managed to point out some of the solutions to inconsistencies. They also raised an issue about the role of the coordinator, and by implication, his/her powers. This is one area where more reflection needs to happen in order to determine how he relates with different organs of the PCZ. Trainees also highlighted the need for planned and proper orientation of stakeholders to the course.

The eighth round of reflection

The eighth round of reflection was conducted by three members of the Assessment Committee. Their sole mission was to assess trainee projects. I asked them to administer questionnaires to employers and to the mentors of the trainees (EMP. 1 & MNT 1).

From the coordinator's report on the project assessment visit (TRNP. 2) there was evidence that the projects needed to be continued but should be started very early in the course, that the employers and the communities found the project component relevant and should be continued. Some community members directly benefited from the projects (see 4.3.).

Responses from five mentors (MNT. 1) highlighted the need for interaction-for-learning among themselves. Some hardly understood the breadth and depth of their roles. There were generally limited records tracing the progress of the trainees and this needs following up on in future. Having said that, it is important to note that there were already plans to orient mentors for future projects (TM. 2).

Conclusion on praxis

There was much evidence of praxis by the different stakeholders towards the improvement of the curriculum. Actors in the reflection included the training managers, the assessment committee, the trainees themselves and to a more limited extent the employers of the trainees and the mentors. The selected rounds of reflection were not the only ones but because of the significant impact they had on the written and implemented curriculum, and their reflection of the typical manner in which reviews and decision were made, they deserved special attention. The College Board played an important role – approving recommendations and making policy decisions. I have not included them in the discussion on praxis because most of the ideas they discussed originated from training managers and trainees.

Reflection focused on curriculum content, organization, assessment and accreditation as well as relevance of the curriculum. This chapter attempts to show the reflection-in-action and the reflection upon the reflections. Many changes were effected during the course and others will be made for future courses.

My central criticism of the reflections was that it did not explicitly allow itself to be shaped by the curriculum framework. Using such a framework would have provided a conceptual basis for decision-making.

Because of the above limitations, I want to propose that there were rounds of circles of reflection, not cycles. Cycles are clearly connected, whereas circles are not. There were some faint linkages between one circle and another, but these were guided by the strengths and inclinations of the people present at meeting and not necessarily by the curriculum framework.

While circles do not contradict or dispute the cycles in action research, there were missing dimensions

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in the way praxis happened in the college. In particular, the curriculum values were not adequately utilised and were never changed, as they were not visible to most participants. If the framework was applied, decisions would have depended on who was there and a certain amount of consistence should have been maintained. Most of the manifestations of the praxis in the college have already been discussed in chapter 4. In spite of the weaknesses of the application of praxis, its major contributions were made in the following areas:

- clarifying the direction, roles and responsibilities in the college;
- content of the written and lived curriculum;
- organisation and sequencing of curriculum implementation;
- assessment system in the college;
- resource material quantity and quality; and
- trainee project planning and implementation.

Finally, I want to re-emphasize that some of reflection also took place outside the identified and discussed rounds of reflection. At another level, I want to point out that the lack of a systematic approach to praxis meant that some opportunities to listen, learn and change were missed altogether.

5.3. Participation and curriculum

Introduction

The value of participation is central to the PELUM Association as the name implies (see 5.1). P stands for participatory. I found it therefore important to look at the curriculum implementation against the value of participation. In order to trouble the notion of participation in curriculum implementation, I analysed documents. From the documents, I selected those in which main decisions and changes were made between 1995 and 2000. I started off by looking at what the participating organisations and other stakeholders wanted (RSN.1.) and how, over time, they lived with and changed their aspirations and plans as reflections were implemented (see 5.2). I also made observations.

As described in 5.2, different stakeholders participated in different ways in curriculum development. At one level, one could say there was "vertical participation" -- from the trainee, the training manager, the

coordinator, the Board right up to the community. The other kind of participation could be termed "horizontal" where participation went beyond representation of different layers of stakeholders but sought and got, within each group, the participation of all at one stage or another. Participation was a process. It occurred again and again side by side with praxis (see 5.2).

Shapers of the curriculum

In exploring the character of participation in curriculum development (including implementation) I named them as follows: initiating; reviewing and critiquing, advising and recommending, facilitating, mentoring, controlling, sponsoring, approving or not approving, and consuming services. I saw the main stakeholders as:

- the training managers (TMs) -- who also made up the assessment, curriculum review, and accreditation committees. Their primary role was to develop the curriculum and implement it;
- heads of participating institutions and faculties. Their primary role was to make policies and decisions on the operations of the college, especially regarding the nature and extent of their organisations' participation;
- the Board -- which made policy decision about the college and adopted decisions made by committees and training managers;
- communities – who worked with trainees in project implementation;
- trainees – who were the major learning group in the college and interacted with all stakeholders except funders;
- mentors – who assisted trainees in developing project plans and in implementing them. They also marked trainee projects;
- employers of trainees – who gave the necessary support to trainees in project implementation. They also assessed the trainees' improvements since joining the course;
- the college coordinator – who coordinated the development of the curriculum, its implementation and registration (not yet realised). He was also responsible for fundraising;
- the PELUM Association regional desk (PARD) – which was responsible for coordinating the development of the regional curriculum framework and for initiating the curriculum development and implementation process in Zimbabwe;
- hired resource people – who assisted with expert input during the curriculation process and during

the implementation of the curriculum; and

- funders – who provided sponsorship for all trainee requirements on the course except for travel costs.

Below is a matrix of their involvement based on my experiences and on recorded information.

In troubling participation, I also realised that in fact, most of the thesis looks at participation of the different stakeholders. I therefore, in this section, decided to concentrate on the roles that each one played, especially in view of the overlaps. I identified the key roles as:

- initiating new development, giving fresh ideas for improvements;
- Reviewing and critiquing past developments that may be organisational or developmental;
- Proposing and recommending changes to the Board of the college;
- Making decisions at different levels, from time-tables, content of handouts, to selection of questions on exams and reorganising the curriculum;
- Mentoring trainees in planning and implementing programmes;
- Controlling events and activities in the college at various levels, including the quality of training and learning, the duration of sessions and the resources in the college;
- Sponsoring through providing the necessary financial support;
- Approving proposals and recommendations from trainees, committees and from training managers;
- Learning from the whole curriculum development and implementation process.

In the table below (Table 5), I show which of the college stakeholders were playing what kind of roles. This table therefore gives a quick summary of the configuration of roles within the college.

Table 5: The Key Stakeholders in the PCZ and the Roles They Played

Groups / Roles	TMs	Heads	Board	Communities	Trainees	Mentors	Employers of trainees	Coordinator	PARD	Resource people	Funders
Initiating	*		*		*			*	*		
Reviewing & critiquing	*		*		*	*	*	*	*		
Proposing & recommending	*	*	*		*	*	*	*	*	*	*
Deciding	*	*	*	*	*	*	*	*	*	*	*
Facilitating	*				*			*	*	*	
Mentoring						*	*				
Controlling	*	*	*			*	*	*			
Sponsoring											*
(dis)Approving	*		*								*
Learning	*	*	*	*	*	*	*	*	*	*	*

Conclusions on participation

Participation was of considerable significance as well as complex (see 5.2). Some categories of stakeholders participated more than others. When I tried to weight participation in each cell I found it difficult to compare, say the extent of control by training managers with that exercised by the Board, since they generally controlled different things. The same is true of learning by the trainees and learning by the community or by training managers. It is also important to point out that there were some individuals who played more than one role: training manager, mentor, Board member and employer.

