

THE PREPARATION OF PRE-SERVICE TEACHERS IN COLLEGES
OF EDUCATION IN THE FORMER CISKEI, WITH SPECIAL
REFERENCE TO TECHNOLOGY IN EDUCATION: A
QUALITATIVE-NATURALISTIC INVESTIGATION

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THESIS

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ABSTRACT

The preparation of pre-service teachers in Colleges of Education in the former Ciskei, with special reference to technology in education: a qualitative/naturalistic investigation.

The study is based on a "naturalistic-phenomenological" philosophy that views reality as consisting of multiple layers as interactive, and as a social experience that is interpreted by individuals. The goal of the inquiry was to investigate the preparation of pre-service teachers in the use of technology in education, as well as to contextualise and interpret the findings in the socio-historical setting of South Africa generally.

The case study design was considered appropriate for a detailed description and analysis of the problem. The cases selected were the three Colleges of Education in Ciskei, which offered compulsory educational media course. The participants' perspectives were studied with interactive strategies (ethnographic observation and ethnographic interview), as well

as non-interactive strategies associated with the theoretical approaches of symbolic interaction and ethnography. The researcher adopted an interactive social role in order to record observations and interactions with participants.

It was found that due to situational and structural factors, Colleges did not prepare pre-service teachers adequately for the use of educational media. One of the structural factors that impacted most negatively on the teacher education programme was the establishment of segregated Colleges specifically for Africans who had been removed from the urban areas in order to consolidate the homelands policy. In addition, the decision by the Nationalist Government that education was an "own affair" - which removed the responsibility of financing the education of homeland blacks from the central government - worsened the situation.

Concomitant with these structural factors were such situational factors as the prescription of syllabi by the Department of Education and Training despite the "own affair" philosophy, accompanied by the rigid compartmentalisation of related subject matter. In addition to these were such factors as

the restriction of educational media to the technology lecture room, the denial of free access to the media store rooms, as well as the theft and underutilization of the already inadequate media. Finally, the inadequate preparation of lecturers and guardian teachers in the use of educational media, the lack of collegiality, co-operation and professional commitment among lecturers, coupled with the lack of a culture of learning among pre-service teachers all militate against an effective teacher education programme. Sadly, all these situational factors have their origin in the segregated society of South Africa in general, as well as her governing policies. Unless significant changes in the provision and management of teacher education are effected, the adequate preparation of pre-service teachers in general and in the use of educational media in particular seems unlikely.

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Notemba Mrwetyana
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December 1994

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I hereby state that this thesis is my own original work and that it has not been submitted for any degree in any other university.

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CHAPTER 1

INTRODUCTION AND BACKGROUND TO THE STUDY

How well do undergraduate programs in schools of education prepare pre-service teachers for technology use in the classroom? Not well enough...

Isabelle Bruder (1989: 32).

Many of these prospective teachers, when they complete their college training, possess very limited knowledge about the field of instructional technology, and possess even fewer skills in that area. This lack of knowledge and skills not only relates to media production and utilization, which occasionally are part of the undergraduate teacher training curriculum, but also relates to the areas of instructional development and individualized instruction, areas in which many students fail to receive any training.

Robert A. Reiser (1986: 21).

Education has seen a series of technological innovations this century. Since the 1920s, many technologies have been introduced to the classroom. Radio, film and instructional television are examples of media incorporated to make teaching and learning more efficient and more productive. However, the predictions that these technologies would improve the quality of education have not been fully realized.

Media-comparison studies did not confirm the expected gains in learning (Schramm 1977). Each technological "breakthrough" in the past resulted in disappointment and sometimes abandonment (Cuban 1986). The disappointment accompanying each of these innovations has left educators and researchers searching for explanations. The teacher is often at the centre of the controversy surrounding the use or underuse of technology in education. For example, Cuban's

review of classroom use of technology since 1920 reports that many researchers attributed the failure of innovations to teachers' inability to adapt their teaching behaviour to maximize the potential of technology. Even though the rationale for blaming teachers for the failure of innovations seems unfair, it is plausible enough to be worthy of serious consideration.

Evidence gathered worldwide indicates that teachers do not take advantage of technology to improve learning despite the availability of technical resources, facilities, equipment and training. In the United States of America, for example, the 1990s are regarded as the age of the "computer revolution" due to the large amounts of money spent by colleges, lecturers, administrators and students on desktop computers and software. However, the bulk of that technological equipment sits in storage closets and back rooms. Despite eighty years of efforts to apply technology in ways that would "revolutionize" education, most teaching practices in American classrooms today are dominated by "teacher talk". In a fairly recent study of thirty-one schools, Becker reports, "...even when supplied with sophisticated computer equipment and provided with abundant resources, teachers implemented a fairly traditional program of instruction" (1991: 7).

Underutilization of technology in education is equally experienced in South Africa as in other parts of the world. Commenting on this phenomenon in Transvaal schools, Hofmeyer reports that technology is almost ornamental in most schools.

When visiting schools he,

found media equipment gathering dust on shelves , or lying unopened in storerooms, while teachers in the classrooms perpetuated the media *status quo* of chalkboard, books and the occasional chart or flashcard (1987: 6).

Similarly, studies conducted on the use of technology in education in Ciskeian secondary schools reveal that teachers underutilize technology even though a course in educational media is a compulsory component of the pre-service teacher education curriculum (Kruger 1980; Mrwetyana 1983). The above studies show that in the case of the majority of secondary schools in Ciskei, pupils are exposed more to teacher talk, than they are to curricular materials.

Contrary to expectation, teacher education institutions are also reported not to use technology in education despite rapid changes in society and in technology (Clark 1979; Johnson 1979). The more powerful training technologies such as videotape, microteaching, simulation, and interaction analysis are used at a relatively low level.

Teacher education institutions are also reported not to prepare pre-service teachers well enough for the use of technology in the classroom (Mariet 1978; Bruder 1989). In Salisbury's opinion, the "tradition of teaching" is one of the factors that militates against the effective use of technology in education. His stress is on teacher education programmes. "These programs", writes Salisbury,

train prospective teachers to function in the traditional lecture/seatwork model of schooling - because that is the only model which really exists out there (1992: 55).

The findings documented in the preceding paragraphs are a cause for concern if the pervasiveness of technology is taken into consideration. Education institutions are confronted by an environment of rapid technological change. The fast pace of change in contemporary society has implications for the role of the educator. Traditionally the educator's role was to pass down to the younger generation the knowledge and experiences of a slowly evolving society.

Contemporary society has new expectations of education institutions in general and of educators in particular. Amongst other things educators are expected to develop and maintain classroom environments conducive to learning, as well as to implement technology. Such expectations imply reform.

Reformers of education call for restructuring, which implies a radical transformation of the schooling process. Emphasis is placed on student-centred learning as opposed to textbook-based memorization. Technology is seen as having an important role to play in the transformation process (Bruder 1990; Collins 1991; Sheingold 1991). For example, video and videodisc technologies provide visual examples of real world phenomena and events that could be used by students for problem-finding and problem-solving activities. Word processors, databases and graphic programmes can help educators design thought-provoking tasks for students. Local and international communication among students and educators can be achieved by means of computer networking and satellite

communications technologies. Multimedia technologies can provide rich sets of materials for active learning. Students can create professional-looking products which can be revised and shared with ease. The possibilities are endless. Technologies can help educators transform to the desired "constructivist" or active learning of an information age.

In South Africa, where the apartheid system has resulted in education for the various race groups being separate and unequal and that of Africans inferior, there is a demand for transformation. The words of one teacher capture the state of affairs in African education:

Countless township schools resemble the ruins of Jericho as a self-destructive, silent war against "the system" rages on...schools have been stripped bare by squatters and even by pupils...This is rapidly becoming a bad culture that we, unfortunately, will take into the new South Africa (Molefe, quoted in Moja 1992: 17).

As in many developing countries worldwide, solutions for some of the educational problems facing the country are being sought in the area of educational technology. The radio, television and computers are often cited as having the potential to improve the quality of education (HSRC 1981; Moja 1992). The role that could be played by educational technology toward solving some of the problems facing education is elaborated on in the next chapter. The primary function of educational technology is to improve the efficiency of education in general and of the process of learning in particular. The complex, integrated process of educational technology, which involves people, procedures, ideas, devices and organization is looked upon as having potential to help transform education. Teacher education in

particular, is singled out for the contribution it can make toward growth in educational technology. As observed by Glenn and Carrier,

What is needed are better prepared beginning teachers and effective inservice education for teachers who are in the classroom (1987: 3).

STATEMENT OF THE PROBLEM

Research in other countries suggests that teacher behaviour is learnt during the teacher's own school days and that this school experience is the most significant influence on teaching practice (Sachs 1987; Salisbury 1992). In their own schooling in segregated education institutions, African teachers have experienced authoritarian practices including what Freire (1992) refers to as "narration" or "banking". This is a process whereby teachers transmit prescribed knowledge to passive students who are restricted to "receiving, memorising, and regurgitating official textbooks" (Walker 1991: 158). By the end of their pre-service teacher education careers, where they were exposed to "two or three years of fundamental pedagogics", most African teachers will have internalized a particular understanding of teacher behaviour which they will eventually re-enact in their future classrooms. Those African teachers who are appointed in Colleges of Education will probably continue to "act out" their internalised behaviour, and their own behaviour is likely to influence student teachers who are also likely to mimic their teacher educators' behaviour. For example, if as teacher educators they rely heavily on the official syllabus and prescribed textbooks, and ignore other technologies of

education that could help improve classroom interaction, it is likely that their students will eventually "act out" a similar teacher behaviour. In the case of teachers failing to use or underutilising educational media in their teaching, despite the educational media course offered in Colleges of Education, could there be factors in teacher education and schools that influence such failure? Or could such situational factors have their origins in the structures of broader society?

From the researcher's personal experience as a pre-service teacher, later as a teacher educator in a segregated university and again later as a teacher educator in a segregated College of Education controlled by the Department of Education and Training, the researcher observed that pupils and pre-service teachers were exposed to excessive teacher talk. Most of the time they sat passively and silently, listening to what was said by the teacher or teacher educator, without themselves participating. Interaction between teacher and students, between students and media as well as among students themselves was minimal. In such classes, students usually resorted to memorizing lecture notes or contents of textbooks, without real understanding of the message. During class tests and examinations, students often wrote verbatim accounts of what they memorized without showing any sign of critical thinking and understanding. Because the majority of African teachers in Ciskei were trained in Colleges of Education, the researcher became curious to investigate factors related to the preparation of pre-service teachers in the use of technology in education.

The problem addressed by this inquiry was the preparation of pre-service teachers in the use of technology in education.

The goal was to discover how pre-service teachers were trained in the use of educational media and to theorise on the basis of the situation as found by the researcher.

Initially, the intention was to use a purely survey design that would have enabled the researcher to describe the preparation of pre-service teachers in the use of educational media by means of quantitative data. Questionnaires were constructed and distributed to lecturers and third-year pre-service teachers in the Colleges of Education in Ciskei. When the data were analysed, it became apparent that there could be more than just what the data at that stage suggested. The relatively pure Educational Technology interest left gaps that still needed to be filled. The sociological insights that emerged from the processes of data collection and preliminary analysis led to a change of design. The hard data seemed to gloss over the possible influence of both situational and structural factors on the phenomenon investigated. To explain the data, there was an urgent need to "analyse the social reality hidden behind those appearances" (Wright 1978: 12).

The sociological approach seemed potentially capable of providing the researcher with the conceptual frameworks appropriate to investigate the multiplicity of factors influencing the preparation of pre-service teachers in the use of technology in education.

Equally influential was the researcher's social responsibility. The researcher, as a member of the stratified society of South Africa and a graduate of a segregated teacher education institution, had a responsibility to challenge and to make problematic, the educational issues that were usually taken for granted. That responsibility

arose from the researcher's commitment to the transformation of education in general and teacher education in particular. The stance adopted by the researcher was that there was no such thing as a neutral educational process, as the findings of quantitative research seemed to suggest. Along with Jansen (1988) the researcher firmly rejected ideologically neutral positions in research on the following grounds:

even if researchers in South Africa attempt to walk the tight rope of ideological neutrality, it becomes clear that to claim neutrality, is to sanction the socio-political status quo as it affects education (p.525).

The case study design was considered appropriate because the study examined a topic in which there had been little previous research in South Africa. There was a need to provide a detailed description and analysis of the preparation of pre-service teachers in the use of educational media in segregated Colleges of Education, located in an "independent homeland" born of the Apartheid policy. The cases selected for this naturalistic investigation were the three Colleges of Education in Ciskei, which offered a compulsory educational media course for the three-year Primary Teachers` Diploma (PTD) and Secondary Teachers` Diploma (STD). The participants' perspectives were studied with interactive strategies (ethnographic observation and ethnographic interview), as well as non-interactive

strategies associated with the theoretical approaches of symbolic interaction and ethnography (Bogdan and Taylor 1975; Spradley 1979). Both symbolic interaction and ethnography are concerned with ways in which people interpret their experiences and make sense of their world. The researcher assumed an interactive social role in order to record observations and interactions with participants. In view of the belief that apart from structural factors, the actions of teachers were also strongly influenced by the settings in which they occurred, data were collected over a prolonged period, from 1989 to 1994, at the sites and from individuals. Matters relating to methodology and design are elaborated in a later chapter. Decisions about what to look at were based mainly on the researcher's prior knowledge and on the findings of a preliminary literature review. Both the data collection and analysis were informed by this prior knowledge and preliminary literature review, as well as theory which is elaborated on in the succeeding chapters.

The problem was investigated because, first, it was believed that findings would fill a gap in the literature by investigating the use of technology in teacher preparation, an area untouched by previous investigations into the education of African teachers in South Africa. The two studies mentioned earlier (Kruger 1980; Mrwetyana 1983) did not investigate the preparation of pre-service teachers in the use of technology. Instead, they focused on the use of technology by teachers already in service.

Second, many studies which previously investigated the adoption and implementation of educational technology tend to compare the learning impact of newer media such as television

with more traditional media such as classroom instruction (Clark and Sugrue 1991; Johnson 1993). In most cases, evidence from these studies tends to result in no significant difference conclusions (Schramm 1977; Clark 1985; Clark and Sugrue 1991). Researchers worldwide have become sceptical of media comparison studies because they have been found to be fruitless. The present investigation did not compare any media. Rather than giving the impression that the newer media were better than traditional ones, the study suggested that most learning objectives may be attained through instruction presented by any of a variety of different media (Levie and Dickie 1973). Learning seems to be affected more by what is delivered than by the delivery system (Schramm 1977). Each medium has its own attributes and to attain maximum effectiveness, media need to be selected in relation to the objectives of the lesson, as well as the needs of learners.

The problem investigated addressed sociological issues related to curricular provision for pre-service teacher education in Colleges of Education originally created for Africans. It was therefore considered different from other investigations into the preparation of pre-service teachers in educational technology. Unlike numerous studies in the educational technology field, that rely solely on the survey method which tends to solicit people's opinions through mailed questionnaires, the present study involved personal interaction between the researcher and teacher educators, on site.

Fourth, the study was designed to include an examination of the past and present context in which colleges of education in Ciskei were created and currently exist. This examination

of the history of Colleges of Education in Ciskei is considered important because teacher education is a value-laden process related to the educational ideology held by teachers, teacher education institutions and the state, however implicit. It is a political and ideological process (Beyer and Zeichner 1987), especially in societies stratified according to race. The methods used in this inquiry yield data that has the potential to make teacher educators aware of the constraints and possibilities in their curricula. When their consciousness is raised, it is hoped, teacher educators will be empowered to transform education in general and the teacher education curriculum in particular. To raise consciousness, there is a need "to examine the past and present institutional context in which teacher education departments were created and exist" (Schneider quoted in Popkewitz 1978: 211).

PURPOSE OF THE STUDY

Given the understanding that formal educational knowledge is achieved through three "message systems", namely curriculum, pedagogy, and evaluation (Bernstein 1971), the aim of the present inquiry was the determination of how pre-service teachers were prepared in the use of educational media.

Further, the findings were contextualised and interpreted in the socio-historical context of South Africa generally.

The objectives of the inquiry were to:

- (a) document the historical socio-political context of

Ciskeian Colleges of Education;

(b) establish the extent to which technology was used by lecturers and pre-service teachers in these colleges;

(c) provide contextually-framed descriptive documentation of the scope, nature and quality of the content selected for the educational media course offered in these colleges;

(d) provide contextually-framed documentation of the instructional communication process between media lecturers and pre-service teachers during lectures, as well as between pre-service teachers and pupils; and

(e) describe the methods used to assess the pre-service teachers' understanding of the content of the educational media course.

PARAMETERS OF THE STUDY

The present study was limited to Colleges of Education that prepare pre-service teachers in Ciskei. Pre-service teachers who are prepared in universities were excluded, due to differences in levels of teacher preparation in the two types of institutions. There is one such university in Ciskei, the University of Fort Hare. The inclusion of the University of Fort Hare in this qualitative-naturalistic investigation would have affected the findings of the present inquiry. The researcher is a senior lecturer in the Department of Curriculum Studies and Didactics at Fort Hare. She is an

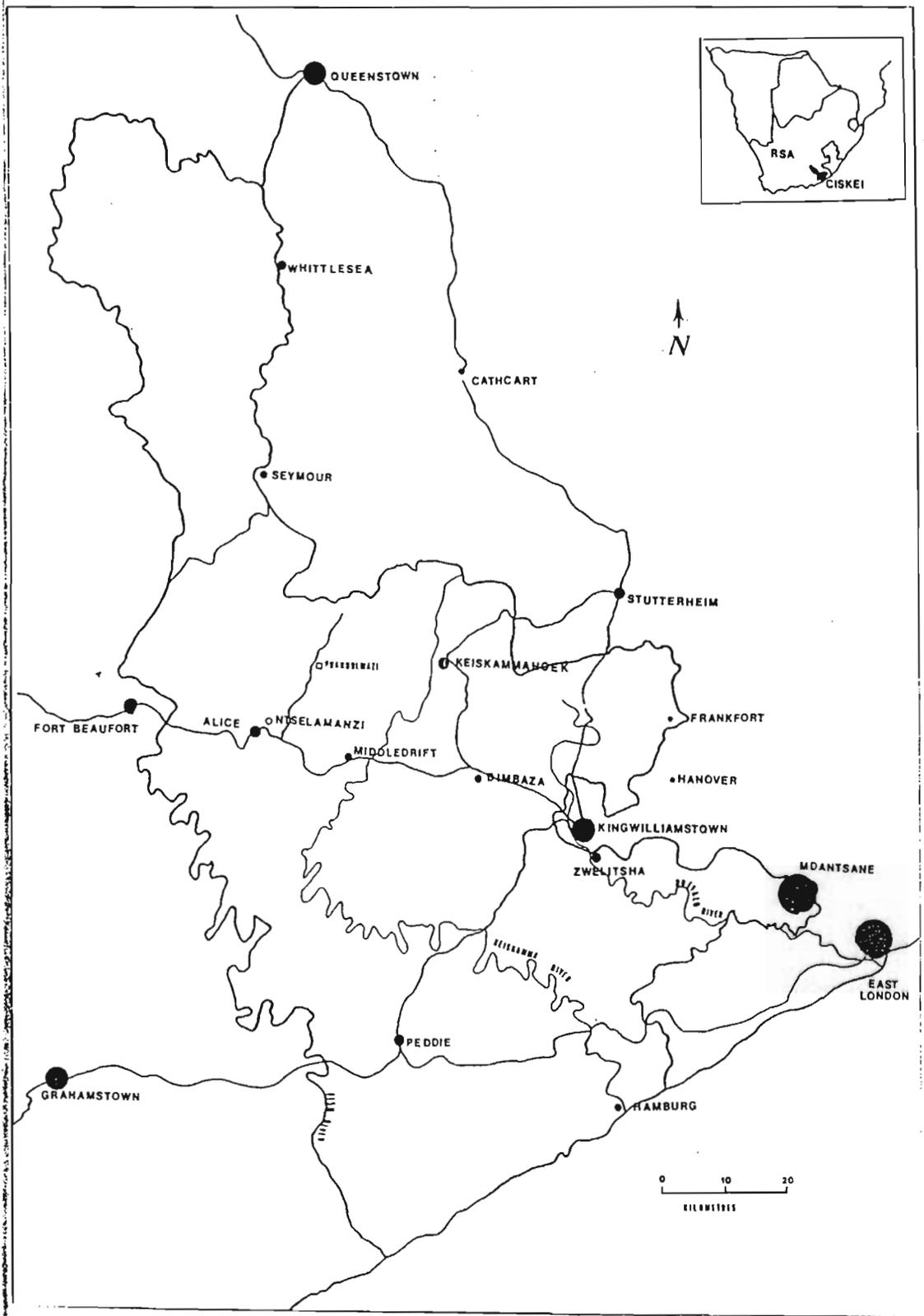
active participant in the pre-service teacher education curriculum offered in the university concerned. The researcher was mindful of the subjectivity that could have resulted from using herself as the instrument through which lecturers and pre-service teachers at Fort Hare were investigated. The possibility of the researcher's observations being slanted towards a justification of the style of teaching normally used was prevented by excluding Fort Hare from the investigation. However, for purposes of testing the questionnaires, Fort Hare was used.

The study was confined to the borders of the Republic of Ciskei. There are three Colleges of Education in Ciskei, namely Griffiths Mxenge, in Zwelitsha near King William's Town, Dr. W B Rubusana in Mdantsane, near East London, and Masibulele in Whittlesea (see Figure 1, p.15). The three colleges, though in a former independent state, were technically under the control of the Department of Education and Training (DET) and implemented its curricula.

Initially, the thought that extending the investigation to include DET colleges in order to allow for comparisons with Ciskei colleges was entertained. With this in mind permission was sought from DET to include some of its colleges. Permission was granted (see Appendices C and D), but the idea was later dropped because it was considered inappropriate for a qualitative-naturalistic inquiry.

The stance adopted by naturalistic researchers is that although different techniques and methods can be mixed in a research project, the methodology should remain the same throughout. Qualitative-naturalistic researchers employ

FIGURE 1



methods and strategies that are consistent with the aims of their paradigm (Sherman and Webb 1988). The aim of qualitative-naturalistic research is to develop "an idiographic body of knowledge" (Guba and Lincoln 1988) and this is best achieved by describing the individual case in context. Including other Colleges of Education which were outside the Republic of Ciskei would have stripped the present qualitative-naturalistic inquiry of its 'depth' and would have concentrated on 'breadth', which is contrary to the aims of the qualitative-naturalistic methodology. To conduct a context bound inquiry in other Colleges of Education for purposes of comparison would have required a longer period of time, as well as more financial resources. Further, the political climate prevailing in South Africa at large, which was characterized by issues of ethnicity, prevented the researcher from venturing into the unknown. For example, the researcher, originating from a Xhosa-speaking area which is overwhelmingly associated with the African National Congress, would have found it life-threatening to investigate Colleges of Education in Kwa-Zulu, which was an area associated with the Inkatha Freedom Party. Violence in the country and instability in education institutions themselves, did not permit the inclusion of Colleges of Education from other national states. A replication of a similar study in broader South Africa seemed to be a future project worth the consideration of researchers in South Africa, including the present researcher, provided conditions change to make it safer.

The investigation addressed sociological issues related to curricular provision for teacher education in Ciskei. As

educational technologists are becoming more concerned with instructional design and curriculum development, it is argued that issues in the sociology of education and curriculum cannot be ignored. The inquiry, amongst other things, focussed on how those involved in curriculum or instructional development came to make particular decisions about selecting, organizing, and transmitting educational knowledge in particular ways. The study also explored the possible influence that macro level and micro level factors could have on the preparation of pre-service teachers in the use of technology in education.

Pre-service teachers in their first and second years of the Primary Teachers' Diploma and the Secondary Teachers' Diploma were excluded from the investigation. Instead, pre-service teachers in their third year of study were included. Having been learners and participants in the institution for three years, they were believed to have the necessary credentials for participating in the present study.

It was decided to use the term "technology in education" in the title of the study for the following reasons:

(a) Technology in education is apparently more restricted than technology of education as far as its field of study is concerned, and in view of the introductory and exploratory nature of the present study, the choice of the title was considered justified.

(b) In view of the fact that the present study was mainly concerned with "message systems" , namely the content of the educational media syllabus, the transmission methods used, the use of technology and assessment of students'

understanding of the content, it became clear that matters of instruction were central to the study. A title involving "educational technology" might have created confusion.

Although reporting in the third person has been used in most of the chapters, there were many instances where the first person was used. Due to the subjectivity and personal nature of ethnography, at times the researcher needs to reflect on activities in the first person. As noted by Wolcott, "The more critical the observer's role and subjective assessment, the more important to have that role and presence acknowledged in the reporting" (1990: 19).

OVERVIEW

The present chapter discussed the under-utilisation of technology by teachers, teacher educators and pre-service teachers despite the rapid changes in technology and society. The over-use of teacher talk at the expense of confronting students with resources they can learn from was also addressed. The idea of using technology as one of the means for transforming education in South Africa was explored. Also, the purpose, objectives and parameters of the study were declared. The subsequent chapters focus on theoretical issues underpinning the design of the present inquiry.

The role of technology in education in general, and in teacher education in particular is discussed in the second chapter. Also, the possibility of technology towards achieving transformation in education forms part of the second chapter. The theoretical, conceptual and philosophical

orientations influencing the methodology and design of the present investigation are discussed in the third and fourth chapters. The fifth chapter constitutes the context of Colleges of Education in Ciskei. Their socio-political history, as well as demographic background will be described in this chapter. The human factor in the Colleges of Education in Ciskei will be described in the sixth chapter. The seventh chapter entails a description as well as an analysis of the educational media course, whereas the opportunities created for media applications are outlined in the eighth chapter. The availability and use of educational media constitute chapter nine. A summary of the findings, as well as some suggestions and recommendations for the transformation of the educational media course are given in the tenth chapter.

CHAPTER 2

TECHNOLOGY IN EDUCATION

For years lecturers and students have dealt with the use of teaching aids. For many these have remained meaningless posters passed on from generation to generation of students, whilst others barely mastered the art of using tape recorders, radios and overhead projectors. In common use today however, is advanced educational technology such as the personal computer, the use of which is presently only limited by the lack of sophisticated and proven software. How prepared is this College for these developments and how receptive are you as students?

Speech delivered by the then Honourable Minister of Education, Mr B N Pityi, at the tenth anniversary celebrations of Lennox Sebe (Griffiths Mxenge) College of Education, 10 September 1988).

The introductory chapter addressed the underutilisation of technology in education by teachers and teacher educators alike. The excessive exposure of students to teacher talk, instead of their being confronted with media from which they could learn, was criticized. It was also argued that technologies could help educators transform to the desired "constructivist" or active learning of an information age. The majority of educators seem to have accepted the fact that the time had come for education to leave the era of "hand labour" and turn to technology to help increase the productivity and efficiency of the teacher. Educational technology is generally suggested as having the potential to alleviate some of the problems facing education in South Africa at present (HSRC 1981; Moja 1992). Clearly, technology cannot be the panacea for all the problems, but there is definitely no solution that can exclude technology,

"...hence rather bold and imaginative solutions, such as the use of information technologies, will have to be implemented" (*Business Futures* 1987, quoted in Viljoen 1991: 106).

The focus of the present chapter is technology in education. Differences between educational technology and instructional technology, as well as between technology of education and technology in education are highlighted. The functional uses of technology in teacher education are described and trends in pre-service teacher education courses in educational technology are reviewed.

An important first step in discussing educational technology itself is definition.

DEFINING EDUCATIONAL TECHNOLOGY

The field is surrounded by great semantic confusion. There is hardly any definition of educational technology that is shared by most within the profession. In many research articles and books, educational technology is used as a synonym for instructional technology, and this contributes to further confusion. The use of the term "technology" creates more confusion in an area that has been dominated by "media" and "aids" from time immemorial. This section addresses the question of meaning attached to these concepts.

Technology

The concept "technology" appeared for the first time in 1845. This was a definition of the word "technical" in *A Critical Pronouncing Dictionary of the English Language* by John Walker

(Richmond 1970). The lexical definition given at the time was: "Belonging to arts, not in common or popular use". In *The Pocket Oxford Dictionary of Current English* (1939) four related concepts were defined. At this stage the word technical received much wider attention, and reference was made *inter alia* to technical schools (1970). The word technology only figured in dictionaries more or less since the nineteen fifties. The word itself is derived from the Greek word "tekhnologia" meaning systematic treatment.

The real meaning of concepts is in their use. As observed by Knapper, "...before embracing a technology of teaching too hastily and enthusiastically, it is well worth reminding ourselves that technology - in learning as elsewhere - is itself neither good nor bad, and that its effectiveness depends upon the way it is used" (Knapper 1980: 141).

A lot of controversy has always surrounded the concept technology and its relationship to education. Initially much emphasis was placed on the effect of electronic apparatus or gadgets. The group who over-emphasized this view became known as "gadgeteers". Apparently they did not concern themselves with the basic principles underlying the use of electronic equipment. Equipment and teaching became synonymous to them. To them, education was an instructional enterprise performed by electronic apparatus (Janssen 1969: 54). This school of thought assessed education mainly according to its utility value, losing sight of the relationship between utility, productivity and technique in education.

The problem as described above, centred around the lack of proper definition. There were two opposing camps: gadgeteers and educationists. Gradually, however, the scene changed and more balanced views became noticeable in this regard. For example, Finn had this to say about technology:

In addition to machinery, technology includes processes, systems, management and control mechanisms both human and non-human, and...a way of looking at the problems as to their interest and difficulty, the feasibility of technical solutions, and the economic values - broadly considered - of those solutions (1960: 10).

In a similar vein, Saettler (1968: 5-6) emphasizes the fact that technology includes the use of machines, but is not restricted to machines: "...technology does not necessarily imply the use of machines...but refers to any practical art using scientific knowledge".

Technology has become indispensable in almost all human activities such as education. In view of the problems facing education in South Africa at present, much effort and devotion will probably be needed to bring into education the much needed "systematic treatment" which is implied by "technology".

Instructional Technology or Educational Technology?

According to Janssen (1969) the terms instruction, education and technology, appeared for the first time as a combination in American Course Literature. Quite a number of variations were proposed, including Instructional Technology, Educational Technology, Audio-visual Technology, Technology of Education, Technology in Education and so on. This indicates a diversity of opinion regarding meaning.

Janssen gives a clearer meaning when he writes,

Instruction using technology is not just making use of hardware and materials. It is broader than this as educators point out, it is a way of organizing, of arranging the curriculum, of thinking. It relates the science of learning to the techniques of instruction, and also involves some organizational changes and new approaches. However, basic to technological change in education have been the developments in devices, machines and materials (1969: 59).

The choice between instructional and educational technology is problematic. Many of the books that include these terms in their titles are rather vague about the limits of the field. One element in common, however, is the increased stress upon the system or process of instruction, as opposed to a former concern with the hardware involved in education like instructional materials, and visual aids. The Commission on Instructional Technology (1970: 19) defines instructional technology as:

a systematic way of designing, carrying out, and evaluating the total process of learning and teaching in terms of specific objectives, based on research in human learning and communications, and employing a combination of human and nonhuman resources to bring about more effective instruction.

Knezevich and Eye (1979: 16) describe instructional technology as: "An effort with or without machines, available or utilized, to manipulate the environment of individuals in the hope of generating a change in behaviour or other learning outcome". By the same token, Gentry (1991: 7) defines instructional technology as, "the systemic and systematic application of strategies and techniques derived from behaviour and physical science concepts and other knowledge to the solution of instructional problems".

Instructional technology therefore, stands in close relationship to learning and teaching. It includes science and technique and is directed at solving problems of instruction for the improvement of learning. It appears to be a subset of a larger technology - educational technology.

Educational technology on the other hand, is related to the total structure of, and the situation in which learning takes place. It encompasses the totality of the educational process as a comprehensive system which may be controlled and manipulated. The term "expands the area of theoretical development, research and implementation in education" (Hoban quoted in Torkelson 1977: 329).

The comprehensive nature of educational technology is evident in Gentry's definition: "the combination of instructional, learning, developmental, managerial, and other technologies are applied, to the solution of educational problems" (1991: 8).

Educational technology, in the light of these definitions is the solving of educational problems that involves the design, production and management of education and training programmes. In support of this view, Khine (1980: 324) asserts,

educational technology aims to help solve problems through the use of the instructional systems design approach, which comprises the tasks of analysing, designing, developing, implementing and evaluating the learning process.

Instructional technology must therefore be seen as a part factor of educational technology. It emphasizes the science of instruction, whereas in educational technology, the basic scientific rules and conclusions regarding education as a totality are studied. The two concepts, however, are complementary.

Technology of Education or Technology in Education?

As in the case of educational technology, technology of education stresses the systematic, scientific approach to an educational problem, together with the application of appropriate scientific research. It emphasizes the techniques of teaching and learning rather than audiovisual media *per se*. On the contrary, the idea of technology in education includes every possible means by which information can be presented. It focusses on the "gadgetry" of education and training, such as radio, television, video, interactive-video, language laboratories, computers and all projected media.

For purposes of the present investigation, "technology in education" was adopted. Because the emphasis of the inquiry was on the preparation of pre-service teachers in the use of educational media, "technology in education" was considered appropriate. This was explained in the introductory chapter.

Of interest to the researcher, was Unwin's (1986) argument that the future of educational technology must lie in a transformation of educational organizations. If one of the demands in South Africa at present is the transformation of the education system in general, and teacher education in

particular, it seems reasonable to ask: What effect would the extensive use of "technology in education" have on the teaching profession?

The next section focusses briefly on the meaning of "curriculum", a term which is central to the understanding of the preparation of pre-service teachers in the use of educational media.

THE CONCEPT OF CURRICULUM

Definitions of the concept range from the most narrow to the most comprehensive in scope. Buckland (1982: 67), for example, gives a broad explanation of curriculum:

If education is seen as a process of cultural transmission then the curriculum represents that selection from the culture which is presented to the learner in school.

The importance of selection from the culture is reflected in Mc Cutcheon's (1982: 19) definition:

Curriculum is what students have an opportunity to learn...through both the hidden and overt curriculum and what they do not have an opportunity to learn because certain matters were not included.

Implicit in both definitions is the argument that the curriculum is a process which is influenced by societal factors. The "knowledge" that is selected from culture and becomes the official content that finally is regarded as the content of the syllabuses is socially constructed. It is inextricably interwoven with the broad social structure.

According to the Marxian view, the dominant view of knowledge in society is the view of the ruling class. Marx and Mannheim argued that the dominant ruling class decides, not only what knowledge is of worth, but also who will have access to it in society.

In similar vein, the "new" sociology of education recognised the influence of society on the curriculum. Exponents of this view agree that the central task of the sociology of education should be to relate principles of knowledge selection and organisation that underlie the curriculum to their institutional and interactional setting in school and classrooms, and to the wider social structure.

Relevant for purposes of the present investigation is the perspective that includes the content as well as curriculum materials. Curriculum is described as including professionally and commercially developed materials such as textbooks and curriculum units.

Buckland argues for a comprehensive definition of curriculum when a programme is examined: "...teaching methods; materials; school size; and organisation; timetables; school terms; school architecture and a plethora of other variables which determine the selection from the culture to which the pupil is exposed must be considered" (1982: 168). Buckland's view was adopted as the framework within which the pre-service teacher education curriculum was examined.

The next section discusses the effect the extensive use of "technology in education" would have on the teaching profession. This section is relevant because having been prepared in the use of technology in education, as fully

fledged members of the teaching profession, pre-service teachers are expected to apply technology.

TECHNOLOGY IN EDUCATION AND THE TEACHING PROFESSION

The focus of this section is not the use of technology in education for instructional purposes as such. Instead, the concern is for the changes or effects which may be predicted for teaching as a profession.

The introduction of teaching teams and differentiated staff

Much waste has resulted through efforts to superimpose new techniques on old systems. For technological innovations to succeed, it is believed, they must be integrated into the system:

If the schools are to make real progress in instruction, most of them must be jolted from their complacency by vigorous thrusts that will break through the old patterns and support experiment and innovation (Research and Policy Committee of the Committee for Economic Development 1969: 11).

Important innovations include the differentiation of staff for the multiplicity of tasks teachers are faced with in school. Teachers have been unofficial clerks, traffic cops, nurses, librarians, instructional systems designers for a long time. Teachers have always cited the lack of time to teach as one of the negative factors affecting their work. Edinger (1971: 366) argues that the introduction of team teaching and differentiated teaching functions should

accompany effective utilization of technology in education. He suggests that a team could include technologists, paraprofessionals, instruction leaders and teachers. The teaching profession would delineate roles and state responsibilities, preparation needed, and salary to be paid for the role performed.

Educational technology can relieve teachers of much of the routine and drill work they are now called upon to perform. Computers can carry out drill and repetitive jobs easily and often more effectively than teachers. Paraprofessionals may relieve the teacher of other related, non-teaching tasks. Teacher librarians may assist teachers and learners with all activities related to the use of learning resources. All of this illustrates the introduction of differentiated staff and the effective use of technology in education.

Extensive use of technology in education will demand the redefinition of roles performed by the teacher and will lead to the establishment of differentiated staff fulfilling these roles. Instructional teams will include technologists, graphic arts personnel, programmers and classroom teachers. The teacher who works directly with the pupils will be the diagnostician for the learning situation and will know what resources are available to meet the needs.

Increased need for flexible organization

In discussing differentiated staff and team teaching, changes in the organizational patterns of schools are implied. Flexible organization for instruction is of major concern in the effective use of technology. Simply having various types of technology will not result in its being

used for individualised study if this must be done after school hours, for example. The Trump Plan has attempted to re-arrange classrooms to provide for large group instruction, small seminar instruction, and individualised instruction. This organization, formerly known as the Staff Utilization Plan, is based on the idea of team teaching.

Organizational patterns are directly related to and dependent upon technology in education. The teaching profession will find itself moving increasingly in two directions - towards differentiated staff and flexible organization.

Re-examination of teaching methodologies

The psychological orientation of technological materials within the teaching-learning process will be the concern of the teaching profession when extensive use of technology is made. Each technology of learning or instruction needs to be examined from the point of view of its usefulness in the learning situation. Of importance in this regard is the dominant discourse in the classroom.

The discourse of the classroom, i.e. the way teachers and students speak to each other is a manifestation of classroom politics. The discourse is evident in the following practices: the amount of open discussion in class, the amount of one-way teacher talk, the presence or absence of mutual dialogue between teacher and students, the creation of opportunities for students to feel free to disagree with the teacher or textbook, the participation or non-participation of students in class, and the co-operation of students amongst themselves. The dominance of teacher talk or "frontal pedagogy" in classrooms results in domestication of students (Shor 1987).

An alternative to domesticating pedagogy is "empowering education". Shor defines empowering pedagogy as a "critical-democratic pedagogy for self and social change" (p.15). An empowering curriculum develops students' critical awareness, and equips them with the knowledge, skills and attitudes that enable them to transform themselves and society.

Central to the practice of empowering pedagogy and critical dialogue is the use of resources (Freire 1980). Technology can be used to provide the stimulus material needed for problem producing and problem solving. Simulations and computers are a case in point in that regard.

Teacher rights, responsibilities and decision making

In the area of teachers' rights, for example, since it is possible for a teacher's demonstration to be recorded and reused without the teacher's being present, a host of questions will be raised by the profession: What will be the residual rights of teachers? Are there residual rights or only rights reserved in a contract? Who will own the television programmes, the packaged systems, the programmed text materials? Should the teacher have rights in regard to revision of the content? If so, what rights and to what degree? Should teachers have the right to withdraw a programme if information becomes obsolete? Should the teacher have any control over the modification of the programme by others? What control, if this is so? Could some of these matters be handled through school or college policy in regard to salary adjustments, released time, etc.? What relationship should exist between local, state, regional and national agencies involved in production and dissemination of

materials? What about local control of curriculum? There will be more questions; these only suggest the range likely to arise (Edinger 1971: 372).

The foregoing discussion implied that the effective employment of technology in education will demand new skills and more vigorous education of the teacher. Teachers need to know how to use the new technology and how to produce programmes and materials. They need to understand technology and use it creatively. Along with this must come basic changes in attitude and approaches for large numbers in the teaching profession.

FUNCTIONAL USES OF TECHNOLOGY IN TEACHER EDUCATION

While there is considerable agreement that technology plays a significant role in education, there are differences of opinion with respect to the dimensions of the contributions of this field. Disagreements range from the goals technology can help achieve, to the extent to which educational technology can make a quantitative difference in the achievement of these learning goals. An analytical view of the potential of technology in education assumes that it can make different levels of contributions to the achievement of different goals of education. Further, there are some kinds of learning to which technology can be applied with good effects, while there are others to which it has limited applicability. An analytical approach is adopted in this discussion of the functional uses of technology in teacher education.

The observation which was shared earlier in this study (page 3), that the more powerful training technologies such as

videotape, microteaching, simulation and interaction analysis are used at a relatively low level in pre-service teacher education programmes, is worth re-mentioning for the sake of emphasis. The question to ask at this point is: Do these technologies have a place in pre-service teacher education?

Radio and television

Television and radio have become common technologies for distance education. Both offer their strengths and weaknesses. Radio, for example, is the most accessible medium of all and is relatively cheap. Unlike television, radio can operate off batteries, so mains electricity is not necessary. The South African Broadcasting Corporation (SABC) is one of the most powerful communications media in Southern Africa. It has an infrastructure for both television and radio broadcasts throughout South Africa and the neighbouring countries. If it could be used to its full capacity to supply meaningful education opportunities to pre-service and in-service teachers, the qualifications, abilities and skills of teachers could be improved, without actually removing teachers from their schools and colleges.

The production and broadcasting of formal school radio lessons has been in existence in South Africa since 1964. Informal and non-formal lessons have been broadcast on both radio and television since 1984. These activities are a result of a partnership established between the Department of Education and Training and the South African Broadcasting Corporation. In October 1990, weekday television broadcasts of formal educational programmes for matric pupils started (Viljoen 1991).

There is a lot to be said in favour of projects that use

broadcast media for purposes of preparing pre-service and in-service teachers. Radio and television broadcasts have been used successfully elsewhere for distance education. For example, in Samoa, the project that taught children English, also attended to teacher education after school hours. In Colombia, as well, a teacher training programme is broadcast after school hours and on Saturday. Interactive Radio Instruction (IRI) has been used with success for teacher training purposes in Nepal (Sedlak 1988), Papua Guinea, and Costa Rica (Christensen 1990). The Interactive Radio Instruction Project, currently funded by the U S Agency for International Development, and implemented through the Open Learning System Education Trust (OLSET), is still in its exploratory stage in South Africa. However, it is a clear indication that International donors are ready to fund projects "that will contribute to improving the education system particularly for the benefit of black communities that have been disempowered by the apartheid system" (Moja 1992: 172). Teacher education could be included in projects such as these, in order to upgrade teacher qualifications and to provide training to pre-service and unqualified teachers. Educational Television facilities have been installed in some South African schools with the infrastructure that has been provided by Educational Television (EDUTEL). Edutel also provides limited television broadcasts of topics relevant to teacher education through a programme called "University of the air". Such topics could be adapted specifically for teacher education purposes to help address the problem of improving teachers' qualifications through distance education. The case of Singapore is an example of a project that used educational television for training both pre-service and in-service teachers. These projects are of much relevance to black education in South Africa where the bulk of the schools are in rural areas.

For such projects to have any impact, however, pre-service teachers need to be prepared in the effective use of technology in education whilst still in college. The content of the educational media syllabus itself, could be broadcast through radio or television by educational technology experts. This would benefit pre-service teachers, their lecturers who in most cases have not been prepared for the use of technology in education, and teachers already in service.

Videotape, audiotape and film

Field experiences have come to be accepted as the mainstay of pre-service professional teacher education. There is a generally shared agreement that good teacher education must have field components. However, there is no definition of field experiences that is shared by most within the profession. Terminology is inconsistent and overlaps.

One school of thought sees direct contact with pupils in real school settings as the central characteristic of field experiences (Bennie 1972; Broudy 1972). Pre-service teachers in teacher education institutions that follow this position, are given opportunities to learn the skills, processes and attitudes necessary to successful teaching within a setting which provides direct contact with pupils. The emphasis is on practice with real learners in real settings.

The other position, however, maintains that field experiences must provide pre-service teachers with practice in two specific clusters of skills, diagnosing learning needs and prescribing remediation (Andrews 1964). This may be done

either in real or contrived settings.

Microteaching is seen by many as a field experience. The experience proposes to train teachers to mastery levels in the use of specific teaching skills. Emphasis is on interactive skills such as those used during questioning. Microteaching uses repeated practice in settings involving a small number of pupils, generally five to ten. The teaching episodes last only a short time, usually five to eight minutes and are recorded to allow immediate post-teaching feedback by a trained supervisor. A cycle of teach/feedback/re-plan/ re-teach is maintained until the student demonstrates mastery of the skill.

Observation of teachers in action in their natural setting is another example of field experience. Arguments in favour of observation focus on the opportunity for student teachers to learn what it is like or what it feels like to be a participant in the classroom (Evans 1986). Videotaped and filmed classroom situations, as well as audio recordings, could be used to establish more precise, widely accepted and usable standards of teaching performance. This could help college supervisors, guardian teachers and pre-service teachers who often experience problems in establishing a clear and well accepted consensus of teaching goals and procedures. Technology would offer them opportunities to watch lessons and make judgments with regard to teacher performance simultaneously. The ability to capture in sight and sound the moving and audible images of behaviour for subsequent and repeated analysis provides unprecedented resources for action research by teachers themselves.

Elements of the teaching activity can be investigated with the help of records that are not subject to the fallibility of human recall and anecdotal description, to some extent. The same recorded example of behaviour could be replayed as often as desired, to as many observers as desired. The original record would always be available for study.

Microteaching sessions could be recorded to enable a more efficient analysis of classroom behaviour during feedback sessions. Interaction analysis instruments could also serve that purpose.

Self-instruction opportunities could be provided by the training technologies. Videotapes of skills in action could serve as models for pre-service teachers to instruct themselves.

The College for Continuous Training, which is under the control of DET, has a well-equipped video studio which is already used for microteaching purposes. Teachers are helped to improve their teaching strategies by recording their lessons on videotape (Pelser 1987). The availability of such equipment in an institution responsible for Continuing Education will go a long way in improving the abilities and skills of teachers in service. Colleges of Education which are in close proximity to the College for Continuous Training could also conduct their microteaching sessions in the College's well-equipped video studio.

Telecommunications and computers

One major challenge for rural schools is to minimize the travel time and costs that are usually associated with involving outsiders in the upgrading of teacher qualifications. For example, whether teachers themselves will travel to the schools, the challenge of bridging the distance is equally applicable. The setting up of distance education links between the schools and the training centres, be they colleges of education or universities, appears appropriate. Audiographics is suggested as a less expensive investment than cable or broadcast television. Audiographics is a computer-based technology that allows instructors and students to transmit graphic and text information across local telephone lines. It is interactive and enables users at the different sites to write images on their computer screens with either text or graphics and these appear simultaneously on the other site's computer screens. Several schools can be networked with one another in a conference-call and each site can have full interactive capabilities (Knapczyk 1990). The technology that is essential for audiographics to get off the ground is available in South Africa. Expensive modern computer laboratories have been installed by the government in many white schools, and by donors such as IBM in black schools. Even rural schools have telephones, and could invest in facsimiles. The technology is already available; what is needed is co-ordination and sharing for the benefit of the entire country.

The College for Continuing Training has three different types of computer systems. The TOAM Computer System consists of thirty-two stations. The system is specifically for the use of mathematics teachers in the senior primary phase. The Commodore 64 Computer System, with thirty-two stations, is

used for the computer awareness and computer literacy course. As it is anticipated that Computer Science will be an optional subject in the senior secondary phase, in black schools as well, teachers are using the system to prepare themselves for teaching this subject.

The Interactive Video Instructional System is one of the most recent acquisitions of the College. This individually-paced learning system enhances the training potential of this medium. The programmed material was developed on a competency-based approach to learning. The new standard eight, nine and ten mathematics syllabi are available in programmed form. The system is being extended to include more subjects (Pelser 1987).

Mountain (1993) describes the teacher education project which involved personnel from the University of Houston, the US Videotel Telecommunications Network, the Houston Independent School District, parents, and elementary pupils. The goal of the project was to enable pre-service teachers to have as much interaction with children as they could before they started student teaching. The project started in 1991. Classes of pre-service teachers were linked with fourth grade children, home to home, on the US Videotel Telecommunications Network. The Network provided the necessary equipment for the children to hook up at home, trained participating families, and kept electronic records of time on-line for both the children and the teacher education students. A sample of forty children and forty-five pre-service teachers was involved in the project (Hlozek 1991). Ninety per cent of pre-service teachers rated the electronic bulletin board as a valuable learning experience. Both in interviews and in

written reports, pre-service teachers reported that telecommunications gave them the opportunity to get to know children they had not visited in person. They liked it because it saved time, and it gave them opportunities to get acquainted with both inner-city and suburban fourth graders. That was appreciated because for school visits, pre-service teachers are placed either in a suburban or inner-city school. They never get acquainted with both types of schools during teaching practice. Yet, they may be hired to teach in a school they had never experienced during teacher education, and may not understand socio-economic differences the children bring to the classroom.

Eastern Michigan University also used telecommunications to join the classrooms of elementary students and graduate pre-service teachers so that they could write back and forth to each other on-line. In Memphis, Tennessee, Apple Classroom of Tomorrow (ACOT) Project connected at-risk fifth and sixth graders with university students for distance tutoring, home to home (Ross 1991).

The gains of telecommunications in teacher education may be summarised as follows:

- (a) Time on-line, rather than time in traffic, travelling from school to school, is convenient;
- (b) It provides opportunities for the observation of students' composition skills as they communicate; and
- (c) Perspectives are gained from acquaintance with a wider variety of grade levels and socio-economic groups (Mountain 1993: 43).

A remedial programme designed to teach thinking skills to at-risk students is reported to use computers extensively. The computer provides experiences where students learn to be problem solvers, and that translates into increased competency in reading and mathematics. Higher Order Thinking Skills (HOTS) focuses on student teachers learning new instructional techniques, such as lengthening waiting time, open-ended questioning, and strategy development rather than how to use a computer. The computer is an integral part of the programme because it conveniently produces intriguing problems for students to solve, while providing them with on-going feedback regarding their strategy development. In this sense, the computer functions as "a problem-producing tool" in teacher education (Campoy 1992). It is important to note, however, that it is not the medium of computer that produces learning gains in this situation. Instead, teachers who are trained to use Socratic discussion techniques produce learning gains (Pogrow 1990).

South Africa may not have all the money or personpower resources of a country such as the USA (Viljoen 1991), but as noted by Lippert (1991), South Africa "can compete favourably when it comes to the state-of-the-art in educational technology". The question is not whether South Africa can afford the necessary steps, but rather "whether we can afford not to take them". The United States initiatives described above are examples to South Africa of how it is possible to provide every teacher with opportunities for re-education, in view of the educational problems facing the country at present.