Participation brought together different strengths, availing them to curriculum development, enriching learning experiences, not just of the trainees but of every stakeholder (see Table 3). Participation enriched reflection too.

But in the process of reviewing participation, I identified the following issues:
■ To what extent did the curriculum framework guide the participation?

- How central were opinions and views of the – smallholder farmers?
- How did the stakeholders deal with diverging views?
- How can the participation of different stakeholders be elicited as needed without marginalising one group (mentors for example) and focusing on the others (training managers and the Board for example)?
- How can the cost of participation be maximized while the benefits are optimized (participation not for its sake)?

Given the scope of my research, I could not bring the discussion of my study to bear on these important questions, which I recommend that the college should look into as part of the growth and development of the PCZ and the Agro-ecology and Community Development Curriculum.

Conclusion on participation

While there was a good measure of participation in curriculum development and implementation, the results would have been more profound educationally if the participatory processes were more focused and carried out within an open, reflexive framework. Some groups of people such as mentors participated but were largely marginalised (see 4.3).

However, in a positive not, It is my observation from analysis the participation in that college that:
- the participation of various organisations in the college made it possible to overcome barriers to implementing a multi-disciplinary curriculum;
- to a great extent, participation allows the expression of the will of different stakeholders of the college;
- it provided opportunities for the construction and co-construction of meaning, knowledge and direction
- it by empowered the trainees to take part in decision-making processes that are normally the prerogative of their teachers;
- participatory approaches were used as instruments in the sharing of knowledge and in the implementation of trainee projects thus serving an instrumental value.

The above points are part of the characteristics of participation as discussed earlier in the chapter (see 5.1). In the next chapter, I discuss coherence and consistence in the use and application of the values

that underpin the PELUM curriculum. In a way, this deepens the discussions on praxis and participation while extending the discussion to other values in and of the curriculum framework.

CHAPTER 6 CURRICULUM COHERENCE AND CONSISTENCY

6.1. Background to the focus on coherence and consistency

I decided to look into coherence and consistency because as my research journey proceeded, I repeatedly encountered heavy and light signatures of inconsistency and incoherence imprinted on the terrain I trod (see chapters 4 and 5). As discussed in Chapters 1 and 2, educational philosophies, values and theories, being the foundation of the curriculum, are part of context and their coherence and consistency are central in making meaning and are therefore important in evaluation. Encounters in my research journey suggested to me that consistency was desirable.

Horton and Hanes (1993: 1) say, "When developing a curriculum, attention must be given as to the developer's philosophical stance and the curriculum paradigms that are enhanced". A paradigm is the way one sees the world. It is informed by assumptions about life, theories and methodologies (Himmelstrand, Kinyanjui and Mburugu, 1994).

Curriculum coherence refers to the linkages between 'lessons' and activities and the extent to which instructional materials support curriculum objectives (Martin-Kniep, *et al*, 1995). This is a limited use of the term because it also means something deeper -- the linkages between philosophies, values, methods, materials and outcomes, the link between orientation/framework and implementation. It presupposes the existence of a common thread, wholeness. Wholeness resides in context, in taking cognition of the relevant dimensions that have a bearing on the curriculum. Cornbelth (1990) said, " The relevant context is both structural and socio-cultural. By structure I mean established roles, relationships, … shared beliefs and norms… from the classroom to the school to the national education system." (see 4.2). In looking at consistency and context, it is important to see that the curriculum continues to drawn upon and to influence the context in which it occurs.

Analyzing curriculum for coherence can also be seen as a form of searching for integrity and integration. During the progressive educational era in which people like Dewey and Freire played an important role, "curriculum integration was more than a separation or union of conceptual and organizational arrangements. Rather, Dewey and Freire considered it in relation to essential questions

of knowledge and meaning that were believed relevant and essential to the learner" (Martin-Kniep *et al*, 1995: 229). In the case of the Agro-ecology and Community Development Curriculum, we talked of a trans-disciplinary curriculum, which basically means integrated – because certain values and principles transcended disciplines. The three authors further (ibid.) argued that in practice, organizational concerns tend to take precedence over conceptual ones. This appears to have been the case in the PCZ curriculum changes (see chapters 4 & 5).

6.2. Introduction

In looking at coherence and consistence, I considered seven values because I have limited space in which to discuss the values of the curriculum. The values I chose covered what I felt where key areas of the curriculum. The values are about the curriculum's philosophical stance. I discuss the values against four defined areas of interest in curriculum development. The values I chose (see 1.5 and 5.1) are:

- Participation (see 5.1);
- Praxis (see 5.2);
- an integrated approach;
- putting smallholder farmer interests at the centre;
- recognition of the existence of multiple realities which I referred to as contextuality;
- empowerment of the marginalised people; and
- sustainability.

The four areas of interest in curriculum development are:

- the written curriculum;
- the assessment system and practice;
- the trainee projects; and
- resource material production and content (see chapter 4).

6.3. The Written Curriculum

Participation

The value of participation was probably the most consistently upheld in the curriculum development process. Trainees, training managers, heads of participating organizations, employers and donors have participated in curriculum development at one point or another, including in its review (see 5.3.) In the written curriculum, training managers were the main people involved. However, the lack of consistency was seen where the rural communities were not directly involved in determining the content of the curriculum – when they are the critical reference group. Also, there was little consultation with potential trainees about what they felt they needed in terms of competencies—a second critical reference group. The marginalisation in participation of these two critical reference groups was a serious flaw in the written curriculum because their views could not be directly drawn and fed into the curriculum that was meant to serve their interests.

The potential challenge lies in being able to identify the potential trainees and in asking the right questions as well as in continuously adjusting the course based on the interest of different intakes.

Praxis

A consistency existed in the action-learning approach to curriculation where the different stakeholders created and used the opportunity to reflect, replan and act, albeit in ways that were fragmented (see 5.2). The only group that was marginalised in this respect was the mentors. The funding partners, who were originally to visit projects and meet trainees as part of the reflection process, chose not to utilize the opportunity. The establishment of a curriculum review committee was another evidence of praxis – encouraging a process to encourage ongoing praxis.

Integration

Curriculum integration existed in the written curriculum in terms of there being several subjects put

together but a common thread liking all components of the curriculum is missing. Such a thread would provide conceptual integrity. Re-organization for conceptual integrity would be important to undertake. This would mean identifying the principle upon which the unity of the curriculum should be built and then to re-conceptualise the curriculum. Such an improvement would hopefully bring about the necessary curriculum cohesion.

Smallholder farmer interests

Even though there were no consultations with smallholder farmers, their contexts were taken into consideration in the written curriculum. This was done through consulting community-based organizations that worked with smallholder farmers. Where the interests of the smallholder farmers appear to have been missed was in the area of appropriate technology, which was not in the curriculum (PELUM, 1997a). I would recommend inclusion of the topic because appropriate technology tools have potential to increase efficiency, reduce manual labour demand and increase production. Such tools would be available from such organizations as Development Technology Centre and from Intermediate Technology Development Group Zimbabwe. Fien (1993) recognized the importance of appropriate technology in the New Environment Paradigm. The New Environment Paradigm values environmental protection over economic growth, shows compassion for people, biodiversity and for future generations, emphasizes careful planning to avoid or reduce risks, acknowledges that there are limits to economic growth and argues for simpler and less environmentally-demanding lifestyles (ibid.).

Empowerment of the marginalised

The written curriculum addressed empowerment of the marginalised through having topics that encouraged collective action. These included themes such as community self-organization. At another level, the value is manifested through the curriculum's intent to solve some of the real problems farmers encounter, through projects implemented by trainees. The other group of the normally powerless was the trainees who are traditionally perceived to depend on the knowledge of their teachers. Their empowerment was expressed through involving them in reviewing the curriculum as it was being implemented. In curriculation training managers (teachers), who normally just implement curriculum designed by others, were empowered to develop the written curriculum.

Recognition of the existence of multiple realities

The written curriculum was based on approaches that recognize multiple realities. First, it sought to develop a well-rounded graduate who had knowledge in social, ecological, economic, agricultural production, management and political aspects. Such a content was an acknowledgement of the realities of rural farmers who not only deal with ecological issues but with many others as well. Secondly, the curriculum was planned to be implemented in a variety of socio-economic and ecological environments. Trainee learning occurred in urban settings, rural areas and resettled areas. At the same time, curriculum implementation was planned to occur in all the five agro-ecological regions of the country where the participating organizations are situated.

Sustainability

Sustainability is present in the written curriculum in the sense that the curriculum promotes sustainable agricultural practices, responsible use and management of natural resources and by provision of a whole topic on sustainability. Promotion of community involvement in the management and control of their resources is another indicator of curriculum interest in sustainability.

6.4. Assessment and Accreditation

Participation

In terms of assessment, many participated. All training managers were involved in deciding the assessment systems and the weighting of subjects. They set questions and marked for continuous assessment. In addition, all training managers developed examination questions, which were then selected and synthesized by the Assessment Committee made up of some training managers and the coordinator. Mentors participated in assessing trainee projects but not in determining what was to be assessed, why and when. Trainees assessed sessions as well as the entire programme. Employers assessed the employed trainees during the evaluation of projects. The coordinator was involved in all forms of assessment. However, community members were not given the space to assess in any

meaningful way as we had planned originally. There should be criteria for assessors to guide the college in selecting these.

Praxis

There was a strong presence of praxis in the assessment system. The Board, training managers, the coordinator, trainees, mentors and even the research work that I was carrying out formed part of the action learning. This not only led to changes in the curriculum but also in the assessment structure. It was also through reflection that mentors were brought in to mark projects. Praxis in assessment was also seen through the first round of visits to projects by selected training managers. But there were some inconsistencies too. For example, during a meeting held by training managers in September 2000 one training manager proposed the use of psychometric test for candidates for the second intake. Without much debate, others agreed except one who said, "So if next time I dream of another testing technique you will accept it"(TM. 4)? The issue here was, on what basis were proposals accepted or rejected?

Integration

There are several forms of assessment that are interrelated. They combine theory, practice and reflexive competencies. The different types of assessment are: continuous assessment, project assessment, end-of-year examination and practical examinations. A problem was lack of clarity of an assessment format in continuous assessment and in project assessment.

Smallholder farmer interests

In thinking about the curriculum and reviewing it, the incorporation of the farmer interests was evident in the trainee projects. The evaluation criteria of the projects implicitly looked at the value of the work to the farmers to the extent that trainee pedagogical interests suffered. But a serious flaw was not to include the smallholder farmers in the reflection about what should be taught and assessed. The training seeks to address the concerns of smallholder farmers.

Empowerment of the marginalised

Trainees' views on assessment were taken seriously when training managers reviewed the assessment system. Normally, as far as assessment is concerned, trainees do not have a say and are in a sense, marginalized. However, the trainees wanted to be awarded a diploma not a certificate, it was dis-empowering not to receive the diploma – a higher qualification –especially for those who intended to use the qualification for further studies (see next paragraph).

Recognition of the existence of multiple realities (contextuality)

The context in which accreditation was taking place was shaped by many factors including having an education system that excluded the less academically gifted students from further advancement and limited opportunities to learn formally among the black Zimbabweans prior to the country's independence in 1980. Such a reality could have resulted in efforts at recognizing prior learning from informal, non-formal schooling and experience as is the case in South Africa today where similar issues prevailed before majority rule in 1994. One of the reasons given for starting the college was to help those who had been disadvantaged but who had the experience, to have access to further education (see chapter 1). Up to October, 2000, there were no efforts, not even talk of advocating for recognition of experience at national level where accreditation is done.

Sustainability

Sustainability featured as an examination question. However, assessment of seven projects had not been done four months after the other nine were assessed because of financial limitations and fuel problems in the country. This raised a bigger question of the sustainability of curriculum implementation given that the trainees did not pay any fees and had to rely on donor funding secured by the college. Dependence on donors has the potential to undermine sustainability of the course and trainees may need to pay part of the college fees.

6.5. Trainee Projects

Participation

Trainee projects were characterized by participation of the highest number of stakeholder categories (see Table 3). Employers sponsored the projects, communities decided on what kind of projects could be implemented and participated in their implementation, mentors helped trainees compile project plans and implement them. They also participated in marking them. In more than two cases, partnerships were formed with other development agencies. Training managers participated in assessing plans and suggesting improvements, visiting project sites and advising as well as assessing the projects. However, participation in project design came very late in the curriculum implementation and mentors were not yet systematically involved by the end of the course.

Praxis

Some reflection-in-action happened in relation to the projects. The idea of having mentors was not originally considered nor was the idea of developing guidelines for project plans. Some of these changes were not only a reflection of praxis but also a reflection of inadequate prior preparation – learning from mistakes. The decision to put research skills and project planning close to the beginning of the course in the next intake also came from the use of hindsight. There was also no clarity in terms of how views of different stakeholders were taken into account in giving marks, nor was there clarity of the basis and framework against which the assessment team assessed the projects. The marks for the implemented project in relation to those of the written report were not clearly indicated. Although originally not thought about, such issues should have been considered before the assessment of projects.

The projects were an important link to praxis as they created an opportunity for learners to apply course learning and in turn learn from the application. However, praxis was not really encouraged in the way in which the projects were written up and assessed (see 4.3).