Professor Mehl's (1991) warning is significant at this point: until it becomes a national priority for us to understand the

learning needs of the disadvantaged, and how to address them, the use of technologies will remain "shots in the dark". Viljoen (1991) concludes his paper with a thought-provoking quotation which is relevant for purposes of this study:

Upon the education of the people of this country, the fate of this country depends (Benjamin Disraeli).

It seems equally fitting to say, upon the teachers of South Africa, the fate of South Africa depends.

PRE-SERVICE TEACHER EDUCATION TECHNOLOGY COURSES: TRENDS

One important charge of teacher education programmes is to prepare pre-service teachers such that they can also prepare pupils to be full participants in a rapidly changing society. As observed by Harrington,

This requires that programs for prospective teachers provide their students with the understanding that will enable them to prepare all of their students for a life in which individuals keep pace with technology (1991: 49).

Emphasis is put on teachers and teacher educators because it is believed that most of the critical decisions about instruction are made, or ought to be made, by teachers. How the teacher views technology and his or her preparation to use technology are critical to the better use of technology to instruct, manage and evaluate (Glenn and Carrier 1989). Since colleges of education remain the key suppliers of new teachers, we need to ask questions such as these: are their graduates adequately prepared for the use of technology? If

not, why are they not adequately prepared? What is being done, and what ought to be done in teacher education technology courses?

There is consensus among American researchers that despite the desire of most teachers to use technology in education, most have not received sufficient education and training to enable them to use technology effectively (OTA 1988; Fulton 1989; Glenn and Carrier 1989; Bitter and Yohe 1989; Johnson 1992; Ritz and Myers 1992; Harrington 1993).

A survey conducted to find out how well undergraduate programmes prepare teachers for technology uses in the classroom reports that preparation is not good enough (Glenn 1989). Bruder's (1991) survey into the preparation of American pre-service teachers across the curriculum shows that technology is confined only to the technology class, instead of students experiencing technology in all subjects:

technology does not permeate a student's typical pre-service education experience, and that is a major impediment to technology use once they become teachers (p.21).

Neuman, an officer in the Audiovisual Aids Centre in Berlin, reports that in the first phase, teacher education is still characterised by too little practical involvement in matters of educational technology. Students receive hardly any concrete contact with the planning and forming of media-supported education, rarely learn how to handle equipment, and as a rule, acquire insufficient media-teaching knowledge and experience (1978: 10).

The trends in respect of technology preparation in teacher education programmes are as follows: some courses are optional, others are compulsory; technology is limited to the technology class and is not an integral part of the general teacher education curriculum in the majority of cases; pre-service teachers have limited hands-on experiences with technology. The preparation in general is found to be inadequate for a technological era.

SUMMARY

The present chapter, as stated earlier, focussed on technology in education. The role that technology could possibly play in educational transformation was explored. It was conceded, however, that technology could never be the panacea for all the educational problems facing the country. Nevertheless, it was stressed that no solution can ignore technology.

A distinction was made between "technology of education" and "technology in education". Whereas technology of education focusses on solving educational problems systematically, technology in education concentrates on the gadgetry of education and training. Because the focus of the present investigation was the preparation of pre-service teachers in the use of technology, "technology in education" was considered appropriate.

The view of curriculum adopted for purposes of the present study was Buckland's (1982). The perspective was considered comprehensive in that it focusses on teaching methods, materials, school size and organisation, timetables, school terms, school architecture and the human factor in the

Colleges.

The changes in the teaching profession that may be predicted as a result of the increased use of technology were discussed. It was argued that the roles performed by teachers will be defined more specifically and this will lead to the establishment of differentiated staff. Instructional teams could for example, include technologists, graphic artists, programmers, and classroom teachers. Differentiated staff and team teaching imply changes in the organizational patterns of schools. It was stressed that organizational patterns are directly related to and dependent upon technology in education.

The use of technology, it was argued, will influence the discourse of the classroom. One-way transmission of subject matter which results in the domestication of students may be replaced by "empowering education" which gives students more responsibilities for their learning. Central to the practice of empowering pedagogy is the use of technology. Teachers therefore, need to know how to use technology and how to produce programmes and materials. In addition, teachers need to know their responsibilities and rights with respect to the use of technology.

A case was made for the use of radio and television for purposes of distance education. It was argued that these broadcast media may be used to reach out to teachers and colleges of education who are in the rural areas and who need re-education. It was argued that the infrastructure that is already available in South Africa may be utilised for the benefit of the entire nation. The SABC, as one of the most powerful communications media in Southern Africa, was earmarked for taking the lead in this regard.

The well-equipped studios of the College for Continuous Training which is under the control of DET, and other similar facilities throughout the country may be shared by the nation irrespective of race, to upgrade the abilities, skills and qualifications of black teachers in particular. It was suggested that such facilities may be made available to pre-service teachers from Colleges of Education which are in close proximity to the College for Continuous Education.

Trends in respect of technology preparation in pre-service teacher education programmes were discussed. They were found to be as follows: some teacher education institutions offer optional courses, whilst in others courses are compulsory; in the majority of institutions, instead of technology being an integral part of the entire curriculum, technology is restricted to the technology class and treated as a separate subject; pre-service teachers have limited hands-on experiences with technology, if any; the preparation in general was found to be inadequate for a technological era.

The next two chapters focus on the overall plan of the inquiry: conceptual, theoretical, and implementational.

CHAPTER 3

RESEARCH METHODOLOGY

The stress on procedures of science leads many to consider only those questions and problems that conform to its procedures rather than to having methods and procedures respond to and develop from theoretical interests.

L Vygotsky (1978).

The attraction of conflict theory, then, is that it allows us to generate explanations of social behaviour at both the micro- and the macro- analytical levels.

R. Meighan (1986).

In the previous chapter, trends in respect of technology preparation in pre-service teacher education the world over were found to be as follows: some courses are optional whereas others are compulsory; in the majority of institutions, technology is restricted to the technology class and treated as separate from other courses; pre-service teachers have limited hands-on experiences with technology. The overall conclusion drawn was that the preparation of pre-service teachers for the use of technology in education was inadequate for a technological era. The interest of the present investigation was the state of affairs in Colleges of Education in Ciskei.

The current chapter describes the naturalistic-qualitative study the aim of which was to investigate how pre-service teachers were prepared in the use of technology in education. The object of research was the educational media course which was a compulsory component of the teacher education curriculum in Colleges of Education in Ciskei. Bernstein's

(1971) argument that formal educational knowledge is achieved through three "message systems", namely curriculum, pedagogy, and evaluation was embraced in the planning of the study. The content of the educational media syllabus, the transmission of that content, and the methods used to assess whether that content had been internalized (Salter and Tapper 1981) formed the basis of the evaluation. The educational media syllabus, curriculum materials used, teaching methods and examination procedures were the main focus because they were believed to be dimensions of the "learning experiences" (Ashley 1982) pre-service teachers were exposed to in Colleges of Education.

In view of the setting of the study, Harley's (1989: 70) assertion that in South Africa, "any view of the curriculum that excluded the matter of to whom a curriculum is made available would be missing a vital dimension" was recognised. Ciskei was a national unit created for the "Xhosas" by the South African government in pursuit of its policy of Apartheid. In keeping with the policy of Apartheid, separate Colleges of Education for African pre-service teachers were established. In view of this history, it was believed that the study, of necessity, should include an evaluation of "what is taught; by whom it is taught; the spirit in which it is taught, (and) who prescribes what is to be taught..." (Maurice 1982: 101).

The next two chapters (three and four) present the methodology of the research. By methodology is meant the overall plan of the research, conceptual, theoretical, and implementational. The range of questions that are generated in an investigation, the method of posing problems, and the

determination of what counts as relevant data, are influenced by "...a researcher's personal experiences, general sociocultural frameworks, and philosophical traditions" (Goetz and Le Compte 1984: 33). Since techniques emerge from a theoretical position, they reflect values, beliefs, and dispositions towards the social world. Researchers, therefore, bring to the field of research a plurality of visions about society. These visions exist in their social, political, and philosophical thought. However, the influence of theoretical frameworks, conceptual systems, and philosophical orientations on the inquiry process, may be conscious and explicit or unconscious and implicit.

For purposes of the present investigation, an "eclectic" approach (Schumacher and Mc Millan 1993) toward the specification of theoretical, conceptual and philosophical orientations was adopted. Initially, the project focussed on fairly statistical "hard data". As explained in the first chapter, when the initial data were analysed, it was felt that the statistical data left crucial questions unanswered. To explain the data, there was an urgent need to "analyse the social reality hidden behind those appearances" (Wright 1978: 12). The sociological insights that emerged from the process of data collection and analysis convinced the researcher to change the emphasis to a "soft data" qualitative framework. Exciting though the idea was, one limitation was the researchers' lack of sociological background. Sociology of Education had been omitted from the researcher's teacher education curriculum.

Being a graduate of a segregated state university meant for Africans, the researcher's educational perspective had been

formed through Fundamental Pedagogics. The destructive role of Fundamental Pedagogics stemmed from its aim of advocating "a very authoritarian, structured view of education in relation to South African society, in which there is acceptance - rather than a questioning - of the values undergirding apartheid" (de Vries 1989: 453). The negative effects of Fundamental Pedagogics on the researcher's analytic skills were so great that they interfered with the researcher's attempts to analyse the underlying social reality that produced the data. Nevertheless, the sociological approach promised to be appropriate for the present investigation.

For the generation of the foreshadowed problem, and the provision of conceptual frameworks for phrasing interview questions, the researcher entered the field with a sociological perspective. The influence of sociology of knowledge, social stratification with its dimensions of race, class and ideology is acknowledged. Bureaucratic organization theory with its stress on teachers' lack of professional autonomy, also had an influence on the design of the study. Several theoretical perspectives have the advantage of helping the researcher recognize more easily the processes and actions at hand, to expand the conceptual aspects of the setting.

As explained in the first chapter, the researcher's conviction was that there was no such thing as a neutral educational process. The researcher's belief was reinforced by Jansen's (1988) insights on the impossibility of neutrality in educational research. In a critique of curriculum research on the Fort Hare Project and the Science

Education Project, Jansen (1988) correctly rejected ideologically neutral positions adopted by the researchers concerned on the grounds that by claiming neutrality, they gave the impression that the socio-political *status quo* as it affected education was natural and unproblematic.

The researcher, as a member of the stratified society of South Africa, and a graduate of a segregated teacher education institution, had, and still has a responsibility to challenge, and to make problematic, the educational issues that are taken for granted. This responsibility arose from the researcher's commitment to the transformation of education in general, and teacher education in particular.

THE INFLUENCE OF SOCIOLOGY OF EDUCATION

The discipline of sociology seems to have two main traditions. Neither of the two main traditions of sociology is self-sufficient for the investigation of educational problems. At the micro level, sociologists are concerned with the texture of classroom life, whereas at the macro level, social stratification, with its dimensions of race, class and ideology is the main concern. Micro level accounts usually gloss over the possible influence of structural factors on educational problems. By the same token, what is missing from macro level accounts, is the texture of classroom life. What seems to be needed is a synthesis of ideas from both sociological traditions, namely the micro and macro levels. A closer examination of both situational and structural factors may give researchers an insight into how teacher and pupil strategies may be induced by situational problems which are

structurally produced.

The researcher was mindful of the limitations of applying grand theory to ethnographic research. However, she was equally mindful of the influence of grand theory on theoretical or conceptual frameworks informing methodology. The purpose of the present section is to outline the theories that influenced the design of the current investigation of Colleges of Education in Ciskei, directly or indirectly.

Reproduction theory

Reproduction theory has contributed significantly to a broader understanding of the political nature of schooling and teacher education, as well as their relation to the dominant society. The focus of reproduction theory on conflict appeared appropriate for an investigation carried out in South Africa, given the stratification of society, and the provision of education according to race.

Althusser (1971) has influenced many sociologists of education cast in the Marxist mould. He firmly believed that the schooling process was ideologically determined. As apparatuses of the Ideological State, schools inculcate the ideology of the ruling class. In addition to learning "know how" for example, children at school also learn to respect the "rules" established by class domination.

Schools, according to Althusser, can only perform their critical function of reproducing social relations when capitalist control over their form and over their content has been effected. This is achieved through the medium of the

state. The state's control over finance, administration, and teacher education and certification, for example, creates the necessary preconditions for the institutional and ideological incorporation of dominated classes.

Sharp (1981) differentiates between practical and theoretical ideology. According to her, practical ideology serves to inculcate submissive attitudes to authority and acceptance of social stratification according to race and class. "The manner in which schools, classrooms and pupils are organised and hierarchically stratified", writes Sharp,

helps to constitute agents as appropriate subjects with the right skills, attitudes, and values, for capitalist work processes and to act as decent, law-abiding citizens (1981: 140).

The differentiation and fragmentation of knowledge characteristic of educational curricula help to facilitate its appropriation for class ends while simultaneously immersing pupils in the phenomenal forms of bourgeois society.

Althusser's model is criticized for being strongly deterministic (Hargreaves 1980). Teachers are cast in the passive role of helpless agents for state repression (Erben and Gleeson 1977), and it is implied that pupils also respond to the experiences of schooling in a uniformly submissive way. It is conceded, however, that at points, (Hargreaves 1980) Althusser makes concessions to the notion of "relative autonomy", an issue which will be discussed presently.

Bowles and Gintis (1976) share with Althusser a fundamental

interest in schools as consciousness-forming institutions. A marked difference between them in this regard, however, is that Bowles and Gintis see consciousness as being shaped directly for the requirements of an expanding and changing capitalist economy. Schools in their view, produce technical and cognitive skills for adequate job performance. Their correspondence theory stresses the role played by schools in supplying labour to the dominant enterprises and reinforcing the racial, ethnic, sexual, and class segmentation of the labour force. It is this very correspondence theory that has been a source of criticism levelled against the widely disseminated work of Bowles and Gintis.

Although reproduction theories provide a better understanding of the politics of schooling, their major shortcoming is that they ignore the teachers' and students' actions and intentions. They create the impression that teachers and students are so helpless that they are unable to oppose social and cultural reproduction. Reproduction or correspondence theories ignore the resistance and struggles of working-class culture and politics (Apple 1982a; Salter and Tapper 1981). Also, the impression is given that it is virtually impossible for educators to organise "alternative curricula, teaching materials, and pedagogical practices which aim at opposing the reproduction of social inequality through school" (Fernandes 1988: 170). The part played in ideological domination by the selection of knowledge and the content, methods and evaluation of the curriculum are also ignored. Giroux (1981) however, attributes to Bowles and Gintis the insight that schools cannot be studied as institutions removed from the socio-economic context in which they are situated.

Although the researcher shares the criticisms levelled against super-determinist and functionalist perspective of the reproduction of social inequality through the schools, reproduction theories could not be ignored for purposes of the present investigation. The researcher firmly believes that there is something to be learnt from the insights of reproductive theories for South African researchers. The basic assumptions underlying Marxist analyses of schooling are evident in the explanation given by Wright:

One of the central epistemological premises of Marxist theory is the distinction between the "level of appearances" and the underlying social reality which produces those appearances...The central claim is that the vast array of empirical phenomena immediately observable in social life can only be explained if we analyse the social reality hidden behind those appearances (1978: 12).

In essence, Marxist theory holds that the danger in remaining at the level of "appearances" when investigating schooling is that we may give superficial descriptions that will not unmask the real relations between schooling and society. Failure to explain social relations assumes that schooling exists in some sort of "social vacuum" (Kallos 1981). When applied to teacher education, Marxist theory implies that our attempts to provide pre-service teacher education programmes need to be analysed in the light of economic, social and political institutions within which they are embedded (Beyer and Zeichner 1987; Giroux 1981; Bowles and Gintis 1976; Popkewitz 1987; Apple 1987). The latter insight has had a significant influence in the account of the contextual framing of the study.

Resistance theory

The deterministic and unproblematic relationship between economic base and its political and ideological superstructure characteristic of "scientific" Marxism has since been transformed. The central idea of such transformative endeavours is that schooling is relatively autonomous from the sphere of production. Any connection between schooling and production is "indirect, mediated and complex" (Hargreaves 1980: 180).

The concept of relative autonomy is a structural concept referring to "the relationships between State structures on the one hand and the capitalist economy on the other" (Gordon 1989: 436). Whitty (1985) concurs with Hargreaves on the issue of the relative autonomy of schools. He writes,

Any particular site within the social formation could be intersected by economic, political and ideological practices, all of which are relatively autonomous from each other (p.31).

Giroux (1981) recognises the relative autonomy of schools. He points out that the ruling class does not produce or disseminate ideologies directly, instead, they make use of intellectuals and other cultural workers who run cultural apparatuses such as schools. The struggles of the oppressed classes are recognised in Giroux's analysis of schools. He stresses that the relationship that schools have to the wider society is not only marked by domination and docility. It is also marked by contestation, struggle and resistance. "Put another way", writes Giroux (1981: 15) "schools are social

sites...characterized by an ongoing struggle." The struggle referred to is that between the views of the dominant groups, and of others who oppose and challenge them.

Global resistance refers to resistance against two levels of social and cultural reproduction: "reproduction of the sexual and social division of labour and the inculcation of the dominant ideology" (Fernandes 1988: 174). Partial resistance, on the contrary, refers to resistance at one level: either at the level of the sexual and social division of labour, or at the level of ideological inculcation. Resistance may be either individual or collective. However, collective resistance is believed to have a greater emancipatory and transformative power. Sources of resistance may be internal as in the case of educators who produce and edit counter-hegemonic school materials, as well as teacher unions and student associations which develop counter-hegemonic activities. The students' families and communities, workers' unions, the movements against racial and ethnic discrimination, and the publishing companies that publish distinct non-school counter-hegemonic materials, are all sources of external resistance.

From the critiques of relative autonomy there appears to be something for both pessimists and optimists. From the pessimists' view, relative autonomy fails to establish how schooling and production have come to be relatively, as opposed to completely autonomous. From resistance theories (as relative autonomy theories are sometimes called) it is difficult to make out who the significant agents who maintain the system of functional autonomy are, and why they are constrained or habituated to act in ways which tacitly

and unintendedly lead to a perpetuation of the reproductive process. It is not explained why the reproductive work still gets done, despite a relative autonomy between the structures and contexts of education and production (Hargreaves 1980).

The autonomy of education from production, according to Bourdieu and Passeron (1977) is "apparent". This "apparent" autonomy serves to mask the reproduction of power relations with the result that power relations appear as legitimate authority. By the same token, the imposition of "a cultural arbitrary" i.e. the culture of the dominant class, upon pupils becomes conventionally regarded as universally valid culture. Relative autonomy of education from production gives the impression that pedagogic action, work and authority are neutral and unrelated to the interests of any particular class.

Fernandes (1988) asserts that the development of the theory of resistance is still incipient. He argues that the reason why the concepts used to apply theories of resistance have not been applied to distinct educational contexts is their lack of "analytical rigour". The terms used are generally defined in a descriptive way. Further, for resistance theories to be effective, they need to be complemented by the valuable contributions of social and cultural reproduction. Theoretical complementarity is essential because greater understanding of the schools' mechanisms which reproduce social inequality in its different forms, and greater knowledge of the amplitude of social and cultural reproduction, results in easier definition of the spaces of possible intervention, as well as the potentialities and the limits of resistance to that reproduction.

On the positive side, however, relative autonomy does highlight the complex nature and derivation of the reproductive process. It stresses the multiplicity of causes of events without implying that such events are randomly caused. Relative autonomy allows, in principle, for the possibility of radical social change (Whitty and Young 1976). Since superstructural elements do not always directly reflect the economic base, "it is always possible for radical groups to flourish, expand and exert their influence in the schooling system" (Hargreaves 1980: 189). The central importance of conflict, struggle, and resistance is affirmed in resistance theory accounts of schooling (Apple 1982; Whitty 1981; Giroux 1983).

It should be stressed, however, that, if teachers and students fail to exploit and expand the relative autonomy of schools, then the value of relative autonomy of schools ceases to exist.

Black education in South Africa is characterized by conflict, struggle and resistance. Segregated education has been, and still is rejected and resisted by blacks. The central claim made by blacks is that separate education could never be equal, whence it has to be resisted. Education is perceived to be related to the superstructure, and consequently the radical groups firmly believe that there can be no democratic transformation of education until blacks are integrated into the governing structures of South Africa. It is as a result of the current situation in black education that the insights of resistance theory were considered appropriate for purposes of the present investigation. Together with reproduction theories, resistance theories were used to achieve the

contextual framing of the investigation.

Split-level model

An alternative formulation of the relation between school and society is commonly found in interactionist studies of education. Woods (1977) is an exponent of this model and his argument is that there is a total separation in schools between "social control" and "situational control". Social control refers to "...the training for induction into capitalist society... It is therefore an integral feature of the process of schooling as one of class reproduction" (Hargreaves 1980: 189). Woods maintains that social control is separate from and independent of situational control. Unlike social control, situational control arises out of the teacher's need to accommodate to a set of immediate constraints like the teacher-pupil ratio, lack of resources, inadequate facilities, and class boycotts, which are a part of the situation in which he/she finds himself/herself. Woods asserts that patterns of teacher-pupil interaction, curriculum construction and teacher survival are determined at two distinct, autonomously constituted levels. As opposed to relative autonomy, the split-level model stresses complete autonomy of social and situational levels.

In as far as it recognises the influence of both social and situational factors on teaching, the split-level model influenced the design of the present inquiry of teacher education. However, the researcher rejected Woods' argument that much of what goes on in schools has no connection with the superstructure. Hammersley (1980) supports the connection between situational and social factors:

Making a clear distinction between analytic and member conceptions of the situation lays the basis for the investigation of how the situations facing actors are structurally produced, and thus provides a link to the macro level (p.190).

Hargreaves ' (1980) argument about the connection between situational factors and structural factors is shared by the present researcher. Along with Hargreaves, the researcher firmly believes that,

Factors which are ostensibly situational in nature such as the teacher-pupil ratio, the teaching week, ...school buildings, the dilemmas of progressive education and so on, have their origin in the changing social, economic and political conditions of capitalist society. Just because the complex interrelation of the two levels has rarely been demonstrated so far, does not mean to say that no such connections exist (1980: 192).

The researcher's conviction is that even if connections between the situational and structural factors influencing the successful preparation of pre-service teachers in the use of technology in education are difficult to demonstrate, the possibility of such connections cannot be dismissed, especially in a society where education is resisted on the grounds that it is provided in racially segregated institutions.

Human Capital Theory

Human Capital Theory is a systemic approach to education. Education is viewed as a "commodity" (Carr and Kemmis 1986) and the education organisation as the "delivery system". The delivery system is managed such that knowledgeable teachers who possess the rare commodity of knowledge, may transmit content, skills and attitudes to students who know nothing.

Qualifications are "capital" (de Vries 1989: 450) which is used to buy status, power, and good opportunities. Those with higher qualifications deserve positions of the greatest opportunity. They earn more than those with less schooling, and their qualifications enhance their morale as employees (Dore 1976b).

As part of a strategy of evolutionary change, developing countries such as South Africa, seem to apply Human Capital Theory. Their assumptions seem to correspond to the idea that undeveloped societies evolve through successive stages until they attain the situation of "developed societies". Education is perceived as playing a significant role in development. This view of the development of societies is apparent in Beeby's (1966) thesis on the training of teachers in underdeveloped countries:

there are two strictly professional factors that determine the ability of an educational system to move from one stage to a higher one. They are: (a) the level of general education of the teachers in the system, and (b) the amount and kind of training they have received (p.58).

On the debit side, Human Capital Theory discounts important societal forces. It presupposes a neutral and an ahistorical context, yet, ideological, political and personal factors do play a part in the selection and advancement of teachers. In support of this view, de Vries (1989: 457) argues that in black schools in South Africa "the upper hierarchy of posts is held by whites, in accordance with the principles of Christian National Education", despite the availability of Africans with high qualifications. In view of the South African government's insistence that African teachers should

improve their qualifications as a measure to improve education standards, Human Capital Theory could not be ignored. The researcher shares de Vries' (1989) view that "the call for qualifications can be viewed as a component of the South African state's reform initiative, and, as such, is yet another cosmetic amelioration of black people's status because it does not address their needs" (p.449).

Symbolic and critical theory

The symbolic sciences posit that social life is created and sustained through symbolic interactions and patterns of conduct (Luckman 1977). People invent symbols to communicate meaning amongst themselves. Rules are also made through the interactions of people. For example, if one talks of the role of the teacher, the meanings and rules governing teacher behaviour are developed and sustained as people engage in teaching activities.

Popkewitz (1984: 41) argues that each situation makes different demands on actors. For example, researchers cannot expect to find the same meanings for white urban schools, and for black rural schools. They would need to do fieldwork in order to get the meanings of participants in those situations. Fieldwork is also central to research concerned with classroom communication. To understand how participants reason about a situation, researchers need to do fieldwork.

Symbolic sciences affirm the presence of two types of causation: the "because of" and the "in order to". The "in order to" cause of social affairs involves human motive and reason. Bellack (1978) argues for a synthesis of the

observer's and the observed's perceptions and interpretations. It is argued that both views are different but essential to understanding human motive and reason. In addition, other causes found in the contextual factors in schooling are also taken into consideration, alongside the interpretations of the observer and the observed.

A symbolic theory of science, in conclusion, may be described as one which reveals to people what it is that they and others are doing when they act and speak as they do. It does this by articulating the symbolic structures in accordance with which people in a particular social setting act (Fay 1977).

A critical social science, on the other hand, functions to understand the relations between values, interest, and action. Paraphrasing Marx, Popkewitz asserts that the function of critical theory is to "change the world, not to describe it" (1984: 45). From Habermas' perspective, the purpose of theory is "...to enable individuals to know themselves and their situation through retrospection, and thus bring to consciousness the process of social formation which, in turn, provides conditions in which practical discourse can be conducted" (Popkewitz 1984: 46).

History is considered important by the critical perspective. The present situation in which people find themselves in their situations is not pre-ordained, instead it is "...constructed historically, socially and politically...(it is) the outcome of the collective actions of men and women" (Popkewitz 1979: 27). On research in teacher education, Schneider (1979: 211) asserts,

To understand the current problems of teacher education, one needs to examine the past and present institutional context in which teacher education departments were created and exist.

In conclusion, the researcher considered the insights of the symbolic and critical perspectives appropriate as an underpinning for the present inquiry. The reason for that is stated clearly by Popkewitz:

The symbolic sciences focus upon how knowledge is negotiated in schools. The critical sciences enable educators to understand the social and economic roots of the knowledge maximised in schooling (1984: 53).

The split level model was adopted for purposes of the present study on the grounds that it recognises the influence of both structural and situational factors on the actions of educators. Macro theories, as explained earlier, were used in the account of the contextual framing of the work, whereas symbolic sciences informed data collection at the micro level.

CHOICE OF RESEARCH PARADIGM

As stated at the beginning of the current chapter, the study is naturalistic. To the naturalist, the phrase "operationalizing" the design is not acceptable. Instead, naturalists speak of "unfolding" the design. The former connotes an imposed, pre-determined blueprint while the

latter suggests an emerging plan relative to unpredictable contingencies. The present study was naturalistic to the extent that the researcher did not manipulate the participating lecturers and pre-service teachers, nor the situation. The elements of a naturalistic design are described in the next session.

Focus of inquiry

A research problem is defined as a state of affairs,

resulting from the interaction of two or more factors...that yields a perplexing or enigmatic state, a conflict that renders the choice from among alternative courses of action moot; or an undesirable consequence (Lincoln and Guba 1985: 88).

In the present research, the problem was a state of affairs that "yields a perplexing or enigmatic state": As indicated in the first chapter, studies conducted on the use of technology in education in South Africa report that few teachers use technology when teaching, even though a course in educational media is a compulsory component of the teacher education curriculum (Kruger 1980; Mrwetyana 1983; Hofmeyer 1987). From the above studies conducted in South Africa, it is evident that in the case of the majority of schools, pupils are exposed more to teacher talk than to curricular materials. As stated in the first chapter, the present study focussed on factors related to the preparation of pre-service teachers in the use of technology in education. Such factors were also contextualised and interpreted in the socio-historical setting of South Africa generally. It was also a consideration of these in the light of the challenge to transform education in South Africa.

The fit of the paradigm to the inquiry focus and theory

By "paradigm" researchers refer to "a loose collection of logically held-together assumptions, concepts, or propositions that orient thinking and research" (Bogdan and Biklen 1982: 30). The concept implies a "perspective" or a way of looking at the world.

To determine the fit of the paradigm to the focus and theory, an examination of the basic assumptions or axioms that undergird the paradigm is essential. This examination should be made with reference to the focus of inquiry, and be defined within the framework of the theory being held. Lincoln and Guba (1985) acknowledge five axiomatic positions of the naturalistic paradigm: (a) the nature of reality, (b) the relationship between the knower and the known, (c) the outcome of inquiry, (d) the dynamic of action, and (e) the roles of inquiry.

The nature of reality

The scientific paradigm assumes the existence of a single reality "out there". Independent of human perceptions, this objective reality is divided into elements called variables. The naturalist ontology, on the contrary, acknowledges multiple realities existing in human minds. These socially constructed realities are not governed by any laws of nature. Rather than presuming that human environments and interactions can be held constant, manipulated, treated, scheduled or modified, naturalistic research suggests that the most powerful way to understand human beings and the social environments they have created is to observe, talk,

listen and participate with them in these environments.

The preparation of pre-service teachers in the use of technology in education could not be limited to variables in a scientific sense. That would have resulted in false simplifications of how teacher educators and pre-service teachers' actions, the institutional context, and the larger societal conditions combine to create a situation that enables or constrains teacher educators from preparing pre-service teachers successfully in the use of technology in education.

The relationship of the knower and the known

The positivist believes in subject-oriented dualism: the investigator and the investigated are independent of each other, and "the inquirer can, by erecting suitable safeguards, maintain an objective separateness" (Guba and Lincoln 1981: 9). The researcher is in a position to remain detached from the reality studied and at the same time be involved with it (Guba 1987). The naturalist, on the contrary, asserts that when information is collected from human subjects, by any method, the possibility of interaction between the subjects and the researcher cannot be avoided. The researcher and the researched are interconnected in such a manner that the findings of an investigation are the literal creation of the inquiry process. The only way in which the present researcher could find out the kinds of approaches in the preparation of pre-service teachers in the use of technology, and the factors influencing them, was to interact closely with lecturers and pre-service teachers in Ciskeian Colleges of Education.

The outcome of inquiry

Process, rather than product is the main focus of qualitative researchers. This type of research focusses on how definitions are formed by actors (teachers, students, administrators). The negotiation of meaning and the application of labels is described and explained. Qualitative researchers try to understand the perceptions of actors in order to illuminate the dynamics of situations. They achieve this aim by continually asking from their subjects,

what they are experiencing, how they interpret their experiences, and how they themselves structure the social world in which they live (Bogdan and Biklen 1982: 30).

As opposed to quantitative research which takes a phenomenon apart to examine its constituent elements, qualitative research seeks to understand the interaction of all the elements. Patton (1985: 1) describes the effort to understand situations in their uniqueness as,

an end in itself, so that it is not attempting to predict what may happen in the future necessarily, but to understand the nature of that setting - what it means for participants to be in that setting, what their lives are like, what is going on for them, what their meanings are, what the world looks like in that particular setting and in the analysis to be able to communicate that faithfully to others who are interested in that setting.

The positivist in the course of inquiry is striving for generalizations, whereas the naturalist views generalizations with suspicion. Guba and Lincoln (1981) argue that human behaviour is always mediated by the context in which it occurs. "Generalizations that are intended to be contextfree

will have little that is useful to say about human behaviour" (p.62). Instead of generalizations, naturalists suggest working hypotheses and thick description. Whether the working hypotheses and thick description hold for some other time and context is an empirical question, depending on the degree of similarity of, in Guba's the sending and receiving time/context.

In conclusion, Merriam's (1988) assertion holds true for the present investigation: "Research is exploratory, inductive, and emphasizes processes rather than ends...there are no predetermined hypotheses, no treatments, and no restrictions on the end product" (p.17).

The preparation of pre-service teachers in Ciskei College of Education is a complex human behavior that is context- and time dependent. It was impossible to evaluate the approaches to such preparation without explicit reference to the contexts and time. Further, the aim was not to predict anything, instead the process of understanding such approaches was an end in itself.

The dynamics of action

The naturalistic paradigm is concerned with what happens in a natural setting. By being on the premises researched, researchers gain a better understanding of the data and the phenomenon being investigated. The main reason for researchers to be on the premises is their concern for context. The setting has to be understood in the context of the history of the institution they are participants in. "To divorce the act, word, or gesture from its context is, for the

qualitative researcher, to lose sight of significance" (Bogdan and Biklen 1982: 27).

The preparation of pre-service teachers in the use of technology in education could only unfold itself in their natural setting, i.e. Colleges of Education in Ciskei.

The role of values in inquiry

Positivists believe that inquiry is value-free, i.e. it is independent of researchers' beliefs, perceptions, biases, values, attitudes and emotions. On the contrary, the naturalist proclaims that inquiry is value-bound: " it is influenced by the axioms or assumptions underlying both the substantive theory and the methodological paradigm that undergirds inquiry (Lincoln and Guba 1985: 161).

As stated earlier, the object of the present study was the educational media course which was a compulsory component of the teacher education curriculum in Colleges of Education in Ciskei. From the stage of conceptualization to that of finalization, the inquiry was influenced by the researcher's values, by the axioms or assumptions underlying the naturalistic paradigm, and by the values that characterize the context in which the inquiry was carried out, i.e. Colleges of Education in Ciskei. However, it should be stated emphatically that stringent measures were taken to enhance the trustworthiness of the findings, a matter dealt with in the next chapter.

SUMMARY

Conflict theories were considered appropriate for a study which was based in a segregated "homeland", Ciskei, which was a Nationalist government ploy of keeping Africans segregated from Whites. Resistance theories, on the other hand, influenced the study as a result of their stress on the presence of human agency and resistance. Colleges of Education, in addition to playing the role of reproducing social relations, are also sites where the ruling ideology is resisted and contested.

Symbolic sciences focus upon how knowledge is negotiated in schools, whereas critical sciences enable educators to understand the social and economic roots of the knowledge emphasised in schooling.

The qualitative-naturalistic paradigm was selected because the researcher wanted to find out how teacher educators and pre-service teachers' actions, the institutional context, and the larger societal conditions combine to create a situation that enables or constrains teacher educators from preparing pre-service teachers successfully in the use of technology in education.

The next chapter describes data collection, analysis, and interpretation.

CHAPTER 4

THE CASE STUDY DESIGN

Observing classroom participation is really frustrating. Today I observed a respondent for more than two hours and I did not notice any salient behaviors to record. Most of the time he was just listening to the presentation made by his peers...I think interviewing his classmates and professor would be more effective and efficient than observing him.

A respondent wrote to me that he was uncomfortable with the way I administered the survey. He felt that he was forced to complete the survey. I wish I had written the transmittal letter in Indonesian, where I could personally introduce myself to the respondents.

Extracts from a reflexive journal (Alwasilah 1991).

The assumptions underlying the naturalistic paradigm were outlined in the previous chapter. In the current chapter, the plan and structure of the qualitative-naturalistic investigation used to collect data is described. Qualitative research is descriptive in nature. Nothing is taken as trivial by naturalistic researchers. For example, questions such as the following are important in this paradigm: Why are these desks in this form of arrangement? Why is there a television in the classroom if it is never used? Naturalistic researchers believe that answers to such questions could seldom be given in numbers, but in words. The written results of the research contain quotations from the data to illustrate and substantiate the presentation.

The appropriateness of naturalistic inquiry for a study that is non-experimental, descriptive and inductive is portrayed by Merriam (1988: 70):

(Naturalistic research) is undertaken when description and explanation are sought, when it is not possible or feasible to manipulate the potential causes of behavior, and when variables

are not easily identified or are too embedded in the phenomenon to be extracted for study.

Merriam's observation holds true particularly in the present investigation. Approaches to the preparation of pre-service teachers in the use of technology in education were evident in the respondents' behaviours that were difficult to explain in terms of cause-effect relationship. There were too many variables embedded in the behaviours to be captured in terms of simple cause and effect formulations.

THE RESEARCH DESIGN

Merriam (1988: 6) defines a research design as "a plan for assembling, organizing, and integrating information data, and it results in a specific end product (research finding)".

The selection of the research design was determined mainly by the questions it raised and the end product desired by the researcher. Approaches in the preparation of pre-service teachers in the use of technology in education could only be answered by how and why questions. Case study and history designs have been found to be appropriate for investigating such questions (Yin 1984). The research design adopted in the present inquiry rests on the notion that pre-service teachers and lecturers are social actors engaged in practices within a particular context. In as much as the decisions that they make and their resulting actions and practices are influenced by structural factors, they are also influenced by their situational contexts. The theory of "situationally-constrained choice" (Cuban 1984: 250) is endorsed by other education researchers (Smith and Geoffrey 1986; Bolster 1983; Giddens 1979) who agree that teaching is a situated practice.

In view of the fact that the researcher aimed at understanding educational action in educational institutions, the design selected may be referred to as an educational case study (Guba and Lincoln 1981). The approaches to the preparation of technology in education, as well as factors influencing them, unfolded themselves in education settings. The study concentrated on three sites and for that reason is a multisite educational case study (Stake and Easley 1978). The data, it was believed, would help educational actors and administrators to judge the merit and worth of the educational media component of their pre-service teacher education curriculum. Examples of such research have been reported by Stake and Gjerde (1974).

A review of the characteristics of qualitative case studies suggests the following properties (Merriam 1988: 11):

(i) Case studies are particularistic in that they focus on a particular situation, event, programme or phenomenon. The case itself is important for what it reveals about the phenomenon and for what it might represent.

(ii) They are descriptive in that their end products are rich, thick descriptions of the phenomena under study. The description is usually qualitative - that is, instead of reporting findings in numerical data, case studies use prose and literary techniques to describe, elicit images and to analyse situations. They present documentation of events, quotes, samples and artifacts (Schumacher and McMillan 1993). A

qualitative case study can show the influence of the passage of time on the issue - deadlines, change of legislators, cessation of funding, and so on. It can cover many years and describe how the preceding decades led to a situation. It can spell out differences of opinion on the issue and suggest how these differences have influenced the result.

(iii) Qualitative case studies are heuristic in that they illuminate the reader's understanding of the phenomenon under study. Insights into how things get to be the way they are can be expected to result from case studies (Stake and Easley 1978). They can explain the reasons for a problem, the background of a situation, what happened, and why. They can evaluate, summarize, and conclude, thus increasing potential applicability of findings to similar contexts.

(iv) Inductive reasoning is another feature of qualitative case studies. Generalizations, concepts, or hypotheses emerge from an examination of data - data grounded in the context itself. Discovery of new relationships, concepts, and understanding, rather than verification of predetermined hypotheses, characterises qualitative case studies.

SELECTION OF SITES AND CASES

The selection of sites and cases for this investigation into the preparation of pre-service teachers in the use of technology in education was the next step. The data were naturally to be obtained from lecturers, and pre-service teachers who were participants in the teacher education

programmes under review. The respondents were limited to lecturers and pre-service teachers in Ciskeian Colleges of Education. The sites and cases were not selected randomly because random sampling is conventionally carried out to secure generalizations while this study was not intended to do so. Instead, the present inquiry was conducted to describe approaches to, and factors influencing the preparation of pre-service teachers in the use of technology in education. Theoretical sampling refers to samples selected on the basis of their theoretical significance or their relevance to the theory that informs the research question. The purposes for a theory also guide the selection of samples (Goetz and Le Compte 1984). The sites and cases were therefore selected purposefully and theoretically.

The closing down of the Teacher Training Institutions that had been established by the missionaries in Ciskei (Healdtown near Fort Beaufort, Lovedale near Alice, Zwelitsha near King William's Town, and St Matthew's near Keiskammahoek) ushered in a new type of institution currently known as Colleges of Education. As stated in the first chapter, there are three such colleges in Ciskei: Dr W B Rubusana in Mdantsane, Masibulele in Whittlesea, and Griffiths Mxenge in Zwelitsha near King William's Town. The location of the Colleges of Education in Ciskei is represented in Figure 1 (p.15).

The three colleges offer a post matriculation three-year Primary Teachers' Diploma (PTD), as well as a post matriculation three-year Secondary Teachers' Diploma (STD). The educational media course is a compulsory component of the pre-service teacher education curriculum in these colleges.

The researcher's aim was not to compare Ciskeian Colleges of Education with other Colleges of Education in South Africa, instead, the focus was the particular situation of Ciskeian Colleges of Education. The number of cases might appear small, especially when judged by the criteria of quantitative research. However, in view of the naturalistic nature of the inquiry, depth as opposed to breadth is of utmost importance. Small samples are appropriate in qualitative research because the focus is usually on detail and quality of an individual's or small group's experience. Further, as stated above, the three colleges selected were appropriate in terms of their relevance to the theories that informed the study.

In keeping with the stated guide lines, three Rectors and three Heads of Teaching Science Departments in the three colleges were identified as key informants who would provide direct assistance to the researcher in establishing and maintaining the research relationship with the colleges. They provided initial information about the colleges and the administrative hierarchy controlling them. They helped with the identification of possible respondents and they provided information and assistance during the course of the investigation. To prevent the creation of the impression that Rectors and Heads of Departments were forcing respondents to participate, even if indirectly, the researcher communicated directly with the informants after access had been gained.

Initially, four educational media lecturers and four Teaching Science lecturers were also invited to participate because they were directly involved with the content of the educational media syllabus. They were interviewed to

determine the perspective of participants in teacher education. As representative informants, they were the main focus of the inquiry and they helped the identification of other informants to be interviewed. On the basis of their recommendations, it was decided to further include four more educational media lecturers, two teaching science lecturers, lecturers involved with Micro teaching, Education, and Subject Didactics. More respondents were included as and when necessary. Ultimately, the sample consisted of forty-eight lecturers. Table 1 below summarizes the categories of respondents included in the sample.

TABLE 1

INTERVIEW SAMPLE

Number	Category
3	Rectors
3	Heads of Departments
9	Media lecturers
6	Teaching Science lecturers
9	Micro teaching lecturers
6	Education lecturers
12	Subject didactics lecturers

Once the cases and the sites had been identified, it was necessary to negotiate access.

GAINING ACCESS

The process of gaining access was complicated by the hierarchical structure of accountability predominant in

Colleges of Education. It was necessary to negotiate with the Director General of Education in Ciskei before approaching the Rectors of the Colleges. A letter explaining the purpose of the present inquiry was written to the Director General (Appendix A). When approval for the investigation had been given (Appendix B) Rectors were approached in person. Rectors also had to approve my discussions with heads of Departments who in turn would allow discussions with lecturers and pre-service teachers. However, the researcher had some strengths that enhanced the process of gaining access to the sites of investigation.

The researcher's position of senior lecturer at university positioned her well in terms of status. The researcher's occupation - teacher education - also gave the researcher an almost unquestioned access to the context within which informants would be sought. It is interesting to note that in these colleges, lecturers appeared to identify themselves more with university lecturers than with school teachers. The researcher was in most cases accepted and trusted. For ethical reasons, however, informants were assured that data would be treated with confidentiality.

INITIAL EXPLORATION

In keeping with the procedures of naturalistic research, the researcher had informal discussions with media lecturers and pre-service teachers from Griffiths Mxenge and Dr W B Rubusana Colleges of Education. The duration of the exploration was four weeks, lasting from July to August 1989. Discussions were held in Bisho, the capital town of the Ciskei, which is approximately nine kilometres from Griffiths Mxenge. At this stage, the researcher selected

informants known to her, who would not feel threatened by the exercise, and who were believed to have knowledge about the colleges in general, and about the curriculum offered.

As a resident of Bisho, it was easy for the researcher to visit the homes of her informants, whose homes were also in Bisho. Bisho is a fairly exclusive residential area in the Zwelitsha district of the Ciskei Republic. The majority of teachers, lawyers, doctors, and other professional people had left the smaller and violent areas such as Mdantsane and Zwelitsha. They bought larger plots and built homes of their choice in Bisho. They commute daily from Bisho to other Ciskeian towns such as Alice, Sada, Mdantsane, Peddie, and Zwelitsha, depending on where they work.

At this stage of the project, apart from a few studies used to clarify the research problem, no exhaustive literature review had been done, and no hypotheses had been set. This is a naturalistic procedure which is viewed with suspicion by positivists. As Bogdan and Biklen point out, "To enter a setting with a set of specific hypotheses is to impose preconceptions and perhaps misconceptions on the setting" (1982: 27). The aim of setting out with no hypotheses was to view experiences from the perspective of those involved with the preparation of pre-service teachers in the use of technology in education. It was crucial to find out why lecturers in Colleges of Education and pre-service teachers doing practice teaching in local schools, behaved as they did with regard to the use of technology in education. Further, it was to contextualise and interpret data in the socio-historical setting of South Africa in general.

On the basis of the discussions, documents such as the Teaching Practice Syllabus for Primary and Secondary

Teachers' Diplomas, the textbooks used, and examination question papers were identified as essential for inclusion in the inquiry. It was further decided to design and implement questionnaires for lecturers, as well as for pre-service teachers.

The initial exploration was helpful in various ways:

(1) Informants who would be invited to participate in the next phase of the inquiry were identified. (2) The manner in which data were to be gathered initially was decided. (3) Important documents for the investigation were suggested and made available, in some cases.

When the researcher realised that no new data were forthcoming, it was assumed that redundancy had been established, and consequently the exploratory study was stopped.

THE CONFIRMATION SURVEY

Although the inquiry was naturalistic, it was decided to develop two questionnaires: one for teacher educators, and the other for pre-service teachers. The researcher was still exploring further, in preparation for the ethnography. For the teacher educators' questionnaire, the questions fell into the following categories:

Category 1: Questions to elicit personal information such as age, sex, qualifications, courses taught, and teaching experience

Category 2: Questions to elicit information about the

availability of media

Category 3: Questions to elicit information about the use of media

Category 4: Questions about the educational media course.

Likewise, the pre-service teachers' questions fell into the categories listed below:

Category 1: Questions to elicit personal information such as age, sex, course registered for, teaching practice subjects

Category 2: Questions to elicit information about the use of media

Category 3: Questions to elicit information about the availability of media

Category 4: Questions about the educational media course.

To pilot the questions, pre-service teachers enrolled for the two-year post matriculation Secondary Teachers' Diploma at the University of Fort Hare were requested to answer the questionnaire meant for pre-service teachers. Fifteen pre-service teachers were registered for the course and all fifteen participated. On the basis of feedback from these respondents, the questionnaire was amended. For the final version of the questionnaire, see Appendix E. Similar treatment was given to the lecturers' questionnaire. It was tested on lecturers in the Faculty of Education of the University of Fort Hare. Nine lecturers agreed to participate. The final version appears in Appendix F. The

questionnaires were administered in October 1989. To ensure that all pre-service teachers' questionnaires would be returned, the researcher visited each college in person and was allowed time to meet third year pre-service teachers in one venue. The purpose of the investigation was explained in brief and respondents were requested to participate. Questionnaires were distributed and respondents were asked to fill in the forms, whilst the researcher visited facilities such as the library and the media centre when available. As third year pre-service teachers who in four months would be entrusted with the organization and management of classrooms, the researcher considered it procedural to leave respondents to work unsupervised. Further, had the questionnaires been mailed, as is usually the case, respondents would have filled them in unsupervised. However, the researcher informed respondents of her availability should she be needed for any reason. When respondents had finished the process, one of them collected the questionnaires and returned to the researcher. This was done in this manner in all sites. The pre-service teachers' sample consisted of one hundred and ninety-eight respondents.

Lecturers' questionnaires were also distributed during the same site visits as the pre-service teachers'. Forty-two lecturers responded.

DOCUMENT ANALYSIS

As stated earlier, Bernstein's (1971) "message systems", namely curriculum, pedagogy and evaluation were considered important in the present inquiry. The content of the educational media course was found to be tabled in the

Teaching Practice Syllabus for Primary and Secondary Teachers' Diplomas, as well as in the prescribed textbooks. It was considered essential to review and analyse these documents prior to any site visits. Factors such as designers of the syllabus, authors of the textbooks, and coverage of content were explored. Further, question papers for the educational media course examinations were analysed in terms of skills they required of pre-service teachers. This exercise was done during March 1990. The benefit of the document study was in the identification of questions that would be asked during interviews. For the syllabus, see Appendix L.

After the documents had been analysed, the researcher sensed that no new information was obtained, and thus, redundancy was established. This was a sign to terminate the document study.

OBSERVATIONAL DATA COLLECTION

The respondents were observed in natural, non-contrived settings. Lecturers did not have to arrange teaching situations that were otherwise not scheduled. Instead, they were observed during their normal timetabled periods. The purpose of these observations was to understand how lectures

were conducted, to see what type of technology was used, how and when it was used. Matters arising from observations would be explored further during interviews. The initial observations were conducted from July to September 1990. Four media lecturers and six microteaching lecturers were observed in class, and each was observed once a week during a thirty minute period. Two lectures per lecturer were observed. The second series of observations was done from March to May 1991. As in the first series, each lecturer was observed twice. Whenever necessary, the researcher went back for further observations, as dictated by the data analysis process.

The researcher recorded the data mainly by fieldnotes and checklists. Fieldnotes are defined as "the written account of what the researcher hears, sees, experiences, and thinks in the course of collecting and reflecting on the data in a qualitative study" (Bogdan and Biklen 1982: 74). Fieldnotes were not written in the lecture rooms because during earlier stages of the inquiry, it was observed that respondents tend to communicate less and to be uncomfortable when notes were being taken. Taking notes is so obvious an activity that it intrudes on and changes the situation under study. Mellon advises, "since naturalistic inquiry aims at understanding situations as they exist, activities that might change the situation are kept to a minimum" (1990: 45).

The process of writing field notes was done in three stages: mental notes, jotted notes, and full field notes. Mental notes refer to the way researchers orient their thinking during observation to help them remember the things they think are important. What respondents said was considered important qualitative data because one goal of

full field notes is to capture either the essence or the actual words of the respondents. Mental notes therefore, required remembering terms or phrases uttered by the various respondents. Concentrating on the first and last remarks in a conversation, or lecture, helped in reconstructing events.

To jog the memory during the writing of full field notes, there was a need for jotted notes. Very short notes had to be written unobtrusively during periods of observation. The researcher's car, and sometimes the library, provided the privacy needed for jotting notes. At the end of each period of observation, full notes were written. To prevent loss of important data, notes were written as close to the time of observation as possible. Full notes were written in chronological order and contained details about the participants, (who they were, what they did and in what order), and what the physical seating arrangements were like, what facilities were available. Table 2 is an example of a checklist used during an educational media lecture:

TABLE 2

The checklist for observation

Date: **Time:** **College:** **Lecturer:**

1. **Participants:** who was there? what was said? what was done?
2. **Setting:** what was available? seating arrangements?
3. **Events:** how was content transmitted? were media used?
were there hands-on experiences?
4. **Additional notes:**

The *coup d'etat* that led to the assumption of power by Brigadier Oupa Gqozo in Ciskei was another event that came with the disruption of normal school activities. The incident that led to widespread disorder was the Bisho massacre. After the incident, students became more aggressive, on school premises, undermining authority. In view of the volatile situation in schools, after having visited only two schools, the researcher abandoned the idea of observing pre-service teachers during teaching practice.