Integration

As pointed out in chapter four, projects were a meeting place for many. In the projects, the trainees

had to show a multi-disciplinary approach to development. They had to use social skills in order to work with the rural communities; they had to use agricultural or natural resources management techniques and knowledge in order to effect the projects. They also had to do some organizational and project management from conception, planning, implementation to monitoring and documentation. They integrated theory and practice, local knowledge and western knowledge. There is, however, no evidence of trainee learning interests being integrated in the guidelines for and assessment of projects. What appeared to have been left out of the integration was the learning value of the project to the trainees so that they did not merely serve the interests of the communities but theirs as well. The omission is inconsistent with education that seeks to liberate the learners not just to reduce their role to an instrumental one. To be a change agent is not to be a mere tool for change.

Empowerment of the marginalised

The projects provided community members with a vehicle for interaction, sharing of ideas and for generating activities with developmental value. They also had potential to empower trainees by providing them with an opportunity to share and deepen course learning as well as realize curriculum principles. The projects present an important argument for a different kind of training, one that addressed farmers' immediate needs, making it immediately relevant, and increasing the relevance of the training, which would overcome the problem some seemed to have – that the curriculum was not closely aligned with realities on the ground (see Chapter 5).

Recognition of the existence of multiple realities

Context was a very relevant reference point in deciding on projects. The realities included: community members' interests, what the employers' could afford to support, trainee competencies, the nature of the curriculum and the time available to implement the projects. The challenge was "Whose realities were privileged or marginalised?" It appears the interests of the communities and employers were put above those of trainees. For example, those projects bringing in money to communities appeared to have been highly rated (see 4.3) when the actual learning value of the project to the trainee was hardly mentioned.

Farmer interests

Projects directly addressed farmer interests by attempting to solve some of their problems. They could be seen as the "hard" achievement in that they were visible. However, it is the orientation of the course and its empowering intent that formed the "soft" and often more critical value to the interests of the farmers. In a more limited sense, the projects in themselves were an empowering tool. Where people decided on what they wanted to do, carried it out and succeeded, it was the confidence generated and the possibility of many more accomplishments that was important in sustaining future projects and developmental initiatives.

Sustainability

There was evidence of the projects going beyond the period of the course. But it is not clear who would sustain the projects if appropriate to do so. The proposal by some employers to have the college fund the trainee projects could mean a reversal of sustainability because then, there would be too much dependence on the college making provisions. This would be inconsistent with the sustainability value. The kinds of projects that were implemented showed sensitivity to environmental degradation and reduction of dependence on others.

6.6. Resource materials

Participation

Although resource material development was the prerogative of training managers, trainees also participated in the selection of titles of books that the college should buy for them. In one case, trainees participated in the critiquing of a module. So did some training managers. There was no collective effort in developing resource materials except in one attempt at developing a trainers' guide (see 5.2, Fifth Round). If the trainees' project reports are to be accessible to future students in the college, which I would recommend, then the trainees would have participated in the development of resource materials. If we take good working examples on the ground as resource materials, then there were many other people who participated in resource materials provision – communities and employees among

participating organizations.

Praxis

Little praxis was evident in materials development. But some reflection (not action) took place and training managers have asked a resource person to develop guidelines for developing resource materials. They have also planned to develop resource materials around themes so that those organizations teaching the same topic work together to produce 'modules'.

Integration

Most handouts and other forms of resource materials focused on the topic under discussion and did not attempt to give a holistic approach to themes and issues. Instead, there was fragmentation even within the same topics as different training managers teaching the same topic approached prepared handouts on their aspects only. This could provide a rationale for participatory materials development.

Empowerment of the marginalised

Resource materials did not directly empower farmers especially because trainees designed none for use when they went out to work with farmers. However, potentially, the resource materials development training enabled trainees to be able to develop or adapt relevant resources for use by farmers. The use of visuals such as maps drawn by the community (TRNP. 1) demonstrated that the manner in which resource materials are developed could be valuable in development work. Some resource materials critiqued by trainees offered them the opportunity to challenge the teachers and to suggest solutions. That empowered the trainees to challenge and the training managers to do a better job.

Recognition of the existence of multiple realities

Responsiveness to context in the resource materials was partly reflected in the kinds of textbooks that are recommended such as the ones on sustainable agriculture, participatory methodologies and democratic management. However, some of the handouts, which should have been responsive and flexible lacked local realities and examples (TM. 1).

Farmer interests

Taking farmer interests seriously was observed in the resource materials in that they supported a curriculum that was oriented towards farmers. The only two 'modules' prepared by a trainer and a training manager, do discuss farmers' interests (see 4.5). However, the centrality of farmers in most of the handouts is not acknowledged (see 4.5), neither is it reflected in some of the textbooks, which need adapting.

Sustainability

Sustainability in resource materials development was a big issue in terms of funding. One of the reasons for the delay in the development of 'modules' was a lack of funding for resource materials development. Photocopying of some handouts has been an issue. If resource materials are to remain relevant, then there will be continuous need for more resource materials. Sustainability could therefore be perceived in terms of the continued supply of good and relevant materials.

Conclusion on the consistence and coherence

In general, there was extensive use of the values of the curriculum as evidenced under each of the seven values discussed above. However, there was no deliberate and systematic reference to and use of the values. It is important that in future the values are shared, troubled and consistently applied as well as improved upon. That way, the benefits of an open, reflexive and responsive curriculum could be realised, not only for the college and its stakeholders but also for other people interested in environment and development education in Zimbabwe and beyond, particularly at this time when alternatives to the conventional approaches are being sought.

Having done the analysis of the curriculum development and implementation in chapters 4, 5 and 6, I wish now to move on to make the major conclusions. At the beginning of my research journey, I indicated that I wanted to make my research work relevant and useful to the college as well as to the environmental education field. I tried to meet this promise in preceding chapters. In the concluding chapter, I group my information partly according to this promise: insights are meant and tensions are meant to contribute to address scholarly interests while recommendations are meant to help the PCZ specifically in dealing with issues that arose in the analysis.

CHAPTER 7: MAIN CONCLUSIONS: TENSIONS, INSIGHTS, AND RECOMMENDATIONS

Fig. 2 Showing the conceptualisation of the study
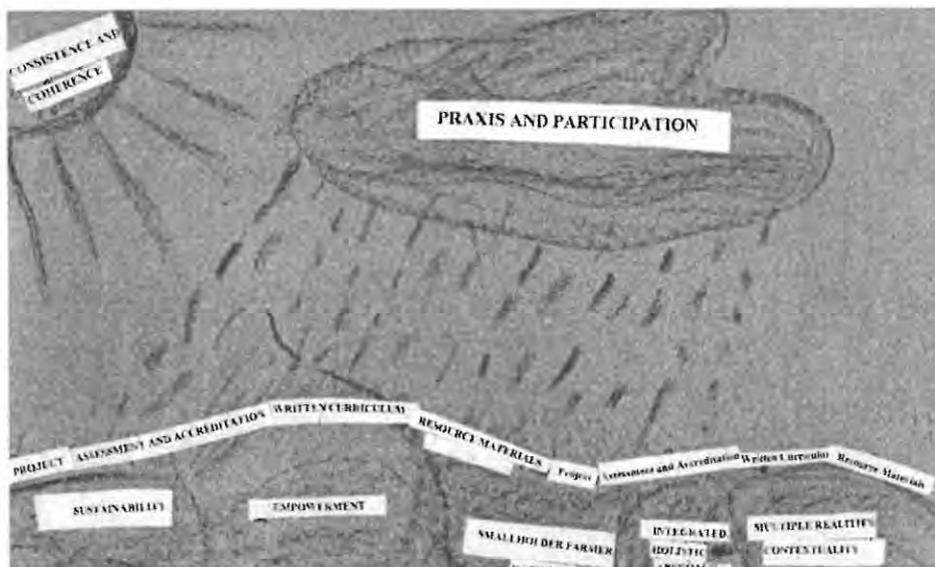
The underlying rocks are five values of the Association: sustainability, empowerment, smallholder farmer interests, integrated and holistic approach to development and consideration of multiple realities. The values informed four facets of the curriculum discussed in the study, namely trainee projects, written curriculum, assessment and accreditation, and resource materials. The whole facets were also looked at in terms of participation and praxis – two very central values of PELUM. Finally, the entire curriculum was scrutinised and illuminated through the lenses of coherence and consistence.

7.1. Tensions

Change is generally characterized by tension -- tension between the old and the new, the desired and the unwanted, the hopes and the fears, the safe and the risky. The Agro-ecology and Community Development curriculum was in itself new. The process of developing the curriculum was also new in the context of Zimbabwe. The implementation of the curriculum by 15 independent organizations was novel, so was carrying out a project within a community for both pedagogical and pragmatic reasons. The process of bringing about anything new is change. There were changes that took place within each process of change as participants learnt from past successes and failures.

Tension calls for balance and until there is some level of equilibrium, tension continues to exist. Tension is a call for resolution and can often be seen as an opportunity for positive change. The resolution of tension within the underlying structures can lead to the resolving of tension on the surface. Tension is an acknowledgement of the existence of diversity, divergence and differences. It is the relationship that exists within what is different and similar. It justifies multi-stakeholder participation in its resolution. The location of the source of tension often determines the level of difficulty in resolving it. If found at the bottom, in the principles and values or orientations it tends to take more effort to resolve but its resolution helps in the solving of tensions at lower levels. Some may just disappear.

In looking at the curriculum orientation I conclude that even though it is principally socially critical in orientation, it had strong elements of pragmatism. There was evidence of pragmatic decision-making (which lacked the deeper elements of pragmatism such as context) and of socially critical intentions and lessons -- the declared emancipation interest, the intention to change structures. But unless these differences and potential synergies are communicated to and with the curriculum developers and implementers, the tensions remain elusive to deal with. The curriculum framework developed at regional level did not involve about 90 percent of those who were involved in the curriculum on Agro-ecology and Community Development. When the curriculum framework was being developed, no one knew which actors would be interested in developing it further. Such was the case in the case under study. Reflection about the course should have been extended to curriculum orientation. Troubling the orientation could have resolved issues about the purpose of projects in communities for example. I surmise that the emancipatory role, the practical problem-solving role, the generation of understanding, meaning and insights and the role for learners to learn would have come out clear.

The resource materials developed by different individuals also indicated tensions. Some evidenced the traditional approach to research, with the researcher as the knower and the communities as the learners whereas the curriculum was pushing for change, for a new way of seeing the research participants, of seeing education as "voyaging together" between the teacher and the taught. Another tension in the resource materials appeared in not just encouraging the learners to become activists but in playing an activist role as the facilitator.

The composition of the college also made internal tension likely. Having the universities with their scientific rigour, emphasizing individual excellence on one hand and CBOs emphasizing community needs, relevance and results on the ground on the other had the opportunity to cause tension but certainly provided an opportunity to merge the strengths of the two. But occasionally, there were moments when the tensions showed up. The tension was positively utilized by drawing mainly on what each kind of institution was good at and reflection process.

Another tension resided in the different backgrounds of learners: levels of education among the trainees, from those possessing less than 5 passes at "O" level to those who held a degree level; from 20 years of age to 54; from little experience in community development to more than ten years. The learners came in with different expectations, some wanted certificates to access further training, others wanted a training that would lead them to greener pastures and for others, it was the inherent value in the training that interested them.

Training for self-employment or for the job market? The question, raised by Lungu (1997) was never directly discussed in the college. Looking at the course alone, the answer appears to be training for the job market because all trainees were employees. But it is possible that there will be other courses that will focus on training for self-employment. Training for the job market demands recognition of training by the potential employers. The potential accrediting institutions tend to be those with a traditional approach to education. The tension then lay in the curriculum staying responsive, relevant and open-ended and at the same time meeting the criteria of formal accrediting institutions. For example, the Ministry of Agriculture could not accredit it because it was not predominantly about agriculture, nor could the Ministry of Community Development because it was not just about community development. The choice was the Ministry of Higher Education, which accepted the curriculum's trans-disciplinary nature but still had conditions such as having a set of textbooks that formed the core reference materials.

7.2. Insights

I want to propose that to have insight means to be able to see what is inside not just what is in sight. It denotes going beyond the surface, penetrating and grasping an issue at hand. In the process of

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evaluating the Agro-ecology and Community Development curriculum I developed some insights on curriculation and curriculum implementation.

7.2.1. Curriculation should start with the negotiation of the curriculum framework. Frames give the assumptions and connections about a position, situation, problem or process. Frameworks outline the values and norms that must be negotiated. The framework can then be used as the compass for future decisions and directions. The absence of a framework opens up the curriculation process to making decisions without looking at the whole picture or without going through a decision-testing process. Inconsistencies emerge easily where there is no curriculum framework in use.

7.2.2. Spelling out the curriculum framework not only helps with providing the parameters for reflection but it also exposes the framework to being understood, interrogated and changed, as the context changes and shifts ought to be made. Not to design or disclose the framework is to limit and underplay its importance.

7.2.3. Curriculum implementers need to have a good understanding of the curriculum orientation if they are to perform effectively. It helps them see the big picture, the connections as well as the direction in which they should voyage in the learning terrain. This is especially important where the curriculum is trans-disciplinary and new.

7.2.4. Until the organizing principle of a curriculum is identified or created, understood and applied, the coherence of it will remain elusive. The conceptual integrity of the curriculum depends on the principle. A scattered, fragmented, subject-focused curriculum then takes the place of an intended trans-disciplinary curriculum.

7.2.5. The leaders in curriculum construction, design and implementation ought to have a substantial understanding of theories and philosophies that underpin what they are trying to do. Where depth of understanding is lacking, there is the danger of ignoring or undermining the productive relationship between theory, practice and reflection. I believe that if I had had the handsome knowledge of educational theories and knowledge theories that I have now, some of the mistakes we made in the curriculation process could have been avoided.

7.2.6. Those who hand over curriculation processes in progress to others should make a serious effort to inform the successors of the key assumptions about the curriculum. In other words, they should orient to newcomers to the orientation of the curriculum so as to avoid a superficial

handle of further processes.