THE INTERVIEWING STUDY

The interview was used as a supplementary data gathering technique. Issues that had arisen from observations of lectures in action, examination of physical facilities, and document analyses were clarified through interviews. As stated earlier, interviews were conducted with three Rectors, three Heads of Departments, four media lecturers, and four teaching science lecturers. On the basis of the insights gained from the initial interviews, it was decided to increase the sample by including lecturers involved with microteaching, subject didactics, and education. The pool of additional informants, as well as those identified initially, finally included twenty-four interviews. Interviews were held in two stages. Subsequent to the first series of observation, the first series of interviews was held. They lasted from November to December 1990. The second round was done from July to August 1991, after the second observational study. An interview guide was designed to include the list of issues to be explored during interviews. The initial interviews were guided by a simple list of categories, but the guide was expanded as more was learned about the research topic. There was no rigidity in the manner in which interview guides were used. They were rearranged, altered, or even ignored, in

response to the interview situation.

Before each interview, the informant was told briefly about the purpose of the study and what would be done with the results. Respondents were also assured of anonymity and confidentiality. This was essential because in previous researches undertaken by the researcher, respondents who were teachers explained that due to the rejection of Bantu Education by students, as evidenced by class boycotts and violence, the Department of Education did not take kindly to teachers releasing information about schools. Some informants indicated that they preferred to be interviewed in the privacy of their homes due to fear of victimisation by the Department, should their ideas be heard. The researcher understood such fears, and consequently, all interviews were held in the respondents' homes. This involved a lot of travelling, but because the majority of lecturers from Dr W B Rubusana and Griffiths Mxenge Colleges of Education live in the exclusive residential area in Bisho, the researcher visited all their homes. The researcher's home was in Bisho, and that proved to be an advantage. Visits were done from afternoon to evening, weekends inclusive.

The five phase pattern for conducting in-depth interviews was adopted in the present inquiry. Introduction and small talk were a combined phase in which respondents were introduced to the study. In some cases permission to tape record the interviews had been secured when the appointments for the interviews were made. However, the majority of informants were completely opposed to the use of tape recorders. The explanation given for such opposition was fear of victimisation should their views become known by

officials from the Education Department. However, the researcher reminded informants about the need for tape recording. The ideas of anonymity and confidentiality were reinforced by explaining how the data were to be used, and also how identities would be protected.

When it was felt that the informants were at ease and talking freely, warm-up questions that moved them into the research topic were asked. Warm-up questions were kept simple, specific and non-threatening. However, they were relevant to the study.

The body of the interview focussed on the issues that comprised the interview guide. The pattern of questioning developed in response to the interview situation. The least sensitive areas of the research topic were explored before those that could be perceived as threatening or embarrassing.

The closing allowed the interview to move into normal conversation. Assurances of anonymity and confidentiality were reiterated at the end of each interview.

Audiotapes of the interviews that had been recorded were transcribed by the researcher as soon as possible after completing the interview. Those given in the mother tongue were translated into English. The exercise gave the researcher the opportunity to analyse the interviews whilst transcribing and translating them, and thereby moving the study quickly forward. An example of the field notes is given in Appendix G.

ESTABLISHING TRUSTWORTHINESS

Due to the perception that qualitative-naturalistic inquiry uses "soft techniques", the trustworthiness of qualitative-naturalistic data is usually questioned, especially by positivists whose traditional criteria of sound inquiry are commonly referred to as internal validity, external validity, reliability, and objectivity. These conventional constructs are generally considered inappropriate for the naturalistic paradigm. However, ethnographers also agree that when the precautions taken by the researcher to ensure the accuracy of the observations are described, a report has more credibility than one in which the audience is expected to accept the findings on faith. To add rigour to qualitative-naturalistic inquiry, the following alternative constructs are proposed: credibility, transferability, dependability, and confirmability (Lincoln and Guba 1985; Cohen and Manion 1980; Schumacher and Mc Millan, 1993). Although observations and interpretations are by their very nature "subjective" (Taft 1988), the investigation followed rules that were intended to offset the suspicion of biased observation and to increase the validity of conclusions. In view of the status already held by the researcher within the Colleges of Education, as mentioned on page 83, the researcher took pains to enhance reliability of observations. The first step was to use the purposive sampling method, as explained on page 80. The aim was to maximise the range of information which was collected and to provide the most stringent conditions for theory grounding. Data organisation, analysis, and interpretation were done simultaneously. Coding was achieved by identifying topics and grouping them into larger clusters to form categories. The final categories were not predetermined, but emerged from the

data according to their meaning. Patterns were sought by identifying relationships between categories. The major patterns served as the framework for reporting the findings.

The extent to which the participants' and researcher's perceptions of a situation are similar is referred to as credibility. To establish credibility, prolonged engagement, persistent observation, triangulation, and member checks were used as controls. As explained in an earlier section of the present chapter, field notes were kept, and the researcher was exposed to the data for a long period, 1989 to 1994, in order to cross check observations over time and to reconcile inconsistencies. Data and interpretations were checked and confirmed continuously with lecturers who participated in the study. Triangulation was achieved by employing multiple sources to obtain evidence on the same phenomenon. Observations were supplemented by interviews, documentary evidence, and questionnaires. Triangulation was implemented in order to overcome "method boundness" (Cohen and Manion 1980) because the different aspects of reality can only be revealed by multiple methods of data collection.

The data on which conclusions were based were presented following Malinowski's (1922) "concrete statistical documentation". Verbatim accounts of conversations, and direct quotes from documents were included. The purpose served by such a form of reporting was to describe the preparation of pre-service teachers in the use of technology in education from the participant's point of view.

Transferability in qualitative-naturalistic research is the counterpart of generalisability in the positivistic

tradition. The Colleges of Education in Ciskei were representative of similar Colleges located in the TBVC states and which were controlled by the Department of Education and Training (DET) directly or indirectly. In Smith's words, the Colleges were "located as an instance of a more general class of events" (1978: 335). To understand the Ciskei Colleges of Education, the researcher was assisted by knowledge of other Colleges with relatively similar contexts. Generalisations from the present study may be made, provided the contexts are similar. Also, generalisations may not be treated as final. Instead, they may be working hypotheses for further studies.

In view of the controls applied to enhance the trustworthiness of the findings of the present study, the researcher considered her work as credible. There is obviously no escape from the perspective that researchers view reality from different angles, and that no matter how hard each tries, none can completely discard preconceptions of what that social reality is or should be.

The results of naturalistic-qualitative investigations tend to have distinct properties (Shrock 1985: 18). The characteristics that distinguish the results of the present naturalistic-qualitative study from the results of quantitative studies are discussed in the next paragraphs.

(a) Many of the findings were related to one another. As a result of the thematic manner in which qualitative data were analysed, the results that emerged formed "causal linkages" (Patton 1980). The relatedness of the findings should not be mistaken for repetition, instead, the causal chain of the factors that have a bearing on the

preparation of pre-service teachers in the use of educational media should be appreciated. Because of the focus on media utilization in the Colleges, there was an inevitable overlap.

(b) Some of the results contained personally and politically sensitive material. Some admissions would have been personally damaging if made public or leaked to administration. Such findings are not unusual in naturalistic investigations (Shrock 1985: 23) and they came to light as a result of the rapport between the investigator and participants, as well as because of the triangulation of data.

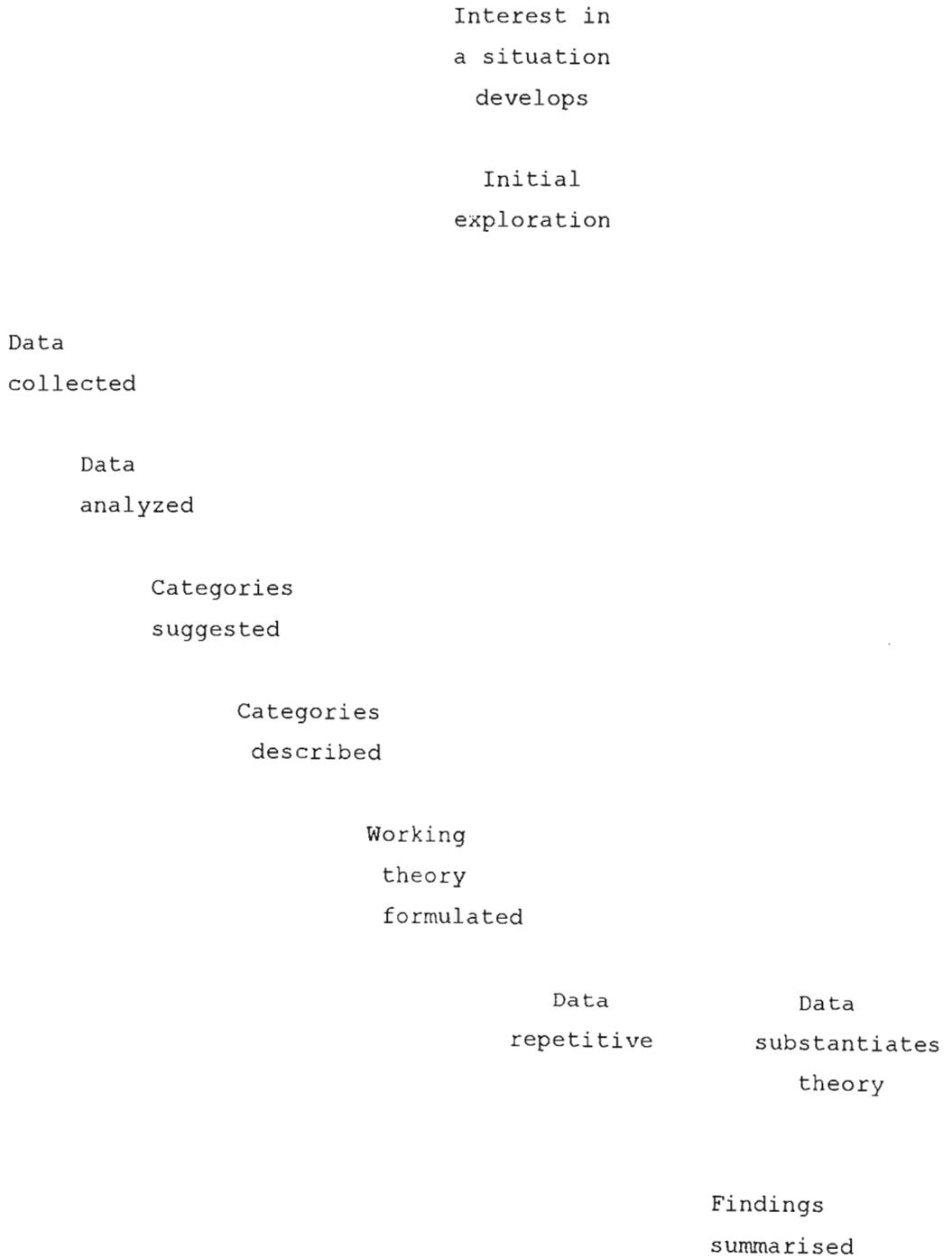
(c) Results tended to be panoramic in that they pulled together diverse aspects of segregated teacher education both inside and outside the immediate Colleges of Education being examined. Societal factors such as the policy of Apartheid and institutional factors such as the scarcity of resources were drawn together to explain how and why pre-service teachers in these Colleges were prepared in the present manner in the use of technologies.

It is on these characteristics that the strength of any naturalistic inquiry depends.

The following diagrams depict the unfolding methodology of this inquiry.

FIGURE 2

The overlapping stages of naturalistic research



(Mellon 1990: 25).

FIGURE 3

The unfolding methodology of this inquiry

Initial
exploration

Document
review

Observational
study

Interviewing
study

Observational
study

Interviewing
study

Working
hypotheses

Theory

SUMMARY

The previous chapter described the theoretical frameworks, conceptual systems, and philosophical orientations that influenced the present investigation. The study had a sociological orientation, being influenced by reproductive, resistance, human capital, symbolic and critical theories, as well as the split level model.

In this chapter attention was given to the compatibility of the case study design with the selected paradigm. The cases selected were the three Colleges of Education in Ciskei: Masibulele near Whittlesea, Griffiths Mxenge near King William's Town, and Dr W B Rubusana near East London. Lecturers and pre-service teachers participated in the study.

The study consisted of an initial exploration with informal discussions, a confirmation survey with questionnaires for lecturers and pre-service teachers, document analysis, observations, and interviews.

Trustworthiness was established by means of prolonged engagement, persistent observation, triangulation, and member checking.

The socio-political history of Colleges of Education in Ciskei is traced in the next chapter.

CHAPTER 5

THE HISTORICAL SOCIO-POLITICAL CONTEXT OF COLLEGES OF EDUCATION IN CISKEI

You have overcome in spite of a history fraught with conditions conducive to failure. You know your history better than any acclaimed historian or some other expert can ever hope to. You have overcome the deliberate lack of state funding, you overcame the shortage of suitably qualified teachers, the overcrowded conditions, the lack of apparatus, the lot...You have survived against great odds. Survival is, of course, a form of resistance.

Extracted from an address delivered at the Lennox Sebe College of Education diploma day (Yaliwe Jiya 1988).

As a result of the political and ideological nature of teacher education, any investigation into the preparation of teachers needs to be analyzed in view of the economic, social, and political institutions within which the teacher education programmes are embedded. That need becomes more pronounced when the investigation is carried out in a "state" born of the Apartheid policy, and where education is provided in racially segregated institutions. The primary aim of this chapter is to acknowledge that curriculum is a complex social process by viewing it in its historical, socio-political context. The historical roots and conflicts which caused education and the curriculum to be what it is today in South Africa will be traced.

Althusser's analysis of Ideology and Ideological State Apparatuses was dealt with in the third chapter. The argument that as apparatuses of the Ideological State, schools inculcate the ideology of the ruling class, was advanced. In the current chapter, Althusser's insights are used to analyse

the part played by Fundamental Pedagogics in reproducing the ruling ideology in South Africa. The connection between the Christian National Education Policy (CNE), Fundamental Pedagogics, and pre-service teacher education in South Africa is explored. Althusser's insights, despite their theoretical shortcomings, were considered appropriate for purposes of the present chapter. As explained in the third chapter, it was believed that reproduction theory could contribute significantly to a broader understanding of the political nature of teacher education.

EDUCATION FOR BLACKS UNDER THE MISSIONARIES

Contrary to the general belief held by many South Africans, segregated education did not originate from the National Party. Segregated education was already in place when the Nationalists came into power in 1948. Nationalists inherited segregated education from the missionaries and they legalised it in terms of Apartheid Policy.

When the British took over control of the Cape Colony at the beginning of the 19th century, they established the new economic system of capitalism, into which both the Dutch and all Non-Europeans (Africans, Coloureds, Indians) were fitted. The Dutch were made British partners and the Non-Europeans were exploited. To sustain the economic system of capitalism, toil of the black man became imperative (Majeke, 1986). Although missionaries were not acting formally on state orders, there was a striking coincidence between their practices and the British government's imperial policy. Much as the process was not that orchestrated, from Wilberforce's assertion, it may unfortunately be inferred that, to meet the need for labour, Britain sent missionaries as her agents of conquest all over the world, including South

Africa:

Christianity teaches the poor to be diligent, humble, patient and obedient, and to accept their lowly position in life. It makes inequalities between themselves and the rich less galling because, under the influence of religious instruction, they endure the injustices of this world with the hope of a rich reward in the next (cited in Majeke 1986).

When the development of black education is traced, no real progress is reported between the seventeenth and eighteenth centuries. During the nineteenth century, however, schools were established in the Cape (Rose 1970). During this period, missionaries founded and controlled a large number of schools throughout South Africa. The growth of education for blacks, however, was sporadic under the missionaries. Rose attributes this failure in growth to the parsimonious attitude of subsidizing governmental agencies up until 1945, a situation which has been perpetuated until the early 1990s, as evidenced by the poor quality of black schools as compared to those meant for whites.

The turning point with regard to state financing of black education came in 1854 when Sir George Grey was appointed governor of the Cape. Because he saw education as an important means of subjugating blacks, he motivated for more state subsidization of the missionary schools as part of the Cape Regime's "border pacification policy". Grey's idea was supported by Sir Langham Dale, Superintendent General of Education in the Cape. Mainly as a result of Grey's attempts, legislation was enacted in 1865 to provide for state aid to three types of schools: public, mission and native (segregated). It should be stated, however, that the provision of financial state aid to education was accompanied by several forms of control: school inspections, syllabus and

textbook prescription, and government controlled teacher training. The curriculum also laid great stress on religious and moral instruction. This should not come as a surprise, in view of the ideas held by Wilberforce, who supported the missionary activity in Africa. It was interesting to note that the control of teacher training and syllabi by the Government in return for state funds has been found to be still in place in black education.

In the light of this history, it is reasonable to suggest that black children were prepared in school to accept their condition as natural and not to struggle against it.

Even after the Act of Union in 1910, the education of blacks in South Africa remained primarily a missionary undertaking. However, the control and financing of black education became the responsibility of the provinces. In 1922 the Financial Relations Act forbade the direct taxation of blacks by the provinces. The central government took over the taxation of blacks, and by implication became responsible for the extension and development of black education.

EDUCATION UNDER CENTRAL GOVERNMENT

State expenditure was fixed, supplemented by a proportion of the direct taxes paid by blacks. As a result of this arrangement, educational provisions for blacks were far from adequate, especially when compared with those of other race groups. In addition to inadequate financial provision, there was a shortage of teachers, school buildings were rudimentary and inadequate, and there were shortages of furniture, books and other equipment.

Even in the absence of conclusive evidence, in view of the

evidence supplied in the preceding paragraphs, it seems reasonable to suggest that segregated schools affirmed the division between races, with different systems subtly preparing blacks and whites for their respective sub- and super-ordinate positions. Unlike other capitalist states that prepare children for respective class positions within a single schooling system, South Africa operated different schooling systems that reproduced social relations.

During the years 1925 to 1935 school enrolments of black children increased by nearly 75 per cent, while during the same period of time expenditure on their education increased by 50 per cent. As a result of this deterioration, the Interdepartmental Committee on Native Education (Welsh Commission) which reported in 1936 was set up to investigate whether or not the state should assume responsibility for the administration and financing of black education. The Commission noted a lack of support on the issue of state provision for black schools. As reported by Rose and Tunmer:

From the evidence before the Committee it seems clear that there still exists opposition to the education of the Native on the grounds that (a) it makes him lazy and unfit for manual work; (b) it makes him cheeky and less docile as a servant; (c) it estranges him from his own culture (1975, p.)

From comments such as those noted by the Welsh Commission, it can safely be inferred that whites feared that educating blacks would impede the continuous provision of cheap labour. It can be concluded that, as stated previously, segregationist and unequal schooling provisions were part of the social and economic structure long before the National Party came into power in South Africa.

The system of education under the missionaries and provinces, however, in terms of organisation and funding, was inadequate for coping with the demands generated by the changed social relations and labour unrest. There was a need to change the funding provisions for black schooling, as well as administration, for an expansion of the existing system.

EDUCATION UNDER THE NATIONALIST GOVERNMENT

The aspects of the social structure which have been identified as having had a powerful impact on education and curriculum in South Africa are the changing economic relations in the transition from agrarian to an industrial economy; the shifting of power relations both within and between power groups related to these changes; and, the shifts in ruling group ideology (Buckland 1982; Nkomo 1990; Unterhalter and Wolpe 1991).

Initially South Africa was a colonial territory which depended heavily on subsistence agriculture and agricultural and mineral exports. As a result of the two world wars, the Great Depression and the fluctuations in the gold price, the country was transformed into a sophisticated technologically advanced industrial and agricultural economy incorporating a large underdeveloped rural sector. One of the main effects of industrialization was the urban migration which resulted in intense competition between black and white workers for semi-skilled jobs. The effects of this competition found expression in the "poor white problem". Schooling was perceived by the regime as a solution to the "poor white" problem. A new emphasis on schooling as an avenue for social mobility and for the maintenance of racial superiority set in.

The need to ensure that blacks would not compete with whites for skilled jobs in the labour market became more urgent. At the same time the government had to ensure a sufficient supply of unskilled labour for white farmers and to contain the rural-urban migration. To meet this need, the government conceived the idea that education should be racially differentiated such that it provided elementary skills for Africans.

The year 1948 saw an upsurge of Afrikaner nationalism which culminated in the National Party winning the general election and becoming a new white minority government. Confronted with the numerical supremacy of blacks in a land controlled by whites, the National Party seized the opportunity to entrench and institutionalize segregated, inferior education to an unprecedented scale (Nkomo 1990). The new government was more determined than ever before to implement its Christian National Education Policy.

The Christian National Education (CNE) movement arose out of political struggle. The history of Afrikaners from the time of their arrival on the African continent until the present was marked by struggle for survival. It has been:

(a)...struggle for survival against the physical environment, against the indigenous peoples, against British imperialism, and now against those inside and beyond South Africa's borders who wish to bring about the downfall of Afrikaner hegemony...This group has evolved an ideology grounded in the memory of conflict, oppression, and the danger of racial extinction - an ideology characterized by a wary, ethnocentric, defensive, attitude to all who are excluded on the grounds of race, language, and religion from the volk (Robertson and White 1978: 104).

After the Treaty of Vereeniging which made the Orange Free State and the Transvaal British colonies, Afrikaners felt threatened. They anticipated the anglicization of their schools and they were opposed to it. Professor Chris Coetzee, one of the major authors of the Beleid (1948) expressed the Afrikaner's dislike of anglicization when he said:

The new school system became in fact a state system, neutral, liberal, and English in spirit and direction. The anglicization and the neutralization attacked the two fundamental principles of the Dutch colonists (Tunmer and Muir 1968: 17).

From this extract, it seems reasonable to suggest that the Christian National Education Movement in South Africa came into being as a result of the Afrikaner's dissatisfaction with "anglicization" and "neutralisation". A common schooling policy threatened the Afrikaner's fundamental principles and had to be resisted. As noted by Morrow (1984: 36) the CNE movement "was one of the forms of their resistance to British attempts to achieve hegemonic control of the defeated countries".

Coetzee insists that CNE was intended as a schooling policy for only the children of white Afrikaans speaking peoples of South Africa: "We as Calvinistic Afrikaners will have our CNE schools; Anglicans, Lutherans, Roman Catholics, Jews, liberalists and atheists will have their own schools" (Coetzee, cited in Tunmer and Muir 1968: 17).

The desire to exclude all race groups other than Afrikaners from Afrikaner schools is explicit in the Chairman of the Federasie vir Afrikaanse Kultuurvereniginge's (FAK) assertion: "We want no language mixing, no cultural mixing, no religious mixing nor racial mixing" (Ashley 1989: 8).

It is noted however, that despite such claims, CNE propounds a doctrine which has had far-reaching consequences for the education of all children in South Africa. After the National Party came into power in 1948, it applied CNE principles, gradually centralizing control of education in order to do so.

According to CNE Policy, education for blacks should have the following features; it should be in the mother tongue; it should not be funded at the expense of white education; it should, by implication, not prepare blacks for equal participation in economic and social life; it should preserve the "cultural identity" of the black community; it must of necessity be organised and administered by whites (Enslin 1990). Articles 14 and 15 of the Beleid reflect paternalistic sentiments of the Afrikaners (O'Meara 1983) who are said to have the task of "Christianizing the non-white races of our Fatherland"; white South Africans are said to have the duty to help him on culturally as the native is in his "cultural infancy". The aim of "native education" should be to "inculcate the white man's view of life", especially of the Boer nation, which is the white "senior trustee".

As observed by Morrow (1984), CNE policy is perceived to be an expression of the dominant ideology of the ruling class in South Africa: the racial superiority of whites. It is further perceived to serve the purpose of justifying a separate and inferior schooling system for blacks.

Within a year of coming to power, the government had established the Eiselen Commission "to formulate principles and aims of education for natives as an independent race, in which their...inherent racial qualities...are taken into consideration" (1951: 164). In its report, the commission

recognized that blacks rejected any education especially adapted for them. The major recommendation, however, was the establishment of a new system that would provide for the transmission and development of the "bantu cultural heritage".

The principles which govern the educational policy of the nationalist government were laid down by Dr. Verwoerd in parliament in 1953. "Native education", should be controlled in such a way that it should be in accordance with the policy of the state:

(Native) education should not clash with government policy. I suppose, honourable members will at once say we want to give ideological education...If the Native in South Africa today...is being taught to expect that he will live his adult life under the policy of equal rights, he is making a big mistake (Verwoerd, cited in Brookes 1969: 51).

The government policy alluded to in Dr. Verwoerd's speech quoted above was as follows:

The reserves should be the national home of the Bantu. There their educational institutions should be situated and there social services should be provided instead of the present practice of providing them in urban areas (1969: 51).

From the official statements cited above, it is reasonable to infer that from the onset the Nationalist Government was determined to ensure the supremacy of Whites in South Africa by means of segregated education. Education institutions would be segregated according to race; white schools would be of superior quality, and black schools would, by design, be inferior.

The segregation of education according to race has undertones of "conspiracy ideology" (Van Niekerk 1992). The level of fear and the feeling of being threatened appeared to have been so high that the Afrikaners had to legitimise their political domination by means of segregated education. Conspiracy ideology is usually used by a threatened group to blame outsiders for causing trouble in society (Foster and Louw-Potgieter 1993). Communism, for example, was blamed for all the upheavals in South Africa in the 1950s.

The use of education institutions for the reproduction of the social order in South Africa is affirmed by Wolpe and Unterhalter (1991: 4):

Education was seen as an essential mechanism for the reproduction of specific components of white domination in post-war South Africa - particularly the reproduction of the rigidly segregated occupational structure in which blacks were virtually excluded from all job categories except that of unskilled labourer, and the maintenance of white superiority.

Against the background of CNE policy and the ideology of the ruling class in South Africa, the goals of Apartheid education are perceived to have sought to achieve the following:

(a) To produce a semi-skilled labour force that would meet the needs of the capitalist economy at the lowest cost possible (Hyslop 1988).

(b) To socialize black students so that they can accept the social relations of apartheid as natural; that is, to accept among other things, the supposed supremacy of western civilization (read white), and the inferiority of their own. Moreover, to believe that the dominant-subordinate relations between whites and blacks are divinely ordained and therefore inviolate (Wolpe and Unterhalter 1991; Nkomo 1990).

(c) To promote white consciousness and identity for the purpose of forging solidarity between white labour and capital; and to incorporate politically and ideologically white youth and workers into the state as a way of muting "rising social and cultural conflicts while laying the foundations for a modern education system constructed in a racially differentiated manner" (Unterhalter 1988).

(d) To promote the acceptance of racial or ethnic separation as the 'natural order of things' or that this arrangement better suited for "South Africa's complex problems of national minorities". This is achieved through the imposition of separate ethnic schools to instill ethnic distinctiveness and pride, enforced through separate ethnic residential townships in the urban and the bantustans in the rural areas. This is considered a patently "divide and rule" strategy (Nkomo 1990).

(e) To promote intellectual under-development. Apartheid

education is described as a policy that promotes "compulsory ignorance". This is illustrated by the following: a 1984 per pupil expenditure rate that was at least far greater for whites than it was for blacks (Christie 1986: 99); a fifty per cent attrition rate among African students by grade seven (Hartshorne 1984: 42); and barely two per cent of these successfully complete the twelve year programme (HSRC 1981: 23); a high illiteracy rate among blacks in general and Africans in particular; 34,2 per cent of blacks attended university in 1984, 21 per cent of those being Africans although they represent 73,5 per cent of the population (Race Relations Survey 1984: 694-695); blacks in general and Africans in particular are under-represented or non-existent in such areas as engineering, architecture, astronomy, physics, food science and physiotherapy to name a few examples.

An analysis of CNE policy, official statements of nationalists, and the goals of Apartheid education seem to suggest that education is determined by the character of South Africa's racial capitalism and reinforces the social relations of apartheid.

The Bantu Education Act of 1953, amended in 1954, 1956, 1959 and 1961, was the major instrument by means of which the Nationalist Government attempted to shape education to attain the objectives stated above. The Extension of University Education Act of 1959 applied Apartheid to University Education. The universities of Fort Hare (for the Xhosa ethnic group), of the North (for the Sotho), and of Zululand (for Zulus) were segregated and were to accept only students belonging to the ethnic groups each university was designed for.

It is documented that African leaders resisted the passage of the two Acts. Organised political opposition to Bantu Education can be traced as far back as the early 1950s. Boycotts were organised and alternative schools were set up. However, the government mobilised its political forces against the mass opposition. Teachers were intimidated, unregistered schools were closed down, and the African National Congress, which had been one of the chief organisers of resistance was banned in 1960 (Roux 1964; Nkomo 1990; Wolpe and Unterhalter 1991). This action on the part of the government could not have come as a surprise because as observed by Dale,

hegemony is not so much about winning approval for the *status quo* ...Rather, what seems to be involved is the prevention of rejection, opposition or alternatives to the *status quo* through denying the use of the school for such purposes (1982: 157).

THE DEVELOPMENT OF TEACHER EDUCATION IN THE CAPE

Lovedale in Alice, was the first formal teacher training institution, not only in the Cape, but in South Africa. Established in 1841, Lovedale was an institution of the Glasgow Missionary Society mandated to train black teachers and evangelists. Healdtown, near Fort Beaufort, was another teacher training institution established in 1867 by the Wesleyan Methodist Missionary Society. By 1910, there were eleven teacher training institutions in the Cape, all being the responsibility of the missionary churches, with minimal State intervention. These institutions were segregated, and were mainly established "to train instructors rather than to educate teachers" (Hartshorne 1992: 220).

A three-year teachers' course which required a standard six

pass (LPTC), as well as a post standard eight HPTC were introduced. The curriculum consisted of five main components: basic professional subjects such as the Theory of Education, Educational Psychology and General Method; practice teaching; basic teaching subjects (the mother tongue, English and Afrikaans, and Arithmetic; and the methods of teaching these in the primary schools; the content subjects such as Health Education, Religious Instruction, Social Studies and General Science; and practical subjects such as gardening, needlework, music, physical education, and art and crafts. Critics of that curriculum charged that it was "overloaded".

Between the years 1935 and 1948 there was rapid growth in teacher education. The number of institutions increased to fourteen. The staff complements of these teacher training institutions were mostly English-speaking, although there was a number of Blacks as well. The forms of control and discipline dominant in these institutions warranted their being labelled as "schools" instead of "colleges". Pre-service teachers wore uniforms, and in some, corporal punishment was administered. They displayed a "prescriptive and paternalistic, if not authoritarian, approach to the preparation of student teachers" (Hartshorne 1992: 229).

However, credit is due to such institutions for engaging pre-service teachers in extra-curricular activities, political discussions in debating societies, and provision of regular channels of communication between students and staff.

Then came the Nationalist government in 1948 with its subsequent changes in educational policy and leadership, as discussed earlier. The Eiselen Commission reported the following main deficiencies in teacher education:

That was how the Colleges of Education in the TBVC states came into being, as will be shown in the next section of the current chapter.

Despite the introduction of new Lower Primary Teachers' Certificate (LPTC) and Higher Primary Teachers' Certificate (HPTC) syllabi in 1961-62, nothing changed essentially. It was only on the recommendations of the 1967 Committee of Investigation that the Department of Bantu Education abolished the two courses, and replaced them with the Primary Teachers' Certificate (PTC) in 1972. The curriculum of PTC was set out as follows: (a) Professional subjects: general method, educational psychology, theory of education, school organization and practical teaching, and religious education. (b) Basic teaching subjects: the home language, English and Afrikaans, and mathematics. (c) Other teaching subjects: health education, social studies and general science. (d) Practical subjects: music, needlework, gardening, art and crafts.

The Department of Bantu Education also took charge of secondary education. In 1968 the Junior Secondary Teachers' Certificate (JSTC), a two-year course after matriculation, was introduced. The curriculum was as follows: (a) Group A: languages, social studies or biblical studies. (b) Group B: mathematics, biology and physical science. (c) Group C: commercial subjects. (d) Group D: home economics subjects. (e) Group E: agricultural subjects.

The colleges that were under state control were dominated by Afrikaans-speaking lecturers. The doctrines of Christian National Education (CNE) which were discussed earlier became excessively influential. Fundamental Pedagogics, which is discussed in the next section, was introduced and became a

dominant influence in the professional training of teachers.

FUNDAMENTAL PEDAGOGICS

Fundamental Pedagogics is a part-discipline of Pedagogics or Theory of Education. It is sometimes called Philosophy of Education and purports to be an approach to educational theory. The various part-disciplines of Pedagogics follow the scientific method, the only authentic method of studying education, by using "the phenomenological method" (Fouche 1978). This science is free of both metaphysics and dogmatics (Landman and Gous 1969), and does not apply the "ideological approach" to educational theory (Gunter 1974).

Viljoen and Pienaar "in their widely-prescribed rote-book in the sphere of education in South Africa over the past decade" (Morrow 1984: 39) distinguish between pre-scientific, scientific and post-scientific practice in the sphere of education. Values are excluded from the scientific stage, whereas values are said to play a prominent role in the other stages. Scientific practice,

aims at discovering the essential structures of the world and providing findings, not only of significance to himself (researcher), but which are of universal validity (Viljoen and Pienaar 1971: 7).

However, scientific practice can achieve this aim only by "setting aside all faith, superstition, dogma, opinions, theories and philosophies of life and the world" (Viljoen and Pienaar 1971: 38).

Fundamental Pedagogics, it is concluded, holds that

educational theory as a science is value-neutral. However, values play a significant role in the pre-scientific and post-scientific stages. Enslin observes that the values which operate at these two stages "are accepted as given and not to be questioned" (1984: 7). The values in operation at the pre-scientific and post-scientific stages in South Africa - Christian National Education - cannot be examined critically according to Fundamental Pedagogics. "The political thus becomes forbidden speech. It has no legitimate place in the realm of science...To begin the analysis of education within another context of a particular educational system or theory, would be unscientific..." (Enslin 1990: 82).

Fundamental Pedagogics appears to place considerable restrictions on students and researchers. The discipline exerts rules of constraint over what may scientifically be said about education. The educationist who adopts the ideological approach, for example, is viewed with suspicion by Fundamental Pedagogicians, because he has his starting point in some other world-view and philosophy of life. As a result, Educational Theory is subordinated to a particular philosophy, ideology or life-view so that it eventually loses its autonomy (Enslin 1990: 83).

From the foregoing description of Fundamental Pedagogics and CNE, it is concluded that Fundamental Pedagogics legitimates CNE ideology. It does this by endorsing CNE and the values it stands for as the accepted policy on education, and by excluding the questioning of CNE as a legitimate theoretical activity. Fundamental Pedagogics serves only the interests of the white Calvinist Afrikaner group, therefore (Fouche 1982; Enslin 1990; Morrow 1990).

FUNDAMENTAL PEDAGOGICS IN SOUTH AFRICAN TEACHER EDUCATION

Fundamental Pedagogics is the dominant theoretical discourse in South African pre-service teacher education. It is the dominant approach to the study of education in the Afrikaans-medium universities and colleges of education, and at the bilingual University of South Africa. It is also a compulsory component of the teacher education curriculum at the black universities established in accordance with the Extension of University Education Act (1959), as well as the black colleges of education following the structures of the Department of Education and Training (Enslin 1990; Morrow 1990).

It is interesting to note that despite the establishment of these segregated universities specifically for blacks, these universities and colleges have been dominated by Afrikaner academics, who comprise the overwhelming majority of the academic staff within these institutions. Commenting on the domination of black universities by Afrikaner academics, Matsepe-Casaburi (1991: 10) writes that:

many of them have their faculties of education dominated by those entrenched in the thinking in apartheid ideology, structure and processes.

Matsepe-Casaburi notes the role played by teacher education in the reproduction of social relations in South Africa. She asserts,

teacher education/training is the one mechanism by which the apartheid system has been able to be reproduced. The teacher situation should be one of the top priorities for change if the education system is to be altered significantly under a single education system (1991: 3).

Drawing from Foucault's "modes of objectivisation", Enslin asserts that by means of Fundamental Pedagogics "teachers are subjects themselves and agents of subjection" (1990: 86). They are subjected to a theoretical discourse in which the political is taboo. They are required to perceive and treat children as helpless and incompetent, and therefore in need of authority. The aim of pedagogics is to "lead the helpless, dependent child to adulthood by the adult pedagogue". This aim justifies the enforcement of authoritarian practices and discipline (Enslin 1990).

Althusser demonstrates how an ideology has a material existence in an apparatus and its practices. In the faculties of education and colleges of education where Fundamental Pedagogics is the dominant theoretical discourse, the reproduction of the ideology is practised in the following manner: (a) Students of education are provided, by means of the syllabi, prescribed readings and examinations in Fundamental Pedagogics, with the ideology which suits the roles which they will have to fulfil as teachers, bureaucrats, and professional ideologists. (b) The nature of research conducted in the institutions in question is determined by the ideology of CNE and by the role of Fundamental Pedagogics in the reproduction of this ideology. Such research, which excludes issues and analyses which might threaten the official ideology, can at best make only a limited contribution to issues of theoretical relevance to education. (c) The structuring and staffing of departments of education is determined by the structuring of Pedagogics into its part-disciplines, which reflect, the epistemological presuppositions of Fundamental Pedagogics (Enslin 1984: 9).

THE BIRTH OF THE REPUBLIC OF CISKEI

The history of the origin and development of the "homelands" is significant for the present investigation. The setting of the present investigation is the Ciskei, one of the Xhosa Homelands born of the Apartheid Policy. An investigation into the preparation of pre-service teachers in Ciskei warrants the inclusion of a section that traces the historical roots and conflicts which influenced education and curriculum to be what they are today in Ciskei.

To repress further the mounting resistance to Apartheid policies, including segregated education, the government imposed the bantustan structures of authority. The Homelands Policy had its foundation in the Native Land Act of 1913, which restricted the Africans' right to own land although it did not specify where the restrictions would apply. In terms of the Act, Africans were not permitted to acquire land outside the scheduled "Native areas" without the consent of the governor-general. In terms of the Native Trust and Land Act No. 18 of 1936, additional land was released to Africans. A South African Native Trust which could acquire land in "African areas" was set up. The compelling objectives of these laws were to maintain white domination by compartmentalizing the country into artificial racial and ethnic ghettos (Sobahle 1994); to prevent Africans from competing with whites, and to drive them from their land and convert them into a workforce.

The basis of the political development of "Homelands" was laid down by the Bantu Authorities Act No. 68 of 1951. The Act provided for the establishment of tribal authorities, followed by regional authorities. The duties, powers and functions of these regional authorities were the promotion of

education, construction and maintenance of roads and bridges, supervision of livestock diseases, establishment and maintenance of health facilities, and the general improvement of agriculture. The Promotion of Bantu Self-government Act of 1959 made provision for the gradual development of self-governing black "national" units to self-government and independence. By means of this Act, the South African Government set about establishing black "self-governing homelands", a process which demanded that each legally defined ethnic community should have its homeland (Sobahle, 1994). Eight "national units" (homelands) were designated by Section 2 of the Act, which also made provision for the appointment of a Commissioner-General. The Commissioner-General was to serve as the link between the central government and the "national unit" to which he was assigned. This was in keeping with the "trusteeship" role of white South Africans mentioned in the Beleid. He was also expected to give "advice and guidance" on administrative, social, educational and economic matters to the homeland government, supposedly by virtue of his "racial superiority" over the native who was still at the stage of "cultural infancy". The final Act that made the homelands a reality was the Bantu Homelands Act No. 21 of 1971, in terms of which some homelands established their Legislative Assemblies. The Republic of Ciskei became an "independent state" in 1981.

THE DEVELOPMENT OF CISKEI COLLEGES OF EDUCATION

The preceding paragraphs served the purpose of tracing the

historical development of African teacher training colleges in the Cape up to the mid-1970s. The focus of this section is the development of the three pre-service teacher education institutions in Ciskei.

Masibulele College of Education

Origin and establishment

When the Transkei became independent in 1976, in the interests of Homeland Consolidation, Herschel and Glen Grey districts were transferred from the Ciskei to the Transkei. About 56 000 people, resisting Transkei rule, migrated to the Hewu district in the Ciskei as refugees (Davenport 1987).

As a result of this territorial re-arrangement, orchestrated by the South African government in pursuit of its policy of separate development, the Ciskei lost two Teacher Training Schools to the Transkei: Bensonvale and Mount Arthur. This meant that a population of approximately 50 000 was without a teacher education institution. The affected residents of Hewu, Ntabethemba, and Zweledinga requested the Ciskei Education Department to establish a teacher education institution in Whittlesea. In a memorandum submitted to the Ciskei Government in January 1977 (Appendix P), the M.P. for the Hewu district pleaded:

That the Government of the Ciskei considers converting one of the existing schools at Sada into a training school with effect from January 1977...Be it noted that the authors of the Memorandum do not in any way suggest that the bigger scheme of the Government - of putting up a training school at Hewu be dropped in favour of the plea made (Myataza 1976: 1-2).

The Chief Education Planner of the Ciskei Education Department, Mr K B Tabata, was favourably disposed to the request and made representations to the Secretary for Education (Tabata 1977) (Appendix Q). In response to this request, the Honourable Minister of Education, Chief D M Jongilanga, sent a memorandum to the Commissioner General, requesting the establishment of a Teacher Training School in Whittlesea for the Hewu district (Appendix R). The people from this district could not send their children to the Teacher Training Schools which were under the control of the Transkei government, despite their close proximity to those Training Schools. The Transkei was rejecting their applications for admission on the grounds that Ciskeian citizens could not be admitted in education institutions meant for Transkeian citizens. It would appear that the effects of "the divide and rule" strategy had taken root. The Teacher Training Schools in Ciskei could not absorb these students either, due to lack of accommodation.

Stating the case to the Commissioner General, the Minister of Education argued:

In the light of the demand and need for a teacher training school in the area an appeal is humbly made to the Honourable Commissioner General to draw the attention of the Department of Bantu Administration and Development to the urgent need of a teacher training school in this area to meet the needs of the people from Herschel and Glen Grey who are now settled in Ciskei (Jongilanga 1977).

The application was successful and in terms of Section 3(1) of the Ciskei Education Act, 1974, Act No.6 of 1974, the Teacher Training School was established in Whittlesea and started functioning in January 1978. Later, the Development

Bank of Southern Africa (DBSA) established a modern College with improved facilities.

The capacity of the College

There were twelve classrooms which were shared by Primary Teachers' Certificate I and II students (PTC). The enrolment was stipulated to be 200 students and the initial number of teaching posts approved was twelve (Brooks 1977) (Appendix S). The institution was named Masibulele Teacher Training School.

As the years went by, the lecturing staff perceived the student:lecturer ratio to be high. They claimed that it affected the quality of teaching. The Rector submitted requests for the creation of new posts almost yearly, in response to the perceived rapid rate at which student numbers were soaring. Tables 3 and 4 below summarize the state of staffing and student enrolment between 1988 and 1990. It should be noted however, that to an outsider, the number of lecturers seemed to be in proportion to the student enrolment.

TABLE 3

	STUDENT ENROLMENT		
	1988	1989	1990
First year	168	180	225
Second year	159	160	196
Third year	107	150	123
TOTAL	434	490	544

TABLE 4

LECTURING STAFF

	1988	1989	1990
Lecturer	15	19	21
Senior Lecturer	6	8	9
Head of Department	5	6	5
Vice Rector	1	1	1
Rector	1	1	1
TOTAL	28	35	37

(File No. H 0068/C, 1977-1994).

Facilities and equipment

As can be expected in an "ad hoc" institution, the College experienced several teething problems that rendered teacher preparation inadequate. Although the institution started functioning in January 1978, by May, facilities were still not adequately provided. Appealing to the Chief Inspector in Zwelitsha, the first Principal, Mr P Cossie wrote:

Sir,

the administration block is bare. I would like to know if the Department does not supply office furniture etc. to new schools. The office needs a desk, three chairs, a mat. The staff room also needs chairs for twelve teachers, a mat and a noticeboard. The office would also do with a notice board. The Secretary's office will also require its furniture. I have submitted to you an application form for the installation of a telephone. I have not heard about this since (Cossie May 1978).

There was neither running water nor electricity, despite the syllabus requirements of garden laying and educational media. An appeal for electricity forwarded to the Secretary for Works argued:

Since today's teaching and audio-visual aids are electrified, it is compulsory that this school be electrified so that effective teaching may be done through the electrified audio-visual aids (Mrwetyana December 1978).

Due to lack of funds, requests for the increase in number of classrooms, water and electricity were turned down by the Ciskei Education Department. This resulted in overcrowding, as well as neglect of some syllabus requirements, as stated in this finding:

We found the "specialist subjects" and teaching aids sadly neglected here (Buys 1980).

The Principal attributed the neglect of teaching aids to the absence of electricity (Appendix T):

Most of the teaching aids donated by firms to the college are lying unused in the storeroom, as well as Departmental supplied electrical appliances. Slides and overhead projectors cannot be used as teaching aids and students complete their course in complete ignorance. Most students complete their course at this college without having seen a film show (Gugushe September 1981).

Up till 1981, all pleas to the Ciskei Education Department for the installation of electricity were unsuccessful. This meant that since its establishment in 1978, Masibulele College of Education had been operating without electricity for a period of four years. The Principal appealed to the Anglo American and De Beers Chairman's Fund for a donation

towards electricity. The Chairman of the fund sent a donation of R10 000 towards electricity (King 1982). Electrical installation was completed in November 1982, five years after the College had been operating without electricity, despite the availability of electrically operated educational media.

From the evidence found in the foregoing paragraphs, it could be inferred that, in keeping with the principles of CNE ideology, Masibulele College of Education was segregated, and was meant for Africans who were victims of forced removals which were part of the homelands consolidation plan. The unequal provision of resources resulted in several developmental problems which impacted negatively on the curriculum, with the result that teachers emerging from this College were unlikely to be of good quality. Despite the compulsory educational media course offered in the College, educational media were "sadly neglected". From the onset, the preparation of pre-service teachers in the use of technology in education was inadequate.

Dr W B Rubusana College of Education

Origin and establishment

As in the case of the Hewu district, Africans who had been settled in Mdantsane from the urban areas of East London in keeping with the Homelands Consolidation endeavours, also experienced similar educational problems. Beyond matric, there was no educational institution for their children.

Representations were made to the Ciskei Education Department for the establishment of a Teacher Training School. Ten classrooms at Pakamile Lower Primary School in Mdantsane were made available for the temporary Teacher Training School.

That arrangement brought further disruption because pupils of Pakamile Lower Primary were now without a school. They were forced by the Department to platoon with Mzingisi Lower Primary School, a move always resented by those affected because of the inconveniences suffered, such as school starting at 13H 00 when the children were less interested in learning than in playing, as well as going back home late in the afternoon, joining the congestion of workers going back home from East London. However, the positive outcome of that move was the establishment of the needed College.

When the Ciskei Education Department was given "autonomy" and was "independent" of the Department of Education and Training (DET), white officials from DET were sent to "help" the new department with its teething problems. All key positions were filled by these seconded officials from DET, who continued implementing DET policies in Ciskei. A similar procedure was followed when Colleges of Education were established. The first Principal of Mdantsane Teacher Training School was Mr Coghill. The manner in which he was appointed was unusual in that the post was never advertised. Orders from above installed him as Principal:

Mr Coghill should be appointed Principal on the instruction of the Chief Minister. Mrs. Coghill to be appointed as assistant teacher (Tabata February 1976).

The forced appointment of white administrators and principals in schools meant for Africans suggests that the CNE policy permeated every facet of African education, even in their so-called homelands. According to CNE Policy, education for blacks should amongst other things, be organised and administered by Whites (Enslin 1990). Articles 14 and 15 of the Beleid reflect paternalistic

sentiments of the Afrikaners (O'Meara 1983) who are said to have the task of "Christianizing the non-White races of our Fatherland". White South Africans are said to have the duty to help the native culturally as the native is still in his cultural infancy. The Boer nation regarded itself as the white "senior trustee".

The capacity of the College

During the first five years, a major problem affecting the quality of teaching at the College was the shortage of lecturing staff. The situation was aggravated in 1990, when the new syllabus structures were implemented. In a letter to the Director General, the Rector of the College wrote:

The revised structure changed "Teaching Science" to Institute Practicum, which is divided into five categories, viz. microteaching, school management, educational media, chalkboard work, and teaching practice. The revision of the syllabi brought an urgent need for more lecturing staff, especially for educational media, chalkboard work and microteaching. Even before the revision of the syllabi, the College was generally understaffed (Recto, September 1990).

The new structure introduced Library Orientation and Book Education. The revision necessitated the establishment of a library. By 1990, the College did not have a librarian. The lecturer responsible for Library Orientation and Book Education was not able to render valuable services in the library due to unmanageable teaching loads. As reported by the Rector, "the lecturer is also engaged in the teaching of Teaching Science and Practice Teaching". The staffing complement, however, was increasing as and when grants were made available. Tables 5 and 6 summarise the student

enrolment and staffing between 1986 and 1990.

TABLE 5

STUDENT ENROLMENT

	1986	1987	1988	1989	1990
PTD I-III	297	385	617	690	766
STD I-III	75	94	108	110	000
TOTAL	372	479	725	800	766

(File H 0264/C, 1977-1994).

TABLE 6

LECTURING STAFF

	1976	1977	1986	1987	1990
Lecturers	13	25	29	29	41
Vice Rector	1	1	1	1	1
Rector	1	1	1	1	1
TOTAL	15	27	31	31	43

(File No. H 0264/C, 1976-1994).

Facilities and equipment

As the institution was still new, it had its own problems. Classroom accommodation and ablution facilities were the prime deficiencies. As noted by the Principal, Mr Coghill in his letter to the Secretary for Education, Mr van Niekerk:

The present office is far too tiny for the material to be stored and the work done. There is no book room, only a very small "Black" staffroom and no "White" staffroom. For all these we await pre-fabs...The toilets have been cleaned up and put in working order but are not at all adequate for the large enrollment. Incidentally there are no separate facilities in this line for white staff (Coghill March 1976).

From Mr Coghill's letter, which was meant to be read by another white "senior trustee", Mr van Niekerk, it is reasonable to infer the ideology of the dominant ruling class of that period, the racial superiority of whites. Already, Africans found themselves in a segregated residential township, and in a segregated education institution. That was not enough, they also could not share facilities with whites within the same premises, as suggested in Mr Coghill's letter.

The Principal repeatedly made representations to the department for the building of prefabs that would have the following rooms: library, chalkboard room, laboratory, teaching aids room, and needlework room. Electricity was not available, even though the Mdantsane residential area was urban, and had electricity. That had a negative impact on the curriculum implementation strategies. Requesting installation of electricity, the next Principal of the institution wrote:

The school is unable to take advantage of a number of essential visual aids and to make arrangements for film shows and other demonstrations because we have no electricity (Matebese January 1977).

The Department built a modern college, and it was first occupied in 1980. It has three large double storey blocks, built with face bricks. The facilities available were as follows: library, science lab, biology lab, demonstration rooms, media centre, chalkboard room, geography mapping room, microteaching room, needle work room, lecture hall, twenty-one classrooms, and eight offices.