7.2.7. Resource materials are a good indicator of the perceived orientation of the course by those who develop the resource materials (if developed within the college for example). They reflect assumptions about the perceived roles of the learner and the educator, about knowledge creation and about ontology.

7.2.8. New curriculum developments that are not in line with traditional, national educational and training principles and ideology are not likely to be accepted by national accrediting institutions without much change, which threatens to kill the very essence of innovation. Here it becomes an issue not only of good scholarship but also of politics and requires an advocacy role to be played by the proponent of new curriculum.

7.2.9. Partnerships in curriculum development and implementation that are based on the principle of complementarity, common vision, mutual respect and cooperation are likely to succeed even where the partners have different interests. The government agencies, NGOs, CBOs, universities and donors were able to work together in the case studied.

7.2.10. The value of participation in curriculum development does not end with the contributions from the participants. It has to go beyond and address the needs and interests of the stakeholders. Benefits perceived or actual, tangible or not, from internal sharing or from outside, ought to attend participation at some stage if it is to be sustained.

7.2.11. Lack of a system of accreditation that recognizes prior learning has the danger of excluding people who have accumulated experience and interest in the area of training or education. There were some excellent results from people who did not hold five passes at ordinary level. Such people are normally excluded from certificate courses such as the one run by the college. Learning does occur outside formal settings.

7.2.12. As far as projects are concerned, good project plans do not necessarily lead to good implementation because the realities on the ground tend to be complex. What counts later is the ability to make pragmatic choices and adjust while maintaining the rigour. The learner needs to have good people skills to implement a participatory project. She must understand and motivate the employer, the mentor, the community members and other development agencies in the area.

The insights below are related to methodology:

7.2.13. For the deeper research issues and questions to emerge, it is necessary for research participants to have time to think over questions and to be approached more than once. A time to sleep over things, to let the ideas, questions and answers brew is essential for meaningful responses to come about. The quality of responses to inquiry in subsequent rounds tends to be better. A research process done in a hurry will often miss the subtleties.

7.2.14. Within the context I operated, getting feedback on questionnaires sent by mail was problematic. The most effective way was to give the questionnaire, wait for someone to fill it in and then collect it. I recommend the "give-and-collect" approach. It also means taking advantage of people traveling to where the respondents live.

7.2.15. A real understanding of methodologies comes to novice researchers such as me only when one begins to work with them, to encounter questions and situations that challenge one's understanding of methodologies. Such moments arose several times in my research journey. Sometimes I referred to literature, sometimes I consulted my supervisor or her colleagues and occasionally I grappled with the issues until I arrived at some clarity in understanding. Keeping a reflective book handy was helpful for jotting the insights that "arrive" at odd hours or places. There were a few that came and went because I had nowhere to record them.

7.2.16. While I agree to the idea of researchers needing to accompany or be accompanied in their research journey by research participants and that the researchers have to share the findings with the research participants I do not subscribe that to not share the findings is essentially extractive (Chambers, 1998). For, to extract denotes to take away the substance and leave the chuff. When a researcher poses a question and the respondent answers, the response is heard but not taken away. The problem comes when what is heard is patented and ceases to be the property of or accessible to the original provider. Secondly, in the kind of research that I carried out, asking questions alone could actually be empowering. For example, asking, "What philosophies underpin your curriculum?" can lead one to start thinking deeper, to explore and to discover that which was hidden from them – to develop new insights.

7.3. Recommendations specific to the curriculum under discussion

7.3.1. The Agro-ecology and Community Development curriculum should be revised for coherence and conceptual integrity. It should be re-organized around some principle of unity in keeping

with its principle of integration. Integration is important because the problems the curriculum seeks to address cut across disciplines.

7.3.2. The curriculum framework developed at regional level should be recaptured and reviewed and become part of the one whole Agro-ecological and Community Development Curriculum that is being implemented in Zimbabwe. The framework should become visible to all stakeholders so that they know what informs that curriculum.

7.3.3. After understanding the curriculum framework, the stakeholders should reflect on it further in the light of new knowledges, circumstances and demands and make necessary changes to it. Reflection on the framework should become part of the growth process of the curriculum and those who implement it. The framework should be viewed as a praxiological living structure.

7.3.4. For further clarity, each kind of course implemented from the curriculum should have its own spelt out rationale or mission. This means the course intended primarily for those who are already working and are on a part-time programme should be different from the one that may be for future trainers in environment and development education of this nature. The kinds of skills and competencies that the course intends to develop should be made clear too.

7.3.5. Resource material development should reflect the integrated nature of the curriculum, its open-endedness and its developmental and educational philosophies. This could mean that there is a need for orientation courses for both the college trainers and training managers and facilitating a process of resource materials production. Resource people should be given terms of reference that spell out the context (educational and developmental) of their inputs.

7.3.6. The rationale for continuous assessment should be discussed and should inform the manner in which the assessment is carried out. This should be easier with the reconfiguration of the training schedules as the implementation will become less fragmented (TM.3).

7.3.7. Project design and implementation should be developed with a learning value in mind. The student's role of agency in development should not be reduced to that of a tool of development where he/she serves the interests of the community members without liberating his/her mind in the process. Lila Watson, an Australian Aboriginal educator and activist says, "If you have come to help me, you are wasting your time. But if you have come because your liberation is tied with mine, then let us work together," (Gough, 1998: 3). In implementing the projects, the trainees should not think only of liberating others but themselves as well.

7.3.8. PCZ should pursue dual accreditation so as to cater for the different interests and backgrounds

of trainees. The exit qualifications will have to be different. Naturally, the assessment system will need to be redesigned to address the new accreditation design. The dual accreditation option would also have an effect in the manner in which the courses are run.

7.3.9. The college should pursue accreditation with a regional institution such as the one recommended by Lungu (1997).

7.3.10. The participation of all stakeholders should be enhanced and those on the periphery should be moved near the center, especially mentors and community members.

Chapter and thesis conclusion

In this chapter I have drawn out the main learnings that I see as particularly worth sharing with the college and with other environmental education workers, especially those looking for new ways of developing and implementing curricula. I see the recommendations having the potential to make an immediate and direct contribution to the written and implemented curriculum in the college.

The research journey was a steep learning curve for me as I had to grapple with understanding the language of research and the methodologies. What was particularly challenging was how to deepen discussion on every theme given that the scope of my research was wide. I read through thousands of pages of literature on environmental education and literature in the college and gradually I learnt what to sift for but it was not always easy. I generated information that I could not use directly in the thesis. Future research work about the curriculum could focus on fewer areas and use the action research method as there would be enough data to go by in the different areas of research that one could focus on and as there may be a more praxiological orientation following my recommendations.

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APPENDIX 1: Sample analysis text (ASS.1)

The assessment of the trainees is done at several levels and this analysis is based on several documents.

The course work makes 35 percent of the mark; the two end of year exams together constitute another 35 percent practical examinations make up 10 percent while the project comprises the remaining 20 percent. The equal weighting of exams and course work is interesting, highlighting the importance placed on continuous assessment.