The evidence supplied in the previous paragraphs indicated a similar pattern with that shown in the development of Masibulele College of Education. They were both established as "ad hoc" institutions, responding to the complaints of displaced people who were victims of the Apartheid policy. The institutions were both not funded at the expense of white education, as could be seen from the reported lack of facilities and equipment. In both institutions, pre-service teachers were not adequately prepared for the use of technology in education. One cited contributory factor to that state of affairs was the lack of facilities and equipment.

Griffiths Mxenge College of Education

Origin and establishment

Griffiths Mxenge College of Education was established in January 1978 in the Zwelitsha Managerial District of the Republic of Ciskei. The nearest railway station is King William's Town, about five kilometres from the college. The

college is located approximately two kilometres from the Zwelitsha residential area.

In his annual report, Mr K B Tabata, Chairman of the College Council and Director General of Education in Ciskei explains the rationale for the establishment of the college:

This College, built initially as a training school to meet the need for teachers for junior secondary schools, has since developed into a fully fledged College of Education. Its early products sustained and supported the teaching services which were very brittle in the 70s. With the scarcity of suitably qualified secondary school teachers coupled with the great demand for secondary education in the Republic of Ciskei, the College rose magnificently to the challenge (1988: 4).

The Zwelitsha residential area is fairly urban, with adequate supplies of water and electricity. As in the case of the other two Colleges of Education in Ciskei, the buildings are modern, red face bricks of imposing double storeys which are in stark contrast with the rural schools pre-service teachers go to for student teaching.

The capacity of the College

Due to the unavailability of documents (H Files), it was not possible to report fully for Griffiths Mxenge as it was for the other two Colleges. Tables 7 and 8 reflect figures for students and lecturers as could be found in annual returns.

TABLE 7

STUDENT ENROLMENT				
	1987	1988	1989	1990
STD 1	332	284	271	278
STD 2	244	261	252	211
STD 3	172	230	211	197
TOTAL	748	775	734	686

(ANNUAL RETURNS, DET, March 1987, 1988, 1989, 1990)

TABLE 8

LECTURING STAFF				
	1987	1988	1989	1990
African	27	33	31	34
White	13	9	14	16
Indian	1	1	1	1
Coloured	0	0	1	1
Expatriate	3	3	4	3
TOTAL	44	46	51	55

(ANNUAL RETURNS, DET, March 1987, 1988, 1989, 1990)

Facilities and equipment

Although Griffith Mxenge College of Education was also segregated and was meant for Africans displaced from King William's Town, the College was more privileged than the other two. The College was established as a result of the motivation of the then President of the Republic of Ciskei, Dr L L Sebe. From the onset, the College operated on its own

premises. The Ciskei Government, as well as business concerns such as Via Afrika and Old Mutual, contributed funds and equipment. For example, this was the only College with a language laboratory and students' residences in Ciskei.

The influence of socio-political changes on education institutions was clear when the colleges had to change their names as a result of events outside the colleges. Initially, the Governing Council had named the institution Lennox Sebe Teacher Training College, after the then "life" President of the Republic of Ciskei. The name was changed by pre-service teachers after President Sebe had been ousted in a *coup d'etat* by Brigadier Oupa Gqozo, the present military ruler of Ciskei. To show rejection of Lennox Sebe's politics, his name had to be rejected because it was considered inappropriate for an institution committed to the transformation of the "system". Griffith Mxenge was an activist, born in the region, who died mysteriously, allegedly eliminated by the South African police as a result of his opposition to Apartheid policies. His name was considered appropriate. A similar incident was experienced in Mdantsane. The name Mdantsane Training School was changed to Dr. W B Rubusana, after a prominent educationist and evangelist. The trend did not leave Masibulele College of Education unscathed. In 1990, pre-service teachers submitted their demands to their Rector, (Appendix U) and one of them was the changing of the name of the College:

We as concerned students of *Kathrada College of Education* have resolved to stage a "Sleep-in" protest in attempt to remind the authorities to meet our demands...The students would like to rename the College after the A N C veteran, *Ahmed Kathrada*...If the above mentioned demands are not positively met, the Rector should resign immediately (File Masibulele A undated).

The demands were not met, and this led to periodic class boycotts. The Department suspended classes in order to neutralise the situation (Appendix V). In a notice sent to the College, the Minister of Education declared:

In view of the disobedience and unacceptable behaviour of the students of Masibulele College of Education I, the Minister of Education in the Republic of Ciskei have decided to suspend classes at the above named college of education in terms of Schedule 1 regulation 1(b) (c) (d) (h) of Government Notice No. 37 of 1986 for an indefinite period with effect from Monday 26 March 1990. Nobody is therefore allowed to enter premises of the aforementioned College of Education (Nabe March 1990).

SUMMARY

The current chapter was concerned with the historical socio-political context of Colleges of Education in Ciskei. Althusser's insights were used to analyse the part played by Fundamental Pedagogics in reproducing the ruling ideology in South Africa: the racial superiority of Whites. It was argued that according to Christian National Education (CNE), which is generally considered to be an expression of the dominant ideology in South Africa, the schooling system for Africans should by implication, be separate and inferior.

Although segregated education was already in place when the Nationalist Government assumed control of education from the missionaries, it was the Nationalist government that wrote segregated education into the statute books. The Bantu Education Act of 1953, as well as the University Education Act of 1959 were the legal means of ensuring segregated education for Africans. Although political organisations such

as the African National Congress resisted the passage of the two Acts, they were unsuccessful because the Nationalist government repressed any form of resistance.

It was also argued that to keep Africans segregated, the Nationalist government originated and developed "homelands" in terms of the Bantu Authorities Act No. 68 of 1951. The Promotion of Bantu Self-government Act of 1959 made provision for the gradual development of self-governing black "national units" to self-government and independence. The final Act that made the homelands a reality was the Bantu Homelands Act No.21 of 1971. The Republic of Ciskei, which is the setting of the present investigation into Colleges of Education, became an independent state in 1981.

In Colleges of Education in Ciskei, as well as in African universities that have been dominated by Afrikaner lecturers for many years, Fundamental Pedagogics is a compulsory component of the teacher education curriculum. Students are provided by means of prescribed syllabi, prescribed readings and examinations in Fundamental Pedagogics. Fundamental Pedagogics excludes values in the scientific stage of research, but at the same time stresses the importance of values at the pre- and post-scientific stages. It is observed that the values operating at the latter stages cannot be examined critically. Interesting to note is that those values that may not be criticised are those reflecting the ruling ideology: CNE. By implication, it is argued, Fundamental Pedagogics legitimates CNE ideology, hence the subject is compulsory in segregated education institutions.

Ciskei Colleges of Education are segregated and were established in pursuit of CNE ideology. Three such Colleges were established: Griffiths Mxenge near King Williams' Town,

Masibulele near Whittlesea, and Dr W B Rubusana near East London. All three Colleges experienced serious problems in the following areas: lack of running water and electricity, shortage of classrooms, equipment, facilities, and lecturing staff. These deficiencies had a negative impact on the quality of teaching. The educational media course in particular, suffered set backs as a result of the gross neglect of Ciskei Colleges of Education by the powers responsible for supplying resources.

In line with Althusser's theoretical stance, from its inception, the Ciskei Education Department has been controlled by white senior officials, seconded to DET. For a considerable period, Colleges of Education as well, were controlled by such white officials who represented DET policies.

The human factor in the Colleges of Education is discussed in the next chapter.

CHAPTER 6

THE HUMAN FACTOR IN CISKEI COLLEGES

In South Africa intra-national isolation has also created alienation and suspicion among ethnic groups. It is clear that people who have been isolated and have not had the opportunity to share views with others, tend to think according to traditional styles and are not flexible enough to change. Many people are not yet ready to change old, obsolete conceptual frameworks or thought patterns.

Petro van Niekerk 1993.

In achieving the specific need for equality, relevance and quality in South African education, the teacher is the key person.

Ken Hartshorne 1992.

The shortage of lecturers in Colleges of Education in Ciskei was identified as one of the constraining factors in the previous chapter. That was a cause for concern because the educator is one of the most important elements in the teaching and learning situation. The implementation of any curriculum depends upon educator involvement. Agreement with and understanding of the theoretical base of the curriculum are essential to successful implementation. Any curriculum therefore, will be severely constrained if educators lack the skills, abilities and competencies the curriculum calls for. The quality of educators becomes more critical for success in education in less developed areas such as the Ciskei. A similar observation was made by the World Bank: "Quality matters more the poorer the setting...the poorer the country, the greater the effect of school and teacher quality on achievement" (Solmon 1986: 9). Beeby (1986: 37) also stressed the vital role played by educators in education:

"Teachers are the frontline troops of change, and progress depends on their own education, motivation and freedom to innovate".

Of equal importance, is the quality of students admitted in an institution. The curriculum activities planned by the most enthusiastic and able of educators may fail if not complemented by the motivation and potential of pre-service teachers. An investigation of the human factor in the Colleges of Education in Ciskei was considered essential because teachers of quality and substance were believed to be "a necessary condition for educational transformation" (NEPI 1992: 1). The focus of the present chapter was the quality and capacity of the human beings interacting in Colleges of Education in Ciskei.

CAPACITY OF PRESENT LECTURING STAFF

As explained in Chapter Five, the Colleges experienced serious staff shortages, whilst at the same time student numbers were perceived by lecturers to increase at an uncontrollable rate. To meet that urgent need for lecturers, Rectors applied for the creation of more posts. The Department of Education in Ciskei found it difficult to increase the number of posts as required, due to financial restrictions. The South African government's decision that made education an "own affair" impacted badly on Ciskei, as in other less developed TBVC states. The Ciskei Republic was not in a financial position to bear the costs of quality education due to inequalities in the provision of resources. The quality and quantity of education provision in Ciskei has lagged behind that of DET education institutions (SAIRR

1988). Hartshorne (1992: 131) however, attributes some of the financial problems experienced in Ciskei to corruption:

corruption and military coups have led to an increasing dependence upon the central treasury in Pretoria, stricter control by the Development Bank and a decrease in the degree of "independence" which these territories enjoy.

All these factors impacted badly on the quality and quantity of the provision of education in Colleges of education in Ciskei. The numbers of lecturers and pre-service teachers in the Colleges as at the time interviews were conducted are tabled below.

TABLE 9

COLLEGE LECTURERS

	COLLEGE 1			COLLEGE 2			COLLEGE 3		
	M	F	T	M	F	T	M	F	T
African	6	11	17	12	23	35	10	24	34
White	4	10	14	1	3	4	8	8	16
Indian	0	0	0	2	0	2	0	1	1
Coloured	0	1	1	0	0	0	1	0	1
Expatriate	5	0	5	2	0	2	3	0	3
TOTAL	15	22	37	17	26	43	22	33	55

(Annual Returns, DET March 1990)

TABLE 10

STUDENT ENROLLMENT

	<u>COLLEGE 1</u>	<u>COLLEGE 2</u>	<u>COLLEGE 3</u>
PTD 1	192	238	-
2	196	279	-
3	123	249	-
STD 1	33	-	278
2	0	-	211
3	0	-	197
TOTAL	544	766	686

(Annual Returns, DET March 1990)

Unlike the position in the 1980s, the majority of lecturers in the Colleges were black. The common reason given for the reduction of white seconded officials in the Colleges was the volatile situation emanating from political activity. One white lecturer attributed the resignation of white lecturers to violence:

These Colleges are in the townships that become very violent during riots. Naturally, we do have justified fears. Even during class boycotts our own students become so unruly that any white person could easily be targeted (Lecturer, College two).

That fear was felt to be justified by the majority of lecturers in these Colleges.

The lecturers in these Colleges felt that their numbers were inadequate to cope with the increasing numbers of pre-service teachers, given that the courses taught included both school subjects and professional subjects. Lecturers

felt overloaded and as a result were unable to give pre-service teachers the individual attention they needed. All three Colleges shared similar views on the shortage of staff. The following explanations which express such sentiments were extracted from interviews:

During exam time I feel the stress. I teach education to PTDs. That is always the biggest class in the College. I sometimes think I am doing a job meant for two lecturers. I get bored and frustrated when I have to teach the same topic to five classes. By the time I reach the fourth class, I am so bored that students in those classes get a raw deal (Lecturer, College one).

When you look at the figures you get the impression that the staff is adequate. In Colleges things are a little bit different from universities. Whereas at varsity a team of more than four lecturers shared education, concentrating on areas of specialisation, here that is not the case. For three years I have taught education to STD Is of no less than two hundred per year. Mind you, there are 140 education periods a year which means 140 multiplied by five groups of STD Is each year. Think of all the assignments and class tests I mark. That is too much (Lecturer, College two).

A similar situation existed for microteaching. In one College microteaching was a responsibility shared by six lecturers. If the student body of that College was divided by six, then each lecturer would be responsible for ninety pre-service teachers. Given the general microteaching phases of teaching, feedback, and reteaching, it was understandable why lecturers failed to see all their students' microteaching presentations. The heavy teaching loads, per week, of the lecturers responsible for microteaching in the College concerned, for example are summarised in Table 11. Given the eight periods per day stipulated in the curriculum, the workloads of the lecturers left little room for creative work, and opportunities for staff to demonstrate teaching

strategies among themselves.

TABLE 11

TEACHING PERIODS PER WEEK

STAFF	PERIODS
HOD	10
Senior lecturer	19
Lecturer	24
Lecturer	24
Lecturer	25
Lecturer	25

The teaching loads of lecturers in these Colleges should be viewed against the background of the number of periods per week, the duration of each period and the number of days pre-service teachers actually attended lectures. For example, there were two hundred official working days in these Colleges in 1990 and 1991 respectively. However, due to the most turbulent riots in the communities served by the Colleges, pre-service teachers stayed away from lectures for approximately fifty per cent of the scheduled working days. In addition, the duration of each period was thirty minutes and there were fifty-one periods per week.

The negative impact of staff shortages was also evident in educational media, which was compulsory for all pre-service teachers. In College one, for example, educational media was a responsibility of one lecturer for a student body of five hundred and forty-four. A similar situation existed in

College three where a single lecturer was responsible for teaching educational media to six hundred and eighty-six pre-service teachers. An even worse situation was the unavailability of a media lecturer in College two, a situation which meant that a student body of seven hundred and sixty-six went without tuition in educational media.

In practical terms, functional hands-on experiences for pre-service teachers were not likely to materialise. For a single educational media lecturer to supervise and give guidance to seven hundred and sixty-six students was obviously impossible, as explained by media lecturers:

I would not say we prepare our students in the use of educational media. That would be an overstatement, if not a lie. All I can do under the present circumstances is to tell them about educational media and how they function. The rest I leave to subject method lecturers, though I know they cannot manage (Lecturer, College two).

The blame for staff shortages was put on the employing department:

If the department was serious about the educational media course, more grants for the appointment of at least five more media lecturers would be made available. Then six media lecturers would work hand in hand with method lecturers (Lecturer, College three).

The latter view was shared by several subject method lecturers who saw the need of their involvement in the educational media course, but felt overburdened:

Much as we would like to participate in the educational media course, we are constrained by numbers. Perhaps when we are called subject method lecturers, you think we are only responsible for subject methods. No, we also teach subject content. Since this is an

integrated course, we teach both subject content and subject method. If more subject content lecturers could be employed, then subject method lecturers would be able to concentrate on subject related educational media. At the moment we can't. We only mention the importance of educational media without teaching them how media could be integrated in their lessons (Lecturer, College three).

Viewed against the background of such working conditions, the capacity of lecturers in these Colleges was likely to impact negatively on curriculum activities as may be seen in the ensuing chapters.

ADMISSION TO TEACHER EDUCATION

As explained in the beginning of the present chapter, the quality of educators influences the quality of curricular experiences. By the same token, the quality of pre-service teachers admitted is an important variable in the teaching and learning environment.

Lecturers

Lecturers' employment criteria were similar to those applied in other DET Colleges. Commenting on such criteria in an investigation of Colleges of Education in KwaZulu, Salmon and Woods (1991: 12) write:

The recognised criteria are straightforward, and consist of a three-item shopping list: academic qualifications, professional qualifications, and experience. Translated into actual expectations, this means that all academic staff at colleges of education should possess at least a Bachelor's degree, a recognised teaching qualification and a minimum of five years' teaching experience.

The qualifications of college staffs are generally accepted as an indicator of their quality and competence (NEPI 1992), although as a yardstick, qualifications are still a "rough and tentative" measure (Hartshorne 1992).

Figure 4 reflects employment requirements for a lecturer's post as advertised in a local newspaper.

FIGURE 4
ADVERTISEMENT
VACANCY: LECTURER POST

School Management and Education.

Qualifications: B. PED or B.Ed

Experience: Minimum FIVE years teaching
in a High School. Closing date: 09
September 1990.

The successful candidate will be expected
to commence duties on 01 October 1990.

Applications to be sent to:

Private Bag X503, Zwelitsha 5608.

(Daily Dispatch September 05, 1990: 13).

Academic qualifications

When the annual returns, quarterly returns and questionnaires were analysed, it was found that the majority of lecturers qualified to be College lecturers in that they met the required criteria. The qualifications of lecturers are summarised in Tables 12, 13, and 14.

TABLE 12

LECTURERS' QUALIFICATIONS
COLLEGE 1 CATEGORIES

n =37	B	C	D	E	F	G	TOTAL
African	2	0	7	8	0	0	17
White	2	6	6	0	0	0	14
Indian	0	0	0	0	0	0	0
Coloured	1	0	0	0	0	0	1
Expatriate	0	0	3	2	0	0	5
TOTAL	5	6	16	10	0	0	37¹

TABLE 13

LECTURERS' QUALIFICATIONS
COLLEGE 2 CATEGORIES

n = 43	B	C	D	E	F	G	TOTAL
African	2	10	7	13	3	0	35
White	0	2	2	0	0	0	4
Indian	0	0	0	1	0	1	2
Coloured	0	0	0	0	0	0	0
Expatriate	0	0	0	1	1	0	2
TOTAL	2	12	9	15	4	1	43

1 Categories were described as follows:

B= m+2; C= m+3; D= m+4; E= M+5; F= m+6; G= m+7

TABLE 14

LECTURERS' QUALIFICATIONS

COLLEGE 3 CATEGORIES

n = 55	B	C	D	E	F	G	TOTAL
African	2	6	6	17	3	0	34
White	0	0	4	7	5	0	16
Indian	0	0	0	0	1	0	1
Coloured	0	0	1	0	0	0	1
Expatriate	0	0	2	1	0	0	3
TOTAL	2	6	13	25	9	0	55

(Annual Returns, DET March 1990)

In view of the segregated nature of the Colleges in Ciskei, more attention was paid to the qualifications of African lecturers because the Colleges were meant for Africans. The academic qualifications of African lecturers in College one had improved in that none had matriculation as the highest qualification. All lecturers had Bachelors' degrees. However, since 1990, the content of the school related subjects was upgraded to be on a par with university undergraduate courses. In view of the demands of the revised and upgraded PTD and STD curricula therefore, the overall academic qualifications of the majority of lecturers seemed inadequate.

From Table 12 it can be seen that ten lecturers (27 per cent) were in category E, and sixteen (43,2 per cent) were in category D. Chances were that those in category D did not study education as a formal discipline, save for the introductory topics on education they were exposed to in teacher training. They were therefore not likely to be as

confident and competent as their colleagues in category E. The fact that category D lecturers constituted the highest percentage (43,2) was a cause for concern in this College, but nothing could be done because officially, the lecturers qualified to be College lecturers in terms of requirements. The absence of lecturers with Masters and Doctors degrees meant that the majority of lecturers (72 per cent) in the College concerned had no post-graduate courses in education. At the same time, thirty-two per cent of the lecturers had no degrees. Qualifications of lecturers in College one were so inadequate that forty-three per cent did not qualify to be lecturers and were named "teachers", as can be seen in Appendix K. As could be expected when qualifications were not so adequate, lecturers in College one were indifferent, conservative and lacked initiative:

We are in need of staff development courses and workshops that could be organised by outsiders. If you suggest anything, nobody is interested and you just give up. They will never come with ideas even when issues affecting them directly are discussed. I never know whether it is out of ignorance or lack of interest, but because of low qualifications I am inclined to think lecturers need help (Rector, College one).

When your qualifications are appropriate you have nothing to fear. Our staff refuse to give demonstration lessons for students in the very courses they teach. Their approach is very bookish and old fashioned. They are scared to be found wanting in skills by their students. They hide behind the textbook and the lecture method. What is worse is that they are very defensive. I cannot repeat this in the presence of other lecturers because we hate criticism of any kind (Rector, College two).

Unlike in College one, lecturers' qualifications in College two were much better. With the exception of three lecturers,

all staff members were graduates. A reasonable number of lecturers (46,4 per cent) had senior degrees which meant that they had more grounding either in education or school related disciplines. The situation in College three was more promising than in the other two. Whilst lecturers with Masters degrees constituted fourteen per cent of the sample, forty-five per cent had the post-graduate Bachelor of Education degree which meant that they had more exposure to the theoretical study of education.

Category B lecturers did not have degrees which meant that the level of their subject content was equivalent to that of the students. Under such circumstances, lecturers were not likely to be flexible and creative. As may be seen in the ninth chapter, they patronised the safest teaching method: lecturing and their students memorised notes and gave them back to the lecturers in tests and examinations. That style of teaching is very unlikely to promote critical reflection, instead it usually leads to rote-learning and passivity.

Viewed in isolation, the qualifications of African lecturers seemed acceptable. In fact, the perceptions held by lecturers themselves re-inforced that view:

Everybody here is qualified enough to be a lecturer. Only one or two individuals do not have degrees. Even those have degree courses (Lecturer, College three).

I do not know why the upgrading of qualifications is stressed so much these days. Every public speech about transformation mentions this. We were employed because we met all the requirements (Lecturer, College two).

However, when compared with the qualifications of whites in segregated Colleges meant for whites, the qualifications of

African lecturers were lower. Table 15 compares the qualifications of African and White lecturers in Ciskei Colleges, whereas those of staff in white Colleges are summarised in Table 16.

TABLE 15

**LECTURERS' QUALIFICATIONS
CISKEI COLLEGES**

	G	F	E	D	C	B	TOTAL
African	0	5	61	45	11	7	129
White	0	5	7	10	6	5	33
TOTAL	0	10	68	55	17	12	162

TABLE 16

LECTURERS' QUALIFICATIONS

WHITE COLLEGES

CATEGORIES

	<u>G</u>	<u>F</u>	<u>E</u>	<u>D</u>	<u>C</u>	<u>B</u>	<u>TOTAL</u>
White	201	323	240	218	17	2	1101
African	0	0	0	0	0	0	0
TOTAL	201	323	240	218	17	2	1101

It was interesting to note that the qualifications of white lecturers in Ciskei Colleges were much lower than those of their counterparts in white Colleges. A similar observation was made by the NEPI investigation into teacher education in

South Africa:

It is significant also that 69% of lecturers in the DET colleges are white and that the majority of these lecturers are in categories D and E, one category lower than their colleagues in white colleges (1992: 30).

The academic qualifications of the sample of thirty lecturers who were supposed to be guiding pre-service teachers in the use of educational media in the three Colleges were also found to be inadequate as reflected in Table 17.

TABLE 17

LECTURERS' QUALIFICATIONS BY CATEGORIES

n=30	G	F	E	D	C	B	TOTAL
Educational media	0	1	2	1	0	0	4
Microteaching	0	0	6	7	2	0	15
Subject methods	0	0	2	9	0	0	11
TOTAL	0	1	10	17	2	0	30

The majority of the lecturers supposed to be involved with the educational media course (70 per cent) cited lack of time as an inhibiting factor when they wished to improve their own manipulative skills. Due to their desire to upgrade their academic qualifications, the little time they had was saved for writing assignments and holding discussions among themselves. One of the two lecturers in category C felt insecure and was improving her qualifications:

I must pass exams and get this degree, otherwise I will continue feeling insecure. Academically I do not qualify to be here, but they appointed me because of my Home Economics experience. Studying whilst working is very difficult. Though I also have to learn how to use media, at the moment I do not have time. Perhaps I will try after completing my degree (Lecturer, College one).

Financial considerations compelled lecturers to use their extra time upgrading their qualifications:

I never wanted to work here because of my low qualifications. When the Zwelitsha Training School was closed down, we were transferred to this College. It was only then that the need to improve qualifications struck me. I think I am the least paid lecturer here and that is very hard on my family. I cannot be wasting my time learning how to use media, when I am still struggling with my degree. The major thing is to get my degree so that I can think of learning other things that are not going to improve my salary (Lecturer, College two).

The need to improve qualifications was expressed even by the lecturers who already had Bachelors' Degrees as indicated by the two educational media lecturers in category D:

I have reached the top of my scale. For me to earn a better salary I need to have a higher qualification that will push me to category E. That is why I am doing B Ed. Nobody is interested in learning things like educational media because they will not ensure a higher salary. During our free periods we discuss our assignments because we find it difficult to meet after hours. The Department is at fault because if you already have a degree, you are not allowed to go on paid study leave. What else can we do except using the only time we have here (Lecturer, three).

Competition for promotions also pushed lecturers to use their spare time upgrading qualifications:

Apart from my wish to earn a better salary I also wish to be promoted. When we ask why Whites, Coloureds, and Indians are always holding senior positions, we are told that it is because of their high qualifications. I must get my B Ed in order to be a senior lecturer. I know I have to improve my abilities in educational media as well, because I teach the course, but, a greater need is to get my B Ed so that I can be promoted. That way I will also earn more money (Lecturer, three).

The pressure on lecturers to attain higher qualifications was likely to have a negative effect on their teaching. For many lecturers, the pressure shifted the goal of education from that of teaching pre-service teachers effectively to that of passing their own examinations in order to get better salaries and promotions. From the above extracts it could be seen that the pressure to upgrade qualifications impacted negatively on their professional commitment. Understandably, given their "inferior" position in the stratified society, rather than improving their own deficiencies in educational media training, lecturers concentrated on upgrading their academic qualifications, satisfying their need to be perceived by employers as equal to their white counterparts. A similar finding on DET teachers was reported by de Vries:

The teacher is faced with a situation of Hobson's choice; home and family come first, so that to ensure that she has a job with a decent salary, she concentrates on her studies and - to a great extent - neglects her teaching obligations (1989: 454).

Those who did not have degrees (12) included the following: home economics lecturers who by virtue of their practical experience in the subject either in primary or secondary schools, were appointed, due to the Colleges' failure to find a graduate with home economics. The reasoning behind this was the scarcity of African lecturers with specialisation in

auxilliary subjects. The Head of Department for Professional Subjects in the College with several lecturers without degrees explained the situation as follows:

Our teachers graduate from Fort Hare in most cases. There is no home economics in our black Universities. That is why we have problems (Rector, College three).

The same reasoning was applied to other subjects as well. Fine arts, music and physical education fell under this category, and this applied to all Colleges.

For critics from Education Departments other than DET, condoning the appointment of lecturers who did not meet stated requirements might be inexcusable. However, given the realities of Apartheid education, it seems reasonable to suggest that student needs dictated the employment of such lecturers. The scarcity of African lecturers with required qualifications in auxilliary subjects such as those mentioned above seems to have been imposed on Africans by the South African Government, by preventing Africans from enrolling in white campuses that offered such courses at degree level. What could still be faulted though, was the failure of the employing department to provide staff development opportunities for affected lecturers, so that their subject knowledge and instructional methods might be upgraded.

Professional qualifications

An analysis of professional qualifications showed that whilst the majority of lecturers had the one-year post graduate diploma, some had the professional certificates that had been

discontinued and replaced due to their unacceptability in the African communities. The perception held by Africans was that the professional qualifications concerned were inferior to those of other race groups. That perception was reinforced by the realisation that the salaries of teachers with the qualifications in question were lower than those of other race groups. Table 18 summarises the discontinued professional qualifications of College lecturers.

TABLE 18

DISCONTINUED PROFESSIONAL QUALIFICATIONS

	PTC	JSTC	HPTC	SSTC	SETC	NPL	TOTAL
COLLEGE 1	15	7	4	1	1	0	28
COLLEGE 2	2	10	2	0	2	0	16
COLLEGE 3	5	2	3	0	4	1	15
TOTAL	22	19	9	1	7	1	59

African lecturers with the post-graduate, one-year Secondary Teachers' Diploma, went to segregated state universities meant for Africans. The forty-seven per cent that had B Ed degrees, had also been to Apartheid universities. The emphasis of the teacher education institutions which the majority of lecturers attended was on "teacher training" rather than "teacher education". They focused largely on practical teaching skills and knowledge of curriculum content. As explained in Chapter Five, the curriculum concentrated on professional subjects, basic teaching subjects and practical subjects. The doctrines of Christian National Education and Fundamental Pedagogics were extremely influential in the professional training of pre-service

teachers. In Hartshorne's words, teacher training was characterised by a "closed, narrow, ideological approach that failed to produce teachers of quality and commitment" (1992: 236).

During observation, the majority of lecturers taught in an authoritative and prescriptive manner. They almost had a complete dependence on the textbook and on note giving. There was little discussion and questioning. They often showed a lack of confidence as will be shown in Chapter Nine.

Experience

The requirement of five years' experience, however, was reported not to be observed at all times by Rectors when they appointed lecturers. Cases of lecturers who were appointed without five years' experience were reported in all colleges. Some were appointed because they had honours degrees and some experience, and were believed to be able to teach academic subjects to pre-service teachers. Others were appointed because they were available at a time when the college was stranded and pre-service teachers were not receiving tuition at that given time. The words of one Rector reflected the sentiment that, rather than leaving pre-service teachers untutored whilst that post was being advertised, inexperienced persons should be appointed:

It is better to appoint a person with appropriate academic and professional qualifications. Experience will be gained on the job. If we do not do that, students will be tired of waiting and will strike (Rector, College three).

It was also reported that some lecturers, although they had Bachelor's degrees, did not have the appropriate professional qualifications for the courses they were offering :

There are people with secondary education diplomas who teach PTDs and some with primary education diplomas who teach STDs (Lecturer, College two).

Cases of lecturers who were required by the colleges to teach courses they had no experience in were reported. Examples of lecturers whose experience with the education disciplines was gained only when they were doing the one-year post-graduate teachers' diploma were given. In view of the broad scope of the revised teacher education syllabi, such people found it difficult to be comfortable with their teaching responsibilities. In the words of one education lecturer:

It is very difficult for me to try teaching methods other than the lecture method because I am not comfortable with education. We were not taught topics such as these in UED. Perhaps lecturers with B Ed should teach this course (Lecturer, College three).

The inadequate preparation of college lecturers for their curriculum activities was evident in one lecturer's response:

What makes matters worse is that even if we could be allowed to make changes, I don't think all of us would welcome the idea because people do not know curriculum design (Lecturer, College one).

The teaching experience of lecturers varied, as explained above. It also influenced lecturers' attitudes and curricular practices. Table 19 summarises the overall teaching experience of lecturers, irrespective of school type.

TABLE 19

LECTURERS' TEACHING EXPERIENCE

	5 - 10	11 - 15	16 - 20	21 - 25	26+
COLLEGE 1	13	23	9	9	7
COLLEGE 2	15	18	16	9	7
COLLEGE 3	24	20	10	7	5

In the case of College one, for example, forty-four lecturers had taught for more than ten years. It was likely that due to their experience, they could be influential. Some of them held senior positions in the hierarchical structure of the College, and therefore participated in decision making. Of those with more than ten years' teaching experience, eight were senior lecturers, eight were heads of departments, and two were rectors. In most cases, such lecturers served the purpose of imposing departmental stipulations. Lecturers in junior positions complained about the seniors' conservatism and resistance to innovations:

What discourages me the most is my head of department's attitude when I come with suggestions. He discourages any departure from syllabus stipulations. The moment a person tells me about his experience when he opposes my views, I give up because I have little experience after all (Lecturer, College one).

The experienced lecturers who participated were found to be stubborn and conservative:

I have been around for a long time. With our teaching methods we get results. These new methods waste time. We have to finish the syllabus with or without this fancy stuff (Lecturer, College two).

We have produced so many teachers using our blackboards and textbooks. Students need to listen to our lectures in order to pass exams. These class discussions get out of hand and before you know what is happening, students are discussing politics. If you teach them you can prevent that (Lecturer, College three).

On the contrary, lecturers with less than ten years' teaching experience, were usually enthusiastic about innovations, though they had limited experience of conditions in the schools:

My experience here is that the lecturers who have served the College for a long time resist any new suggestions. They discourage you with their remarks. The bottom line is that they think new lecturers know nothing and older ones know everything as a result of their experience.

If only I had the power to influence my colleagues we could bring about some changes to our teaching strategies at least. For example I have been suggesting the use of projects and group assignments, but nobody is interested. Lack of time is used as a reason for postponing the implementation of changes.

The curricular activities of lecturers are dealt with in detail in Chapter Nine.

Pre-service teachers

As explained in Chapter Five, the admission criterion for pre-service teachers is completion of secondary education. Colleges were unanimous in their criticism of the quality of pre-service teachers who were products of DET schools. The lack of a "culture of learning" in schools was cited as a contributory factor to the poor quality of pre-service teachers, as shown in the lecturers' explanations during

interviews:

Since the 1976 riots and school boycotts the standard of education in our schools has gone down. Students do not learn. They expect teachers to spoon feed them for tests and examinations after having absented themselves from classes (Lecturer, College one).

If teachers give them homework, they do not do it. If they are asked questions in class, they do not respond. When asked to make notes from textbooks, they say teachers are lazy. They simply memorise everything (Lecturer, three).

Pre-service teachers emerge from the environment described above. They come to the College with negative attitudes which render teacher education of quality an unrealisable dream. A vicious circle is created in that the same pupils who were unruly in schools become unruly in Colleges. When they visited schools for teaching practice, they were confronted by the hostile environment characterised by declining motivation to learn. This environment in turn impacts negatively on pre-service teachers' attempts to practise teaching skills.

Lecturers also attested to a loss of confidence in the matriculation public examinations controlled by DET. Allegations such as the following were made:

Some of these students are products of "intluva", and they know nothing. Others cheated in the examination rooms and invigilators did nothing out of fear (Lecturer, College three).²

² The term "intluva" refers to the alleged leaking of Matriculation examination question papers prior to the commencement of examinations in some circuits.

How can we trust the results when such bad things are said about examiners and markers. Unqualified people, even clerks and students, are hired to mark. They are there for money and are not thorough (Lecturer, College two).

Lack of motivation and potential to be teachers were also cited as contributing to the poor quality of pre-service teachers:

Some of these students came here on the rebound. They initially had hoped to be admitted in universities for degrees, but due to their failure to obtain matriculation exemptions, were not admitted.

In the African community, teaching is regarded as a soft option meant for everybody, irrespective of potential. That attitude originated during the early 1970s when after standard eight, candidates could enroll for the two-year PTC. More often than not, PTC was chosen by two categories of candidates: those with not so good examination results, and those whose parents were eager for an income. Matriculation was perceived to be meant for those with good standard eight results. The problem of selecting quality students for teacher education is not peculiar to Ciskei. In an investigation of Colleges of Education in KwaZulu, one rector explained:

It's rather chaotic because of the large numbers of applicants. I'm not sure whether we get the best students. We don't know about the students' backgrounds or attitudes. We can't guarantee that the students we take will turn out to be good teachers (Salmon and Woods, 1991, p.23).

If standards from other education systems are accepted as a

measure, the selection procedures in Ciskei seemed to be inadequate. The UNESCO recommendation on selection was as follows:

Admission to teacher preparation should be based on the completion of appropriate secondary education, and the evidence of the possession of personal qualities likely to help the persons concerned to become worthy members of the teaching profession (quoted in Dove 1986: 191).

In Ciskei, the School-leaving Certificate holders, instead of candidates with exemptions, were the ones who applied for admission and were admitted. Pre-service teachers were admitted not on the basis of personal qualities amenable to teaching, but on matriculation symbols. Such selection procedures did not guarantee good pre-service teacher quality and impacted badly on teaching and learning, a matter to be dealt with in the chapter on the use of educational media.

COLLEAGIALITY AND COLLABORATION

Colleagiality refers to "the genuinely non-threatening state of mind that exists between teachers who are prepared to assist each other in arriving at a joint understanding of their own and each others' teaching" (Smyth 1984: 33).

Champions of teachers as collaborative learners regarded colleagiality and collaboration as major cornerstones of any strategy likely to succeed in improving teaching (Cogan 1973; Goldhammer 1969; Smyth 1984). The nature of human relationships and issues of reciprocity and trust seem to be central to what educators do among themselves as professionals (Willie and Howey 1981).

There was minimal unity among lecturers in the Colleges.

African lecturers resented actions they associated with the racist perception that whites were superior whilst blacks were inferior. For example, lecturers complained that all facilities, especially those with technological equipment, were never put in the custody of African lecturers. The explanation which was common was that when the Colleges were established the management was white, and the majority of lecturers were also white. Subjects that were considered "important" were allocated to Whites, whereas Africans were expected to teach subjects that were rejected by their white counterparts, who earned higher salaries than Africans with similar qualifications and experience. One media lecturer asserted:

As long as you are an African, you are given minor responsibilities. We used to teach Xhosa, religious instruction, music and physical education in these Colleges, when Whites were teaching history, pedagogics, and subject didactics. Things changed only when African Rectors were appointed, but they have not changed much.

When the rooms were visited, it was found that the lecturers in charge were Whites, Coloureds, Indians and Ghanaians. The language laboratory, the computer room, the media centre, the photocopy room, the library were examples of rooms the researcher found manned by lecturers belonging to race groups other than black South Africans. It was curious to note that the qualifications of the lecturers concerned were no different from those of the majority of African lecturers. It was also found that these black South African lecturers resented this arrangement. Some of the resentment was witnessed by the researcher in one College. Results for the 1993 academic year were extremely poor, and third year pre-service teachers who failed were prevented from

re-registering as full time students for 1994. They were invited to come and write the final examinations in November 1994 so as to allow space for the 1994 intake of first year pre-service teachers. To the students concerned, that decision was unpalatable. They believed that the results had been tempered with by lecturers who were retaliating for student activism on campus. Pre-service teachers invited the management, which was white, and the lecturers in charge of examinations, who were also white, to a meeting in the College Hall. The staff was interrogated about the high failure rate and the decision to prevent students from registering as full time candidates. The Acting Rector invited all lecturers to meet with the students in the College Hall. When the students' allegations were heard, the majority of African lecturers left the Hall. Remarks such as: "they exclude us from important duties, let them face the music", were heard. The end result of the events of that day was physical assault of white lecturers by pre-service teachers. Two white lecturers were so badly injured that they were hospitalised for quite a period. The South African Embassy in King William's Town reacted by withdrawing white staff from that College.

The level of trust was affected adversely in the College concerned. When the pre-service teachers had re-written the examination in July, lecturers had to resume duties. On the first day, lecturers and pre-service teachers were addressed by officials from the Ciskei Department of Education. Lecturers did not take kindly to being reprimanded in the presence of the very students who had shamed them. The following statements express their strong feelings:

In front of the students who were insulting us together with their parents, we were told that our authority as lecturers was subject to students' approval. How can they respect us? I wish I could find another job. I have had enough (Lecturer, College three).

Officials expect us to move on as if nothing happened. I don't trust these students anymore after they attacked us. What if they attack you in the lecture room if they disagree with you? They expect to pass irrespective of their performance. They are confronting lecturers who gave them low marks, meanwhile they were assessed on merit (Lecturer, College three).

In another College, the attitudes of lecturers were sometimes so hostile that amongst themselves, African lecturers made negative remarks about lecturers of other race groups. A case in point is the day one media lecturer needed to make a copy of a question paper for the researcher. The lecturer went to look for the photocopier "minder" and could not find him. When the lecturer came back to the staffroom, this remark was made in Xhosa:

Eli Lawu maliye kugeza eBreidbach, liyeke ukuphatha apha e...
YiCollege yethu le. Libaleka ntoni phaya. Yhazi akafuni kundinika
izitshixo zephotocopy room. Uthi mandilinde abuye eklasini
(Lecturer, College two).³

Such remarks betrayed the tension existing in the Colleges among lecturers, especially between Africans and non-Africans. A similar incident happened yet again. A media lecturer wished to use the computer room to retrieve a question paper and a book list for the researcher. Although we had already entered the room, the person in charge stood

³ The literal translation of this utterance is: This Coloured must stop stop playing the fool here and go to Breidbach. This is our College. What is he running away from in Breidbach? He refuses to give me keys for the photocopy room. He says I must wait until he returns from lectures.

there, explaining that it was time for him to leave, and he could not leave us in the computer room. The media lecturer could not attain her goal, as a result. The lecturer in charge of the computer room was an Indian, and that made the African lecturer complain vigorously, explaining that he would have left the room open for other Indians and Whites. The media lecturer took the opportunity of pointing out to the researcher that the incident was an example of the factors contributing to the underutilization of media in Colleges. The lecturer's belief was that, if a media lecturer could not be trusted with keys to rooms that house technological equipment, then nobody else could be trusted. As lecturers, they were not prepared to "beg other lecturers" for curriculum materials. These incidents suggest that in as far as race relations are concerned in the Colleges, all was not well, and that atmosphere was likely to affect the quality of teaching.

In one College, very sophisticated equipment was installed in the microteaching centre. A staff of sixty-one lecturers depended on the expertise of one white lecturer for the use of the centre. The reason given for that situation was that the company that installed the equipment, as well as the expert who was invited to demonstrate its use were working with only the white lecturer concerned. When the qualifications of the white lecturer were analysed in the quarterly returns, and annual returns, they were found to be wanting. The lecturer was one of those who did not even meet the employment criteria. The lecturer had Matric and the now discontinued two-year Junior Secondary Teachers' Certificate. The lecturer was fifty-five years of age and had fixed views about the running of the centre. For example, in an informal discussion, the lecturer asserted:

My colleagues think I am a pain in the neck. I never allow any student to work in this room if I am not here. When any lecturer wants to use the room, I hand out the keys and they have to sign for them. Before accepting the keys I check if everything is still in order. You see, the person who taught me how to operate this equipment is now in Germany and the firm that installed it is in Cape Town. If a single wire is loosened, nobody will know how to fix it and it will take time for the company to repair it.

While the lecturers' manner may be described as efficient, it might be counterproductive at the same time. Instead of running a workshop for other lecturers on the use of the equipment, the lecturer seemed to enjoy "baby sitting" the equipment. Other lecturers' did not take kindly to her attitude and felt that this was perpetuated simply because the lecturer was white. The head of department for Professional Subjects, under whose jurisdiction microteaching fell noted:

I do not know what the Rector had in mind, but that is how he arranged this situation to function. For one thing, the whites in this College can get away with anything because of their "seconded" status. Some of us fear losing their services, even though they are not really better qualified than we are.

From the time of their establishment, Colleges of Education in Ciskei were characterised by racial inequalities as evidenced by the attitudes of some Rectors. There were segregated staffrooms, and toilet facilities. Periods toward 13h 00 and afternoon duties such as sport were allocated to Africans. Government vehicles meant for seconded white lecturers transported them home before lunch. Such attitudes are usually difficult to unlearn and they result in mistrust and alienation. The impact of such attitudes is dealt with in detail in the chapter dealing with the use of educational media.

Apart from personal and academic jealousies, lecturers were also divided along racial lines, as explained in Chapter Six. The ill feelings and alienation resulting from the stratification of society according to race seemed to have spilled over to the Colleges. The Rector of Dr W B Rubusana, for example, simply assumed that in his College it was proper for lecturers to have segregated staff rooms and toilets, as discussed in chapter five:

There is no book room, only a very small "Black" staffroom and no "White" staffroom...Incidentally there are no separate facilities in this line for white staff (toilets) (Coghill 1976: 2).

Racism was firmly in place in the two Colleges of Education that had white Rectors initially. One of the few lecturers who were already working at Griffith Mxenge when the Rector was white asserted:

We had to struggle a lot to be recognised as human beings in this College. When they looked at us they saw their maids and garden boys. We could not drink tea from common cups in case we contaminate them. We could not share the same toilets for similar reasons. We were

addressed as "you people" and were never called by our own names because Blacks look alike. They spoke Afrikaans in staff meetings, knowing exactly how we felt, but being arrogant. Satoyitoya kwanzima ze sihowe (Lecturer, College three).⁴

I remember the day we disrupted a meeting by addressing each other in Xhosa and when the Rector called us to order we ignored him and continued. We defied rules and used their cups and toilets. We refused teaching after 12 noon, because they also didn't. At least now racism is not as blatant as it was then (Lecturer, College three).

The majority of African lecturers resented their lack of the professional competencies which their counterparts had. Had it not been for Apartheid, they believed, they would have had similar training. They attributed their inability to use instructional technologies to the aims of "Bantu Education", as explained by one media lecturer:

Although I have no training in educational technology I was instructed to teach educational media. I hate the whole thing because were I trained in Rhodes, or in any of the institutions meant for the other race groups I would be knowing these things. You can see that these people know what they are doing due to their quality education. They were taught by teachers who used technology and in teacher training they were exposed to media. Bantu Education excluded me from enjoying such benefits but now I am expected to deliver the goods. Impossible (Lecturer, College three).

It was observed that in two Colleges which had enough offices for all lecturers, the staffroom was never vacant throughout the day. It was also observed that the lecturers who frequented the staffroom even though it was not tea time, were all African. At no time did the researcher see lecturers of other race groups working in the staffroom, except at tea

⁴ We had to revolt in order to force them to change their ways.

time. Those who occasionally came in were usually there to fetch items from the refrigerator or to get information from the notice boards. Reasons given by the African lecturers who frequented the staffroom included the following:

I feel isolated in my office and wish to be in the company of people I am used to so that we can talk and share our problems (Lecturer, College two).

The staffroom is more comfortable than my office. My office, cubicle rather, is in a prefabricated building which is extremely cold in winter and extremely hot in summer. I just cannot settle there. Here, there is an airconditioner, a refrigerator, and running water. We even have a telephone (Lecturer, College two).

The students are so unpredictable that I feel safer in the company of other lecturers, in case they attack us (Lecturer, College three).

The African lecturers who did not frequent the staffroom had their own reasons for avoiding being there:

I need my privacy sometimes. In that staffroom there is no privacy whatsoever (Lecturer, College three).

To be productive in my work I need to concentrate. There are many distractions there (Lecturer, College three).

My students are free to discuss problems and even their work with me in private (Lecturer, College two).

I hate the malicious gossip that goes on in the staffroom. Nothing is constructive in their conversation (Lecturer, College two).

Lecturers of other race groups shared similar reasons with African lecturers who did not frequent the staffroom:

Isolation from the rest of the crowd gives us enough time to do research, discuss teaching experiences and to motivate each other to do more work. The environment in our office is conducive to productive work, even though it becomes very cold or hot at times (Lecturer, College two).

How would you interview us in that staffroom? Everyone would be listening. There is no privacy there. Besides, we do not understand their first language so sometimes we feel left out and uncomfortable (Lecturer, College three).

In view of the large numbers of lecturers who sat in the staffroom during working hours, despite the lack of time most of them cited as a constraining factor toward productive work, the researcher came to the conclusion that there was lack of motivation in the case of many lecturers. Much as one could not assume that those lecturers who worked in the privacy of their offices were more productive than those who frequented the staffroom, chances were that those sitting in the staffroom were not achieving much due to distractions. The lack of motivation detected bordered very much on laziness on the part of some lecturers as corroborated by some of their remarks to each other during their conversation:

"Are you having any lecture today?"

"Yes. But I will not be there for long because I will give them notes to copy."

"You have given me an idea. I'm lazy today. I'll do the same."

"You will not find second years today. I waited for them for ten minutes for chalkboard and they were not there. I advise you to wait here".

"You are right. If they are there they will come and call me."

(Lecturers, College three).

It also became clear that it was easy for lecturers to absent themselves from the Colleges and then submit doctors' certificates when they eventually come back. This common practice was mentioned by heads of departments and rectors. It also transpired from the staffroom conversation in one College:

"That was some telling yesterday. Imagine when we have to declare our personal reasons for not coming to work."

"Did he mean it when he said we must not give personal problems as reasons for staying away?"

"Yes he was. He even said this is a college and it is no longer going to be easy to stay away from lectures even for personal problems. Those with lots of personal problems must return to the primary and secondary schools before they are asked to do so."

"He was wasting his time because we are not going to share our personal problems with him, and we will attend to them whenever we experience them." (Lecturers, College two).

The characterisation of the quality of lecturers and pre-service teachers in the foregoing paragraphs raised serious questions: To what extent did the lecturers in these Colleges succeed in the preparation of pre-service teachers in the use of technology, given their academic and professional qualifications, their appropriate teaching experience, their lack of motivation and collegiality, and their attitudes? To what extent did the majority of pre-service teachers take responsibility for their own learning, given their lack of motivation and potential to be teachers?

SUMMARY

The central role played by both lecturers and pre-service teachers toward the attainment of curriculum aims was highlighted. The numbers of lecturers in the Colleges was considered inadequate to cope with the ever-increasing student enrolments. Lecturers cited large numbers as one of the factors constraining productive work.

The official requirements for the employment of lecturers were a Bachelor's degree, a recognised professional qualification, and five years' teaching experience. The majority of lecturers met the requirements. It was in the area of professional qualifications and experience where Rectors were not always consistent. Lecturers with inappropriate experience and professional qualifications were appointed to the detriment of quality teaching.

For pre-service teachers, the only criterion was possession of a senior certificate. Consequently, Colleges admitted students who possessed neither the potential nor the motivation to be effective teachers. Further, the schools students came from were characterised by a serious disintegration of a "culture of learning" and discipline. The quality of pre-service teachers impacted negatively on the quality of teaching and learning.

Colleges were characterised by a lack of collegiality and co-operation among lecturers. Personal and academic jealousy, as well as racial prejudice, militated against the achievement of unity. The majority of lecturers were isolated from each other and were secretive and defensive. Lack of motivation to work productively, which sometimes bordered on laziness was also detected.

The educational media course is described and analysed in the next chapter.

CHAPTER 7

THE EDUCATIONAL MEDIA SYLLABUS

We have to consider teacher training in the use of audio-visual media on several planes. The initial choices relate to educational policy and are carried out by the decision-making authority - the effects can be identified in teaching content, timetabling, programmes, authority instructions and the corresponding finance-dictated choices.

Francois Mariet 1978.

As explained in earlier chapters, the purpose of the present inquiry was to evaluate approaches in the preparation of pre-service teachers in the use of technology in education. The three "message systems" (Bernstein 1971), namely curriculum, pedagogy, and evaluation were taken into consideration when data were collected. The focus of the present chapter was the "curriculum" as it operated in Colleges of Education in Ciskei. It answers the question: What is the scope, nature, and quality of the educational media course offered to pre-service teachers in Colleges of Education in Ciskei? It provides a contextually-framed descriptive documentation of the Teaching Practice Syllabus in general, and Institute Practicum in particular.

In a country like South Africa, where teacher education is characterised by fragmentation and segregation along racial lines, issues relating to the construction of syllabi become contentious due to their political undertones. For example, on paper, teacher education for Africans residing within the white areas of South Africa is provided in terms of the Department of Education and Training Act, No.90 of 1979 and

the Technikon Act No.27 of 1981, whereas that of the TBVC states depends on the policies of the respective Education Departments of the states concerned. If what is maintained in policy documents is implemented, then it is reasonable to expect the Education Departments of TBVC states to design their own syllabus structures. If that does not happen, it is important to investigate the reasons for such a situation to being perpetuated. It is to discussing the state of affairs in Ciskei in that regard that this section pays attention.