The course work and exam marks are shared in the ratio of 2: 2: 2: 1 among Agriculture; Natural Resources Management; Community Development and Facilitation; and Organisational Planning and Management respectively. The agriculture section has the highest number of hours by far.

The course work marks come from tests that are administered by training managers and marked by them. They are then sent to the coordinating unit for compilation according to subject area. Some weighting of the marks within the subject area is also done.

For the two end-of-year exams, the questions are compiled by training managers from participating organisations. These are sent to the Assessment committee, which is responsible for final synthesis and allocation of marks to the questions. The committee is made up of six people, with a diversity of strengths covering the whole curriculum. The committee members are training managers from within the college. The college coordinator is part of this committee – in fact, of all committees. The assessment committee marks the examinations. A moderator from outside the college also gives opinion on the marking. The process is not clearly spelt out.

A practical examination is administered and marked by the assessment committee. The questions also come from all training managers and are synthesized by the committee.

A smaller team of three is tasked with visiting projects implemented by trainees and assessing them. Assessment includes interviewing community members, the employer, the trainee and observing the actual project. Each of the three members of the team gives a mark, which is then moderated by the team. The assessment team marks the project write-ups. It is not clear at this stage how the marks from the assessment of the project are related to the mark for the write-up. What is clear is that the mentor's mark constitutes 18.75 percent of the project mark.

Trainees who fail to get a mark of 50 percent and above in a given subject ought to re-sit. For any re-sit, it is important that the trainee passes the course work and the project. The mark for re-sitting must not exceed 59 percent. The provisions do not indicate how many times one is allowed to re-sit.

What emerges is an interesting assessment system and process. The assessment is well spread in terms of time, in terms of who assesses and is terms of what is assessed. It is carried out throughout the two years by training managers, the assessment committee, the mentor who is often the employer, the project assessors in consultation with the community members as well as by the external moderator. Here is a good case stakeholder participation. The notion of participation is thus spread out to include monitoring and evaluation. Ownership of the assessment resides in the college. Most of the control of the process is vested in the hands of the assessment committee. It would appear important to bring in more external input to avoid the danger of it being a closed assessment system.

The exam questions set for the first year were for three hours each subject save Organisational Planning and Management, which was two hours. Each paper had two sections. All questions in Section A were compulsory. The questions sought explanations and descriptions of main concepts. In Bloom's taxonomy of cognitive skills, the questions were confined to the lower levels – testing comprehension. In Section B, trainees selected two out of four questions. The questions sought higher levels of cognitive learning, especially skills of analysis application. There were hardly any questions requiring evaluation and synthesis.

In the first year, trainees were examined in seven areas: Organisational planning and management; Agriculture; Natural Resources Management; Community Development and Facilitation; Design Process; Training for Transformation and on the Project. In the written curriculum, training for transformation is part of the Community Development and Facilitation while Design processes is part of Agriculture. There was no need for the split. And in the second year, there was a return to the former structure, reducing the subject areas back to four. There were no practical exams in the first year.

The challenge then is how the marks will be merged – the weighting of them without unduly disadvantaging trainees, especially those who may have to re-write.

In the second year a change regarding the structure of the examination was that Section A made up 40 percent of the mark while Section B made up 60 percent. This meant giving more marks to higher order cognitive skills, which may be linked to the idea of a Diploma instead of a Certificate (see Lungu about the need for more analytical minds).

Another important change was the inclusion of practical examinations, which would give some leverage to those not very articulate but having good psychomotor abilities.
An analysis of the mark schedule reveals that just over 50 percent of the trainees who sat failed Organisational Planning and Management, all passed Community development and Facilitation as well as Agriculture, between 20-25 percent failed Design Process, while only one failed Training for Transformation. At the end of the second year, two trainees had not submitted any project work. There were no re-sits because these happen only at the end off the second year.

Informal interviews with students revealed that the high rate of failure in Organisational Planning and Management was due to the asking of questions inside the written curriculum outside what had been taught. (Reminds me of "Promise and Performance"). The inconsistency was confirmed by the college coordinator. The basic problem was that there was no adequate consultation between the two main organisations tasked with this subject.

In the second year, 16 trainees sat examinations (1 less compared to year 1). The performance was far better compared to year one. 87.5 % passed NRM; 94 % passed Agriculture; 100 % passed Community Development and Facilitation while 87.5 passed Organisational Planning and Management. The last subject is where the greatest improvement was registered. Overally, in the second year, out of the four subjects, two students failed in two subjects each. The two students failed three subject each in year one. And the one who failed in one subject in year 2 also failed one in year one. Nine trainees failed at least one subject in year 1; while only three failed at least one subject in year 2. There will therefore be 5 re-sits. One of the students who failed has an excellent project write-up.

The marks on the projects are not yet available.

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Appendix 2: Sample analysis text (TRN.1)

This is an analysis of the First Collective Reflection of the First Course by the First Group of Trainees, May 1999.

A year into the course, I held a one day meeting with trainees to reflect with them on the course with a view to improving its implementation. I facilitated the workshop. It started off by trainees responding to a questionnaire individually. Then the whole group in workshop fashion discussed the main issues raised.

1. Quality of teaching and learning:

-- The problems raised were that some training managers came in cold, were not oriented to the curriculum which suggested the need for a trainers' guide;
-- That there were not enough handouts, which suggested the need for access to relevant reading materials;
-- That some of the trainees did not have the required level of command of English to make learning and teaching more comfortable;
-- All in all, trainees said they were motivated to learn and were finding their experiences on the course worthwhile.

2. Trainee participation:
-- This was highly rated. They participated through group work, presentations, sharing case studies and critiquing some resource materials. More important they were represented at PCZ Board level.

3. Comprehension of main concepts (a written exercise was done):
-- Trainees demonstrated a good understanding of the concepts but were weak when it came to making linkages between concepts and subjects.

4. Quality of training and learning materials:
-- Trainees were happy with the quality of handouts but complained that they were too few. In some cases promised handout had not been delivered. Trainees needed access to libraries (and we developed identity cards that helped them access some libraries). In response to the criticism some training managers said they did not have money to photocopy handouts and recommended that the college coordinating unit disburse funds for this purpose in good time.

5. Suitability of monitoring and evaluation systems:
-- Trainees expressed satisfaction with regards to mechanisms that existed

6. Quality of course content:
-- Trainees generally felt that there was a good balance between theory and practice but they felt that there was not enough critique (development of critical thinking). However, trainees from community based organisations complained of too much theory at universities.
-- On the other hand, trainee project plans showed a lack of ability to mesh theory and practice. More than half the trainees had to re-write their project plans. This led to a delay in the implementation of the projects.

7. Accreditation:
-- Trainees said that their training was too demanding for a certificate level. They wanted a Diploma. (And it is actually possible for the trainees to be issued with a Diploma by the PELUM accrediting

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Board. I did not raise this point with the trainees. Neither did I with the training managers. Nevertheless, the entry qualifications are still an issue).

8. Other observations:

The structure of the course made it impossible for interested people from elsewhere in the region to enroll on the course. It would mean too many travelling expenses. Bigger blocks of learning sessions were required.

Most of the concerns raised here were addressed during the course. The one on accreditation is still outstanding.

I compiled a report on my meeting with the trainees and sent it out to all participating organisations. I subsequently sent questionnaires to employers of the trainees for any signs of improvements on the job. Of the five who responded, two were very positive, the other three said it was too early to tell.

<u>**APPENDIX 3: Sample analysis text (TRN.2)**</u>

An analysis of the responses by 10 trainees. The feedback was given just a week before they sat their final examinations (2nd year). The questionnaire sought yes or no answers as well as explanations. So the analysis will have both quantitative and qualitative elements.

1. On staff attitude towards trainees:

■ Training managers were punctual: 80 percent yes, 10 percent in the middle; 10 percent, no;

■ Training managers were professional in attitude: 90 percent yes, 10% in the middle;

■ Training managers were open to student opinion: 80% yes, 10% in the middle, 10 percent no.

■ Training managers were willing to assist students: 90% yes, 10% in the middle;

■ Training managers created a sense of goodwill: 80% yes, 10% in the middle, 10% no;

Explanations given to the NO were that some trainers never came and gave reasons that they were informed about the sessions late. Consequently, a few topics were not covered. Some trainers did not have an idea of what was expected of them. Training managers were not open to the idea of offering Diplomas or degrees instead of certificates. One who had a YES for punctuality said 75 % were punctual. It was recommended that communication especially with hired personnel should be improved.

Major concerns here are related to coordination, preparation and accreditation.

2. Trainees' view of their learning on the course:
■ I have learnt to think critically: 100 % yes;
■ I have learnt to work with others effectively: 100 % yes;
■ I have developed a good understanding of the 4 subjects: 80% yes
■ I have learnt to apply theory to practice and practice to theory: 100% yes
■ I have seen the relevance between the course and my work: 100%

Elaborations on the above answers are: there is need to add computer training and elaborate organisational management (recommended now by training managers that it be split into organisational planning and small business management), incorporate water harvesting in resource management (it is in the written curriculum under Design processes). One trainee fears that the learnings may not be considered important by their employers (Perhaps the question is will I get a salary raise after this course). Project proposals needed more time. One trainee says she achieved all her expectations in the course. Another said the course helped him at his workplace. Another said the course empowered him, including in his personal live because he now has a vision, he has improved his skills which has improved his performance at work.

The trainees value the course. It would have been interesting to see whether the two who are not sure about mastery of the 4 subjects are the ones that failed two subjects. Unfortunately, the responses are anonymous.

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3. Trainees' view of their participation in the course:

- I have learnt to feel responsible for my own learning: 100% yes;
- Interaction among the class was encouraged: 100% yes;
- I participated in deciding priorities for learning: 60% yes, 40% no;
- Students views were taken seriously: 40% yes, 30% no, 30% uncertain;
- The course was largely participatory: 90% yes, 10% uncertain

Comments were: the course was participatory as it taught participatory methodologies such as Training for Transformation, decisions were based on me.

There is serious concern regarding how trainee views are taken. It would be important to follow up on this one to see which views in particular. I have a feeling that this is linked to accreditation not to the course in itself – especially when one and a half times the number of those who say YES say they were involved in setting priorities for learning.

4. Trainees' views on resource materials:

- Required reading materials was available: 90 % yes, 10% no;
- Handouts were in line with course objectives: 100% yes;
- Resource materials were pitched at the right level: 80% yes, 20% no;
- Resource materials were supplied in good time: 60% yes, 40% no;
- The resource materials supported classwork and field work: 100% yes.

Comments were; Some materials were sent late, some marked assignments were never returned. Student identity cards did not help them access other libraries, most reference and recommended material could not be easily found. Two complained of not enough stationery or of its late delivery. Some found access to the PELUM library handy.

Timeous provision of resource materials was seen as important and lagging behind. Supplied resource materials are relevant.

5. Assessment of the Assessment System and Practice:

- Training managers suggested how I could improve: 70% yes, 10% uncertain, 10% no;
- Assignments tied in with course objectives: 100 percent yes;
- The assessment systems was fairly administered: 80% yes, 20% no;
- I understand how the assessment system works: 70% yes, 30% no;
- The assessment system is fair:80% yes, 10% uncertain, 10% no.

Comments were that: some sessions were too short to be assessed on, especially those that were less than a day long. Assessment should be done after the topic has been covered (even is the topic is shared by more than one organisation). One said she did not know how the mark of continuous assessment was arrived at. The system was not fair because there was not enough time to read before write a test, which would contribute to a continuous assessment mark.

The area of continuous assessment does seem to need some attention especially from the comments, which tally with those of one training manager.

6. Project planning and implementation:

- My project was decided on by the community: 90% yes, 10% no;

- The project was useful to the community: 100% yes;
- The project will continue after my course: 100% yes;
- My organisation supported me in project implementation: 90% yes, 10% no;
- The project benefited from what I learnt in the course: 100% yes.

Comments were: that the organisation did not support the trainee because they were jealousy of him being on the course, the project was decided by the organisation not by the community. One trainee said he did not get financial support from his organisation although he said his organisation supported him in the implementation of the project. However, some positive comments were that considerable support was given in the implementation as well as in writing the project report. One trainee said that even though his project did not score high marks at the end of the first year, he saw many farmers the research design he had taught them. Then in the second year, as a result of his project many farmers began to experiment among themselves, with some learning from others. The college should train on research skills early on in the course so that project implementation starts early.

Trainees all expressed positive feelings about the project. There appears to be need for the college to liaise with employers of trainees on project implementation before trainees are accepted on the course.

7. Trainee interaction with mentor:
- I understood the role of the mentor: 90% yes; 10% uncertain;
- I got adequate support from my mentor: 70% yes; 30% no;
- My mentor challenged me to look farther, deeper: 90% yes, 10% no;
- I held more than five meetings with my mentor: 60% yes, 10% uncertain, 30% no;
- My mentor corrected me when I was wrong: 80% yes, 10% no response, 10% no.

Comments were: Did all by myself because mentor retired at the early stages of the project, two people wanted to mentor one trainee who ended up getting contradictory comments from them. One only understood the role of the mentor to be receiving project plan and reports he did so. Meetings with him were informal. Two trainees were particularly impressed with the level of support given by their mentors.

It appears trainees had a more positive impression of the work of mentors compared to the mentors themselves.

8. Course coherence
- The relationships between the subjects were clear: 90% yes, 10% uncertain;
- The order of the sessions was right: 20% yes, 10% uncertain; 70% no;
- Values and principles of the college were upheld: 80% yes, 20% uncertain;
- Theory and practice were well-integrated: 70% yes, 10% uncertain; 20% no.

Comments on the above were: It was an intensive course and involved some overworking, topics were "haphazardly arranged", "a lot of cross-country trips for lessons", "concentrate on few centres and bring in trainers". One complained on that the three week sessions were too long to be away from work. There is need to monitor practicals (the projects I think) and the notes are difficult to read because you move from one subject to another and then to another, mixing them up.

9. Issues that need to be brought to the attention of the college:

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