As explained in the fourth chapter, the reseacher reviewed the syllabus document in March 1990. After the syllabus document had been reviewed, the lecturers involved with the Teaching Practice component of the pre-service teacher education curriculum were invited to explain issues that were unclear; and to voice their opinions about the design and implementation of the syllabus. This was done during the initial interviewing study which lasted from November to December 1990, and whenever gaps in the data existed.¹

DESIGNING OF THE SYLLABUS

As in other DET Colleges of Education, from 1976 to 1979 the Colleges offered the post standard eight two-year Primary Teachers' Certificate (PTC), and the post matriculation two-year Junior Secondary Teachers' Certificate (JSTC). After the Colleges had been given the status of fully-fledged Colleges of Education, as in other DET Colleges, entrance requirements changed. The stipulations are as follows:

- (a) Students who are admitted to the STD and PTD courses

¹ The period in question was considered the most appropriate because normal lectures had been cancelled in preparation for examinations. Lecturers had time to attend to the researcher's needs without having to worry about lectures.

must be in possession of a senior certificate with at least an E aggregate.

(b) They must have obtained at least a D symbol in each of the two school subjects in which they wish to specialise, preferably on the higher grade (Prospectus 1993: 2).

The curriculum for the above courses was laid down in the structure document 15/29/3 of the Department of Education and Training. The Colleges followed the directions laid down in the structure document. The process of evaluation and examination for all courses and all subjects was laid down in the respective structures and syllabi of the Department of Education and Training. External examinations were conducted by DET for both major subjects and Education in the third year of the courses (1993: 5).

The syllabus for Teaching Practice was designed by the Department of Education and Training (DET), and was then circulated to the various Departments for implementation. The one under review was circulated for implementation from 1990. The syllabus was applicable to both Primary Teachers' Diploma (PTD) and Secondary Teachers' Diploma (STD) (DET 1990: 15/29/21/3).

Ciskei Colleges of Education were found to be no exception to other African Colleges in greater South Africa. Apart from Giyani, which was affiliated to the University of Witwatersrand, and the Colleges in Bophutatswana and the Transkei, which were also affiliated to their own Universities, all Colleges in homeland and TBVC states followed DET syllabus structures. Given that Act 110 of 1983 and Act 76 of 1984 stipulated that teacher education was an

"own affair", the continued use of DET syllabus structures by TBVC states which had their own Education Acts was curious.

Equally curious was the similarity of homeland Education Acts to the Department of Education and Training Act, despite rejection of the latter Department by Africans due to its policies of segregated education.

Non-involvement of lecturers

The study found that College of Education lecturers did not participate in curriculum design and syllabus construction activities. They simply implemented policy as they found it written in the syllabus documents. The attitudes of the lecturers interviewed on approaches in the preparation of pre-service teachers in the use of technology in education ranged from acceptance of the situation, indifference, and complete rejection of the *status quo*.

Acceptance

A lady in her thirties, who taught a section of the Teaching Practice curriculum accepted the prescription of the syllabus by the Department of Education and Training as the natural order of things:

I have worked here for the past ten years and we have never taken part in any syllabus decisions. In fact, even when I was still working in high school, we received syllabuses from the Department of Education and we simply adopted them. So this is how things are.

From this lecturer's utterances, it may be suggested that the prescription of the syllabus by "experts" from above is unproblematic. It seems to be accepted as a fact of life

that is natural, accepted and cannot be changed. The majority of lecturers in the Colleges in Ciskei seemed to have accepted unquestioningly the current system of receiving syllabus structures from the Department of Education and Training, despite the "own affair" philosophy of teacher education. The apparent acceptance of such a situation by teacher educators entrusted with the task of educating teachers for a non-racial democratic South Africa, especially at a time when the country was clamouring for transformation of education, raised a number of issues.

Could it be that the debilitating effects of Fundamental Pedagogics which dominated teacher education in South Africa constrained the critical powers of teacher educators such that they fail to be critical of their situation? Teacher educators seemed to lack the concepts essential for critically assessing the control and provision of teacher education. It is suggested that it might be that Fundamental Pedagogics socialized teacher educators during their student days to accept syllabus issues as neutral and apolitical. The isolation of Ciskei Colleges from Colleges in greater South Africa and universities may be another contributory factor. In most cases, as a result of their isolation and insulation, they become oblivious of current debates on national, academic, and professional matters. Working under such intellectually sterile conditions might result in an unquestioning acceptance of policies even if spaces for the challenging of such policies were available. Equally valid is the suggestion that due to their location, Colleges of Education found it difficult to question policies. Colleges were located in the secondary rather than the tertiary sector and were controlled by the Ciskei Education Department that employed them. Due to authoritarian management procedures, questioning "authority" was reported to be taboo in Ciskei

where teachers and teacher educators in the past were dismissed, demoted or transferred to areas remote from their homes as a disciplinary measure for questioning government policies. An African lecturer who had served his College for ten years explained the situation as follows:

It is not that we do not experience problems with these syllabuses that come from DET. We are keeping quiet just to stay out of trouble. When you ask many questions, you are misinterpreted as a trouble maker, and you are punished in a subtle manner. How can you question your transfer to the Bundus for instance?

Turning a blind eye out of fear was reported as a survival technique in all Colleges. It also became evident that, not only the Department of Education officials were feared, but heads of departments as well, as indicated by this explanation:

My head expects us to accept everything as policy. When we start challenging some of the stipulations of the syllabus, he becomes angry and tells us to follow instructions and stop asking questions. Under such circumstances we simply do as we are told. Sihambisa nje itikiti.²

Despite implementing DET syllabus structures without question, lecturers resented the DET's failure to effect changes when lecturers had suggested them. The words of one lecturer captured the sentiments of those who held this view:

² Ukuhambisa itikiti is a phrase originating from labourers in mines and factories. When they start the day, they punch their name cards to register their presence at work. During the day, they may shirk their responsibilities with success, using any delaying tactics, as long as they will get a full wage at the end of the week. Some lecturers have adopted that style.

Only two years ago, the examiners were here and we were asked for our opinions. We told them what we did not like with the Teaching Practice syllabus, and what changes we would like to be made. They promised to make such changes. The next thing, we were given this new structure to implement.

Despite the relative autonomy of Ciskei Colleges of Education, it would appear that DET still exercised control over them, though by less overt means. It was reasonable to expect officials of the Ciskei Education Department to take up such contentious issues with DET. Probably the presence of seconded ideologically "safe" Afrikaner officials in the policy making structures of the Ciskei Education Department exerted influence on the use of DET curricula. By the same token, the increase in the number of seconded Afrikaans-speaking lecturers in Ciskei Colleges in the period 1980-1990 could have influenced the seemingly uncritical acceptance of DET structures. Although no conclusive evidence exists, it seems reasonable to expect seconded officials to be loyal to the department that seconded them to Ciskei, and that paid them foreign allowances.

The education system claimed to be an impartial and neutral transmitter of the benefits of a valued culture. It was the "relative autonomy" of the education system (Bourdieu and Passeron 1979: 178) that enabled it to conceal the intentions of Apartheid education, when in practice such intentions were implemented effectively.

Indifference

Indifference, however, could be detected from a middle-aged male lecturer's response:

Does it matter? The important thing is for us to teach what is prescribed in the syllabus. They know what they are doing (DET), and they have been doing it for years. I have never seen teachers discussing the syllabus ever since I started teaching and I have never heard them complaining. We teach and we get paid.

Indifference kept coming up as evidenced by utterances such as "Sihambisa nje itikiti" and "We teach and we get paid". Lecturers who fell in this category of indifference about who designs the curriculum and syllabi constituted sixty-five percent of the participants who were interviewed. The perceptions of lecturers on the design of their educational media syllabus by DET seemed similar in all three Colleges. When the contributory factors to such indifference were explored further, it transpired that the majority of lecturers lacked practical experience in curriculum issues, and also in the subjects they taught. Officially, as explained in Chapter Six (page 152), before a lecturer may be appointed, the requirements were a Bachelor's degree, a recognised professional diploma, and five years teaching experience. These requirements were revealed by interviewees, and were also corroborated by documents. It would appear as though due to their training in segregated Training Schools which emphasised fundamental pedagogics, the majority of lecturers were not autonomous, and had little concern for independence and responsibility. They had become loyal and obedient servants of the state who followed the instructions of both DET and Ciskei. Adding to their predicament, was the arrogant and authoritarian bureaucracy of the Colleges and the Ciskei Education Department.

Rejection

Contrary to the attitudes displayed by the lecturers cited above, a handful of lecturers with progressive ideas were

opposed to the use of syllabi originating from elsewhere. In all Colleges, such attitudes were displayed by very young lecturers who had been teaching for no more than ten years. A case worth citing was that of a young male lecturer who revealed that he was a member of the South African Democratic Teachers' Union (SADTU), which was illegal in Ciskei, though in operation. He was completely dissatisfied with the manner in which content was selected for the pre-service teacher education curriculum. Having worked for the College for three years, he felt deskilled:

When I was doing B Ed., I was taught how to design curricula and syllabuses. I was introduced to some radical pedagogies as well. When I joined the College I assumed that I would have an input in curriculum decisions. The department does not give us a chance to participate in curriculum decision making. We are expected to follow the syllabus to the letter.

In another College, the blame was put on College authorities, especially heads of departments:

It is those in power here in the College who do not want to listen to lecturers' views. When it suits them, they cannot deviate from the DET stipulations, but when there is a crisis, they use their discretion without consulting DET. It is just that they do not want to involve us in decision making.

From the latter statement, it was obvious that College authorities did not expand or exploit the relative autonomy that existed in the Colleges. It could be that, as explained earlier, the majority of lecturers were not trained for autonomy, hence they failed to exploit the relative autonomy of their Colleges.

The finding that lecturers did not participate in syllabus

design activities was in line with the theories concerned with the lack of professional autonomy among teachers. Carr and Kemmis (1986), for example, describe the professional behavior of teachers working within bureaucracies. They play a negligible part, if at all, in making decisions about such things as overall educational policy, the selection of new teachers, accountability procedures, and the structures of the organizations in which they work. In the case of Ciskei, what aggravated the situation was implementing orders from a bureaucracy that was not the legitimate employer of College lecturers. According to the "own affair" philosophy, the legitimate employer should be the Ciskei Education Department. Lecturers, as people who implemented the curriculum did not have access to Education Department officials, who due to official channels of communication could not be contacted by individuals.

Non-involvement of lecturers in syllabus construction was found to be in keeping with the practices of bureaucratically organised education institutions. Decisions and questions over what counted as knowledge, what was worth teaching, how one judged the purpose and nature of instruction, were removed from the lecturers. The "conception" of what was to be taught, and why, was separated from "execution". College lecturers were disempowered in that their professional autonomy was denied.

The study also found that the Department of Education and Training, in collaboration with the Ciskei Education Department, persuaded Colleges to implement its policy concerning syllabuses. As explained by one media lecturer,

There are even inspectors who come to check if we have done what was in the syllabus. In fact, even before inspectors come, the

College checks. HODs see to it that we follow the syllabus.

DET policy was also enforced by means of circulars that were sent directly from Pretoria to the Colleges for implementation (Appendix J).

Confusion

When the first round of interviews was completed, the impression was created that the Department of Education and Training imposed its syllabus structures on the Colleges of Education in Ciskei. Through the researcher's association with the Faculty of Education of the University of Transkei, the researcher came to discover that Colleges of Education in Transkei did not implement the syllabus structures of DET. Instead, they worked hand in hand with the University of Transkei and designed their own curricula. This new discovery necessitated that the issue of who designed the syllabus for Colleges of Education in Ciskei be revisited.

When the matter was explored further, lecturers were not very sure about what was happening. It transpired that most of them claimed that the syllabi were designed by DET and imposed on them simply because all the syllabus documents had "Department of Education and Training" on their covers. Lecturers blamed the management of the Colleges for not involving them in discussions that involved policy issues. They blamed this ignorance about who designed the syllabus on their exclusion from policy discussions.

After College lecturers had claimed that all Colleges followed the structures of DET, the researcher inquired about the syllabus structures of the Transkeian Colleges that were not designed by DET. The effects of the isolation of Colleges

of Education from each other was evident. Lecturers appeared to be ignorant about practices in their sister colleges. One lecturer involved in the Teaching Science course, however, brought more light on the issue. She recollected that when the examiners had visited the College in 1992, the lecturers had asked them why they were not inviting Ciskei lecturers to attend in-service courses, especially when the syllabi were revised. The response of the DET examiners to that question, according to the lecturer concerned was:

You people do not fall under our control. When you got independence, you were given your own Education Department, with the right to design your own syllabi. We never imposed our syllabi on you. Your government elected to adopt the syllabus structures of DET. It is the responsibility of your Department to organise your in-service courses.

The dangers of the relative autonomy of Ciskei Colleges were evident in the DET examiner's response. As suggested earlier, for cosmetic purposes, the South African government gave relative autonomy to the Ciskei Education Department, yet in practice DET persuaded the Ciskei Education Department to implement DET policies by deploying seconded white officials both in the Ciskei Education Department, as well as in the Colleges themselves. DET prescribed Fundamental Pedagogics to maximise the socialisation of African teachers into accepting syllabus issues as neutral, apolitical, and not to be questioned.

This revelation necessitated the examination of more documents for further evidence. When the prospectuses of the three Colleges of Education in Ciskei were examined, it was found that the Colleges were aware that the syllabus structures they adopted were those of DET and not of the

Ciskei Education Department. However, the reasons for Ciskei Colleges of Education adopting the syllabus structures of DET knowingly, despite their dissatisfaction with them, could not be found from the lecturers. It was suggested that it was for reasons known only to the officials of the Ciskei Education Department.

The finding that lecturers did not participate in syllabus design activities, and that DET syllabus structures they implemented were imposed on them, directly or indirectly, by either DET or Ciskei Education Department, did not change, however.

Effects of non-involvement

Non-involvement of lecturers in decision making was cited as one of the inhibiting factors in the preparation of pre-service teachers in the use of educational media. A media lecturer who felt disillusioned about how the Colleges marginalised lecturers asserted:

There is a lot of confusion. Both DET and HODs are culprits. If only they could consult with the people who actually teach Institute Practicum before allocating teaching responsibilities and time, most of the problems we are experiencing now could be prevented. For example if the 28 periods allocated for chalkboard work could be added to the 28 periods for educational media, then between myself and the chalkboard team, we would decide how to use the 56 periods teaching educational media. After all the chalkboard is a medium so why treat it as a separate subject? If we were involved in decision making at both Departmental and College levels, we would voice these concerns. Since we are ignored, we just do as told.

It would appear that lecturers were aware of the implementation problems resulting from their lack of participation in curricular decision making. They also had

ideas in regard to the prevention and solution of some problems. However, the tradition of education institutions meant for Africans prevented them from exercising their judgement as lecturers. Authoritarian management styles prevented them from voicing their opinions freely, and even when such opinions were voiced, they were seldom taken seriously by those in power. The lack of lecturer participation in decision making impacted badly on the preparation of pre-service teachers as could be inferred from another silenced media lecturer's response:

We have been telling our HOD that educational media and chalkboard work belong together and cannot be taught as separate subjects. I even suggested that they be taught by subject method lecturers, instead of having people with no subject method experience teaching educational media. He listens, but when he has to take that decision he tells us he cannot do things that are not stipulated in the syllabus and that have not been done by other Colleges. We wait in vain and students suffer in the process.

As explained earlier, there was also a lack of independence on the part of the lecturers, especially those in senior positions. The reluctance to be independent and to take the responsibility to initiate changes was not denied by Heads of the Departments of Professional Subjects. However, the resistance to initiate changes was attributed to excessive control from DET:

Much as I share the lecturers' frustrations, I also need to consider DET stipulations. After all said and done, our Colleges are still controlled by DET, otherwise why are we instructed to send Annual Returns and examination marks to Pretoria for moderation? I do not know how to explain this, but, despite the existence of the Ciskei Education Department, the most important decisions affecting us are taken in Pretoria. Even CED officials refer matters to Pretoria and then report back to us on Pretoria's decisions. So I prefer not to deviate from DET stipulations, just in case our

students are penalised by DET in the end (HOD, College three).

Similar views were expressed in another College where the HOD felt inhibited from implementing changes by DET control:

My experience is that you dare not change anything stipulated in the DET syllabus if you do not want confrontation. As soon as you deviate from the syllabus, you have to account to inspectors and rectors who also account to Bisho. Bisho does not tolerate any changes that were not approved by Pretoria through Bisho. So there is a lot of bureaucracy, red tape and control. What do you do under such circumstances? We do as we are told. It is only during times of crisis such as strikes that DET and CED officials give us the go ahead to do as we see fit. Other than that, we follow rules (Lecturer, College two).

The separation of "conception" of what was to be taught in the educational media course from "execution" influenced the preparation of pre-service teachers in the use of technology of education. The lecturers' judgement was completely ignored, and as a result, Colleges experienced serious implementation problems.

In view of the many idiosyncrasies in the various Colleges, the lack of lecturer involvement in curricular decision making was regrettable. A similar concern was raised in an investigation of the pre-service education of post graduate student teachers in audio-visual technology in the University of Natal, Pietermaritzburg. Peel (1977) asserted:

Although it may be easier to design the learning for the more limited objectives identifiable in A-V education, there are many variables peculiar to a particular teaching/learning environment in a given institution which the approach adopted cannot ignore if it is to thrive (p.vii).

As could be seen in the lecturers' explanations, in Colleges of Education in Ciskei, the "conception" of the educational media course, by excluding lecturers, ignored the many variables peculiar to these Colleges. For example, one College did not have an educational media lecturer for a number of years. Practically, for all those years pre-service teachers received no tuition in educational media. On paper, however, it appeared as though pre-service teachers in the College concerned had received educational media tuition because the required marks for the four sets of media were made available to DET. The HOD explained:

Since we have no educational media lecturer, nobody is in a position to co-ordinate and supervise the production of these media sets, but for exam purposes DET requires marks for these sets. We give them marks from teaching practice media. Those marks are never a true reflection of students' work because they borrow media from each other. To be frank, there is a lot of cheating both at lecturer and student levels. We have requested the creation of a media lecturer's post but the department has not granted it as yet.

In another College, as explained in an earlier chapter, it was impossible for pre-service teachers to meet the DET requirement of four media sets. Lecturers, by their own admission, cheated in order to satisfy DET and gave the impression that pre-service teachers indeed had the required four sets of media, when in reality they had submitted fewer. It was argued that, had lecturers been involved in curricular decision making, both at system and college levels, such conditions could have been discussed and prevented. By denying lecturers independent responsibility and full participation in curriculum issues, lecturers were probably treated as "potential shirkers and embezzlers" (Hawes 1979: 9), and the data suggested that more often

than not, circumstances forced lecturers to become "shirkers and embezzlers".

THE GOALS OF THE SYLLABUS

The aims of the Teaching Practice Syllabus were stated as follows:

(a) To give the prospective teacher the opportunity to practise effective teaching in practical teaching-learning situations by combining knowledge, theory, skills and attitudes through logical, strategic institutional activities;

(b) To guide the student in teaching skills, in a simulated environment, in such a way that sound didactic principles are practised (microteaching);

(c) To provide the student with the necessary skills in the making and use of educational media that will assist in creating a better learning environment for pupils (DET, 1990: 1).

Lecturers' perceptions

When asked to comment on the aims of the syllabus, lecturers were not forthcoming with ideas. On several occasions, the impression the researcher gained was that lecturers had hardly read the syllabus document, and as such, were unfamiliar with the section on aims. Responses such as "I am unable to comment because I am not familiar with the aims of this syllabus", or "I never use the syllabus document because the topics are in the textbook", were evidence that lecturers

taught to complete the prescribed syllabus, and not to attain goals.

In two colleges, the syllabus document could not be retrieved immediately when the researcher needed to refer to it. Lecturers searched for it without success. It was sent to the researcher three weeks after it had been requested. This failure to retrieve a syllabus by participants in a teacher education programme strengthened the researcher's suspicion that lecturers did not use the syllabus document to familiarize themselves with the goals to be attained, and the content. Instead, lecturers relied on the contents lists of the textbooks. Teaching without having seen the syllabus was commonplace, as could be inferred from one microteaching lecturer's words:

I have never seen a microteaching syllabus. When I asked for one from the Head, he told me to ask previous years' lecturers which skills they were teaching. When I asked them about the syllabus, they told me to use the contents list of the microteaching textbook. That's what I did.

I teach without the syllabus.

It seemed reasonable to suggest that had lecturers been involved in syllabus construction activities, they would have been familiar with the goals of the Teaching Practice syllabus and consequently would have designed teaching and learning activities geared at attaining those goals. Due to their lack of participation in "conception" activities, however, lecturers lacked the motivation, interest and in most cases , the ability to plan lectures having a clear intent to attain agreed upon goals.

The goal that focussed on preparation for the applications of technology appeared to be narrowly focussed. Current research in teacher education indicates that because of the complexity of the teaching and learning process, the simple presentation of techniques and methods is not sufficient to prepare prospective teachers for the real world of schools. "Simply teaching students how to use technology does not automatically prepare them to be better teachers" (Harrington 1991: 51).

The goal, as stated, is unlikely to lead to the preparation of pre-service teachers as "intelligent users of technology". The goal, as stated in the syllabus is likely to promote an approach of teaching technology as a technique to be mastered. An alternative to this approach would be cognitively-oriented.

The cognitive approach to the teaching of technology in education advocates the incorporation of technology programmes for pre-service teachers for the attainment of goals such as the following:

- * To prepare pre-service teachers to use technology
- * To provide them with experiences that incorporate technology in such a way that the substantive goals of the teacher education programme are supported, and
- * To develop a critical perspective on the use of technology (Harrington 1991; Bitter & Yohe 1989).

The advantage of focussing on all three objectives is that pre-service teachers are prepared to actively draw

connections between theory and practice "and to sense ways in which they can effectively transform the schooling process" (Harrington 1991: 52).

TEACHING PRACTICE CONTENT

The compulsory Teaching Practice Syllabus is divided into two main categories: (a) Institute Practicum, and (b) School Practicum. The Institute Practicum component includes the making of educational media, chalkboard work, skills practice sessions (microteaching), demonstration lessons. The School Practicum consists of observation assignments, presentation of practice lessons and lessons to be assessed by College lecturers in an approved school environment. Table 20 summarizes the constituents of the Teaching Practice syllabus.

TABLE 20

CONSTITUENTS OF THE TEACHING PRACTICE SYLLABUS

<u>Institute Practicum</u>	<u>School Practicum</u>
The making of educational media	Observation assignments
The use of educational media	Practice lesson presentation
Skills practice	Assessed lessons
Chalkboard work	
Demonstration lessons	

(DET 1990: 2)

The syllabus for Teaching Practice emphasised clear

distinctions that separated educational media, chalkboard work, microteaching, didactics, and subject methods. The rigid separation of related knowledge encouraged isolation and the lack of co-operation characteristic of Colleges of Education in Ciskei. The separation of related knowledge was criticised by many lecturers as explained in chapter eight. Although the use of educational media was a stipulated microteaching skill, students received no guidance due to the separation of related knowledge:

If educational media lecturers took part in microteaching, they would be able to demonstrate the use of media and to encourage students to use media. They would also evaluate the students' competence (Lecturer, College three).

The compartmentalised syllabus also excluded subject method lecturers from both microteaching and educational media, against the better judgement of lecturers:

As microteaching lecturers we believe that for microteaching and educational media to be effective, they need to be the responsibility of subject method lecturers. Unfortunately, because the syllabus separates these subjects, the College is forced to do so. As the present structure stands, we cannot even do it on our own without killing subject method lecturers. They would have a terrible work load (Lecturer, College two).

Microteaching and teaching practice were identified as potential opportunities for the application of educational media. The realisation of that goal seemed to be inhibited by the subject boundaries erected by the designers of the Teaching Practice syllabus. It was unlikely that the preparation of pre-service teachers in the use of educational media could be successful when educational media, chalkboard

work, microteaching, and subject methods were treated as distinct, separate subjects.

The content of the educational media component of the syllabus was found to include a wide range of media. Educational media included the following aspects:

Theoretical aspects of the following educational media, how they function and practical demonstrations.

(a) Visual media

Non-projecting e.g.: chalkboard, bulletin board, flannel board, books, pictures, flash cards, maps, wall charts, models.

Projecting e.g.: slide projector, episcopes or opaque projector, and overhead projector.

(b) Audio media e.g.: record player, tape recorder, language laboratory.

(c) Audio-visual media

e.g.: 16mm sound projector, video and television, card readers.

(d) Other educational media e.g.: computers, experiments, excursions, real objects, educational games and toys, resource persons, duplicating processes and media centres.

Pre-service teachers were also introduced to materials and equipment which could be used in the making of educational

media such as paper, wood, clay, and wire. Basic general skills and techniques for making media were introduced e.g. labelling, tracing, enlarging, colouring, cutting, pasting, and transparency making.

Chalkboard work includes care, maintenance and repair of the chalkboard and accessories; the effect of different colours of chalk and the comparison as to its visual impact; how to hold the chalk; neat and legible handwriting; spacing of words, size of letters and numerals; writing horizontally on the chalkboard; effective arrangement of work on the board to prevent cramming; economical use of chalk and dusters; the use of faint lines in making illustrations of objects such as plants, shapes, people and animals; chalkboard summaries and diagrams; the position of the chalkboard in the classroom and the position of the teacher in relation to the class and the chalkboard; and, use of the chalkboard by pupils.

The teaching skills that are given consideration, according to the syllabus, are the following: recognising and getting attentive behaviour from pupils; establishing frames of reference; control of pupil participation; illustrating with mental images and examples; incorporating educational media; obtaining feedback; questioning and heuristic teaching; giving non-verbal cues; achieving closure; re-inforcement; repetition; variation of movement, voice, emphasis; clear communication, lecturing, eye contact; giving instructions and teaching pupils to observe. During the second and third years of study, the work done in the first year is continued. Each student is expected to make at least four sets of educational media per year. The media should be applicable to a specific lesson or series of lessons in a syllabus of a school subject studied by the student. An indication of the standard, subject and topic for which the medium is intended

should be made (1990: 3-5).

Teachers need to gain competence in the use of technology in education. They also need to be competent designers of educational media. The content of the educational media syllabus was found to be wide, including a variety of media likely to be available in South African classrooms of the future. The questions generated in the process of analysis, however, were the following: Is it technology as products or technology as content that was implied by the syllabus? From which technology base were pre-service teachers taught? Will the content stand teachers in good stead for the classrooms of a non-racial South Africa?

The content suggested a bias toward technology as instructional tools or products of technology. The products of technology refer to "the teacher's ability to apply technical skills to produce a desired result" (Bitter and Yohe 1989: 22). Emphasis was on the "general skills and techniques for making media". The textbook Colleges were encouraged to prescribe since 1990, when the present syllabus was first implemented states its author's intent explicitly:

This book is concerned, above all, with the most basic skills and techniques needed for working with paper (including card and cardboard) and with acquainting the student teacher with the overhead projector (Maasdorp 1990: foreword).

Teaching about the products of technology provides practical experiences for the prospective teacher to feel comfortable with using new methods. Once the initial "comfort level" is attained, it is highly likely that teachers will cope with the future technological developments: "Once confidence has been gained by applying and implementing elementary knowledge, exploration using your own initiative will follow

spontaneously" (Maasdorp 1990: foreword). One essential ingredient for the attainment of this ideal, however, is the provision of opportunities for hands-on experiences with equipment and materials. The syllabus was silent on this aspect. No teaching periods were allocated for educational media practicals. Given the already full timetable, it is unlikely that, out of their own initiative, educational media lecturers will schedule practicals for pre-service teachers. As indicated by pre-service teachers in the questionnaires, and media lecturers during interviews, Colleges made no provision for hands-on experiences that would increase competence and confidence. Further the syllabus was not explicit on "theoretical aspects". In the absence of clear details, lecturers ignored that part, and explained how equipment functioned. The following extracts illustrate lecturers' survival strategies:

I teach the topics listed by Maasdorp because that is the prescribed book.

I do not know what theoretical aspects are. So I teach them how to make materials, and how the projectors function.

Assuming that by "theoretical aspects", the syllabus designers meant understanding of the processes of technology, including recognition of their limitations and future possibilities, when such aspects are ignored, it is unlikely that teachers can become critical users of technology in education. A conceptual understanding of the processes of technology is likely to empower teachers to cope with the many changes and innovations in technology they are likely to encounter.

In advanced societies, computer technology is the dominant base. As stated in Chapter Two (page 36-40), information

technology systems, with computers, video, telecommunications and other technology components are integrated as vital aspects of these systems. The technology base from which pre-service teachers were taught was found to be realistic, given the unequal provision of resources for education institutions in South Africa. Audiovisual equipment such as video, television, and the 16mm sound projector were included in the syllabus and were likely to be available in Colleges and urban schools. Changes in technology are inevitable. That makes the inclusion of theory in a media syllabus valuable because theory empowers teachers to cope with changes and innovations.

TIME ALLOCATION

The syllabus allocates the number of periods to be used for teaching each aspect of the Institute Practicum component of the pre-service teacher education curriculum. The allocation of periods is summarised in Table 21.

TABLE 21

TEACHING PERIODS ALLOCATED FOR INSTITUTE PRACTICUM			
<u>Summary</u>	<u>1st year</u>	<u>2nd year</u>	<u>3rd year</u>
<u>Institute Practicum</u>	<u>84 periods</u>	<u>84 periods</u>	<u>84 periods</u>
Educational media (chalkboard excluded)	28 periods	28 periods	28 periods
Chalkboard work	28 periods	-	-
Skills practice (microteaching)	28 periods	28 periods	28 periods

(DET, 1990, P.2)

Institute Practicum is allocated three periods per week for

each discrete component. This is a source of confusion for those responsible for drawing up the College timetable. Heads of Departments are not sure whether to allocate one period per week to educational media, chalkboard work and microteaching respectively. Allocating one period to educational media, (chalkboard work included), microteaching and demonstration lessons respectively is another option. Under these circumstances, Colleges used their discretion, depending on who was teaching the various components during any given time. There was no consistency in the allocation of weekly periods, as a result.

The duration of each period was thirty-five minutes. There was one educational media period every week. For the first year students, on their own, Colleges opted to teach theoretical aspects of educational media during the first semester, whilst the second semester is reserved for the production of teaching kits (media) by pre-service teachers. For second and third year students, there is no teaching of educational media whatsoever, instead, pre-service teachers use the single period allocated each week for the preparation of teaching kits. The syllabus requirement is that each student should submit four sets of media per subject. In practice that means, if a student is enrolled for two school subjects, then eight sets of media are requested.

Interviewees complained about the constraint of time. Given the overcrowded syllabus they have to teach and complete during the first semester, and the single thirty-five minute period allocated per week, they cannot cope. They reported to have survival techniques:

I do not teach all the topics listed in the syllabus. I teach only the media they are likely to use during teaching practice (Lecturer, College two).

I tell them what to read for homework and then ask them to answer the revision questions at the end of each chapter (Lecturer, College two).

For the test I give them the scope and they read all those chapters on their own (Lecturer, College three).

The lack of time gives me an excuse to teach only the topics I am comfortable with (Lecturer, College one).

Breaking up time into small segments in situations where lack of time is usually cited as a contributory factor to the unattainment of goals is usual. However, the manner in which time is allocated in education institutions can contribute some insights into what goes on there and the hidden assumptions involved. For example, the issue of who designs timetables raises interesting issues. As in the case of Ciskei Colleges, a hierarchy emerges in that pre-service teachers were not consulted, only some lecturers were involved, especially those holding management positions such as Heads of Departments and Rectors. Of interest in this hierarchy is that even before participants finalised timetabling, "experts" from DET had allocated numbers of periods as well as the duration of such periods. Timetabling therefore, was a top-down arrangement. The emerging assumption in such a situation is that the needs and wishes of pre-service teachers and lecturers can be predicted.

Imposing timetables may result in conflicts as was the case in Ciskei Colleges. Initially, Colleges had a longer teaching day, starting at 8h 00 and ending at 17h 00. Failure to involve pre-service teachers in timetabling resulted in the

contestation of the timetable. Pre-service teachers rejected a longer day in preference for one starting at 8h 00 and ending at 14h 00. African lecturers themselves challenged teaching in the afternoon on the grounds that whites left College campuses by 13h 00. Those involved with timetabling collaborated with the white staff by scheduling all teaching responsibilities for whites for the morning periods, leaving afternoons for Blacks.

The most popular topics in all colleges were reported as the non-projecting visual media: chalkboard, bulletin board, flannel board, books, pictures, flashcards, maps, wall charts, and models. The overhead projector emerged as the most taught projecting medium in all colleges. Availability of media was reported as influencing which media to teach.

The knowledge to be transmitted is allocated to periods of time by being divided into subjects or courses. Some subjects are allocated more time than others. The assumption emerging is that some knowledge deserves more timetable space than other knowledge. It was interesting to observe that chalkboard work was allocated twenty-eight periods for the first year, and again, was included under non-projecting media. This over-emphasis of one medium over and above others appeared peculiar and was discussed with lecturers. The respondents' views on this issue were found to be different. To some, the chalkboard seemed to bring no anxiety, and seemed not to pose any threats. This lecturer's remark was significant:

The chalkboard is very important and is very good. All teachers need to know how to use it. I prefer it to the other devices I cannot handle.

Another justification for the acceptance of the stress put on the chalkboard by the syllabus was the pervasiveness of the chalkboard, as this lecturer explained:

...even when they go to schools for teaching practice, they (pre-service teachers) are sure to find it, so it is a good thing that they have to learn it this much.

On the contrary, other lecturers had a negative reaction toward over-emphasis of the chalkboard. They suspected that in keeping with the policy of "Apartheid," as applied in education, unequal allocation of resources by the South African government was the reason for the over-emphasis of the chalkboard. A progressive lecturer asserted: "the Department knows that it is not going to provide technological devices for our schools".

It was alleged that for cosmetic purposes and propaganda, the Department circulated relatively balanced syllabuses, in terms of content coverage. However, the successful teaching of the educational media course was alleged to be undermined by the provision of inferior resources for African colleges and schools.

Overemphasis of the chalkboard when less time was allocated for other media, even when available, suggested the implementation of the "hegemonic curriculum". The "hegemonic curriculum" functions to exclude large numbers of students who are from subordinate classes (Connel 1982). Without claiming that the official curriculum was the actual curriculum, it seems reasonable to suggest that, if the chalkboard indeed was taught as the syllabus stipulated, then African teachers emerging from these colleges may be excluded from high-technologies such as computers.

The study observed that some lecturers, however, defied syllabus specifications and used their discretion, especially when the Department was suspected of having ulterior motives. In the words of one such lecturer:

I teach them all media and I allocate proportional time. What will happen when the educational system is transformed? Will I have to recall these teachers and teach them about computers and interactive video? Impossible. So I teach them everything I believe they ought to learn because I know the Department wants to keep them ignorant as usual.

The division of time into periods also has consequences for the type of learning that might take place. It has implications for teaching methods as well. It seems reasonable to suggest that the dominance of teacher talk characteristic of Ciskei Colleges of Education was encouraged by the amount of time allocated for teaching. Educational media lecturers, for example, cited lack of time as a factor militating against giving demonstrations on how media were used, as well as against providing pre-service teachers with opportunities for handling equipment. Meighan's insights are worthy of attention in this regard:

a timetable is not an arbitrary arrangement of time: it represents in outline form the the timetable designers' beliefs and assumptions about knowledge, about learning, about teaching and about the outcomes of schooling (1986: 98).

ASSESSMENT

Paragraphs D1 and 2 of the syllabus document for the first year, stipulated that pre-service teachers write a test of

one hour on educational media. The test is out of one hundred marks and is written internally. For chalkboard work, a practical test which requires pre-service teachers to demonstrate competence is given. It also counted one hundred marks and is written internally. The minimum requirement to pass chalkboard work was sixty-five per cent. There was no written test for microteaching.

For the second and third years of study, an average of the mark for the required number of educational media made is the final mark. The colleges may not deviate from evaluation stipulations. Should they choose to do so, they may prejudice pre-service teachers' examination marks. As stated in the syllabus document,

Each student must comply with all the minimum requirements of this syllabus before the final mark will be considered for certification (DET 1990: 11).

Question papers used by the various colleges and assessment schedules for the four media sets stipulated by the syllabus were examined (Appendices 19 and 20 refer).

Contrary to the stipulations of the syllabus, the content of the educational media course was taught to first year pre-service teachers only. As a result, they were the only group that wrote examinations in educational media. Second and third year pre-service teachers are assessed on the basis of the media sets they make. The justification for that arrangement was lack of time for the production of four media sets per school subject.

TEXTBOOKS

Apart from the teacher, textbooks are the student's major source of knowledge and information. It is estimated that 75 per cent of the time that elementary and secondary students are in classrooms and 90 per cent of the time that they are doing homework is spent with text materials (Goldstein 1978). The impact of the textbook on classroom social relations is immense. It dominates the curriculum and teaching practice in many classrooms.

Lecturers were asked about the textbook they used, how they began to use them and how they felt about them. The ignorance of lecturers about how things are done in their colleges resurfaced when the textbook issue was discussed. A large proportion of lecturers talked about the "prescribed textbook". When asked about their participation in the selection of textbooks, it was found that lecturers were not involved. When a lecturer was told at the beginning of the year that he/she would teach educational media, the question they asked was reported as: "Which textbook is prescribed?" The Head of the Department of Professional Subjects, who happened to be the one informing educational media lecturers about their allocations, usually gave lecturers an official copy of the textbook to be used. Lecturers reported that they never asked about the origin of the textbook, instead they scanned it for topics and coverage.

Amongst themselves, educational media lecturers assumed that since the syllabus originated from DET, then the textbooks also originated from DET. It transpired from the heads of departments that the textbooks used, were those prescribed for Colleges under the control of DET.

For many years, up to the commencement of the present study, the textbooks used were:

Duminy, P.A and Thembela,A.J. Teaching Science 1

Duminy, P.A, MacLarty, A.H.,Thembela,A.J and Walters, R.A
Teaching Science 2

Walters, R.A. and Thembela ,A.J. Teaching Science 3

The textbooks were part of the Maskew Millar Longman Teacher Training Series. The majority of lecturers accepted the textbook as adequate. Acceptance of, and dependence on the textbooks were clear in one lecturer's response:

The content covered by the syllabus is also covered by these textbooks. You do not even need to look in your syllabus. I use the textbook as my daily guide.

At the same time there were the lone voices that were suspicious of the textbooks:

At least they could have asked us to suggest textbooks... They never do that. Maybe they fear that we will select good books that will give our teachers skills they do not wish them to have (Lecturer, College three).

In the same spirit reflected above, the department was criticized for using a team of black and Afrikaaner authors, while English speaking academics from liberal universities were excluded. For example, the authors of Teaching Science 1,2 and 3 were academics at the racially segregated University of Zululand at the time the books were published. Lecturers, however, were silent on any other issues concerning textbook prescription and its implications on the

work of teachers. In 1990, Colleges introduced a new acquisition in their prescribed textbook list. The textbook, which is part of the Maskew Miller Longman Classroom Series is Naomi Maasdorp 1990 *Basic Media Skills: A Guide For Teachers*. The contents lists of all the textbooks used by the colleges for the educational media course appear in Appendix O.

The over dependence of lecturers on the textbook confirms the claim that the content and methods of presentation used by many teachers are shaped and directed by the textbook. It structures what goes on in the classroom. It is reasonable to suggest that, under such circumstances, lecturers lose their own creativity and expertise. The possibility of their becoming reflective thinkers appears remote. They proved to be uncritical of their situation, probably as a result of the lack of suitable encouragement to become reflective.

SUMMARY

The definition of curriculum used for purposes of the present investigation was comprehensive in that it included the following aspects: teaching methods, curriculum materials, type of schools, organisation, timetable, content and examinations.

The DET syllabus document for PTD and STD was analysed. It was found that College lecturers had no voice in syllabus and curriculum materials issues. Reactions to that state of affairs included acceptance, indifference and rejection.

Requirements for the appointment of College lecturers were found to be a Bachelor's degree, a recognised professional diploma and five years' teaching experience. However, due to practical problems such as shortage of lecturing staff, such criteria were not always applied when appointments are made. That was reported to affect the quality of teaching.

Lecturers were found to be ignorant about administrative issues affecting their work. They blamed Rectors for not involving them in decision making. The involvement of DET and the Ciskei Education Department confused lecturers further, according to respondents.

The content to be taught, the number of periods to be used, and the way in which examinations were to be conducted, were all outlined in the syllabus document from DET. Lecturers reported that due to situational factors, it was usually impossible to accomplish the syllabus stipulations, and when that happens, some of them cheated. For example, even though students did not submit all the required four media sets, some lecturers worked out marks to give the impression to DET that students had indeed completed four sets of educational media.

Short questions that encouraged memorisation were the most practicable to include in question papers, according to respondents. Long questions that could nurture critical thinking required a lot of time which lecturers did not have, due to the large numbers of pre-service teachers. It was also believed that if thought provoking questions could be asked, first year students would fail exams and that had to be prevented.

Opportunities for the application of educational media are discussed in the next chapter.

CHAPTER 8

OPPORTUNITIES FOR TECHNOLOGY WITHIN THE COLLEGE CURRICULUM

Activities need to be provided in which teacher candidates have an opportunity to explore the technology of the future...Teachers must be given the training needed to empower not only themselves but also their students through technology.
Robert Munday, Robert Windham and Jennifer Stamper 1991.

The aims of the educational media syllabus, as explained in the seventh chapter (page 199), were "To provide the student with the necessary skills in the making and use of educational media that will assist in creating a better learning environment for pupils" (DET 1990: 1). Whilst the acquisition of manipulative skills is important, that approach does not automatically prepare pre-service teachers to be intelligent users of technology. The "technology as tools" approach promotes technology as a "technique" to be mastered. On the contrary, as explained in chapter seven (page 201), the cognitive approach to the teaching of technology in education includes the use of technology, the development of a critical perspective on the use of technology, as well as the provision of experiences that incorporate technology in such a way that the substantive goals of the teacher education programme are supported (Harrington 1991; Bitter and Yohe 1989).

It is argued that omission of opportunities for pre-service teachers to apply manipulative skills and principles of technology in real teaching and learning situations may

therefore render the course a futile exercise.

It is characteristic of pre-service teacher education institutions to provide intending teachers with opportunities for "clinical experiences" which are viewed as processes for inducting them into the classroom environment. Clinical experiences include all the opportunities given to pre-service teachers "to learn the many skills, processes and attitudes necessary to successful teaching within a setting which provides direct client contact" (Copeland 1981: 4). The central characteristic of clinical experiences is practice with real students, either in real (Bennie 1972; Broudy 1972) or contrived settings (Andrews 1964).

The rationale for providing clinical experiences focusses on the importance of the classroom environment on learning to teach. As Doyle (1977: 2-3) suggested, "Learning to teach involves learning the texture of the classroom and a set of behaviours congruent with the environmental demands of that setting". Central to the successful education of pre-service teachers must be experiences that introduce them to the workings of classroom environments. Without such experiences, teacher educators believe that "student teachers cannot be expected to succeed in the profession for which they are being prepared" (Copeland 1981: 7).

It is essential for teachers to gain competence in how to apply technology in education to the teaching and learning activities taking place in classrooms. It was found that Colleges of Education in Ciskei teach educational media as the "products of technology". The latter perspective focusses

on the teacher's ability to apply technological skills to produce desired results. The importance of providing opportunities for technology applications was stressed by Peel: "For the student an efficacious use of A-V media can only be achieved if they actually utilize the various hardware and software in teaching/learning situations" (1977: 83). Teacher educators who emphasize the acquisition of technological skills outside the context of the classroom environment are depriving pre-service teachers of technology preparation which can influence them to implement technology in their future classrooms.

The present chapter focusses on the opportunities provided for Ciskei pre-service teachers to apply technology in education. Questionnaires for lecturers as well as pre-service teachers, as may be seen in Appendices E and F, included questions that elicited information about teaching practice, the educational media course in general, and the use of media. Triangulation was achieved by means of interviews and observation. Further, the teaching practice syllabus for PTDs and STDs was analysed.

MICROTEACHING

Microteaching is accepted by many as an effective clinical experience (Cooper 1980). Following that perspective, the Department of Education and Training made microteaching compulsory for Colleges of Education. As explained in the second chapter (page 37), this teacher education tool proposes to train teachers to master the use of specific teaching skills. The teaching encounter is scaled down in terms of the following: duration of the lesson, and number of learners. The duration of the mini lesson is 8-10 minutes and

the class is usually constituted by 5-10 learners. Rather than concentrating on teaching a complete topic, the microteaching episodes make it possible for pre-service teachers to focus on specific teaching behaviours/skills under controlled conditions. The number of periods allocated to microteaching for the duration of the three teacher education years, in relation to educational media and chalkboard work was reflected in Table 21 (page 209). All three components of the Institute Practicum were allocated twenty-eight periods each per year.

Institute Practicum was allocated three periods per week for each discrete component. Those entrusted with timetable drawing duties were not sure whether their interpretation of the syllabus stipulations was right. They were not sure whether to allocate one period per week to educational media, chalkboard work and microteaching respectively. Allocating one period to educational media, (chalkboard work included), microteaching and demonstration lessons respectively was another option. Under these circumstances, Colleges used their discretion, depending on who was teaching the various components during any given time. There was no consistency in the allocation of weekly periods, as a result. The norm across all Colleges, however, was one thirty-five minute period per week.

Teaching skills

As stated in the syllabus document, the aim of microteaching was "To guide the student in teaching skills, in a simulated environment, in such a way that sound didactic principles are practised" (DET 1990: 1). The incorporation of educational media, as well as clear communication were some of the

teaching skills included in the microteaching syllabus, as explained in chapter seven (page 205).

Microteaching was taught from course one through to three. There was no consistency in regard to which teaching skills were taught to the various groups:

We divided the skills according to year levels and we teach according to that grouping (Lecturer, College three).

I teach any skill I consider important because my Head said I should ask from other microteaching lecturers. I never know what was done in the previous year, so I might be repeating skills that have already been done (Lecturer, College one).

It appeared that there was a lack of planning and co-operation on the part of lecturers in the Colleges. In terms of the syllabus, "use of educational media" was one of the skills to be taught. It was found that nothing was done by microteaching lecturers to develop pre-service teachers' skills in the use of media. Use of educational media was perceived as the educational media lecturer's domain. The view held by this microteaching lecturer was shared in all three Colleges:

By the time they come to microteaching sessions, they must have done some work in the educational media class. I skip the use of media because I assume the educational media lecturers deal with them, and the chalkboard lecturers also cover use of the chalkboard (Lecturer, College two).

There was consensus on the logical curricular home for microteaching:

Microteaching and educational media should be handled by subject method lecturers to be meaningful. A method lecturer would know how

to demonstrate the skill of using educational media in his own subject. I cannot because I am neither a method lecturer, nor an educational media lecturer (Lecturer, College one).

There was no integration between educational media, microteaching, and subject methods. These were treated as separate subjects which were taught by separate lecturers who in most cases had no expertise.

From the views expressed and shared by the majority of lecturers "disciplinary turf questions" were implied. Structural questions such as: "Who will do the teaching about educational media? Should educational media content be infused in existing methods courses or a separate course focussing on technology applications is essential?" represented potential barriers to effective teaching about educational media. It was clear that technology was confined to the educational media class, instead of pre-service teachers experiencing technology in all subjects. That was likely to be a serious impediment to the use of technology in education when pre-service teachers finally took their appointments in the schools.

Microteaching facilities

Microteaching facilities were extremely limited in two Colleges. Unequipped classrooms were used as microteaching rooms. Each of the two Colleges had one television set and one recorder which were used for recording the lessons of the entire student body (approximately eight hundred students per College). The third College, however, had far better facilities. The Development Bank of Southern Africa (DBSA) supplied and fitted all the necessary equipment. There was a theatre type microteaching studio with a seating capacity for seventy pre-service teachers. Video cameras were mounted on

the walls and on the ceiling. The studio was separated from the adjoining presentation rooms by means of a one-way mirror. A well equipped recording room from which all cameras and recorders were controlled was also separated from the adjoining presentation room by means of one-way mirrors. In the same block, there were four additional presentation rooms which were connected to the main studio. The major constraint in that College was the microteaching lecturers' lack of the manipulative skills the use of the studio called for. As explained in Chapter Six (page 168), the company that installed the equipment trained only one white lady, who was not a member of the microteaching team. Even the Head of Department for Professional Subjects, who supervised microteaching, could not operate the equipment. As a result of these factors the sophisticated microteaching studio was underutilised.

Use of media during microteaching sessions: lecturers

The manner in which microteaching was handled in all three Colleges followed the stages described below:

We present the theory of the skill first. Then we give application tasks. For example, for the skill of questioning, we give them a paragraph and ask them to classify the questions included or ask them to ask their own questions. Then they present their own lessons demonstrating proficiency, whilst their peers fill in the coding forms. Then we give feedback to the presenter.

Microteaching lecturers did not demonstrate the use of teaching skills for their students because they believed that only subject method lecturers could demonstrate effectively. They did not demonstrate the skill of using educational media either, for the same reason. Because educational media lecturers and subject method lecturers were not members of

the microteaching team, no demonstrations were given on the use of educational media whatsoever. Failure of microteaching, media, and subject methods lecturers to demonstrate the use of skills in teaching and learning situations deprived pre-service teachers of rich learning experiences. It was likely that the hidden message heard by pre-service teachers was that these skills were not very important, especially that teaching skills were not examination content.

Microteaching lecturers viewed the non-participation of educational media lecturers, and subject methods lecturers in microteaching as a contributory factor to the underutilization of media by pre-service teachers:

If educational media lecturers took part in microteaching, they would be able to encourage students to use media. They would also evaluate the students' competence. I can credit a student for a chart which to me seems ok, and yet to a media lecturer, that same chart may be inappropriate (Lecturer, College three).

Students take advantage because we do not always know the content of their subjects well. For instance, language and maths students like to claim that there is no need for media in their subjects. Maths and English method lecturers would demonstrate the use of media in their subjects if they participated in microteaching. Now students get away with anything (Lecturer, College two).

The lecturers' views on the separation of educational media from school subjects were shared by teacher educators in the United States of America, as well as in Britain. For example, the AECT study (1992) reported consensus of American teacher educators on the vital role of subject methods lecturers in

technology training: "Teachers in training should be trained by subject speciality areas, that is, use technology as it is being used in the discipline" (p.129). In similar vein, British teacher educators agreed that teaching strategies using educational media, as well as traditional methods needed to be presented within the same subject area (Bitter and Yohe 1989: 24).

The lecturers' practices seemed to be re-inforced by the authors of the Longmans Teacher Training Series. The textbook used in two Colleges, *Microteaching and Teaching Practice: A Guide for Student Teachers* (Walters 1990) gave minimal coverage to "teaching media and methods of use". For example, as compared to the skill of questioning which was covered in eleven pages, all media were allocated a space of three pages. That could have given lecturers the impression that they were not expected to treat media in detail. As explained earlier in Chapter Seven (page 194), lecturers tended to follow the contents lists of their textbooks to the letter. They seldom used the syllabus. The result of such overdependence on the textbook was that they could easily misinterpret the authors' intentions.

Although lack of collegiality was discussed in the sixth chapter, its impact on the manner in which lecturers conducted microteaching was not discussed. In one College, the Head of the Department that housed microteaching was ignorant about the activities of the six lecturers handling microteaching. He attributed such a state of affairs to lack of collegiality as stated in his explanation:

To be quite frank, I do not know how they conduct microteaching because I do not visit their lecture rooms. I used to visit but they

reacted so negatively that I had to stop. It was like I was policing them or I thought I knew everything.

This negative reaction towards class visits was not only about the rejection of supervision, but also about fear of any form of observation. There was a lack of team spirit in the Colleges which resulted in lecturers being isolated in their little kingdoms with the result that they lost the opportunity of learning from one another. What seemed to be in vogue was a spirit of competition as explained below:

We do not observe each other's teaching because some people think they are being judged. There is this I can teach better than you attitude so you dare not observe my teaching.

It was observed that even pre-service teachers adopted attitudes which were similar to those of their lecturers. When requested to present mini lessons, they dragged their feet. They seemed to resent teaching in front of their peers. During the feedback stage, they were often reluctant to comment on their peers' presentations.

It was concluded that although microteaching was a compulsory component of the teacher education curriculum, Ciskei Colleges of Education did not take advantage of its potential for the development of teaching skills such as the use of educational media. Factors contributing to that state of affairs were as follows: inadequate equipment for recording lessons, shortage of classrooms, lack of collegiality among staff, lack of enthusiasm in the use of media and lack of subject integration.

Use of media during microteaching sessions: students

There was little evidence of the application of what was learnt in educational media lectures during microteaching sessions. The majority of pre-service teachers enrolled for the Primary Teachers' Diploma (PTD) used the chalkboard, charts and textbook illustrations. On the whole, pre-service teachers did not take advantage of the available media when presenting mini lessons. The perception held by those enrolled for the Secondary Teachers' Diploma (STD) was that educational media had no place in secondary education. The opportunity to obtain feedback from peers and lecturers on how well presenters used media was usually lost in most cases. One contributory factor to the underutilisation of media during microteaching sessions was the non-examination nature of microteaching. Any College activity that did not have marks attached to it was viewed by both lecturers and pre-service teachers as a waste of time, as can be seen in microteaching lecturers' explanations:

We have very long syllabuses. Look at this list of skills. If you teach the theory of each skill, it is impossible to demonstrate its use and then listen to students' presentations. So I teach the theory, skip the demonstration and let them teach. After all, it is not an exam subject (Lecturer, College three).

My students told me that they saved their media for their crit lessons because they will get marks for them. They cannot spoil their aids by using them for microteaching. They also save them for their educational media examination sets which count toward their year mark (Lecturer, College two).

Consequently, for such activities the majority never gave their "best shots". This could be attributed to the belief that because education provided economic opportunity, they

should work toward passing examinations, get their teachers' certificates and earn a living. Their resistance to the use of media may be interpreted as oppositional behaviour. Fernandes (1988, p.169) refers to such oppositional behaviour as "rejection of intellectual work". By rejecting intellectual work, pre-service teachers might have reinforced the reproduction of inequality. African students might continue to copy notes from the chalkboard, limiting chances for the development of their critical thinking. "In this way, they neglect the opportunity of developing intellectually through the access to higher levels of knowledge, which reduces their efficiency in the ideological struggle and social action" (Fernandes 1988: 172).

Even during the rare occasions when enthusiastic pre-service teachers had incorporated media such as slides or transparencies in their presentations, the lecturers' inexperience with media deprived the presenter of informative feedback. Lecturers usually concentrated on other presentation skills.

The pre-service teachers' presentations were seldom videotaped due to their large numbers. As a result, lecturers and pre-service teachers missed the opportunity of improving their manipulative skills. If they used video recording equipment, chances were that their confidence in the use of technology could have improved.

In a study conducted by Kaggan and Tippins (1992), it was found that although the thirty-seven pre-service teachers who participated viewed the same teaching performance via videotape, there was only moderate consensus in their evaluations of some of the instructional strategies entailed in those performances. This observation made the researchers concerned to conclude as follows:

Instead of relying on unstructured field observations, teacher educators might structure and supervise classroom observations via videotape or, in the case of live observations, via two-way mirrors. This would allow them to provide simultaneous supervision (p.157).

CHALKBOARD WORK

As mentioned in Chapter Seven (page 202), chalkboard work was a compulsory aspect of the Teaching Practice syllabus for PTDs and STDs. According to the syllabus, attention should be given to the following aspects: care, maintenance and the repair of the chalkboard and accessories; effect of different colours of chalk; how to hold and handle the chalk; neat and legible handwriting; spacing of words, size of letters, and numerals; writing horizontally on the chalkboard; effective arrangement of work on the board; economical use of chalk and dusters; use of faint lines; chalkboard summaries and diagrams; the position of the chalkboard in the classroom and the position of the teacher, in relation to the class and the chalkboard; use of the chalkboard by pupils. At the end of the course, pre-service teachers were evaluated on writing and drawing on the chalkboard as well as using the chalkboard as an educational medium. The minimum requirement to pass chalkboard work was stipulated to be sixty-five per cent. Opportunities for chalkboard practicals, where pre-service

teachers practise the chalkboard techniques specified by the syllabus were made available. Students in need of extra practising time were free to use facilities in the afternoon. In the case of one College, there were no chalkboard rooms whatsoever. Students used the dining halls for chalkboard practice. The remaining two Colleges, however, had ample chalkboards mounted on walls throughout the Colleges. There were even free-standing chalkboards. The syllabus stipulation of using the chalkboard as an educational medium was not carried out, however. That was found to be the case in all Colleges. Marks were allocated by chalkboard lecturers on writing and drawing only. Chalkboard lecturers resisted this exercise on the grounds that it was the method lecturers' domain. As a result, pre-service teachers were deprived of the valuable diagnostic sessions which could have prepared them for teaching practice. The number of periods allocated to chalkboard work could have provided pre-service teachers with enough time to practise and improve their skills. During the first year, for example, the number of periods for chalkboard work (28) was similar to those allocated to other educational media. That could have given chalkboard work an advantage over other educational media. That could also explain the overdependence of pre-service teachers on the chalkboard even where other media were available both in the Colleges and the schools. As suggested in Chapter Seven, overemphasis of the chalkboard when less time was allocated for other available media suggested the implementation of the "hegemonic curriculum". It was very likely that whilst all African pre-service teachers received overtraining in the use of the chalkboard, the majority were excluded from high-technologies such as computers. Even when the country has a single education department for all its citizens, African teachers are likely to lack manipulative skills and will need re-education.

Chalkboard work, a compulsory component of the teacher education curriculum, was not well-taught, due to the unavailability of chalkboards and a chalkboard room. As noted by Gugushe,

Results for chalkboard have not been successful all these years due to the fact that our students practice on a few portable chalkboards instead of chalkboards pasted against the wall. There should at least be 30 chalkboards in the chalkboard room (January, 1982).

Gugushe's claim above, corroborated Buys' (1980) earlier observation that in this College, teaching aids were sadly neglected. However, Gugushe, as opposed to Buys, explains that lack of facilities and equipment were constraining factors to the underutilisation of educational media in this College. Despite the Rector's pleas, by 1984, the College had still been operating without the facilities necessary for the proper implementation of the curriculum. In a letter to the Director General, the Rector requested the building of the following rooms which were not available then: "library, teaching aids room, chalkboard hall with chalkboards, art and craft hall, demonstration hall, staff room and water system toilets" (Gugushe 1984).

OBSERVATION

Observation of teachers in action in their natural setting is another example of field experience. Arguments in favour of observation focus on the opportunity for student teachers to learn what it is like or what it feels like to be a participant in the classroom (Evans 1986). Pre-service teachers must acquire the abilities to observe teachers in real classroom situations in order to identify and understand

the behaviours that exist and the context within which they appeared. "Only with such understanding is it possible to design and implement instructional experiences in a manner that allows pupils to learn" (Copeland 1981: 11).

Pre-service teachers visited schools for observation purposes. A structured questionnaire was used as a basis for observation. The storage, distribution and use of educational media were included in the observation assignment. The pre-service teachers' reports explained that teaching practice schools were extremely deficient as far as media were concerned. The few items that were available, such as the radios and cassette recorders were not stored in central places known to everybody. Instead, they were locked in individuals' office cupboards or taken home for private use.

The direct result of that situation was a general underutilisation of media by teachers. Even in the case of science subjects which required that experiments be conducted, in the majority of schools, lack of funds prevented the purchase of the necessary items. It was concluded that pre-service teachers were deprived of the opportunities for observing experienced teachers using educational media in real classroom situations.

The syllabus for Teaching Practice stipulated that demonstration lessons be given by lecturers on site. The majority of lecturers did not take kindly to giving demonstration lessons. The same lecturers who were enthusiastic were saddled with the responsibility of demonstrating for pre-service teachers. The major disadvantage of that state of affairs was evident in this media lecturers' utterance which was shared by all Colleges:

Lecturers demonstrate using the school content of the subject methods they teach. That is where their students observe them using media. If for example, only the natural science lecturers demonstrate, when will the social science students observe their own lecturers? (HOD, College one).

Lecturers preferred the isolation of their lecture rooms where chances for open criticism were remote. The spirit of secrecy and defensiveness among lecturers in the Colleges prevented the majority from giving demonstration lessons with the result that lecturers themselves were not likely to learn from each other. Commenting on the effect of isolation, Smyth (1984: 29) wrote: "This isolation... impedes the professional development of even the most dedicated teachers". The hidden message that could have been sent to pre-service teachers was that "intervisitiation" or colleague observation was taboo. It was highly likely that as professional teachers, pre-service teachers would reject class visits by Heads of Departments, as well as observation by future pre-service teachers. The introductory chapter stressed that teacher behaviour was learnt during the teacher's own school days and that such school experience was the most significant influence on teaching practice (Sachs 1987). The behaviour of teacher educators, therefore, is a direct influence on prospective teachers.

TEACHING PRACTICE

During teaching practice sessions, pre-service teachers taught school subjects for which they were prepared by their methods course lecturers. According to the syllabus, a minimum of 110 lessons, distributed over the second and third

years of study, should be presented by each pre-service teacher. Out of those lessons, ten were presented for assessment by lecturers. Among other things, the use of the chalkboard and educational media was assessed.

Although opportunities for pre-service teachers to comment on their peers' use of abuse of media were available during teaching practice, such opportunities were seldom used.

Pre-service teachers resisted commenting on each other's presentations. Teaching Practice was so strongly associated with negative criticism that Teaching Practice lessons were labelled "crit lessons". That was perceived to be the lecturers' dirty work, whereby they passed or failed pre-service teachers. The result of that perception was that pre-service teachers resisted evaluating each others' use of educational media.

The educational media used during Teaching Practice were not always a good indication of pre-service teachers' ability to make media. Borrowing media from peers for use during "crit lessons" was a common practice, and lending out media was a demonstration of solidarity against the common enemy - the supervising lecturer who gave marks. Unavailability of media in the schools also affected the level of media use during Teaching Practice. Colleges did not have spare media that could be borrowed for use during Practice Teaching, and that constrained the pre-service teachers' use of media. In secondary schools in particular, the attitudes of teachers who scorned the use of media discouraged even the enthusiastic pre-service teacher. In addition to attitudes, the lack of manipulative skills on the part of guardian teachers prevented them from using media. Literature abounds with cases of guardian teachers who lacked expertise, and who

as a result, deprived pre-service teachers of opportunities to observe the use of media in real classroom situations (Glenn and Carrier 1989; Gooler 1989; Glenn 1993; Bitter and Yohe 1989; Bitter and Rossberg 1988). Also, the technological background of methods lecturers was another contributory factor to the underutilisation of educational media by pre-service teachers. The majority were not prepared adequately for the use of technology in education. If the method lecturers did not demonstrate the use of technology in education, it was highly unlikely that pre-service teachers could use educational media during microteaching and teaching practice. Similarly, if guardian teachers did not use educational media, chances were that pre-service teachers would not use media either.

The extent to which media were used by guardian teachers varied within schools and between schools. Although the majority of schools did not use media, the complaint submitted by one school to the Rector of one College suggested that there were still individuals who believed in the use of educational media:

Dear sir,

Student teachers are required to have teaching aids during their practical teaching at our school. For many a time, they have complained of insufficient cartridge paper supplied by the College. They further complained that the little they receive caters only for lessons they present for the lecturers. Should they not have teaching aids we will only be bound to let them teach only those they have prepared for the lecturers during the presence of the lecturers.

Yours faithfully

Principal

(20 July 1993).

The letter reinforced the claim that pre-service teachers gave their best only when a task carried marks. They did not use media except during the crit lessons which were evaluated by their lecturers. For them, it would appear that teaching practice was a waste of time except for the evaluation lessons. This perception was voiced by lecturers from all Colleges. Absenteeism from teaching practice was a common practice which lecturers failed to control:

We have lost control of our students. They stay away from teaching practice when they feel like and we never know how to solve that problem because when marks are withheld, they will stay away from lectures demanding rescheduling of teaching practice. The liberation movement, though good in other respects, has affected discipline to such an extent that our students' symbols are no longer a true reflection of their performance.

Unavailability of funds was cited as a reason for students' underutilisation of media. In the College referred to in the letter, it was explained that pre-service teachers paid a grossly inadequate tuition fee of approximately R300. Fear of strikes prevented management from increasing the fee despite the felt need. At some stage (1992), a teaching practice fee of R30 was introduced by management. While some students paid, the majority questioned the unilateral manner in which that decision was taken. The issue was such a source of conflict that the Rector scrapped the fee. Since then, it was not reinstated with the result that the College was not in a position to take a stand against pre-service teachers who did not use media during microteaching and teaching practice. Prior to 1994, there was no uniformity on teaching practice fees in the Colleges. However, in view of the quick spread of class boycotts in the Colleges, Rectors agreed to charge R80 for teaching practice in all Colleges with effect from 1994. It was still too early to judge whether the amount was

adequate to cater for all the teaching practice materials needed by pre-service teachers.

PRODUCTION OF MEDIA SETS

In terms of the Teaching Practice syllabus, over the second and third years of study, each pre-service teacher should make at least eight sets of educational media (four per year). The media should be applicable to a specific lesson or series of lessons, in a syllabus of a school subject studied by the student. For evaluation purposes, pre-service teachers obtained an average of the marks for the required number of educational media made. The enthusiasm with which the majority of pre-service teachers produced their sets reinforced the claim that only tasks rewarded by marks were taken seriously by pre-service teachers. However, cheating was reported as a constraining factor. Less motivated pre-service teachers borrowed educational media either from previous years' students or from their peers.

Media lecturers themselves were not without blame in the manner in which media sets were evaluated. Lecturers claimed that more often than not, they were unable to implement the stipulations of the syllabus, or the instructions given by their heads of departments. They reported that they had ways of avoiding confrontation with management when difficult situations arose. A typical example of such a case was reproduced below:

Failure to fake having met the administrators' requirements results in reprimands. For example, the requirement concerning four sets is never realised. Students manage to complete at least two sets, and we simply calculate the mark as if they had indeed completed four sets.

The cheating of pre-service teachers and lecturers when they could not cope with their work, due to situational factors, suggested the presence of human agency. As mentioned earlier in this chapter, pre-service teachers and lecturers resisted the curriculum when it suited their needs. In that sense, colleges sometimes became social sites "characterised by overt and hidden curricula" (Aronowitz and Giroux 1985: 71). From the hidden curriculum lecturers and pre-service teachers learned cheating. The syllabus was silent on criteria to be used when media sets were assessed. Consequently, lecturers used their discretion. However, when the respective criteria from the Colleges were compared, as can be seen in Appendix N, it was found that they emphasised the following:

- (a) Relevance to lesson
- (b) Originality
- (c) Trouble taken
- (d) Appropriateness for age level of learners
- (e) Attractiveness
- (f) Neatness.

In the College without a media lecturer, pre-service teachers received even fewer opportunities for the application of educational media. They did not produce any media sets because no lecturer told them to do so. To meet the syllabus requirements, marks that would have been allocated for the media sets were derived from teaching practice marks. It was interesting to note that the College in question was the one where Buys (1980) had found that teaching aids were sadly ignored. It was the same College that had received the letter complaining about the underutilisation of media by students during teaching practice.

EDUCATIONAL MEDIA TEST

For first year pre-service teachers, a written one hour test was given, as required by the syllabus. In terms of DET guidelines made available to Colleges (Van Zyl 1994: 3), a question paper should be balanced. Questions asked should include all cognitive levels: knowledge, comprehension, application, analysis, synthesis, evaluation. An examination of STD I and PTD I question papers from the three Colleges showed that emphasis was on knowledge questions. Middle and higher order questions were excluded. Samples of question papers appear in Appendix M. Examples of knowledge questions asked were as follows:

(a) Fill in items:

The use of...help in making the lesson meaningful.
 Television is used in schools for...and...
 Teaching aids are classified into three main categories
,, and.....

(b) Matched items:

Match the statement in column B with column A. Do not write the whole sentence, only the number is required.

A	B
Audiotape	The angle at which a light beam is projected
OHP	Instructional projected medium
Projection angle	Magnetic tape for recording sound

(c) One word answers:

Give one word for each statement.

- i. Equipment or tools used by the teacher to demonstrate during his teaching activity.

ii. Equipment used by students when studying

(d) True or false items:

- i. Chalkboard is a projecting visual aid.
- ii. Pictures can be projected for as long they are needed for a discussion.

(e) Explaining items:

Give the meaning of the following:

- i. auditory aids
- ii. audio-visual aids
- iii. projecting aids.

(f) Multiple choice items:

- i. When a teacher chooses to use teaching media in a lesson he should realise that:
 1. No educational objectives can be achieved by any media
 2. Only one teaching medium can be used
 3. Use of media should correspond with the learning content.
- ii. Teaching and learning media should be used:
 1. occasionally
 2. to stimulate creativity and originality
 3. to explain and clarify easy information.

Lecturers were asked why middle and higher order questions were excluded, despite the stipulations of the DET document which stressed balancing of the question paper. Overcrowded classrooms were cited as one of the causes for the exclusion

of long questions from question papers:

The only way to cope with marking so many scripts is this. If you ask questions that require students to explain things in essays, you will never finish marking their scripts (Lecturer, College three).

We are understaffed in this College. You find that one lecturer is doing the job of two lecturers. That creates problems during exam time. If you concentrate on the demands of the syllabus, you never finish marking. It is either that you ask higher order questions and cheat when you mark, or you simply ask short questions and do justice. I prefer short questions (Lecturer, College two).

One lecturer, however, gave a completely different reason for asking knowledge questions that encourage memorisation. According to her, when she asked questions that would have encouraged critical thinking, she was "reprimanded" by her Head of Department who insisted that,

such questions are very difficult for students. First year students will fail exams if such questions are asked. To make sure that students make it in exams, such questions should not be included in question papers meant for PTD and STD Is (Lecturer, College three).

The questions that were allegedly complicated for first year post matric pre-service teachers included the following:

1. (a) Explain how you would use an overhead projector when you present a lesson. Base your explanation on an example that is extracted from any Std 6 syllabus.

(b) What does the preparation for the lesson in 1(a) involve?

2. Explain how you would use a model, real object or a specimen and a picture, drawing or the chalkboard when presenting a lesson. Base your explanation on an example that is extracted from any of your major subjects.

Despite the existence of opportunities for the application of educational media, such opportunities were fruitless according to lecturers in these Colleges. The major blame was put on the stipulations of the syllabi which lecturers had no power to change due to their lack of professional autonomy. The extracts cited below were explicit:

Teaching practice is unrealistic. It is done just for record keeping purposes. DET must see the number of lessons given before a student's final marks are decided. Otherwise, everybody cheats. Teachers in home schools put school stamps on students' files, even though students did not give any lessons. Students borrow each other's lesson notes and media. It is just a waste of time (Lecturer, College three).

Nobody really cares. We are teaching microteaching when we have never done it during our own student days. Nobody even cares to show you what to do. You fend for yourself. You learn in as much as your students are learning. How effective can one really be? Because DET requires a given number of microteaching lessons for each student, we oblige. We do it for the sake of our students' final marks, otherwise the whole curriculum is a mess they have to overhaul (Lecturer, College one).

I sense that things are not right. But how do you suggest changes in a subject you have no background in. Here you are instructed to teach a subject irrespective of your expertise. We are cheating on our students (Lecturer, College two).

SUMMARY

The chapter outlined the opportunities provided for pre-service teachers to apply technology in education in an attempt to "provide the student with the necessary skills in the making and use of educational media that will assist in creating a better learning environment for pupils" (DET 1990: 1). It was argued that omission of such opportunities deprived pre-service teachers of essential learning experiences.

Microteaching was identified as one of the field experiences with the potential of developing manipulative skills. Despite the allocation of 84 periods which was spread out in equal portions throughout each pre-service teacher's three-year training, there was little evidence of the application of what was learnt in educational media lectures during microteaching sessions. Microteaching facilities and equipment were inadequate in the case of two Colleges. One College, however, had installed sophisticated equipment in its theatre type microteaching studio. Due to the lack of manipulative skills on the part of lecturers, the studio was underutilised.

Pre-service teachers and some lecturers did not take microteaching seriously because it was not an examination subject. The lack of demonstrations of media applications by subject method, educational media, and microteaching lecturers, deprived pre-service teachers of valuable learning

experiences, and encouragement to use media. The omission of demonstrations was attributed to lack of collegiality and expertise, as well as an abundance of isolation, secrecy and defensive attitudes on the part of lecturers.

Unlike microteaching, chalkboard work was utilised extensively. Chalkboards were readily available in all Colleges and pre-service teachers were given ample time to practise skills such as drawing and writing. At the end of the course, pre-service teachers were evaluated on writing and drawing on the chalkboard. The minimum requirement to pass chalkboard work was stipulated to be sixty-five per cent. The number of periods allocated to chalkboard work provided chalkboard lecturers with enough time to develop pre-service teachers' chalkboard skills. Overemphasis of the chalkboard when less time was allocated for other available media suggested the implementation of the "hegemonic curriculum". It was suggested that overselling the chalkboard at the expense of other available media was likely to exclude the majority of African teachers from high technologies.

Observation of experienced teachers in action was identified as another effective field experience. If pre-service teachers could acquire the abilities to observe teachers in real classroom situations, they would be able to identify and understand the behaviours that existed and the context within which they appeared. Finally, pre-service teachers would be empowered to design and implement instructional experiences that would encourage pupils to learn. Although pre-service teachers visited schools for observation purposes, they did not get enough encouragement to use media in their own presentations. Guardian teachers hardly used media due to their lack of expertise, negative attitudes toward media, and unavailability of media and time. Even on campus, lecturers

had an aversion to giving demonstration lessons. The opportunities for demonstrating the use of educational media by subject method lecturers were lost as a result.

As in the case of microteaching, there was little evidence of the application of what was learnt in educational media lectures during teaching practice sessions. Pre-service teachers did not get enough encouragement from guardian teachers. Educational media were unavailable and as a result, pre-service teachers tended to use media only during evaluation lessons. Even the media used during evaluation lessons was not always an indication of pre-service teachers' abilities to make media because borrowing of media from peers was commonplace.

Even though the required media sets could potentially improve pre-service teachers' technology skills, owing to the cheating of both lecturers and pre-service teachers, that potential was often not realised. As in the case of teaching practice, pre-service teachers borrowed media sets from peers and submitted them for evaluation. In one College, they seldom produced four sets due to lack of time taken by class boycotts, leaving the lecturer with no choice, but to multiply the available marks by four in order to get the required average.

The educational media test given at the end of the first year consisted of lower order questions that encouraged rote learning. It was unlikely that the written test could improve pre-service teachers' technology skills.

On the whole, it was concluded that although potential opportunities for technology applications existed, they were underutilised in Colleges of Education in Ciskei.

The next chapter addresses the extent to which educational media were available in Ciskei Colleges of education.

CHAPTER 9

AVAILABILITY AND USE OF TECHNOLOGY IN CISKEI COLLEGES

Regardless of which policy options are adopted, the long-term goal of improved quality in the teaching corps in South Africa cannot be met in the absence of minimum conditions in the schools and other teaching sites. These include adequate financial, physical, material, and human resources to ensure viable working conditions for teachers and teacher educators.
NEPI 1991.

The seventh chapter served the purpose of describing and analysing the content of the educational media syllabus designed for Colleges of Education in Ciskei. It was also noted that for any educational media syllabus aims to be realised, the availability of media, as well as the competence of lecturers were important factors to be taken into consideration. The researcher's conviction was that the training of pre-service teachers in the use of technology in education needed to be viewed from different angles. For example, the effects of the selection of content which was carried out by the decision-making authorities could be identified in "timetabling programmes, authority instructions and the corresponding finance-dictated choices" (Mariet 1978: 2). It was to such "finance-dictated choices" that this section paid attention.

Curriculum design experts agree that any technology training policy must be well planned, and should be linked coherently with policy on equipment. Further, the provision of equipment

needs to be planned for future compatibility. For example, the provision of television sets without video units would have little educational gains considering that television broadcasts sometimes cannot be viewed live due to timetabling clashes. To circumvent such problems, television programmes would have to be recorded and viewed at a more convenient time. It was suggested that any training of pre-service teachers in the use of technology in education that did not take into consideration the availability of equipment could not be successful, however noble the syllabus aims were.

The focus of the current chapter is the availability and use of technology in education in Colleges of Education in Ciskei. Specifically, the chapter attempts to answer the following questions:

1. What kinds of educational media materials were available in Colleges of Education in Ciskei?
2. What kinds of educational media materials were available in teaching practice schools in Ciskei?
3. To what extent were educational media used by lecturers and pre-service teachers in Colleges of Education in Ciskei?

Although technology in education comprises much more than incorporating a few gadgets in the teaching process, still, media are considered indispensable in the learning situation because they provide the necessary channels for transmitting the message. The investigation of available educational media materials in Colleges was considered important because any medium has a contribution to make in a teaching-learning

situation, provided it is properly utilised. In as much as there is no best or universal solution applicable to all problems, there is also no "best" medium for all instructional-learning situations. Each medium has its own attributes and to attain maximum effectiveness, media have to be selected in relation to the objectives of the lesson, as well as the needs of learners. Schramm (1977: iv.) summarises this view as follows:

Motivated students learn from any medium if it is competently used and adapted to their needs. Within its physical limits, any medium can perform any educational task. Whether a student learns more from one medium than another is at least as likely to depend on how the medium is used as on what medium is used.

Given the expressed belief in the potential role of media in the teaching and learning situation, their availability becomes crucial. Situational factors such as the availability of educational media are likely to place limits on the successful preparation of pre-service teachers in the use of technology in education.

The categories that were included for pre-service teachers' questionnaires, as stated in Chapter Four (page 86-7), were:

Category 1: Questions to elicit personal information such as age, sex, course registered for, teaching practice subjects

Category 2: Questions to elicit information about teaching practice

Category 3: Questions to elicit information about the availability of media

Category 4: Questions to elicit information about the use of media

Category 5: Questions about the educational media course.

As explained earlier, the questionnaires were tested on pre-service teachers doing the two-year post matriculation Secondary Teachers' Diploma (STD) at the University of Fort Hare, and on lecturers in the Faculty of Education at Fort Hare. The survey sample consisted of one hundred and ninety-eight pre-service teachers, as well as forty-two lecturers. The questionnaires were distributed and administered in the respective Colleges in October 1989. The researcher visited the Colleges in person and at the end of each session, took the questionnaires with her. This was done to prevent respondents from failing to return questionnaires.

For data analysis purposes, simple frequency counts and percentages were used because the aim was to find out what was physically available, the extent to which media were used, and biographical data. As explained in chapter four, lecturers were observed in natural settings. Observations were conducted from July to September 1990, and from March to May 1991. Four media lecturers were observed, and each was observed once a week during a thirty minute period. Two lectures per lecturer were observed. The following is an example of the checklist used for observing educational media lectures:

TABLE 23

THE CHECKLIST FOR OBSERVATION

Date: Time: College: Lecturer:

1. **Participants:** Who was there? What was said? What was done?
2. **Setting:** What was available? seating arrangements.
3. **Events:** How was content transmitted? Were media used? Were there hands-on experiences?
4. **Additional notes:**

As in other studies whose aim was to find out the availability and use of educational media materials in America (Riccobono 1985), Nigeria (Okwudishu 1993), and Ciskei (Kruger 1980; Mrwetyana 1983), findings were based on the analysis of questionnaires, as well as on observations, and interviews.

Availability of media in the Colleges

Respondents were requested to check on the list provided the media that were available in the Colleges. Opportunities for adding on to the list media that had been left out, but were available, were provided. The chalkboard was reported as available in all Colleges. One College had a language laboratory, though not in a working condition. All Colleges had computers, but had no software to use for teaching purposes. Lecturers and pre-service teachers' responses for all three Colleges combined are summarised in Table 24.

TABLE 24

EDUCATIONAL MEDIA AVAILABILITY

MEDIUM	LECTURERS	STUDENTS
	%	%
Charts	84,5	86,7
Maps	44,3	61,0
Models	24,0	24,3
Radio	8,2	9,2
Audio cassettes	8,0	4,1
Slides	10,0	2,8
Filmstrips	8,2	1,8
Transparencies	64,4	6,9
Soundfilms	7,5	2,3
Video cassettes	9,8	2,3
Computer programmes	1,0	0,9
Language laboratory	1,2	1,4

When the inventories of individual Colleges were examined, it was found that all Colleges experienced serious shortages of equipment, despite the existence of a compulsory educational media course. Table 25 reflects the media acquisitions of the Colleges.

TABLE 25

AVAILABLE MEDIA

	COLLEGE 1	COLLEGE 2	COLLEGE 3
	544	766	686
	<u>students</u>	<u>students</u>	<u>students</u>
Radio	1	0	1
Cassette recorder	6	5	2
Overhead projector	12	24	62
Slide projector	1	1	2
Filmstrip projector	1	0	3
Movie projector	0	1	0
Television	2	2	2(10 stolen)
Video recorder	2	1	2(10 stolen)
Video camera	2	1	0(1 stolen)
Computers (PC)	12	3	15
Printers	1	2	3
Language laboratory	0	0	1
Microteaching studio	0	1	0

It was reasonable to expect users of technology to know the acquisitions of their institution and to know where they were stored. That was necessary because knowledge of such information enhanced easy retrieval, especially where equipment was at a premium, and might be in demand. However, the majority of lecturers in Ciskei displayed uncertainty in regard to the availability of equipment in the Colleges. Even the media lecturers did not show wide knowledge about their Colleges' acquisitions. That gave the premature impression that technology in education was underutilised in Colleges of Education in Ciskei.

As could be seen in Table 24, the percentages of pre-service

teachers who attested to the availability of battery and electrically operated equipment were very low. Several factors could have contributed to that state of affairs. Usually, equipment was stored in the media centre. In view of the fact that pre-service teachers had no access to media centres in two Colleges, it was not surprising that most of them suggested that such equipment was not available. Storage of equipment is dealt with in a later section of the present chapter. Since some of the equipment was stored in lecturers' offices and locked storerooms, the majority of pre-service teachers were not aware of its existence in the Colleges:

I am not surprised that students reported that some items were not available when in reality we have them. How can students know what we store in our office cupboards when even some lecturers do not know? These things are bought for some people's convenience and that is why there is no cataloguing system (Lecturer, College two).

Also, if opportunities for hands-on experiences were made available, pre-service teachers would have handled some equipment, and would have been aware of its existence:

Because of the large numbers of students who would have to handle the only item the College possesses, I do not even try to allow them to handle equipment. That would be a fruitless and risky thing to do (Lecturer, College one).

The indefinite storing of equipment in some teachers' or lecturers' cupboards was not peculiar to Ciskei Colleges of Education. In an investigation of problems related to the preparation of pre-service teachers in the use of educational media, Glover (p.293) explained: "Getting 'hands-on' experiences at schools can be more difficult because the equipment is sometimes part of somebody's empire". The question of media storage is discussed at length in the next section.

Storage of media

Ignorance about available technology and sometimes where it was stored, was partly due to the decentralised manner of storage. The media centre was one of the facilities that housed technological devices in the Colleges. What constituted a media centre differed from College to College. In one College, for example, there was a special room, much larger than the usual classroom with a seating capacity for fifty students. The room was fitted with storage cupboards on one wall. The top cupboards had glass doors which enabled users to see what was needed without much effort. The bottom cupboards, on the contrary, had wooden doors. The reason given for this arrangement was the need to hide technological devices which might be easily stolen. All cupboards had locking devices and the keys were reported to be kept by the lecturers entrusted with media centre duties. Keeping equipment under lock and key was not without strong justification. Theft and disappearance of equipment was experienced in the Colleges:

We will never have enough equipment because of burglaries (Lecturer, College three).

During times of riots, Colleges are targets for vandalism and burglaries (Lecturer, College one).

Equipment does disappear even in the absence of burglaries. Maybe it is an inside job (Lecturer, College two).

Loss of equipment was experienced even in the absence of burglaries in the Colleges, and in such events, it was reported to the Education Department. In one such instance, the Director General's response was as follows:

STOLEN ONE 67CM NATIONAL COLOUR REMOTE CONTROL TV SET AND
ONE JVC MODEL HR - D300 EM VIDEO CASSETTE RECORDER

This needs your thorough investigation because there is no sign of burglary in this story instead somebody opened the padlock with a key and took the padlock away. You must investigate, in between the two lecturers who are in possession of keys. After investigation you should report to the police station and give us a full report together with completed c.1137 forms (Soci March 1990).

Loss of equipment was experienced in all Colleges as evident in this media lecturer's explanation:

What frustrates me is that we had 12 tv sets, 12 video recorders, and one camera. We have since lost 10 tv sets, 10 video recorders, and the only camera we had. They were stolen and yet there were no signs of burglaries in all instances. It could be lecturers, at the same time it could be students (Lecturer, College three).

The finding that burglaries were commonplace in the Colleges especially during periods of political instability, as well as that equipment was stolen even in the absence of burglaries had political undertones and could be traced from the communities served by the Colleges. Stealing was not considered a serious offence by the dispossessed:

In our locations and villages we believe that yiba qha ungabhaqwa.¹ So when you think you will not be a suspect, you are free to steal, whether you are educated or not (Rector, College two).

When we mean stealing from whites or from government institutions such as these we say we are "repossessing". Blacks believe that they are poor because the white man and his government stole the black man's land. So when blacks steal they are repossessing what was originally theirs and was stolen by whites (Lecturer, College two).

¹ The literal translation of "yiba qha ungabhaqwa" is "steal but do not get caught".

Most of us believe that stealing is understandable as long as one does not steal from fellow blacks. That is why even professional people will buy stolen goods knowingly. After all they were stolen from shops owned by whites or from homes owned by the white masters (Lecturer, College one).

Lecturers who explained the theft of College equipment in the absence of burglaries blamed inequalities in the larger society:

Teachers' salaries have always been poor and inferior to those of whites. There was no parity of salaries until the late eighties. Even then that was restricted to graduates. Teachers are human beings with needs and wants. They view the material possessions whites with both envy and jealousy. When they think they will not be discovered, the temptation to steal comes naturally, especially when they steal government property. It was the government that gave them low salaries in the first place (Lecturer, College three).

The homes the majority of lecturers come from are poor. Working parents expect professional children to buy all the electronic equipment the white masters have in their homes. When you know that you cannot afford buying TVs and recorders from your salary, stealing them from the people responsible for your inadequate salary is an option (Lecturer, College one).

Members of the communities served by these Colleges were victims of an unequal society. Similarly, the College staff, as well as students, originated from the same society which was characterised by inequality. Inequality often leads to alienation, and alienation increases resistance and destruction. It was therefore considered reasonable to argue that theft of equipment was a form of resistance by dispossessed people who rejected inequality in society and in education. In view of the conviction that inequality could only be transformed by political movements, it was not surprising that theft was reported to be experienced excessively during periods of political strife. Theft of government property was a means of registering rejection of segregated teacher education institutions in Ciskei, as well as rejection of Apartheid in the larger society. Further, the anger and frustration of the victims of discrimination led to destruction which in some cases resulted in personal gain.

The rest of the space in the media centre was taken by long wooden tables, running the width of the room, from left to right. On top of two rows of tables, seven IBM compatible PCs and three dot matrix printers were arranged neatly for prospective users. They were so orderly arranged that one wondered how often they were used. The computers were covered with black cotton cloth, which showed a striking accumulation of dust. When the researcher asked about the dust and how they managed to keep the room that orderly, the lecturer in charge laughed and said:

Why do you ask? You know the reason as much as I do. Without sounding pessimistic, the room will still remain like this for years to come. Nobody bothers by touching those computers (Lecturer, College two).

The front row was occupied by five manually operated, and five electrically operated typewriters. As in the case of computers, the electrically operated typewriters were completely covered with dust-laden black cloth. In a jocular manner, the researcher suggested that in future they may need to use cream cheese cloth because the dust will not show. The lecturers burst out laughing saying: "I will remember that next time". It transpired that lecturers preferred to take turns on the few manual typewriters which appeared to be popular, judging by the booking of equipment records kept by the lecturer in charge.

In the locked cupboards and in the small storeroom, the following items were stored: twelve overhead projectors, one slide projector, two video cameras, one video recorder, two television sets, and six cassette recorders. The college had one radio which was in the clerks' office for their use during the day. It was explained that lecturers never borrowed the radio for classroom use, and that was how it landed in the clerks' office. One piece of equipment that was described as very expensive, and had been recently purchased, was also not kept in the media centre. The lecturer who motivated for the purchase of the video projector unit, as it was called, kept it in his office, to prevent its poor handling and damage by staff who did not know how to use it. Because the expensive item was underutilised, it was a poor investment in a College suffering serious financial setbacks. A similar finding was reported by the Commission on Instructional Technology (1970: 83): "The equipment therefore, in many cases lies idle, waiting for an instructor to learn how to use it and to develop confidence in its usefulness in teaching".

In another College, computers were not housed in the media

centre. Instead there was a computer room where computers, typewriters and printers were stored. Access to the computer room could only be gained in the physical presence of the lecturer in-charge. This finding confirmed the UNESCO Survey's finding that in many countries access could not be gained easily "due to the proprietary attitudes of computer teachers" (Tucker :329). In one office there were fifty new overhead projectors, still covered with plastic, but stored on the shelves. The absence of technicians in the Colleges was cited as one factor with a negative influence on use of equipment. The overhead projectors still needed lamps and no lecturer knew how to fit lamps. They did not have enough money to hire a qualified technician to fit lamps. They had to share two overhead projectors and that was discouraging because a staff of sixty could hardly share two overhead projectors. The third College had two PCs which were stored in the library for lecturers' use. The media centre, in the latter College, consisted of large drawing tables, cupboards, and sinks, and was used by students when they prepared charts.

Availability of media in teaching practice schools

For teaching practice purposes, pre-service teachers were allocated to primary and secondary schools which were within easy reach from Colleges. Since teaching practice was regarded as one of the opportunities provided for pre-service teachers to apply both technology and teaching skills, pre-service teachers were requested to declare the holdings of their teaching practice schools. As in similar studies conducted in Ciskeian schools (Kruger 1980; Mrwetyana 1983), teaching practice schools in Ciskei reflected a situation which might be described as "media scarce". The

necessary equipment and materials were not available because they "cost too much to purchase and maintain". The Department of Education supplied schools with chalkboards and some textbooks only. The rest of the equipment was purchased from school funds which were at a premium due to the students' failure to pay school fees. The table below summarises the available media in percentages as reported in the students' questionnaires.

TABLE 26

MEDIA AVAILABLE IN SCHOOLS

MEDIUM	AVAILABILITY %
Charts	35,1
Maps	23,8
Models	20,2
Radio	16,0
Slides	1,8
Filmstrips	4,8
Transparencies	8,3
Soundfilms	4,8
Video cassettes	2,0
Computer programmes	1,4
Language laboratory	0,5

The teaching practice schools were further characterised as rural by the majority of respondents. Electricity was reported unavailable by twenty-eight per cent cases in the rural areas. However, an insignificant number of respondents attested to the availability of electricity in some classrooms in urban schools. Given the gross neglect of rural areas in South Africa, it seemed reasonable to suggest that if schools were in rural areas, it was highly likely that no

electricity would be available. By the same token, if electricity was unavailable, electrically operated media would not be used. The rural nature of schools, as well as unavailability of electricity might influence the extent to which pre-service teachers used media.

Facilities for media production

When asked to report on the facilities used for the production of educational media materials for teaching purposes, College facilities were mentioned by 45 per cent respondents. That was a curious finding, given that one of the Colleges was residential. It would have been logical for resident students to cite College facilities as their major venue for the production of media materials. The finding needed further investigation. A few odd cases accounted for the use of their homes, as well as teaching practice school facilities.

Visits to the Colleges yielded the finding that, in reality, Colleges did not have any special production rooms. Even in the rooms used as media centres, there were no sections meant for the production of educational media materials. As stated earlier, the very media centres were not for student use, hence College facilities were not cited as venues for the production of media materials by the majority of respondents.

Use of educational media: lecturers

Although pictures had been enlarged and decreased on a photocopier by the majority of lecturers, indications were

that they had not actually handled the photocopier on their own. The tasks were done on their behalf by other lecturers. Whereas almost all lecturers had produced transparencies by hand, only a very low percentage reported having produced transparencies mechanically. Stencils were reported to be produced by hand, and never mechanically by most lecturers. The duplicating machine, as in the case of the photocopier, was handled by designated lecturers on behalf of the rest, according to the lecturers. The video recorder was the popular choice for recording microteaching sessions. However, for the entire College to share one recorder was not practicable. As a result, due to lack of time and large numbers of pre-service teachers waiting to have their lessons recorded, lecturers abandoned the video recorder and used tape recorders, or continued with microteaching without recording, as explained in the previous chapter. Also, waiting for lecturers who know how to operate video recorders to move from room to room, demonstrating how the recording equipment was operated was so time consuming that lecturers were discouraged and stopped recording microteaching lessons. Table 26 summarises the availability and use of media by lecturers. Use was defined as more than twice a week. On the basis of such evidence, it is suggested that Colleges of Education in Ciskei were seriously deficient in as far as the availability of media was concerned. Availability of media obviously impacted on use and training. It is therefore not surprising that lecturers tended to teach free of technologies in these Colleges.

TABLE 27

AVAILABILITY AND USE OF MEDIA BY LECTURERS

MEDIUM	AVAILABILITY	USE ²
	%	%
Charts	84,5	65,2
Maps	44,3	23,0
Models	24,0	14,4
Radio	8,2	2,6
Audio cassettes	8,0	3,8
Slides	10,0	4,2
Filmstrips	8,2	4,0
Transparencies	64,4	58,3
Soundfilms	7,5	3,0
Video cassettes	9,8	4,5
Computer programmes	1,0	1,0
Language laboratory	1,2	1,0

Whilst the present arrangement of having some lecturers responsible for reprographic facilities such as photocopiers and duplicating machines may have its advantages, on the debit side, it deprived the majority of lecturers of opportunities for handling media. If all lecturers were afforded opportunities for using reprographic facilities when they needed to, those lecturers who did not know how, would through gradual use and guidance from their colleagues improve their manipulative skills. The confidence lecturers needed to gain when handling "gadgetry" was not likely to be gained if they did not produce media on their own. Under such circumstances, it was doubtful if lecturers could be role models for pre-service teachers in the use of technology. As explained by Gooler, "Until or unless university faculty can

² Use refers to more than twice per week.

gain knowledge of and experience with technology applications, the prospects of teachers-in-training gaining necessary skills and knowledge are not promising" (1989: 20). Although Gooler conducted the survey on university faculty, his conclusions were equally valid for teacher educators in Ciskei Colleges of Education because they also taught a compulsory educational media course.

The lecturers in charge of the media centres were not media lecturers. They were teaching other subjects, but in addition, the responsibility of running the centre was theirs, in as much as other lecturers might be in charge of sports equipment. During their teaching times, the media centres were locked and were opened when they were free. When they were teaching, nobody could gain access to the centres even if there was a need. The same applied to the storerooms that housed the duplicating machines and the photocopiers. Access was gained only when the lecturers in charge were not teaching. Control was so rigid that keys would not be handed over to lecturers in need of the service, in case something went wrong. The photocopier was operated only by the persons in charge, on behalf of other lecturers. Failure to gain access to the media centres and photocopy rooms often resulted in ill feelings amongst lecturers, and eventually affected the rate at which media were used by lecturers. The issue of staff relations resulting from such issues was dealt with in depth in the fifth chapter.

The medium that was used without fail by all lecturers was the chalkboard. A common occurrence was the "PDNE"³ that was left at the bottom of chalkboard summaries. Coupled with that, was the lecturers' emphasis on pre-service teachers

3 During interviews, it was explained that "PDNE" stood for Please Do Not Erase and was requesting lecturers not to remove what was written on the board when they cleaned it prior to giving lectures.

taking down chalkboard summaries. The crucial role played by chalkboard summaries was captured vividly in one media lecturer's explanation:

They do not have textbooks. The government supplies insufficient books for some subjects and no textbooks at all for others. Students refuse to buy their own books because they say that is the government's responsibility.

Whilst it is an understandable practice for teachers of poor schools to give notes in the absence of textbooks, that practice might be counter-productive at the same time. For example, even if pre-service teachers were favourably disposed to participation during lectures, writing notes and concentrating on what was being explained by lecturers were two activities which may be equally demanding of the student's attention. It could be that pre-service teachers failed to ask questions or to participate during lectures because they were not listening attentively. They may have been concentrating more on the chalkboard summary, since class tests were based on it. Use of the chalkboard for note giving at post matric level seemed to encourage over-dependence on lecturers, especially when all Colleges had library facilities where pre-service teachers could be encouraged to make their own notes. However, the ill-equipped libraries in the Colleges militated against this. Chalkboard summaries and textbooks provided pre-service teachers with third-hand experiences. Such dependence on third-hand experiences was found to be encouraged by unavailability of equipment and facilities. Pre-service teachers were told about media and did not have opportunities for hands-on experiences due to unavailability of hardware. During lectures, emphasis was more on product than it was on the learning process itself. The lecturers' emphasis on the importance of passing tests and examinations led the

researcher to conclude that the aim of lecturers in the Colleges visited was to get pre-service teachers to give correct answers. The "hidden curriculum of language" (Meighan 1986) during such lectures was found to be authoritarian. Most of the talk was done by lecturers. Control of the main discourse system was maintained by lecturers who behaved like "talking textbooks". The communicative rights of lecturers and pre-service teachers were unequal. Lecturers, in an implicit manner, told pre-service teachers when to talk, what to talk about, when to stop talking, and how well they talked. Lecturers used the "soliciting moves" most, eliciting some kind of response, and pre-service teachers responded. The communicative style dominant in educational media lecture rooms may be represented as follows:

Initiation-----Response-----Feedback

The extract given below was recorded during an educational media lecture and illustrates the "hidden curriculum of language":

Lecturer: Who can tell me what an overhead projector is?
(Silence and fidgeting)

Lecturer: Who can try? Yes Sentwa. Please try.

Sentwa: I do not know how to define it, but the machine on your table is the overhead projector.

Lecturer: Thank you Sentwa. An overhead projector is a projection medium that can be operated without darkening the room and is projected from the front of the room. (Pre-service teachers wrote the definition in note books)

Save for the chalkboard, the lecturer's and pre-service teachers' spoken words were the dominant medium of communication. Lecturers managed to behave in the manner described here above because they were regarded as "a scarce resource" (Sharp and Green 1975). They controlled and transmitted what was perceived to be the scarce and valuable commodity of knowledge.

The arrangement of furniture in lecture rooms also suggested something about the lecturers who used the lecture rooms and how they taught. As noted by Kohl (1970): "The placement of objects in space is not arbitrary and rooms represent in physical form the spirit and souls of places and institutions" (cited in Meighan 1986: 78). With the exception of one lecturer, the furniture was arranged upon the traditional rectangular grid that indicated the expected channel of communication. Small tables and chairs were arranged in neat rows facing the chalkboard. The front row of desks was so close to the chalkboard that the lecturer could only move sideways, not able to leave the chalkboard area. The green chalkboard ran along the front wall from left to right.

Occupying the left corner, was a tall, narrow, wooden cupboard. The lecturer's table and chair occupied the corner facing the door, in front of the wooden cupboard. The arrangement of furniture in the lecture rooms suggested social distance between lecturers and pre-service teachers. The mode of content transmission suggested was "teacher talk", which was an authoritarian style of teaching. Pre-service teachers were made to depend on lecturers throughout. The learning message resulting from that arrangement of furniture was: "sit and learn" (Meighan 1986: 86). A one-way lecture or instructional approach was

implied. This style is appropriate at times. However, when the lecturer wished to promote participatory pedagogy in the form of small group discussions, the furniture arrangements prevented it. It was possible that the lecturers' common accusation that pre-service teachers were unresponsive, ignored the influence of the physical arrangement of the room on participation. Lecturers may not have maximised the chances of getting responses by rearranging the furniture and making lecture rooms more conducive to participatory pedagogy.

On the contrary, in the case of only one lecture room, tables and chairs were so arranged that pre-service teachers had eye contact with each other, and were sharing ideas and communicating more frequently. Tables were grouped in small nests so as to provide a wide work top. Chairs were packed against the wall so that when necessary, pre-service teachers could have easy access to them. On one nest of tables were tools such as scissors, small knives, rulers, glue, erasers, water paint, shapes, and crayons. Magazines, newspapers, and unused cartridge paper were packed on another nest of tables. Walls were adorned with teacher made charts and posters.

Because the lecture room lost its "front and back", the lecturer was free to move everywhere in order to play his role of being "an at-elbow adviser", narrowing the social distance between himself and pre-service teachers. In an investigation of classrooms of Downers Grove school, Chicago, Bealing (1972) concluded:

Practical necessities do have a way of exerting their influence, so is it that to change the organization and behaviour in classrooms one needs to change the structure itself in a rather more adventurous manner than has yet been tried (cited in Meighan 1986: 83).

It is reasonable to suggest that when lecturers recognise practical necessities, they are likely to change the arrangement of furniture in their lecture rooms. When they wish to transform from teacher talk to participatory pedagogy, that will be a practical necessity that will prompt them to collectively elect to adopt "open" lecture rooms, as in the case of the lecturer who had such a lecture room. The conclusion that could be drawn was that the majority of lecturers were either not aware of the practical necessity of re-arranging furniture to suit their needs, or simply lacked the will to do so. Given their education background in segregated education institutions where authoritarian teaching methods were dominant, it was likely that they preferred to teach as they were taught, instead of teaching as they were taught to teach.

Misuse of equipment was also observed in one educational media lecture. The lecturer had one overhead projector positioned on the front table. Pre-service teachers sitting at the back could hardly see the lecturer's fingers pointing at the important parts of the projector. Insufficient numbers of equipment available at the College, as well as unavailability of facilities for pre-service teachers to practise manipulative skills contributed to misuse of technology in education. The media lecturer explained:

We do not have overhead projectors that they can handle after lectures. The number of projectors available even for lecturers is so small that we scramble to get them. I had to hide this one in order to make sure that I would have it for today's lecture. If I had not hidden it, chances are that another lecturer could have taken it.

At the same time, in as far as the behaviour of pre-service teachers was concerned, it was concluded that their role was that of receiving knowledge without question. They performed

as expected by lecturers in that they reproduced what lecturers and prescribed textbooks said. The interaction in the educational media lecture rooms was found to re-inforce "the silence and passivity of powerless people" (Freire 1981). Deposits were made into the minds of pre-service teachers, and the transmission was predominantly one-way. Solutions were found and imposed on pre-service teachers.

Responsibility for learning was usurped by lecturers and pre-service teachers were deprived of opportunities to "think critically about problems" (Freire 1981). The "transmission ideology" with its particular theories of knowledge, learning, relationships, and assessment was found to be dominant.

Use of educational media : students

Pre-service teachers were asked to indicate the media used when lessons were presented during teaching practice sessions. They indicated whether they used each medium often, seldom or never. The findings accepted as reflecting use were those checked for "often", where "often" was explained as more than five times during a three week period of teaching practice. The chalkboard, charts, and maps were the popular choice, whereas models, radio, audio-cassettes, slides, filmstrips, transparencies, soundfilm, video cassettes, and computer programmes were hardly used, if at all. The percentage reported for the use of the language laboratory was so low (0,9) that the researcher could not infer whether it was used or not, or it was a case of miscoding. Table 25 summarises the use of educational media materials by pre-service teachers during teaching practice.

During microteaching sessions, as explained in the previous

chapter, pre-service teachers hardly used educational media. As in the case of their lecturers, their lessons were dominated by monologues and chalkboard writing.

Pre-service teachers did not use the media centre. The purpose of having the centre was to service staff, and not student teachers, due to large numbers of students who would have to handle the only piece of equipment the college owned. Colleges were concerned that should there be a need for repairs, that would take time, and the repairs might even cost what the College might not afford at the time. The excerpts tell the story vividly:

This room is too small to accommodate all the students we have (Lecturer, College two).

Students are sometimes careless. If they break anything we would have to take it to East London. There is no time and no money for that (Lecturer, College three).

Students themselves refuse to work in the afternoon. That is the only time they can use the room because lecturers do not need equipment because they do not teach (Lecturer, College one).

TABLE 28

MEDIA USE DURING TEACHING PRACTICE

MEDIUM	USE (more than five times in three weeks)
	%
Charts	73,4
Maps	47,2
Models	27,5

Radio	11,0
Slides	3,7
Filmstrips	2,8
Transparencies	10,1
Soundfilms	1,8
Video cassettes	3,2
Computer programmes	1,4
Language laboratory	0,9
Audio	4,1 ⁴

Use of educational media : school teachers

During school visits, pre-service teachers observed professional teachers in action. In questionnaires as well as in observation files, eighty-four percent of pre-service teachers reported underutilization of media by teachers. Teachers depended on verbal and written communication. The hidden message likely to have been received by pre-service teachers during school visits was that media made no difference in learning. It was likely that, as in the case of their lecturers, the not so motivated intending teachers would opt for the easy way and teach as they were taught, instead of teaching as they were taught to teach. If professional teachers could contribute to the preparation of pre-service teachers in their care by modelling the use of technologies in class, it was very likely that pre-service teachers would do likewise when they were appointed as teachers.

Preventing pre-service teachers from using the media centre and computer rooms on the grounds that the rooms were too

⁴ Use of educational media during teaching practise is reported in percentages. Pre-service teachers were not observed. Instead the percentages were worked out of questionnaire findings.

small to accommodate them were situational problems which appeared to be beyond lecturers' control. Such problems seemed to have originated from the superstructure. Exclusion of African pre-service teachers from Colleges of Education meant for other race groups was a policy decision taken by the South African government in pursuit of its policy of Apartheid. Africans were not consulted when such a decision was taken, yet they were the very people to be affected when the policy was implemented. Superficially, exclusion of pre-service teachers from some College facilities might appear situational and might be blamed on lecturers. But, given the government's segregationist policies that decreed unequal allocation of resources for the different race groups, it seemed reasonable to suggest that lecturers in these Colleges were sometimes blamed for the actions of the government simply because they were on site. The existence of empty teacher education institutions meant for whites in a country where African pre-service teachers were deprived from getting the most out of their educational media course due to inadequate facilities needs to be considered when the preparation of pre-service teachers in the use of technology in education is investigated.

Even though the lecturers' concerns with regard to breakages were sound, it would appear that the very people for whom the educational media course was designed were prevented from making use of facilities in order to attain stated course objectives. Without access to the media centre and computer rooms, pre-service teachers would get used to the idea of not patronising such important facilities, and would not experience the importance of using technology in education. As professional teachers, it was reasonable to suggest that such teachers would teach as they were taught: lecturing without use of media other than the chalkboard. Commenting on

the preparation of intending teachers to use technology, Gooler (1989: 20) asserted:

Minimal exposure to technologies in their preparation programs makes it highly unlikely that most graduates of teacher education programs will develop interests in and facility with technologies once they are teaching in their own classroom.

Gooler's assertion was equally applicable in the Colleges of Education in Ciskei. Rather than adopting a policy that prevented pre-service teachers from using such vital facilities, lecturers and pre-service teachers, as mature adults, could discuss the problem facing them, and collectively arrive at temporary solutions.

SUMMARY

The Colleges were generally found to be media-scarce in that the media available were inadequate to meet the needs of the lecturers and students. Unavailability of media was attributed to the lack of funds to purchase media, as well as to theft of already available media. That affected the extent to which media were used. However, even in the case of media that were in abundance, such as fifty-two overhead projectors in one College, media were underutilised.

The inadequate preparation of lecturers in the use of technology in education, as well as socialisation into the use of authoritarian teaching practices were suggested as affecting the use of media by both lecturers and students. In some cases, lecturers and students did not use media because they lacked motivation.

The schools where teaching practice was done were described as rural, with no electricity and media. Facilities for producing media were described as inadequate, and there were limited supplies of equipment in the Colleges. The likely end result of these shortages was underutilization of media during teaching practice. The guardian teachers who were supposed to guide pre-service teachers were not role models for the integration of media into their lessons. That sent hidden messages to pre-service teachers who also taught as the guardian teachers taught: lecturing without the use of media other than the chalkboard.

CHAPTER 10

EVALUATION, SUMMARY AND RECOMMENDATIONS

How do you conclude a qualitative study? You don't...Do not abandon your case study in an effort to achieve a grand finale.
Wolcott 1990.

Whilst it is customary to end a report with a formal concluding chapter in the quantitative tradition, some qualitative researchers are opposed to such a step. In view of the goal of qualitative research, which is to understand 'what is', some qualitative researchers believe that reporting beyond 'what is' tempts researchers to make pronouncements about 'what ought' to be. The present researcher decided to adopt a middle course. Much as her firm conviction is that descriptive case studies stand by themselves, other considerations influenced the writing of this chapter.

The researcher felt obliged to review what she had done in terms of the original statement of purpose and to point out shortcomings. During the course of the investigation it was noted that the participating Colleges of Education expected some recommendations. Failure to provide some advice would be tantamount to academic 'cop out' and would leave lecturers asking, "so what?" The researcher was also mindful that some practitioners usually did not appreciate boldly stated recommendations based on a study of a few cases undertaken by an 'outsider'. Nevertheless, the risk was taken.

EVALUATION

Evaluative reflection at the end of any study is beneficial to the researcher and the reader alike. For the researcher, it provides an opportunity for a critical examination of the study. The reader's attention is drawn to aspects of the findings which may need to be treated with some circumspection. Concluding a qualitative-naturalistic study which investigated the development of environmental education in Bophutatswana, Irwin (1993) stressed the role of a critical, reflective evaluation in the identification of subjectivity in all research in the social sciences.

An evaluation of the extent to which the aims and objectives of the research have been met, as well as of the research process is presented in the next section.

Aims and objectives

The aim of the investigation i.e to determine how pre-service teachers were prepared in the use of educational media in the Colleges of Education in Ciskei has been achieved. The five subsidiary objectives within the primary goal have also been attained. The historical socio-political context of Colleges of Education in the former Republic of Ciskei was documented comprehensively in the fourth chapter. In an attempt to facilitate contextualisation and interpretation of the findings in the socio-historical context of South Africa, the researcher provided details about the background of South African education which may seem unrelated to the focus of the thesis. Such details, the researcher believes, were mandatory for an understanding of the factors which influenced the implementation of the teacher education

curriculum in a segregated institution originally meant for Africans in pursuit of the Apartheid policy.

The extent to which technology was used by lecturers and pre-service teachers in the Colleges was reasonably established. The lectures which were observed as well as the lecturers' and students' testimonies yielded enough data in that regard. Were it not for frequent cancellations of appointments owing to disruption of lectures by students, more lectures could have been observed, however.

The examination of the Teaching Practice syllabus of which educational media was a component, as well as some participants' perceptions facilitated the documentation of the scope, nature and quality of the educational media course. One constraining factor, however, was the lecturers' short responses when open questions were asked. The majority were holding back and others were not familiar with the contents of the syllabus document. Consequently, the researcher's subjective presence may be inferred from the analysis of the syllabus.

The methods used to assess the pre-service teacher's understanding of the content of the educational media course were determined through the examination of question papers and through the participants' disclosures. The objective that was partially achieved however, was the fourth one i.e providing contextually-framed documentation of the instructional communication process between media lecturers and pre-service teachers during lectures, as well as between pre-service teachers and pupils. The abandonment of school visits due to political instability in the region imposed limitations to the attainment of this objective. The number of teaching practice lessons observed was so small that

conclusions could not be drawn without reservations. Also, the absence of a media lecturer for three years in one of the Colleges meant that pre-service teachers had no formal media lectures that could be observed. The conclusions were drawn on the basis of observations in two Colleges therefore. Although the absence of a media lecturer in the third College was a limitation, the findings in the other two Colleges were valid in as far as they faithfully represented the instructional communication process in the colleges. Further, microteaching and subject didactics lectures were observed in all three Colleges and the findings were considered valid.

Notwithstanding these limitations, it is submitted that the aims and objectives of this investigation have been met. The study does constitute a valuable record of the strengths and shortcomings of the approach to teacher preparation in the use of educational media in the three Colleges in Ciskei.

Methodological aspects

Methodological aspects of the present study were discussed in Chapters Three and Four. The appropriateness of the qualitative-naturalistic tradition for the present investigation was justified. Also, matters pertaining to the trustworthiness of the findings were discussed. One group of participants that could have added another dimension to the findings was regrettably omitted. Due to student activism during the years when interviews were held, interviews were restricted to lecturers. The participation of pre-service teachers in the observational and interviewing studies could have permitted more data triangulation, however.

One reservation that the researcher had however, concerned

the extent to which data collection methods of the quantitative tradition may be employed to complement qualitative methods. For example, unresolved is the issue of comparisons which could be made to the situation in other Colleges nationally. Although such comparisons would be valuable, the researcher doubts the appropriateness of such a step for purposes of the present investigation, given the stated aims and objectives. The present investigation was exploratory and aimed at understanding practice in the three Colleges in Ciskei. The researcher is convinced that a survey in which the findings of the present study could be compared with those of other settings would constitute a project in its own right. After all, a case stands on its own, the researcher believes. Perhaps the issue raised reflects the unresolved conflict between the qualitative and quantitative traditions, as well as the marginalisation of qualitative research in education circles in South Africa.

SUMMARY

In view of the researcher's conviction that factors which appear situational in nature may have their origin in the changing social, economic and political conditions of a society stratified along racial lines, the factors influencing the preparation of pre-service teachers in the use of instructional technologies were contextualised and interpreted in the socio-historical setting of Apartheid dominated South Africa. The aim was to find out how lecturers' and pre-service teachers' actions, the institutional context, and the larger societal conditions combined to create a situation that enabled or constrained lecturers from preparing pre-service teachers successfully in the use of technology in education.

The main argument advanced throughout the study was that the education of African teachers in the former Ciskei homeland and their preparation in the use of educational media were influenced by both situational and structural factors. It was further stated that prior to the establishment of the Government of National Unity, education in South Africa was provided in racially segregated institutions. Segregated education was born of the Nationalist Government's ideology, the racial supremacy of whites, which could be inferred from the Christian National Education policy, as well as in the terms of the Bantu Education Act of 1953, amended in 1954, 1956, 1959 and 1961.

Prior to 1948, teacher education was a missionary endeavour. Institutions such as Lovedale in Alice, Healdtown near Fort Beaufort, and St Matthews near Keiskammahoek had been established by the missionaries in the Cape. On the debit side, as explained in an earlier chapter, missionary institutions were both paternalistic and conservative. They displayed a prescriptive and authoritarian approach to teacher education. However, their contribution to the development of the "whole" teacher as opposed to the development of the "skilled craftsman" characteristic of Bantu Education teacher training schools, was unparalleled in black education in South Africa.

When the Nationalists came into power in 1948, the Eiselen Commission was appointed to investigate the education of blacks and to make recommendations. Among its recommendations, the Commission advocated the establishment of separate colleges serving specific regional and ethnic needs. The recommendation was so well received by the nationalists that in terms of the Bantu Education Act of 1953, on 1 January 1956 all colleges were brought under

departmental control and teacher education was to take place in the former homelands. The education of African teachers became separate and distinct from the training provided for other race groups in South Africa. As part of the policy of apartheid, the education of African teachers was placed under the direct control of segregated education departments.

The evidence in the previous chapters confirmed that in keeping with the principles of CNE ideology, the three Colleges of Education in the former Republic of Ciskei were segregated and were meant for Africans who were victims of forced removals which were part of the homelands consolidation plan. Herschel and Glen Grey districts were formerly falling under the jurisdiction of Ciskei up till 1976, when the Transkei became independent. To consolidate the Transkei homeland, the two districts were transferred to Transkei. Those who resisted Transkei rule migrated to the Hewu district in Ciskei as refugees. As a result of the cession, Ciskei lost two Teacher Training Schools to the Transkei: Bensonvale and Mount Arthur. Masibulele College of Education in Whittlesea was established in response to a need expressed by the residents of Hewu district after Ciskei had lost two Teacher Training Schools to Transkei. Similar circumstances precipitated the establishment of the other two Colleges in Ciskei. Africans who had been resettled in Mdantsane from the urban areas of East London, as well as those resettled in Zwelitsha from the urban areas of King William's Town were also faced with the predicament of not having tertiary institutions. Dr W B Rubusana College of Education in Mdantsane near East London, and Griffiths Mxenge College of Education in Zwelitsha near King William's Town were also established as part and parcel of the separate development plan. Factors in broader society influenced the establishment of the three Colleges which were the subject of

the present study.

A disturbing similarity was the "ad hoc" nature of the establishment of the Ciskei Colleges of Education. They were not carefully planned, as was the case with the missionary institutions. As suggested by evidence given in the fifth chapter, Masibulele and Dr W B Rubusana Colleges of Education were established as a result of pressure from their communities. Due to the Ciskei government's desire to appease the disgruntled communities, both Colleges started functioning in premises initially used by primary schools that were evicted to give way to the Colleges. Due to the "ad hoc" nature of their origin, Ciskei Colleges suffered serious teething problems that impacted negatively on the preparation of pre-service teachers.

In practice, the nationalist government's "own affair" philosophy meant that teacher education for Africans residing within the white areas of South Africa was provided in terms of the Department of Education and Training Act No.90 of 1979, and the Technikon Act No.27 of 1981, whereas that of the TBVC states depended on the policies of the respective Education Departments of the states concerned. By implication, DET was meant to provide syllabus structures only for the Colleges of Education under its jurisdiction. The Ciskei Education Department, if the "own affair" philosophy was applied, was expected to provide its Colleges of Education with its own syllabi, or better still, involve lecturers in the construction of their syllabi. Contrary to expectations, Ciskei Colleges of Education used DET syllabus structures, as explained earlier. Lecturers in these Colleges did not participate in curriculum design and syllabus construction activities. They implemented policy as they

found it written in the syllabus documents. The educational media syllabus was constructed by white "experts" employed by DET in fulfilment of their role as "trustees" of the native who was still in his cultural infancy. The attitudes of the majority of the lecturers interviewed ranged from acceptance of the situation to indifference. In view of the fact that African lecturers were trained in Apartheid institutions where Fundamental Pedagogics was compulsory, it was reasonable to argue that they had been socialized to accept the syllabus as neutral and apolitical. Their critical powers could have been so constrained that lecturers lacked the concepts essential for critically assessing the provision and control of teacher education. Also, the lecturers' lack of experience in curriculum issues was a contributory factor to their acceptance of the *status quo*. Those who rejected the prescription of syllabi by DET could do nothing to change the situation. The authoritarian management procedures of both the Colleges and the Department prevented lecturers from "questioning" authority. The presence of seconded ideologically "safe" Afrikaners in the Ciskei Education Department and in the Colleges reinforced the acceptance of DET syllabus structures. The conclusion that was drawn was that by failing to challenge their exclusion from syllabus construction activities, lecturers did not expand or exploit the relative autonomy that existed in the Colleges.

The exclusion of lecturers from syllabus construction activities inhibited the successful preparation of pre-service teachers in the use of technology in education. An examination of the Teaching Practice syllabus, for example, showed that related subject matter was distinctly divided into separate courses: educational media, chalkboard work, microteaching, observation and demonstration lessons. The rigid compartmentalisation of related subject matter resulted

in educational media being confined to the educational media lecture room. As a result, students missed opportunities for applying technology, as well as observing lecturers integrating media into demonstration lessons. Had lecturers been involved in syllabus construction activities, the importance of integrating the related knowledge would have been pointed out by the very people who after all is said and done, implemented policy.

The syllabus document was also silent on the provision of functional hands-on experiences for pre-service teachers. No periods were set aside for media practicals and lecturers did not schedule them. Given the single thirty-five minute period per week, as well as the long educational media syllabus, it was understandable why lecturers ignored practical hands-on experiences. If lecturers had been involved in syllabus design activities, they would have corrected the omission. For as long as hands-on experiences are not provided for in the syllabus, lecturers will not schedule them voluntarily with the negative result that the preparation of pre-service teachers in the use of educational media will remain inadequate.

Exclusion from participation in their own affairs seemed to have killed the motivation and professional commitment of many lecturers. They seemed alienated and as a result, whenever situations presented themselves, lecturers resisted the plans of the white trustees and used their own discretion, adopting strategies that almost bordered on cheating, to the detriment of quality teaching. For example, for lecturers to allocate marks for educational media sets some of the students did not submit is unprofessional.

In the light of the evidence provided in earlier chapters, it

seems reasonable to argue that the exclusion of teacher educators from syllabus construction activities in Ciskei Colleges reduced their chances of participating in a form of intellectual activity central to the nature of critical pedagogy. Their status was reduced to that of "high level clerks" implementing the orders of others within the school bureaucracy. The practice contributed to "deskilling" (Apple 1988), and ignored the teacher educators' judgement. For example, it is in the lecture rooms that pre-service teachers learn both about the content they will eventually teach, and the instructional strategies they will employ to teach that content. It is the lecturer who sets the tone for the pre-service teacher's understanding of technology and technology applications. Given this reality, it was unfortunate that lecturers did not participate in deciding what was to be taught, and by whom, under what conditions.

In seeking reasons why DET excluded lecturers from syllabus construction activities, insights from the United States of America, though taken from a completely different setting, seemed equally applicable in South Africa. For example, Aronowitz and Giroux (1985) referred to the designing of the syllabus by "outside experts" who are far removed from the specificities of daily classroom life as "ideological and pedagogical imposition". Probably, the South African government, through the activities of DET, implemented social and cultural reproduction by inculcating its ideology. As stated in chapter three, in terms of CNE Policy, which was the cornerstone of the ruling ideology, the education of Africans had to be organised and administered by whites "to ensure that the Afrikaner fulfilled his role as trustee to the native" (de Vries 1989: 453). It is no secret that the upper hierarchy of posts in the Department of Education and Training (DET), which was the authority for black education

in South Africa up till April 1994, was held by whites. Those were the white officials who took decisions for African lecturers on syllabus issues. Addressing the national inspectors' conference in August 1976, Hartshorne asserted:

Shouldn't we rather have been sitting listening to what black speakers - educationists and community leaders - had to say about the present crisis as they see it?...Perhaps the cardinal sin we have been guilty of in the last twenty years is making decisions for black people and their children, in deciding what was good for them...(1992: 15, 17).

Such ideological inculcation was resisted, however minimally. The indifferent attitudes displayed by the majority of lecturers in these Colleges, might be a manifestation of partial resistance to ideological inculcation. It often results in organizational waste (Persell 1987) in that officials or outside "experts" remain unaware of the ideas, problems, and feelings of teacher educators down below. In the case of Ciskei lecturers, the authoritarian practices of the Education Department induced silence, and silence usually created the impression that policies were accepted.

The vital role played by the educator in teaching and learning situations was addressed in chapter six. It was argued that any curriculum may be severely constrained if the educators lacked the skills, abilities, and competencies the curriculum called for. It was also argued that the quality of educators was more critical for success in less developed areas such as the Ciskei. The present investigation found that in most cases, the capacity and quality of lecturers inhibited the preparation of pre-service teachers in the use of technology in education.

As a result of the nationalist government's "own affair" policy, the quality and quantity of education provision in Ciskei has lagged behind that of DET education institutions (SAIRR 1988), and that of white South Africa. Under such financial circumstances, the Ciskei Education Department did not afford to appoint the required number of lecturers in the Colleges. Had education been a "general affair", the nationalist government would have been directly responsible for paying the salaries of lecturers in these Colleges. It was therefore reasonable to argue that the shortage of lecturers, though situational, had its origin in the society. It was closely related to the principles of CNE and the ruling ideology in South African society. Having said that, it is fair to state that the Ciskei government was also partly to blame for the lack of funds experienced by the Colleges. As a result of corruption and mismanagement of funds, Ciskei depended more upon the central treasury in Pretoria. Had funds been used according to strict budgets, education would have received an adequate allocation of funds.

As argued in the ninth chapter, the fast rate at which student enrolments increased was a situational problem which seemed to be beyond the control of the Colleges. The enrolment problem seemed to have originated from the segregated society. The exclusion of African pre-service teachers from Colleges of Education meant for other race groups was a policy decision taken by the nationalist government in pursuit of its policy of separate development. Africans were not consulted when such a decision was taken, yet they were the people to be affected the most when the policy was implemented. Given the nationalist government's segregationist policies that decreed unequal allocation of resources for the different race groups, it seemed reasonable

to argue that the high lecturer:student ratio in Ciskei Colleges of Education, despite the existence of empty Colleges meant for whites, was part of the nationalist government's conspiracy to give Africans inferior education, as inferred from CNE principles and the aims of Bantu Education. The effect of lecturer shortages was clear in the poor teaching of the educational media course in Colleges of Education in Ciskei. One College had no lecturer for educational media, due to financial constraints. For a period of four years, pre-service teachers in the College concerned received no tuition in the use of educational media, despite the stipulations of the syllabus. Even in the other two Colleges, justice was not done to educational media, due to staff shortages. The capacity of the lecturers handling educational media was inadequate for supervising functional hands-on experiences. Unless Colleges receive more staff grants, pre-service teachers will continue to receive inadequate training in the use of educational media.

Although the majority of lecturers in the Colleges had Bachelor's degrees, when the demands of the revised PTD and STD syllabi were considered, it was felt that the lecturers' qualifications were not adequate. Lecturers lacked confidence, professional competence, independence and creativity. They also lacked initiative and were loyal in their execution of official instructions. When their qualifications were compared with those of their white counterparts in Colleges meant for whites, the qualifications of African lecturers were found to be inadequate. Whilst the highest qualification of the majority of African lecturers was B Ed., the majority of their white counterparts had Masters and Doctors degrees. Lecturers were upgrading academic qualifications, as explained in previous chapters. The lecturers' rush to upgrade qualifications at the expense

of improving professional competencies was similar to the behaviour of teachers described in Human Capital Theory. As explained in the third chapter, according to Human Capital Theory, qualifications are "capital" which can be used to buy better opportunities, power, and status. Lecturers with more schooling earned more than those with less schooling, and lecturers who were usually promoted to senior positions were those with higher qualifications. Much as lecturers need to have good qualifications, the manner in which African educators in Ciskei were expected to improve qualifications seemed to be counter-productive. In the process, students were neglected.

When educators have to teach and study simultaneously, due to study leave restrictions, the decline of professional commitment on their part should have been predicted by the employing department. The resulting lack of professional commitment inhibited the preparation of pre-service teachers in the use of educational media. The lecturers involved in the educational media programme had no training in educational media themselves. They lacked both the theory and the manipulative skills they had to teach the pre-service teachers. Much as they were aware of the need to acquire theory and manipulative skills, due to circumstances, they used their extra time to attain qualifications, at the expense of pre-service teachers. The sad part was that attainment of higher qualifications was not a guarantee for better teaching.

The majority of lecturers in these Colleges were recruited from primary and secondary schools throughout the country. Research undertaken on the competence of African teachers found that many of the teachers who participated experienced difficulties with the transfer of knowledge; and, had had

inadequate training in teaching method and classroom management (Mashishi 1989; Taitz 1989). In view of such findings, when the professional competencies of lecturers are neglected, it is likely that the attainment of higher academic qualifications will not lead to effective teaching. There seems to be a need for the maintenance of a balance between the improvement of both academic qualifications and professional competencies if the education of pre-service teachers is to succeed.

The attempt to upgrade academic qualifications appeared to be situational when viewed superficially. However, when the history of the education of African teachers was analysed, it was reasonable to argue that it was a situational factor that was firmly rooted in broader society. Previously, the nationalist government allowed African teachers to teach with lower qualifications than their white counterparts. Table 29 reflects the entry requirements for teacher education for both black and white teachers.

TABLE 29

TEACHER EDUCATION ENTRY REQUIREMENTS

	WHITES	AFRICANS
Before 1910	Std 6	Std 6
1928	Std 10	Std 6
1953	Std 10	Std 8
1980	Std 10	Std 10

(Donaldson 1982; RSA Commission 1969).

Why did it take a period of approximately fifty-two years for

the nationalist government to raise the entry requirements of African prospective teachers to standard ten, when those for their white counterparts had been raised to standard ten as early as 1928? De Vries (1989) argued that a higher level of education was not required because Africans had been labelled "hewers of wood" and "carriers of water" in South African society. Another argument advanced was that the government was saving money in teacher training and salaries (Horrell 1964). In view of CNE principles, as well as the ruling ideology which were reflected in the aims of "Bantu Education", to the researcher, both arguments seemed plausible. The fact that African teachers received lower salaries than their white counterparts with similar qualifications up to the beginning of the 1980s suggested a conspiracy on the part of the nationalist government. It was only at the height of the 1976 riots that the government agreed in principle to the concept of equal pay for equal work for all teachers irrespective of race. But still, salaries were to be based on qualifications obtained, irrespective of experience and ability, which meant that the bulk of African teachers still remained disadvantaged, given their low entry requirements of standards six and eight. That decision, though welcome, has since put pressure on African teachers to upgrade their qualifications. It was therefore reasonable to argue that, although the decline of professional commitment resulting from the drive to attain higher qualifications appeared situational, it had its origin in the segregated society and it impacted negatively on the preparation of pre-service teachers in the use of educational media. As long as lecturers are not committed to the improvement of professional competencies in educational media, it is unlikely that the preparation of pre-service teachers in the use of instructional technologies can be adequate. At the same time, if the national Ministry of

Education fails to transform the rules and regulations governing the granting of paid study leave, lecturers will continue to study whilst lecturing, at the expense of the development of professional competencies which were likely to improve the preparation of pre-service teachers in the use of instructional technologies.

As explained in an earlier chapter, collegiality and collaboration seem to be essential ingredients for any strategy likely to succeed in improving teaching. In view of the documented inferior education received by lecturers during their own schooling in segregated schools and teacher training institutions, their lack of depth in their subject disciplines, as well as their lack of professional competence resulting from inadequate training in teaching method and classroom management, it was reasonable to expect lecturers to seek to collaborate with each other in their attempt to improve their professional competence. The majority of lecturers who in terms of the syllabus structures, should be teaching pre-service teachers in the use of educational media reported a lack of training in instructional technologies, which resulted in the gross neglect of pre-service teachers' technological training. In all Colleges there were lecturers who had been trained in Colleges of Education and Universities meant for Whites, Coloureds and Indians, who had received adequate training in instructional technologies. It seemed reasonable to expect such lecturers to share their expertise with their African colleagues who lacked theory and manipulative skills. Contrary to such expectations, there was minimal sharing of ideas and skills in the Colleges of Education in Ciskei. Personal, academic and racial jealousies divided the staff and contributed markedly to the high level of mistrust. The ill feelings and alienation resulting from the stratification of society according to race seemed to

have spilled over to the Colleges, resulting in a lack of co-operation and team spirit. In as much as the lack of collegiality was a situational factor originating from broader society, there were also some lecturers whose behaviour during working hours almost bordered on laziness but who used Apartheid as a scape goat. For example, some of the lecturers who were always sitting in the staff room, gossiping and giggling, when others were doing quality work was suggestive of laziness, especially when the same lecturers cited lack of time as an inhibiting factor when media needed to be produced.

The relative deprivation of the Colleges resulted in inadequate facilities essential for the successful implementation of the educational media syllabus. The absence of electricity for example seriously affected the course. The De Beers Chairman's Fund, and not the Department, financed the electricity project in Masibulele. It was a few years later that the Department financed the installation of electricity at Dr W B Rubusana. During all that waiting period, only chalkboard work was taught. Other educational media which were prescribed in the syllabus were neglected, though available, due to the absence of electricity. Lecturers became used to the idea of teaching the chalkboard only and that became the culture of the Ciskei Colleges of Education. The third College, however, did not experience similar problems due to the manner in which it was established. As the brain child of the then President of Ciskei, a lot of planning and financial support was given to Griffiths Mxenge, formally known as Lennox Sebe College. Also, business concerns such as Via Africa and Old Mutual donated large sums of money toward the establishment of the College.

On the whole, it was found that Colleges of Education in Ciskei experienced serious shortages of equipment, despite the existence of a compulsory educational media course. Given the numbers of pre-service teachers who needed to handle the equipment in order to practise and acquire manipulative skills hands-on, the Colleges were found to be media-scarce. Colleges did not receive any equipment or media from the Ciskei Education Department, save for chalkboards. They had to purchase the items from students' tuition fees, which were extremely inadequate at R635,00 in two Colleges, and R300,00 in the other. The entire running of the College depended on students' tuition fees, which meant that media were competing with other major essential items on the budget, and could not be a priority, according to the Rectors.

Aggravating the shortage of media was the chronic loss of equipment that was experienced even in the absence of burglaries, as discussed in chapter nine. Any College that lost ten television sets, ten video recorders, and one video camera through theft in the absence of burglaries was bound to lose faith and stop purchasing equipment. Loss of equipment was experienced in all Colleges in Ciskei. The absence of media technicians who could repair broken equipment also contributed to the shortages of media because Colleges felt it was very expensive to send equipment for repairs to professional technicians. Consequently, broken equipment was seldom repaired immediately, resulting in further shortages.

Shortages of equipment resulted in denial of access to rooms in which media were stored in all Colleges. The computer room, for example, was closely guarded by the lecturers

entrusted with that responsibility. Lecturers could not be given keys in the absence of the person-in-charge in case some equipment was reported missing. Photocopiers and other reprographic equipment were handled by either clerks employed for that purpose, or by the person-in-charge. Students were also denied access to the media centre and computer centre for similar reasons. Much as the reasoning behind such measures being taken was justified, denial of access to venues that housed media militated against the use of media by both lecturers and pre-service teachers. The attitudes of the persons-in-charge were reported to discourage use of the venues in some cases.

The shortage of equipment, as could be expected, impacted negatively on the use of media by both lecturers and pre-service teachers. It was therefore not surprising that lecturers in these Colleges tended to teach free of technologies.

In the light of the media shortages experienced in the Colleges of Education in Ciskei, it was concluded that it was highly unlikely that pre-service teachers could develop interest and competence in the use of educational media. It was equally unlikely that as fully fledged teachers, pre-service teachers would use media in their own classrooms.

The schools pre-service teachers visited for teaching practice were no different. They were far worse than Colleges in their lack of equipment and media, due to financial constraints. Those students who were diligent and motivated enough to use media were discouraged by the unavailability of media. Colleges were also not in a position to lend equipment and media to pre-service teachers for teaching practice purposes because of shortages. The only medium that was

readily accessible in all schools was the chalkboard and consequently, teaching was dominated by "chalk and talk". Even the teaching of supervising classroom teachers was free of instructional technologies, possibly influencing pre-service teachers not to use media as well. It was concluded that due to the classroom teachers' underutilisation of media, pre-service teachers were deprived of opportunities to observe the use of media in real situations. Because classroom teachers did not use media, the chances were reduced significantly that pre-service teachers would use technology.

Although the lack of funds for the purchase of equipment and media, as well as for the repair of breakages was situational, it was argued that it was a situational factor which was deeply rooted in the segregated society of the country. The manner in which the education of Africans was meant to be financed left much to be desired. It was not to be financed at the expense of white education, and practically that meant it should be poorly financed with the result that it was inferior to the education of other race groups. To aggravate the situation, education was made an "own affair", absolving the central government from the responsibility of financing the education of Africans in the TBVC states. If the education of prospective teachers had not been segregated and if the central government had taken full responsibility for financing the education of all pre-service teachers in South Africa, the Colleges of Education in Ciskei would have been supplied with standard equipment by the national Department of Education and would have had funds that would have allowed the purchase and repair of media occasionally. At the same time, the mismanagement of funds by the former Ciskei government, as well as the new East Cape Government cannot be ignored. In the midst of financial

problems facing the East Cape Government, it was alleged that the new government was already mismanaging funds, although the MEC for Local Government publicly denied the allegation:

The East Cape Government has paid Amatola Sun R300 000 as part payment for civil servants accommodation for May and June (Kei Mercury, September 15 1994: 1).

The East Cape Government was accused of wasting tax payers' money at a time when the MEC for Education and Culture issued a public statement on the serious challenges facing the region:

There were severe shortages of resources, including teachers, classrooms and textbooks, which was exacerbated by the large number of under and unqualified teachers, the high level of illiteracy and the neglect of early childhood development (Hoosein September 17 1994: 9).

In the light of this evidence, it is reasonable to argue that for as long as education is not among the government's top priorities, Colleges will not have the proper facilities and equipment which the successful teaching of the educational media syllabus requires.

The important conclusion that was drawn was that the education of African teachers in the former Ciskei homeland and their preparation in the use of educational media was influenced by both situational and structural factors. The provision of teacher education along racial lines resulted in the relative deprivation of Colleges meant for Africans.

Segregation and non-involvement of lecturers in matters affecting their daily activities in the Colleges has resulted in feelings of alienation which in some cases resulted in the resistance of the DET stipulated curriculum. The education of teacher educators in institutions dominated by Fundamental Pedagogics constrained lecturers from being critical of their circumstances.

SOME RECOMMENDATIONS

One of the problems with a case study is the question of generalisability. Since this problem exists in the present study, it is conceded that it was difficult to make recommendations.

At the time when the Colleges were visited, South Africa was still a segregated society. However, indications that an equitable, non-racial, non-sexist, democratic society was around the corner were already evident. Already, lecturers were anticipating the abolition of the Department of Education and Training. The establishment of a single Education Ministry for all the peoples of South Africa was hailed as a critical precondition for the transformation of education in general and teacher education in particular. Indeed, when the nation went to the polls on 27 April 1994 to elect what could be regarded as the country's first representative government in its history, the transformation of society in general and education in particular became a reality. By the 01 January 1995, DET will cease to exist and the education of all South Africans will be the responsibility of Central Government. Equal opportunities for all in education will be provided and the law will protect peoples' educational rights. Finally, the declaration of the

Freedom Charter of 1955 that "only a democratic state, based on the will of the people, can secure to all their birthright without distinction of colour, race, sex or belief" will be fulfilled. The doors of learning will be open to all.

But as usual, democracy comes with responsibilities. The formidable task confronting educationists and society generally is to transform education. The million dollar question facing teacher education is "What form will transformed teacher education take?"

The recommendations given in this section are not prescriptions but informed observations that were grounded in discussions with lecturers.

The quality and qualifications of lecturers

For Colleges of Education to play a significant leadership role in the use of instructional technologies to transform teaching and learning in South African classrooms, urgent attention needs to be paid to the attitudes, quality and qualifications of lecturers themselves. A similar finding was reported by the National Education Policy Investigation (1992: 66). The National Ministry of Education is faced with the challenge of committing itself to the provision of continuing professional educational opportunities for teacher educators to upgrade their knowledge and skills in using technology in education, as well as to encouraging positive attitudes toward their professional responsibilities. In view of the lack of manipulative skills on the part of the bulk of teacher educators, the purpose of in-service teacher education endeavours should be to develop and update manipulative skills, as well as to provide education that

offers vision of how to work with technology in education. The ongoing professional development of teacher educators is important because technology is not static but keeps on evolving. Educators need to be kept informed about what technology is available and how to use it effectively. It is only when teacher educators understand, use and are able to teach about and with instructional technologies that the preparation of pre-service teachers in the use of educational media can be effective. It is very important for teacher educators to regard teacher education as " a continuous process which encompasses initial teacher training, induction, INSET, through to long term career development" (Hextall et al. 1991, quoted in Johnson 1991: 196).

In-service courses should also empower teacher educators with curriculum design and development skills in view of the syllabi which need to be transformed. It is recommended that teacher educators themselves be involved in empowering members of the teacher education corps. That would provide teacher educators with opportunities to regain their professional autonomy and the sense of ownership that is currently lacking. The creation of close working relationships between Colleges of Education and University Faculties of Education would pay better dividends in this regard. Universities have enjoyed greater professional autonomy than Colleges and have been responsible for the design of curricula. They do have valuable skills and experiences they could share with their College counterparts. Also, lecturers may be redistributed in order for Colleges to benefit from the expertise of appropriately qualified and experienced staff. The need for teacher educators to "function in unison on matters of professional concern" is also stressed by the Natal Teachers' Society (NTS 1992: 24) and the Nepi Teacher Education Group (1992).

INSET could also empower teacher educators to provide school-based INSET for teachers in the field. After all, for the preparation of pre-service teachers in the use of instructional technologies to be successful, the technology skills of the supervising teachers in the schools pre-service teachers visit for teaching practice purposes need to be updated. However, it is important to stress that for curriculum development activities to take root and succeed both within and outside Colleges of Education, there is a need for a close relationship between pre-service (PRESET) and in-service (INSET) teacher education endeavours. The lack of co-ordination between the two often results in either redundancy or omission. As noted by Salmon and Woods, " A common gripe of those involved in INSET is that they have to undo or redo what has been covered at PRESET level" (1991: 120). Distance teaching will have a significant role to play in both PRESET and INSET.

The curriculum

The inappropriate education theory which was compulsory in DET Colleges and in most Universities has failed to develop critical, competent educators who can play a leading role in the transformation of education in general and teacher education in particular. It is recommended that Fundamental Pedagogics be removed from the curriculum of teacher education. An eclectic theory of education that exposes pre-service teachers to several perspectives is suggested as a far better alternative. To transform teaching styles which are dominated by authoritarian telling mode, supported by a single textbook and lecturer-made notes that are reproduced in examinations, Fundamental Pedagogics is a constraining factor. An education theory that stresses creative learning,

problem-solving, self-study in the library and co-operative learning in groups is essential.

It would be useless to attempt to include everything in the educational media syllabus given the overwhelming amount of information and rapidly changing technology. At the pre-service level, an attainable goal that could be considered would be to train teachers who are proficient, critical users of appropriate instructional technologies, including understanding of their limitations and possibilities. The role of a pre-service course in educational media then would be to develop pre-service teachers' professional competencies by helping them to understand and to use technologies as instructional tools. This approach has the potential of helping teachers realise that technology in education is a way of approaching teaching and learning.

The writer is convinced that the present compartmentalisation of related subject matter in the Colleges mitigates against the successful preparation of pre-service teachers in the use of educational media. Separation of technology from coursework is a major constraint that curriculum developers need to remove. It is recommended that technology be integrated into all subject areas. Introducing instructional technology as a central element in methods and theory courses could contribute a lot toward the successful preparation of pre-service teachers in the use of technologies.

Pre-service teachers also need to observe lecturers using technology in their disciplines or subject speciality areas. This calls for an interdisciplinary effort to identify a body of appropriate content to be taught, the manipulative skills

to be developed, as well as the equipment and facilities required. To maintain national standards, the Institute of Education where all teacher education institutions would be represented, could specify the professional competencies required of pre-service teachers in educational media and individual institutions could select content they deem appropriate for the attainment of such competencies.

Resources

For instructional technologies to be introduced successfully into the teacher education curriculum, the government needs to commit itself to the provision of financial resources. The acquisition, maintenance and upgrading of technological equipment demands lots of funds. There is an urgent need to build up the technological capacities of Colleges of Education if the technological skills of teachers are to be updated. Also, the provision of human resources such as qualified technicians, librarians, instructional systems designers, curriculum developers and media specialists needs to be addressed to ensure the successful implementation of a technology in education programme.

These recommendations are suggested as a spring-board from which teacher educators could develop an appropriate syllabus that will promote the integration of media in teaching and learning activities. At the end of the day, in the spirit of democracy, it is the teacher educators themselves, through open negotiation, who will decide on what will work for the Colleges of Colleges.

ISSUES AND QUESTIONS

The naturalistic study described in this thesis raises several issues and questions about the research process (i.e., naturalistic inquiry) and the content (educational media course). Some of these questions are listed below with the hope that they will provoke further discussion and inquiry.

Questions about the process

1. What is the impact on a naturalistic study of the investigator's prior relevant knowledge? For example, would an investigator who had no working experience in DET Colleges have interpreted the situation in Ciskei in a similar manner? Under what circumstances does such prior relevant knowledge enhance the quality of results?
2. What is the appropriate balance between description and inference within naturalistic studies? Is there enough description in this account of Colleges in the former Ciskei Republic to allow other researchers to apply these findings to other disadvantaged Colleges?
3. How does a researcher offer descriptive data to others in the interest of furthering research and yet protect the confidentiality of the participants and institution involved? Some of the results of the present study were reluctantly omitted because their inclusion might allow identification.

Questions about the content

1. How can the Colleges of Education realize the aim of producing teachers that are curriculum developers?
2. How can Colleges of Education play a role in introducing pre-service teachers to educational media so that they can use media to improve teaching and learning in schools?
3. What skills, provisions and policies are needed to empower teacher educators to become curriculum developers?
4. How can professional commitment and the "culture of learning" be restored in the new South Africa?

FINIS

This thesis has achieved what it set out to do, to investigate the preparation of pre-service teachers in the use of technology in education and to contextualise the findings in the socio-political context of South Africa. An important point to stress is that the general conditions found affected all aspects of learning in the Colleges - not just the use of technology in education. In this sense the findings of this investigation have significance beyond the parameters of technology in education. On the basis of the data collected, analysed and presented, the study painted a depressing situation that will be difficult to change. The major constraint to be addressed immediately however, is the re-education of teacher educators and teachers already in schools. The development of positive attitudes and improvement of the level of professional commitment are central to any transformative endeavours in these institutions, the writer believes.

APPENDIX A

Request to visit Ciskei
Colleges of Education.

Faculty of Education
University of Fort Hare
Private Bag X1314
Alice
30 May 1989

The Director-General
Department of Education
Republic of Ciskei
Bisho

Dear Mr Tabata

REQUEST TO DO RESEARCH IN COLLEGES OF EDUCATION

I hereby request permission to do research in the Colleges of
Education which are under your jurisdiction.

Studies conducted elsewhere reveal that some universities and
colleges give little training in the practical use of media
thereby ignoring the role which technology could play in
improving the quality of education. The purpose of my inquiry
is to identify factors which influence the preparation of
pre-service teachers in the use of educational media in Ciskei.

The findings of the study will be made available to the
department should the study get off the ground.

Yours sincerely



N MRWETYANA (MS)

SENIOR LECTURER: EDUCATIONAL TECHNOLOGY

APPENDIX B

Permission to visit Ciskei
Colleges of Education.

IRIPHABLIKI YECISKEI



REPUBLIC OF CISKEI

Trans: 7/3/1
No. _____
Subject: Mrs Malo
Inquiries: _____
Telephone: (0401) 993360

ISEbe Lemfundo
Department of Education

Inxowa Eyodwa X0032
Private Bag

BISHO

Miss N. Mrwetyana
University of Fort Hare
Private Bag X1314
ALICE

89 9. 08.

Dear Miss Mrwetyana

REQUEST FOR VISITS TO COLLEGES OF EDUCATION

1. Your letter dated 30 May 1989 refers.
2. Kindly be informed that your application to visit our colleges of education has been approved, but you are advised to contact the colleges personally.

Yours faithfully

DIRECTOR-GENERAL: DEPARTMENT OF EDUCATION

^ NM/nvg

APPENDIX C

Request to visit DET Colleges
of Education.

Faculty of Education
University of Fort Hare
Private Bag X1314
Alice
8 June 1989

The Director-General
Department of Education and Training
Private Bag X212
Pretoria

Dear Mr Du Toit

REQUEST TO DO RESEARCH IN COLLEGES OF EDUCATION

I hereby request permission to do research in the Colleges of Education which are under your jurisdiction.

Studies conducted elsewhere reveal that some universities and colleges give little training in the practical use of media thereby ignoring the role which technology could play in improving the quality of education. The purpose of my inquiry is to identify factors which influence the preparation of pre-service teachers in the use of educational media in Ciskei.

The findings of the study will be made available to the department should the study get off the ground.

Yours sincerely,



N MRWEIYANA (MS)

SENIOR LECTURER: EDUCATIONAL TECHNOLOGY

APPENDIX D

Permission to visit DET
Colleges of Education.



REPUBLIEK VAN SUID-AFRIKA

REPUBLIC OF SOUTH AFRICA

By beantwoording meld
In reply please quote

Telegramadres }
Telegraphic address }

"IMFUNDO"

Teleks No. }
Telex No. }

Telefoon } 323-9931 Bylyn }
Telephone } Ext. }

Adresseer alle briewe aan Direkteur generaal
All communications to be addressed to Director-General

No. 7/2/1

DEPARTEMENT VAN ONDERWYS EN OPLEIDING
DEPARTMENT OF EDUCATION AND TRAINING

Privaatsak } X212
Private Bag }
PRETORIA
0001

Miss N Mrwetyana
University of Fort Hare
Private Bag X1314
ALICE
REPUBLIC OF CISKEI

REQUEST FOR VISITS TO COLLEGES OF EDUCATION

We hereby acknowledge receipt of your letter, dated 8 June 1989, in this regard.

This Department does not have any objection for our Colleges of Education, as indicated in your letter, to be included in your investigation.

Wishing you success with your research.

1 DIRECTOR GENERAL: EDUCATION AND TRAINING

043HU

APPENDIX E

Questionnaire for pre-service
teachers.

QUESTIONNAIRE FOR THIRD YEAR PRESERVICE TEACHERS

Kindly respond to the questions in a manner which will reflect your true opinion. Your responses will be treated with confidentiality. Please check with a ✓ in the box reflecting your response.

PERSONAL DATA

Please supply the details concerning yourself.

1. Age:

- (a) Below 25 years
- (b) 25 - 30 years
- (c) 31 - 35 years
- (d) Above 36 years

2. Sex:

- (a) Male
- (b) Female

3. Course registered for:

- (a) PTD Junior
- (b) PTD Senior
- (c) STD

4. Subjects in which you did teaching practice:

List two

PRACTICE TEACHING

5. Describe the school where you did your teaching practice:

- (a) Rural
- (b) Urban
- (c) New
- (d) Old

6. Was there electricity in that school?

- (a) In all rooms
- (b) In some rooms
- (c) There was no electricity

7. For the production of your media, which facilities did you use?

- (a) College
- (b) Teaching practice school
- (c) Teachers' centre
- (d) University
- (e) Home

8. Did you receive any help from your teaching practice teachers in the use of media?

- (a) Yes
- (b) No

9. If your response to 8 above is yes, list three media you were helped with.

AVAILABILITY OF MEDIA

10. Indicate whether the following media were available.

	Teaching practice school	College
--	-----------------------------	---------

- (a) Charts
- (b) Maps
- (c) Models
- (d) Radio
- (e) Audio tapes
- (f) Slides
- (g) Filmstrips
- (h) Transparencies
- (i) Sound film
- (j) Video cassettes
- (k) Computer programmes
- (l) Language laboratory

USE OF MEDIA

11. During which lessons did you make use of the following media?

	Micro teaching	Teaching practice	Never
--	-------------------	----------------------	-------

- (a) Charts
- (b) Maps
- (c) Models
- (d) Radio
- (e) Audio tapes
- (f) Slides
- (g) Filmstrips
- (h) Transparencies
- (i) Sound film
- (j) Video cassettes
- (k) Computer programmes
- (l) Language laboratory

EDUCATIONAL MEDIA COURSE

12. Who teaches the educational media course at your college?

- (a) Media lecturer
- (b) Education lecturer
- (c) Teaching science lecturer

(d) Subject didactics lecturer

13. Which of the following did you actually handle?

- (a) Slide projector
- (b) Filmstrip projector
- (c) Slide-tape projector
- (d) Overhead projector
- (e) Soundfilm projector
- (f) Video recorder
- (g) Personal computer

14. When were you given opportunities for handling these?

- (a) During microteaching
- (b) During method lectures
- (c) During media practicals
- (d) List other times, if any: _____

15. Which medium was mainly used for recording lessons during microteaching? Choose one.

- (a) Audio tape
- (b) Video cassette
- (c) Lessons were not recorded

16. How were the following media introduced to you?

Lecturer	Lecturer
explained	demonstrated

- (a) Charts
- (b) Maps
- (c) Models
- (d) Radio
- (e) Audio cassettes
- (f) Slides
- (g) Filmstrips
- (h) Transparencies
- (i) Sound film
- (j) Video cassettes
- (k) Computer programmes

17. List the kinds of improvements you would like to see being effected on the present educational media course.

THANK YOU FOR PARTICIPATING

APPENDIX F

Questionnaire for lecturers.

QUESTIONNAIRE FOR COLLEGE LECTURERS

Kindly respond to the questions in a manner which will reflect your true opinion. Your responses will be treated with confidentiality. Please check with a tick ✓ in the box reflecting your response.

PERSONAL DATA

Please supply the details concerning yourself.

1. Age:

- (a) Below 25 years
- (b) 25 - 35 years
- (c) 36 - 45 years
- (d) 46 - 55 years
- (e) Above 55 years

2. Sex:

- (a) Male
- (b) Female

3. Highest academic qualification:

- (a) Matric
- (b) Bachelor's Degree
- (c) Honour's Degree/ B Ed.
- (d) Master's Degree
- (e) Doctor's Degree

4. Professional qualification:

- (a) PTC
- (b) PTD
- (c) STD
- (d) JSTC

- (d) UED/HED/HDE
- (e) Other

5. Teaching experience:

0 - 5yrs 6 - 10yrs 11 +yrs

- (a) Primary school
- (b) Secondary school
- (c) College of Education
- (d) University
- (e) Teaching educational
media

6. Please list the courses you teach to third year students.
Write the first three responsibilities, if any.

- (a) First: _____
- (b) Second: _____
- (c) Third: _____

AVAILABILITY OF MEDIA

7. Please indicate the equipment available at your college.

- (a) Slide projector
- (b) Filmstrip projector
- (c) Slide-tape projector
- (d) Audiotape recorder
- (e) Overhead projector
- (f) Sound film projector
- (g) Video recorder

- (h) Television
- (i) TV Monitor
- (j) Video camera
- (k) Personal Computer
- (l) List others:

USE OF MEDIA

8. During which lectures do you make use of the following media?

LECTURES

All Demonstration Some Never

- (a) Charts
- (b) Maps
- (c) Models
- (d) Radio
- (e) Audio tapes
- (f) Slides
- (g) Filmstrips
- (h) Transparencies
- (i) Sound film
- (j) Video cassettes
- (k) TV
- (l) Computer programmes

9. Which media have you produced on your own?

- (a) Enlarged pictures on photocopier
- (b) Decreased pictures on photocopier

- (c) Produced transparencies by hand
- (d) Produced transparencies mechanically
- (e) Produced stencils by hand
- (f) Produced stencils mechanically
- (g) Duplicated notes on any duplicator
- (h) Produced wall charts

10. For the production of media, which facilities did you use

- (a) College
- (b) Teachers' centre
- (c) University
- (d) Home

11. Which medium is mainly used for recording lessons during microteaching? Choose one.

- (a) Audio tape recorder
- (b) Video recorder
- (c) No recording

EDUCATIONAL MEDIA COURSE

12. Who teaches the media course at your college?

- (a) Media lecturer
- (b) Education lecturer
- (c) Method lecturer
- (d) Teaching Science lecturer

13. There is a general feeling that media are not used as often as they could be at your college. Do you agree?

(a) Yes

(b) No

14. If your response was yes to 13 above:

Why, in your opinion are media underutilized?

15. If your response was no to 13 above:

What makes people to think that media are underutilized at your college?

16. What could be done to improve the educational media courses offered to preservice teachers at your college?

THANK YOU FOR PARTICIPATING

APPENDIX G

Quotations from questionnaires
and interviews.

APPENDIX G

QUOTATIONS FROM QUESTIONNAIRES AND INTERVIEWS

1. STAFF ADMISSIONS

"Anybody gets appointed here. There is no real merit. As long as you have a degree, a diploma and five years' experience you are in." (Lecturer interview, College one).

"Because there are no interviews, lecturers are not necessarily good teachers." (Rector interview, College three).

"I know of lecturers who had a history of failures as teachers. Some of them were chased away by pupils due to inability to teach effectively and others because they were lazy. But they are here preparing future teachers." (Head of Department Interview, College two).

"Perhaps transparency will help improve things. The best candidate will get the post which was advertised and for which several applicants were interviewed". (Lecturer interview, College two).

"Lecturers should be appointed on the strength of their majors not just because they have degrees. For instance we have a lot of people who majored in Biblical Studies and Xhosa. These are the lecturers who end up teaching anything

with disastrous results. There is no specialisation whatsoever". (Head of Department interview, College three).

"Possession of a B Ed degree does not help especially if you have PTC or JSTC. We all know that those diplomas were useless. Since nobody cares to run workshops here, lecturers with better professional qualifications should be appointed". (Lecturer interview, College one).

"Directives from Head Office were used when some of the lecturers were employed, especially in the case of Whites. So you get a mixture of lecturers who do qualify and those who do not". (Lecturer interview, College two).

2. STUDENT ADMISSIONS

"For as long as teaching is looked upon as a soft option, we will continue to admit rejects who will not pull their socks after being admitted". (Lecturer Interview, College three).

"Students who apply are those with symbol E and sometimes F. What can you really achieve with that kind of student who has failed academically? That is why we turn out teachers who are rejected by our high schools". (Rector Interview, College three).

"In my history as a lecturer here, I have never seen a student with an exemption. Even if a candidate had applied, once results indicate an exemption, that student never honours the application. I suppose they go to varsity or nursing".

"Our problem originate from 1976. Those children who were in primary schools then are our students in the eighties and nineties. So what do you expect? They are not used to learning at all. They have always been condoned and they expect us to do that here". (Head of Department interview, College three).

"We get students who will not give lessons during teaching practice if they choose to, but who demand year marks at the end of the year. Shockingly enough, they are given marks when they demand them, for the sake of peace". (Lecturer interview, College two).

"Student activism dictates even who gets admitted. When we refuse to admit students because of low symbols, our second and third years, together with the community accuse us of being sell outs and pressurise rectors to admit all those who apply. We end up admitting rejects". (Lecturer interview, College three).

"Matric results are no longer a true reflection of students' performance. Both candidates and markers cheat and as a political ploy, results are moderated to ensure a reasonable percentage of passes in black education, in case students riot". (Rector interview, College one).

"Even these interviews are a sham. We do not have them any more". (Head of Department interview, College one).

3. NON-INVOLVEMENT OF LECTURERS IN DECISION MAKING

"We are never invited to meetings that discuss policy. The College revolves around the Rectors and HODs". (Lecturer interview, College two).

"We rarely have staff meetings. When we do, we do not discuss. We are told what was decided elsewhere". (Lecturer interview, College three).

"HODs simply take over and run the show for us and when we question their decisions they become angry". (Lecturer interview, College three).

"Since DET controls everything in these Colleges, we are not expected to change things. We are told to stick to DET syllabus requirements even if they do not suit us. We tow the line because we do not want to be perceived as trouble makers". (Lecturer interview, College two).

4. LACK OF CONFIDENCE

"I do not feel comfortable when I teach in the presence of other lecturers. That is why I prefer no to give demonstration lessons". (Lecturer interview, College two).

"Team teaching is not a possibility in the near future because we do not like to be criticized by other lecturers when teaching". (Lecturer interview, College two).

"Class visits were abolished when we complained. We hate them

because we feel judged. You lose confidence when another lecturer observes you". (Lecturer interview, College three).

"We have different teaching strategies. When we observe each other's lessons and we disagree on style, we may end up clashing. It has happened in the past and to avoid it, we keep to ourselves". (Lecturer interview, College one).

5. CONSERVATISM

"If I start involving students in my lesson, they simply take over and then I do not finish the syllabus. I teach them, after all that is why I am in that lecture room and that is what students want". (Lecturer interview, College three).

"These media distract attention. Instead of students focussing on the main facts of the lesson, they concentrate on things that are peripheral". (Lecturer interview, College one).

"We were taught without media and here we are. These things are just for entertainment and for impressing inspectors. I have no time for them". (Lecturer interview, College one).

"I think teaching aids are applicable in the primary school. Secondary school teachers do not really need them. Chalk and talk plus the textbook still do the trick successfully. Students pass exams". (Lecturer interview, College three).

"These discussions lead to chaos. Everything leads to politics and students have no discipline. To prevent that, I teach on my own and ask them questions. I do allow them time

to ask me questions and they seldom ask". (Lecturer interview, college two).

"If you give them work to do either during lectures or for homework, they think you do not know your subject and you want them to research for you. To prove that you know your subject well, you have to teach them They like that". (Lecturer interview, College two).

In all the lecture rooms visited, small tables and chairs were arranged in neat rows facing the chalkboard. The lecturer's table and chair occupied the front corner facing the door. Lecturers accepted this arrangement as unchangeable:

"Furniture has always been arranged like this in our schools. It works because I can see all the students when I teach and the arrangement is orderly and neat". (Lecturer interview, College three).

"I have never seen the need to change this arrangement because it does not give me any problems. This way we are able to maintain eye contact and students listen because I can see them". (Lecturer interview, College one).

"We have large numbers of students. To accommodate all of them, this is the only way in which desks can be arranged. Even if I

could rearrange them for discussions, the duration of lecture periods which is thirty minutes, would not permit that. Where would we get the time to rearrange them for the next lecturer? That is why they are arranged like this". (Lecturer interview, College two).

6. REASONS FOR UNDERUSE OF EDUCATIONAL MEDIA

"I do not have the time for preparing media because I am over-worked". (Lecturer interview, College two).

"There is a shortage of overhead projectors. In the morning there is a scramble, and I prefer not to be part of that". (Lecturer interview, College two).

"Looking for media all over the Campus wastes my time. Lecturers borrow equipment and take days to return it. That means at the time when you need something, you may not get it. That is discouraging". (Lecturer interview, College one).

"I am used to wall charts and here, everybody thinks charts are old fashioned, so I stopped using them".
(Lecturer interview, College two).

"I do not know how to use these gadgets and nobody teaches us anyway, so I simply teach without them". (Lecturer interview, College three).

"They do not make any difference. Whether you use them or not, the results at the end of the year are the same". (Lecturer

interview, College three).

7. NEED FOR IN-SERVICE COURSES THAT ADDRESS TEACHING METHODS

"Everybody is talking about teaching methods that involve students more. I wish there could be a course on that. We were never trained to teach without the textbook and the chalkboard but now we are expected to do just that". (Lecturer interview, College two).

"The way we teach was accepted when we were student teachers and even inspectors had no problems with it. Now we are told about participatory methods and we do not know how to apply them. Somebody has to teach us". (Lecturer interview, College three).

"Most of us aware of the need to upgrade our teaching abilities. The main problem is the lack of in-service training that pays attention to our real needs. The few lecturers who have attended courses complain about the neglect of teaching methods. Emphasis is on content." (Lecturer interview, College three).

"We hope the integration of Education Departments will help because we will also participate in in-service courses. Up till now in-service courses were organised by DET for DET lecturers Ciskei did not organise courses for lecturers. Only within the past three years did DET invite some lecturers, but not for all courses". (Lecturer interview, College one).

8. SUGGESTED IMPROVEMENTS FOR THE EDUCATIONAL MEDIA COURSE

"The College has no money for buying equipment. The government should increase funding". (Lecturers' questionnaire).

"There can be no improvement to anything, unless there is a single department of education in the country. White Colleges have these things". (Lecturers' questionnaire).

"Lecturers need training in how to handle and use technology. Blacks were not trained for technology and now we are expected to use it". (Lecturers' questionnaire).

"Improving things here when nothing is done in the schools is useless. We are just waiting for this new dispensation. When there is equality of opportunity we can start talking about improvements". (Lecturers' questionnaire).

"Colleges should appoint qualified media lecturers and stop giving the course to every Tom, Dick and Harry". (Lecturers' questionnaire).

"All Colleges should use the same prescribed textbook". (Students' questionnaire).

"Media lecturers must demonstrate how media are used. They lecture without media but when we go for TP, they demand that we teach with media. They must show us how". (Students' questionnaire).

"They should arrange for practicals. It is not enough they

teach us about equipment. They must let us use it practically" (Students' questionnaire).

"Method lecturers should stop blaming media lecturers. Media lecturers do not know all subjects. They must attend media lectures and help the media lecturer with practical demonstrations". (Students' questionnaire).

9. WHY PRE-SERVICE TEACHERS HAVE NO ACCESS TO THE MEDIA CENTRE

"This room is too small to accommodate the crowds of students we have". (Lecturer interview, College one).

"Students are sometimes careless. If they break anything we would have to take the item to East London for repairs. There is no time and no money for that". (Lecturer interview, College two).

"Students themselves refuse to work in the afternoon. That is the only time they can use the room because lecturers do not need equipment because they do not teach in the afternoon". (Lecturer interview, College three).

"Equipment does disappear even in the absence of burglaries. Maybe it is an inside job". (Lecturer interview, College three).

10. HOW LECTURERS AND STUDENTS CHEAT THE SYSTEM

"Most of them do not mark exam scripts. They simply give impression marks and thats it". (Head of Department interview, College three).

"I set questions only on topics I had time to teach and not on all topics prescribed by the syllabus". (Lecturer interview, College one).

"I do not know this subject so I teach only topics I am familiar with and leave the rest". (Lecturer interview, College two).

"I request students to assist me with marking when I realise that I will not meet the deadline". (Lecturer interview, College two).

"When they need time off to attend to their personal problems, they see doctors so that when they come back to the College they produce medical certificates". (Head of Department interview, College one).

"They never produce the required number of media sets. Because this is a syllabus requirement, we have to do something so we accept two instead of four, then we calculate marks as if four were submitted". (Lecturer interview, College one).

"Students borrow each others' assignments and teaching aids. What they use during teaching practice is not always their own

APPENDIX H

Samples of interview schedules.

INTERVIEW PROTOCOL

COLLEGE: 1

DATE: 1991

TIME: 9:00

NAME: Toz

Aug 26

1. Tell me about how you ended up teachingMT.....instead of other subjects.

Here, you teach anything except subject didactics. So it was just natural because there were enough subject didactics lectures.

2. How did you feel when you knew that you were going to teach.....MT.....?

Relieved. I have taught it before, so I would not experience any new difficulties.

3. What were your first impressions about ...MT.....?

Since I was coming from another college I knew what to expect.

4. How were you prepared for your.....activities? by whom? in what way? why not?

It's a trial and error exercise. No one prepares you for anything here. That is just how things are done in our institutions.

5. How do you relate with other...MT.....lecturers? working together? what for? how?

how often? I once tried to influence them to adopt team teaching but I failed. Since then we have no real relationship - concerning MT that is -

6. Why do you conduct your.....sessions in the way you do?

It's the only way people are used to here. Also, that's how my HOD likes it -

7. How do the students feel about the way you conduct...???

They have not told me. Actually I do not ask them - less confrontation.

8. How do other.....lecturers feel about the way you conduct.....?

We do not discuss it. I assume we are doing the same thing.

9. How do you feel about the way students conduct theiractivities?

They could do any better. When things are normal - no riots and stay aways - they are o.k. They do their work, especially if marks are involved. Its on and off.

10. What is the relationship between MT and Educ. Media, given that the use of educational media is one of the microteaching skills?

Relationship? There is none.

11. How do you feel about that relationship?

Well, I do not have strong feelings. By the time they come to MT sessions, they must have done some work in the educational media class. I skip the use of media because I assume the educ. media lecturers deal with them and the chalkboard lecturers also cover use of the chalkboard.

12. Why do you not change to what you would like to see?

It is not that we do not experience problems. We are keeping quiet just to stay out of trouble. When you ask many questions, you are misinterpreted as a trouble maker, and you are punished in a subtle manner. How can you question your trust to the Bundus for instance? So I don't even try to change things.

INTERVIEW PROTOCOL

COLLEGE: 2

DATE: 1991

TIME: 10h00

NAME: Sal

22 Aug

Educ Media

1. Tell me about how you ended up teachinginstead of other subjects.

Although I have no training in educational technology I was instructed to teach educational media. I hate the whole thing

Educ Media

2. How did you feel when you knew that you were going to teach.....?

Furious. Were I trained in Rhodes, or in any of the institutions meant for the other race groups I would know these things. You can see that these people know what they are doing due to their quality education.

3. What were your first impressions about? Educ Media

I expected to teach about computers and tests exactly what made me furious.

4. How were you prepared for your.....activities? by whom? in what way? why not?

Preparation? If there is one thing that is not done here is induction. So nobody prepared me in any way. It is just something that is not done.

5. How do you relate with other..... lecturers? working together? what for? how? how often?

My experience here is that the lecturers who have served the college for a long time resist any suggestions. They discourage you with their remarks. The bottom line is that they think new lecturers know nothing and older ones know everything as a result of their experience. So I do not relate well with them.

6. Why do you conduct your.....sessions in the way you do?

Audiyazi into eghubikayo apha. Kuphele umda to emntwini wonke. There is a lot of confusion. Both DET and HODs are culprits. If only they could consult with the people who actually teach institute Practicum before allocating teaching responsibilities and time, most of the problems we are experiencing now could be prevented. So ke that is why ndiqhuba ngolu hlobo.

7. How do the students feel about the way you conduct...MT...?

They are agreeable. At least they have not complained. I guess I would have received a petition by now.

8. How do other.....lecturers feel about the way you conduct.....?

They have no problems. We follow the syllabus. It's method lecturers who would like MT to be their responsibility, but because of staffing problems, we can't. Besides, the syllabus prescribes it this way.

9. How do you feel about the way students conduct theiractivities?

To be honest with you I do not care anymore. I used to worry a lot about our students. If they are asked questions in class, they do not respond. When asked to make notes from textbooks, they say teachers are lazy. They simply memorise everything. It's pathetic especially that they are teachers of tomorrow.

10. What is the relationship between MT and Educ. Media, given that the use of educational media is one of the microteaching skills?

I have never seen a microteaching syllabus. When I asked for one from the Head, he told me to ask previous years' lecturers which skills they were teaching. So they never told me that the use of media is a MT skill. Anyway, there is no relationship.

11. How do you feel about that relationship?

As microteaching lecturers we believe that for microteaching and educational media to be effective they need to be the responsibility of subject method lecturers. They are so related that they deserve to be taught by the same person.

12. Why do you not change to what you would like to see?

If only I had the power to influence my colleagues we could bring about some changes to our teaching strategies at least. Lack of time is used as a reason for postponing the implementation of changes. Also the strict ways in which we are expected to stick to the syllabus.

INTERVIEW PROTOCOL

COLLEGE: I

DATE: 1990
1st Dec.

TIME: 11.45

NAME: LIZ

Subj. Didactics.

1. Tell me about how you ended up teachinginstead of other subjects.

Well, that's what I am here for. I knew that I was going to teach Sub Did when I came, I had applied for it.

2. How did you feel when you knew that you were going to teach.....?

Thrilled

3. What were your first impressions about? Subj. Did.

I thought I was going to deal with method only. I was shocked to realise that first years were taught secondary school content. I had not anticipated teaching that.

4. How were you prepared for your.....activities? by whom? in what way? why not?

My HOD gave me the syllabus and textbooks and we also held subject didactics meetings where some procedures were explained.

5. How do you relate with other.....lecturers? working together? what for? how? how often?

Well - we share a lot of our experiences

6. Why do you conduct your.....sessions in the way you do?

Is there another way? I guess that's how things are done here, so I joined the band wagon. Further, the syllabus tells you what to do.

7. How do the students feel about the way you conduct.....?

As long as they do not complain, I assume they are happy. So far, there have been no complaints.

8. How do other.....lecturers feel about the way you conduct.....?

They have never said anything, so again I assume they are happy.

9. How do you feel about the way students conduct theiractivities?

Mh! I am very unpopular with them. They think I am impossible for no reason. They are lazy. That bothers me a great deal because they are teachers in the making. They do not want to make their sets.

10. What is the relationship between MT and Educ. Media, given that the use of educational media is one of the microteaching skills?

There is no relationship. If the syllabus does not indicate what kind of working relationship should be followed, then I'm afraid no one initiates it. It can only exist when some MT lecturers are also involved in Media.

11. How do you feel about that relationship?

It's wrong. Students have to use media during MT and their MT lecturers should demonstrate the use of media during MT. The whole system needs to be changed.

12. Why do you not change to what you would like to see?

As of now, nobody encourages changes here. We are always told to wait for the new dispensation. I suppose, when DIT disappears from the scene, changes will be effected. Now we are waiting.

INTERVIEW PROTOCOL

COLLEGE: 2 DATE: 1990 TIME: 9h30 NAME: Fu
30 Nov.

Educ. Media

1. Tell me about how you ended up teachinginstead of other subjects.
I was interested in the in-service course offered in Saslangwe. It's a Library Science course and they teach media. So after I had qualified the Rector offered me to teach the course.

2. How did you feel when you knew that you were going to teach.....?

A little scared but delighted. At least I would be able to try out some of the skills I had acquired in Saslangwe.

3. What were your first impressions about? Ed. Media

By the time I was offered to teach I was already familiar with the contents of the syllabus, so I had no impressions, I just knew what was involved.

4. How were you prepared for your.....activities? by whom? in what way? why not?

Well, nobody prepared me. I just followed what was prescribed in the syllabus.

5. How do you relate with other.....lecturers? working together? what for? how? how often?

The lecturers I relate with are those who share educational media with me. We share problems but we never visit each other's lectures.

6. Why do you conduct your.....sessions in the way you do?

The syllabus allows me 30 minutes once a week for each group. To be able to complete the syllabus, I lecture on each medium. It is not possible to give demonstrations or practs. There is no venue, no time and no equipment.

7. How do the students feel about the way you conduct.....? Ed. Med

They have no problems with it. It is only when they have to produce media sets, and teaching practice materials that they get upset. They expect me to know all their subjects and to be able to give them advice. I can't do that. I send them to their subject didactics lecturers.

8. How do other.....lecturers feel about the way you conduct.....?

They think I am shirking my responsibility when I refer students to them for media sets and teaching practice materials. They do not understand. We blame each other a lot as a result.

9. How do you feel about the way students conduct theiractivities?

Students make me angry when they postpone producing their sets. They never meet deadlines. Some of them come with silly excuses and, in the end, we break rules. We end up allowing them to produce two sets instead of four.

10. What is the relationship between MT and Educ. Media, given that the use of educational media is one of the microteaching skills?

It is the first time for me to hear that use of media is a MT skill. Please show me the syllabus. As of now, there is no relationship whatsoever, but I will ask them about it. What are they telling students about media if they do not even discuss it with me. I love to follow their lead.

11. How do you feel about that relationship?

It frustrates me that I am alone in the subject. It would be very helpful if we were pulling together. I can't be the only person involved with media. It does not make sense.

12. Why do you not change to what you would like to see?

Change? You! That's a swear word here. We have been operating like this for years and it works. We can't change things that are in the syllabus. Do your own changes but do not involve us. There is a lot of ground to be covered in the syllabus without changing it.

INTERVIEW PROTOCOL

COLLEGE: 3

DATE: 1990
Nov 29

TIME: 11:15

NAME: Zuk

1. Tell me about how you ended up teaching Ed. Med. instead of other subjects.

The Head told us that there was a shortage of staff. He asked for a volunteer and nobody was willing. Then he instructed me to teach educational media. I objected but he reminded me that it was an instruction, so I obeyed.

2. How did you feel when you knew that you were going to teach Ed. Med.?

I like technology, it fascinates me, so I was not upset. When he objected to my own objection, I accepted the challenge.

3. What were your first impressions about Ed. Med.?

I thought I would be working with computers, TV, cameras and all the high tech stuff I had seen in the States. I thought that was what the course was all about.

4. How were you prepared for your Ed. M. activities? by whom? in what way? why not?

That is never done in this College. You are left to fend for yourself. Nobody even gave me the syllabus. My head, uh! a funny man. He told me to ask from other lecturers who had taught the course before. That's what I did.

5. How do you relate with other Ed. M. lecturers? working together? what for? how?

how often? I wish we could work together. The demands students make on me necessitate that working together, especially with subject didactic lecturers, but I am on my own. Time is the main reason or excuse given whenever I invite people.

Ed. Med

6. Why do you conduct your Ed. M. sessions in the way you do?

Everything I do is according to the syllabus. At first, when I started, I had no syllabus and I was doing my own thing. When my head became aware that I was teaching what I liked when I wanted to, he provided me with a syllabus. I teach Media to the whole College and I have a 30 minute period per week per group. Actually only first years are taught theory. It's and It's produce media sets a...

7. How do the students feel about the way you conduct.....? Educ Media

I don't know because I never ask. For as long as they say nothing, I think they are O.K.

8. How do other.....lecturers feel about the way you conduct.....?

I have never seen or heard them discussing each others' work. Actually I don't discuss mine with them either, so our feelings are hidden from each other.

9. How do you feel about the way students conduct their activities?

I am completely disillusioned. Students are just lazy these days. Since the 1976 riots and school boycotts the standard of education in our schools has gone down. Students do not learn. They expect teachers to spoon feed them for tests and examinations after having absented themselves from classes. They always negotiate postponement when assignments have to be submitted. Its very frustrating.

10. What is the relationship between MT and Educ. Media, given that the use of educational media is one of the microteaching skills?

There is no relationship.

11. How do you feel about that relationship?

If educational media lecturers took part in MT they would be able to demonstrate the use of media. They would also evaluate the students' competence. So the absence of a working relationship between MT and Media is disastrous.

12. Why do you not change to what you would like to see?

What discourages me the most is my head of department's attitude when I come with suggestions. He discourages any departure from syllabus stipulation. The moment a person tells me about his experience when he opposes my views, I give up because I have little own

INTERVIEW PROTOCOL

COLLEGE: 3 DATE: 1991 TIME: 11:00 NAME: Suz.
Aug 26

1. Tell me about how you ended up teaching ...MT.....instead of other subjects.

I was appointed to the Didactics team so naturally MT is one of the courses taught there.

2. How did you feel when you knew that you were going to teach...MT...?

I had no defined feelings, it did not really matter. We change courses so much that it doesn't matter any more.

3. What were your first impressions about ...MT...?

I expected it to be organised along the same lines as at UFH. Each method lecturer with group of students, the majority being the lecturers' method students - But it wasn't like that.

4. How were you prepared for your.....activities? by whom? in what way? why not?

Here there is no preparation, so I was not prepared in any way.

5. How do you relate with other...MT.....lecturers? working together? what for? how?

how often? We exchange notes when we need to we discuss problems pertaining to MT but we do not take each others' groups. I have never seen my colleagues teaching and I is not taught in their presence. So there is no real work together

6. Why do you conduct your.....sessions in the way you do?

That's how it is described in the textbook.

7. How do the students feel about the way you conduct.....?

They are positive - We get on very well so I can say they are happy

8. How do other.....lecturers feel about the way you conduct.....?

Agreeable. We sort of work along similar lines. When we check each other's schemes, I note that there is no difference.

9. How do you feel about the way students conduct theiractivities?

They make me angry when it is Teaching Practice time - Its as if you never taught them how to do these things. They make a mess if they do turn up. You know, this political turmoil is disruptive and it gets to their heads.

10. What is the relationship between MT and Educ. Media, given that the use of educational media is one of the microteaching skills?

I don't know - but I believe that during TP, method students have to apply skills they acquired in MT and Media. However, they seldom do that.

11. How do you feel about that relationship?

I am unhappy and concerned. MT and educ. media should be handled by subject method lecturers to be meaningful. They are so interrelated that they may not be separated.

12. Why do you not change to what you would like to see?

My head expects us to accept everything as policy. When we start challenging some of the stipulations of the syllabus, he becomes angry and tells us to follow instructions and stop asking questions. Under such circumstances we simply do as we are told. Sihambisa nie itihili!

APPENDIX I

Samples of observation grids.

OBSERVER - PARTICIPANT GRID

COLLEGE:

DATE:

OBSERVATION

DESCRIPTION

1. Who is in the group?
how many; identities;
how is membership
acquired?

14 African lecturers (94 male
and 10 female). Interests
determine who sits in the room
and who does not.

"Those abasindisiweyo (for instance
prefer to be together and away
from the staffroom. There in the
prefabs they discuss the bible and
pray when they feel like without
disturbing us".

"We have about four wives of
ministers of religion. You will
never see them here. They are
usually in another prefab office
because they have the same
interests."

"We are young and enjoy sharing our
social experiences. Here we are
free to do so".

2. What is happening?
What are they doing
and saying?
3. What behaviours are
repetitive and irregular?

It is during normal working hours
(11.15) and lectures are in process.
They are in conversation. None are

reading or writing.

"That was some telling yesterday.

Imagine when we have to declare our
personal problems for not coming to
work."

"Did he mean it when he said we must
not give personal problems as reasons

for staying away?"

"Yes he was. He even said this is a

College and it is no longer going to be easy to stay away from lectures even for personal problems. Those with lots of personal problems must return to the primary and secondary schools before they are asked to do so".

"He was wasting his time because we are not going to share our personal problems with him, and will attend to them whenever we experience them".

This went on and on. The group gossiped a lot and shared personal experiences (boyfriends, parties, the lot). The presence of an outsider meant nothing.

4. How do they behave to one another? who makes decisions for whom?

They are sitting along a conference room table that runs the length of room. There are two very young females who are dominating the conversation. The four males are also very vocal. The rest of the group is asking questions, prompting the 'leaders' to further talking. They are junior members of staff. None are senior lecturers or HODs.

5. What is the content of the conversation? Who talks and who listens?

They address each other in Xhosa and they did not mention the subjects they were teaching during that hour I was in the staffroom with them, going through annual

returns. They sounded disgruntled about the College authorities, as well as Bisho officials. They were either complaining or criticising negatively. Nothing positive was heard during that hour.

6. When do they meet?

There were no fixed times. They came and went as their timetables prescribed. When the bell rang, more lecturers (African) came in, and some left the room. My host, who was not one of them, but was sitting with me, informed that they were coming from lectures.

OBSERVER - PARTICIPANT GRID

COLLEGE:

DATE:

OBSERVATION

DESCRIPTION

1. Who is in the group?
how many; identities;
how is membership
acquired?

4 Ladies. One in 50s and three in thirties. Two are sisters and their father is a minister of religion. The old lady and one of the sisters are married to ministers of religion. They say they never told each other to leave the staffroom. They simply came to visit the old lady and ended up using the venue as their meeting place.

2. What is happening?
What are they doing
and saying?

It is tea time and they are conversing. They are in a hurry as they drink their tea. Two have lectures immediately after break. In

3. What behaviours are
repetitive and irregular?

an informal conversation I ask them why they are not in the staffroom. "I hate the malicious gossip that goes on the staffroom. Nothing is constructive in their conversation". "My students are free to discuss problems and even their work with me in private". "Isolation from the rest of the crowd gives us enough time to do research, discuss teaching experiences and to motivate each other to do more work". The bell rings and the two leave the

room. The other two remain. I remain with them for about thirty minutes but I do not say anything. I am writing my notes. The remaining ladies are writing in their scheme books and they are concentrating. We are busy. The next bell rings and I excuse myself in order to visit a MT class.

4. How do they behave to one another? who makes decisions for whom?

They respect the older lady for two reasons: age and status (minister's wife). She is the leader of the group. No one seemed to make decisions for others. They did what was best for each one of them during the time I was with them.

5. What is the content of the conversation? Who talks and who listens?

They all talked as and when they could make a contribution. Since I had initiated the topic, they talked about why they were not in the staffroom. In between, they talked about the coming TP session.

OBSERVER - PARTICIPANT GRID

COLLEGE:

DATE:

OBSERVATION

DESCRIPTION

- | | |
|--|---|
| 1. Who is in the group?
how many; identities;
how is membership
acquired? | 2 Males and one female (lecturers)
One Coloured male and two whites.
This is the Afrikaans department and they share this office out of preference. The office is very small and they are not comfortable. They prefer that discomfort to sitting in the staffroom:
"Cultural differences make us unhappy. They address each other in Xhosa all the time and we do not understand".
"Since we are in the same department, we share work problems, we do research, the environment is conducive to work" |
| 2. What is happening?
What are they doing
and saying? | They were busy marking and writing in their books. When I came in there was perfect silence. I felt like I was disturbing them, but they were willing to talk. |
| 3. What behaviours are
repetitive and irregular? | The room was filled with smoke because they were all smokers - one of the reasons they left the staff room. The staffroom people always complained about their smoking. |
| 4. How do they behave to
one another? who makes
decisions for whom? | Impossible to determine. |

5. What is the content of the conversation? Who talks and who listens?

Could not determine because they were not conversing.

6. When do they meet?

They sit there daily and because they have a coffee maker, they seldom visit the staffroom except for fetching water and meetings.

OBSERVER - PARTICIPANT GRID

COLLEGE:

DATE:

OBSERVATION

DESCRIPTION

1. Who is in the group?
how many; identities;
how is membership
acquired?

35 second year PTDs. The intake of second years for a given year is divided into smaller groups so as to fit in the small classrooms. No systematic grouping procedures.

2. What is happening?
What are they doing
and saying?

It is a MT session. The skill of questioning is the topic.

3. What behaviours are
repetitive and irregular?

The lecturer asks questions:
"which types of questions do we have?"
"give an example of a lower order question".
Students were supposed to recall from a previous lesson but are struggling. They are reluctant. lecturer hints - then correct answers are given and lecturer accepts. This goes on for fifteen minutes.

4. How do they behave to
one another? who makes
decisions for whom?

Lecturer made decisions for students. Decided when they should talk by fielding questions and selecting respondents herself. Instructions for next MT session given by lecturer. Students' opinions not asked.

5. What is the content of the conversation? Who talks and who listens?

Questioning skills. Emphasis on what kinds of questions they should ask during TP and how they should ask; what they should avoid. Students passive and silent; writing in their notebooks all the time. Lecturer talking, almost preaching.

6. When do they meet?

Once a week for 35 minutes.

Time wasted when roll call is taken.

APPENDIX J

Circular from DET: Policy
issues.



REPUBLIEK VAN SUID-AFRIKA
"IMFUNDO"

REPUBLIC OF SOUTH AFRICA *By beantwoording meld
In reply please quote*

Programmes }
Address }
Telefax No. }
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Telephone }
Telephone }
Direct }
Direct }

(012) 312-5911

DEPARTEMENT VAN ONDERWYS EN OPLEIDING
DEPARTMENT OF EDUCATION AND TRAINING

No. 7./2./1.....

Wessee alle briewe aan Direkteur-generaal
Communications to be addressed to Director-General

INQUIRIES: J BRAND
TEL: 312-5254

Privaatsak } X212
Private Bag }
PRETORIA
0001

1989 -11- 10

DIRECTORS OF COLLEGES OF EDUCATION
OF THE DEPARTMENT OF EDUCATION AND TRAINING

ACADEMIC PROGRAMME 1990 OF COLLEGES OF EDUCATION

You are kindly requested to submit to Head Office before 31 January 1990 a copy of the above-mentioned programme for your college of education. It should be marked for the attention of the Chief Education Specialist: Teacher Education, 528 Magister Building. The academic programme for your college should be submitted to your College Council for their approval, although such submission need not be done before 31 January. Should your Council advise any changes to the programme, please submit the amended programme to Head Office.

As the programme will, amongst other things, be of value in the planning of moderation and similar actions, academic activities of the college, such as the commencement and closing of teaching cycles, practical teaching (both for evaluation and at home schools), and examinations and test cycles, should be indicated.

Please take note that a minimum of 140 days (excluding practical teaching, examinations and test blocks) is prescribed for teaching/lectures for each year of study. This stipulation should be applied strictly, particularly for subjects which are evaluated by the college itself (internal evaluation).

Thank you for your co-operation.

DIRECTOR GENERAL

8BR/2

RECEIVED
26 JAN 1990
DEPARTMENT OF EDUCATION AND TRAINING

APPENDIX K

Annual returns: staffing.

APPENDIX L

Teaching practice syllabus.

15/29/21/3
15/31/6
15/32/6
15/35/6

DEPARTMENT OF EDUCATION AND TRAINING

PRIMARY TEACHERS' DIPLOMAS
SECONDARY TEACHERS' DIPLOMAS

SYLLABUS FOR
TEACHING PRACTICE
(GROUP I SUBJECT)

1990 STRUCTURE

DATE OF IMPLEMENTATION: 1990

PRIMARY TEACHERS' DIPLOMAS

SECONDARY TEACHERS' DIPLOMAS

SYLLABUS FOR

TEACHING PRACTICE

A. AIMS

The aims of this syllabus are :

1. To give the prospective teacher the opportunity to practice effective teaching in practical teaching-learning situations by combining knowledge, theory, skills and attitudes through logical, strategic institutional activities.
2. To guide the student in teaching skills, in a simulated environment, in such a way that sound didactic principles are practised (Micro-teaching).
3. To provide the student with the necessary skills in the making and use of educational media that will assist in a better learning environment for pupils.

B. INTRODUCTION

1. The Teaching Practice syllabus is divided into two main categories :
 - (a) Institute Practicum.
 - (b) School Practicum.
- 1.1 The Institute Practicum includes: The making of educational media, the use of educational media (with emphasis on chalkboard work), skills practice sessions and demonstration lessons.
- 1.2 The School Practicum consists of observation assignments, presentation of practice lessons and lessons to be assessed by college lecturers in an approved school environment. (In the case of PTD (Junior Primary) some of the aspects are included in the Institute Practicum).
2. A Teaching Practice Journal(s) must be kept by each student for filing of practice lessons, assessed lessons, micro-teaching forms, observation assignments and demonstration lessons.

3. Three (3) periods per week are allocated to Teaching Practice (Institute Practicum) in the first year of study and two (2) periods per week in the second and third years of study respectively. The Institute Practicum may be divided into three sections (educational media, chalkboard work and skills practice) and may be presented by means of "block-teaching". (Demonstration lessons should be presented during Subject Didactics periods.) In the case of PTD (Junior Primary) a team teaching approach is followed and seven (7) periods are set aside for Teaching Practice.
4. As Teaching Practice is the point where knowledge, theory, skills and attitudes culminate in effective teaching experiences, close collaboration with the subjects Education, School Management and Subject Didactics, should be maintained under supervision of the Head of Department for Professional Subjects/Junior Primary Work.

Summary	1st year	2nd year	3rd year
Institute Practicum	78 periods	52 periods	52 periods
* Educational Media (chalkboard work excluded)	26 periods	26 periods	26 periods
* Chalkboard Work	26 periods	-	-
* Skills Practice (Micro-teaching)	26 periods	26 periods	26 periods
School Practicum	10 school days	20 school days	20 school days

C. CONTENT

C.I INSTITUTE PRACTICUM

1. FIRST YEAR OF STUDY [78 periods]
- 1.1 Introduction
- 1.1.1 An introduction where the relationship between Teaching Practice, Education, School Management and Subject Didactics is explained.
- 1.1.2 An explanation of the system of Teaching Practice followed by the College (files, forms, timetables etc.).
- 1.2 Educational Media (26 periods)
- 1.2.1 The principle of perception (see syllabus for Education).
- 1.2.2 Theoretical aspects of the following educational media, how they function and practical demonstrations. Students should be given an opportunity to handle and operate media.
- (a) Visual media
- * Non-projecting media, e.g.: Chalkboard, bulletin-board, flannel board, books, pictures, flash cards, maps, wall charts, models etc.
 - * Projecting media, e.g.: Slide projector, episcopes or opaque projector and overhead projector
- (b) Audio media
- E.g.: Record player, tape recorder, radio, language laboratory
- (c) Audio visual media
- E.g.: 16 mm sound projector, video and television, card readers etc.
- (d) Other educational media
- E.g.: Computers, experiments, excursions, real objects, educational games and toys, resource persons, duplicating processes and media centres.
- 1.2.3 Introduction to materials and equipment which can be used in the making of educational media (e.g.: paper, wood, clay, wire etc.) Basic general skills and techniques for making media (e.g.: labelling, tracing, enlarging, colouring, cutting, pasting, transparency making etc.).

1.3 Chalkboard Work

(26 periods)

A complete course in Chalkboard Work (relevant to the school phase in which the student specializes) should be presented in the first year of study. At the end of the course students must be evaluated on writing and drawing on the chalkboard as well as using the chalkboard as an educational medium. Students who fail this evaluation must be given an opportunity to practice chalkboard work in their own time and be evaluated again before the end of the second year of study.

Lecturers for Subject Didactics should make an input towards Chalkboard Work and students must continue practising until the end of the third year of study.

The approach to Chalkboard Work should be practical and attention must be given to the following aspects :

- * Care, maintenance and the repair of the chalkboard and accessories
- * The effect of different colours of chalk and the comparison as to its visual impact
- * How to hold and handle the chalk
- * Neat and legible handwriting (print and cursive for different school phases)
- * Spacing of words, size of letters and numerals (\pm 3 cm)
- * Writing horizontally on the chalkboard
- * Effective arrangement of work on the board to prevent cramming
- * Economical use of chalk and dusters
- * The use of feint lines in making illustrations of objects such as plants, shapes, people and animals
- * Chalkboard summaries and diagrams
- * The position of the chalkboard in the classroom and the position of the teacher, in relation to the class and the chalkboard
- * Use of the chalkboard by pupils.

1.4 Teaching Skills Practice (Micro-teaching)

(26 periods)

1.4.1 This section of the syllabus is also applicable to the second and third years of study.

1.4.2 Micro-teaching or the practising of teaching skills should be regarded as a preparation for the student to improve competence in the presentation of lessons. Although the student's performance in this sub-section of Teaching Practice is not assessed as such, it should contribute to the improvement of the standard of the student's performance in the School Practicum.

1.4.3 A programme for practising teaching skills (in the different phases of lesson presentation), in a simulated teaching environment, must be drawn up by individual colleges of education. The following aspects may be used as guidelines for such a programme :

- * Recognising and getting attentive behaviour from pupils
- * Establishing frames of reference
- * Control of pupil participation
- * Illustrations with mental images and examples
- * Incorporating educational media
- * Obtaining feedback
- * Questioning and heuristic teaching
- * Giving non-verbal clues
- * Achieving closure
- * Reinforcement
- * Repetition
- * Variation of movement, voice, emphasis etc.
- * Clear communication
- * Lecturing
- * Eye contact
- * Giving instructions
- * Teaching pupils to observe

1.4.4 Students' presentations should be recorded (audio or video tape) for replay, analysis and discussion. A team teaching approach with Subject Didactic lectures is strongly recommended.

1.4.5 Students' participation and presentations in this programme must be recorded in their Teaching Practice Journals. (See paragraph B.2).

2. SECOND AND THIRD YEARS OF STUDY [52 periods]

2.1 Educational Media (28 periods)

A continuation of the work done in the first year of study with an emphasis on using educational media (including the chalkboard).

This aspect of educational media should also be incorporated during Subject Didactic periods and School Practicum session.

Each student must make at least four (4) sets of educational media per year. The media should be applicable to a specific lesson or series of lessons, in a syllabus of a school subject studied by the student. An indication must be given for which standard, subject and topic the medium is intended.

2.2 Teaching Skills Practice (Micro-teaching) (26 periods)

A continuation of the work done in the first year of study (see section C.I paragraph 1.4).

C II. SCHOOL PRACTICUM

1. DURATION

A minimum of 50 school days must be used for the School Practicum during the three years of study.

Suggested distribution

First year of study: 10 school days
 Second year of study: 20 school days
 Third year of study: 20 school days

2. ORIENTATION (for first year students—preferably during the first semester)

It is essential that first year students be subjected to orientation in the Teaching Practice programme followed by a college of education. The stipulations of the syllabus for Teaching Practice should be discussed thoroughly with special reference to School Practicum sessions, minimum requirements, lesson plans, timetables, files, forms etc.

An "on-campus" peer group teaching session is suggested for first year students as preparation for their School Practicum.

3. OBSERVATION (for first year students—preferably during the second semester)

3.1 An observation assignment on the administration and the educational aspects of school- and classroom management must be completed by each student. A carefully structured questionnaire should be prepared by each college of education to include the aspects set out below. The assignment of each student must be controlled and signed by a college lecturer.Aspects to be included in the observation assignment.

3.1.1 Timetables:

- (a) The school timetable
- (b) The class timetable
- (c) Homework timetables
- (d) Timetable for extracurricular activities

3.1.2 Attendance register:

Each student must keep an attendance register for a particular class for the duration of the school practicum, which should be balanced at the end of the session.

3.1.3 School funds

3.1.4 The school policy (rules and regulations at the school)

3.1.5 Lay-out, care and maintenance of buildings and school grounds

3.1.6 Scheme and record of work:

Each student must copy the scheme and record of work, from the teacher(s) whose class(es) is attended, for the duration of the school practicum. The progress of the class(es) must be recorded in these report(s) for at least two subjects.

3.1.7 Storage, distribution and use of educational media

3.1.8 Handling of (departmental) textbooks

3.1.9 The library

3.1.10 Control and correction of written work

3.2 Observation of lesson presentations must be recorded by each student according to a carefully structured questionnaire, prepared by each college of education to include aspects as set out below.

A minimum of 20 lessons must be observed and recorded by each first year student during the School Practicum session. Each record of observation must be controlled and signed by a college lecturer. The observation of experienced teachers should continue during the second and third years of study.

Aspects to be included in the observation of lesson presentation.

3.2.1 General information: Class, subject, topic, date etc.

3.2.2 Introduction: motivation, actualisation of pre-knowledge etc.

3.2.3 Teaching methods

3.2.4 Questioning

3.2.5 Educational media (including the chalkboard)

3.2.6 Application or conclusion

4. LESSON PRESENTATION

4.1 A minimum number of 110 lessons must be presented and recorded by each student during the School Practicum period. Not less than 10 of these lessons must be evaluated and assessed by college lecturers (see paragraph 5).

The number of lessons stated above, should mainly be distributed over the second and third years of study.

4.2 PTD (JP): A student must present lessons to as wide a variety of junior primary classes as possible. The lessons should cover the full range of junior primary curriculum subjects.

PTD (SP): A student must present lessons to as wide a variety of senior primary classes as possible. 80% of the lessons must be in the subjects in which the student specialises and 20% must be in other senior primary curriculum subjects.

STD: Second year students must present lessons to Std 6 and 7 classes and third year students to Std 8 and 9 classes. Lessons must be evenly distributed between the two Subject Didactic courses studied by a student.

5. ASSESSMENT OF LESSONS

5.1 The 10 lessons to be presented by each student for assessment by college lecturers (see paragraph 4.1) should be arranged as follows:

PTD (JP): At least 1 lesson in each of the junior primary curriculum subject.

PTD (SP): At least 2 lessons in each of the 4 subjects in which a student specialises and 2 lessons in other senior primary curriculum subjects.

STD: At least 5 lessons in each of the 2 Subject Didactic courses studied by a student.

5.2 The assessment of individual evaluation lessons by lecturers must be unbiased, impartial and as objective as possible.

5.3 The assessment of lessons must, for the sake of uniformity and objectivity, preferably be done on a form designed on the criteria set out in 2.4. An example of such an assessment form is attached as Appendix E.

5.4 In assessing a lesson, the following criteria should be applied (the figures indicate the relative values of the criteria as percentages) :

(a) Personality and appearance [15]

Appearance
Bearing, behaviour, mannerisms
Teaching approach (style)
Delivery and language usage

(b) Lesson preparation [20]

Teaching aims
Method(s)
Educational media

Choice and suitability of subject matter
 Lessons design

- (c) Presentation of the lesson
- (i) Introduction [15]
 Creating relationships, motivation and inclination to learning
 Actualisation of pre-knowledge
 Posing the problem
- (ii) Exposition of new subject matter [25]
 Mastery of subject matter
 Teaching strategy :
- * The use of questions
 - * Chalkboard work
 - * The use of other media
 - * Methods/techniques applied
 - * Communication
 - * Pupil involvement
- (iii) Conclusion [10]
 Actualising of learning content
 Functionalisation
 Attainment of objectives
- (d) Class control [5]
- (e) Time allocation [5]
- (f) Didactic flexibility [5]

6. RECORDS OF TEACHING PRACTICE

Each student must keep a Teaching Practice Journal(s) for all three years of study. This journal must include the following

- 6.1 A record of assessed lessons (see Appendix A). This record as well as the lesson preparations must be signed by the college lecturer who assessed the lesson.

Each lesson preparation of the student must be accompanied by a completed assesement form (Appendix E).
- 6.2 A record of teaching practice lessons (see Appendix B) This record as well as every lesson preparation must be signed by the class teacher concerned.
- 6.3 A record of attendance of School Practicum sessions at schools (see Appendix C). This record must be signed by the principal of the particular school.
- 6.4 A record of micro- or simulated environment-teaching done by the student.
- 6.5 The observation assignment completed by the student, as set out in paragraph 3 above, controlled and signed by a college lecturer.
- 6.6 A record of demonstrated lessons (see Appendix D). Although demonstration of lessons form part of the Subject Didactics syllabuses, copies of the lessons demonstrated, as well as the student's notes and comments on these lessons, should be incorporated in the Teaching Practice Journal.

7. THE LESSON PLAN

The exposition of lesson schemes (lesson plans) is not prescribed, and each college of education may develop its own pattern. The following minimum requirements must, however, be observed:

- (a) Basic information such as class and subject to be taught, duration of the lesson and specific topic to be dealt with
- (b) Aim and objective of the lesson
- (c) An introduction, conclusion and application of the lesson must be given
- (d) The subject content of the lesson should be given briefly with a clear indication of the teaching method(s) to be used, key questions to be asked and educational media to be used. Where applicable, a chalkboard summary, practical work and written work for the pupils, must be given in more detail
- (e) Specific reference must be made to pages in textbooks or prescribed books of exercises to be dealt with during the lesson

D. EVALUATION

Teaching Practice is evaluated internally in all three years of the course and will be moderated externally at the end of the third year.

1. FIRST YEAR OF STUDY

1.1 Institute Practicum

(a) Educational media	A test of 1 hour	100
(b) Chalkboard Work	A practical test to demonstrate competency	* 100
(c) Micro-teaching	Minimum requirements for Teaching Practice Journal	-

1.2 School Practicum

Observation assignments		<u>100</u>
<u>Promotion Mark</u>		300. ÷ 3 = %

* The minimum requirement to pass Chalkboard Work is 65%. Should a student fail this sub-section of Teaching Practice, such a student must practise in his/her own time and presentations must be evaluated (even during the second and third years of study) until the student reaches the required level of competency.

2. SECOND AND THIRD YEARS OF STUDY

2.1 Institute Practicum

(a) Educational Media	An average of the marks for the required number of educational media made	100
(b) Micro-teaching	Minimum requirements for Teaching Practice Journal	-

2.2 School Practicum

The total of the lessons assessed by college lecturers		<u>500.</u>
--	--	-------------

2.3 <u>Promotion mark</u>		600 ÷ 6 = %
---------------------------	--	----------------

NB. Each student must comply with all the minimum requirements of this syllabus before the promotion mark will be considered for certification.

..... COLLEGE OF EDUCATION

TEACHING PRACTICE : RECORD OF ASSESSED LESSONS

Student's name: _____ Course: _____

No	Date	Std	Subject and section	Topic	Mark	Signature of adjudicator
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

..... COLLEGE OF EDUCATION

TEACHING PRACTICE : RECORD OF PRACTICE LESSONS

Student's name: _____ Course: _____

No	Date	Std	Subject and section	Topic	Signature of class teacher
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

..... COLLEGE OF EDUCATION

TEACHING PRACTICE : RECORD OF ATTENDANCE

Student's name: _____ Course: _____

This is to certify that the above mentioned student attended a teaching practice session at (name of the school)

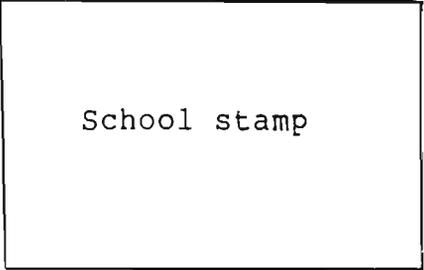
.....

for the period (inclusive dates) to 19...

Number of school days:

Number of school days absent:

Total number of lessons taught:



Remarks:
.....
.....
.....

Signature of principal: _____ Date: _____

..... COLLEGE OF EDUCATION

TEACHING PRACTICE : RECORD OF DEMONSTRATED LESSONS

Student's name: _____ COURSE: _____

No	Date	Std	Subject	Topic	Signature of lecturer
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

TEACHING PRACTICE: LESSON EVALUATION

**Final mark

Date

No. of pupils

Standard

CT								* Circle the mark; awarded for each particular criterion and write the total of each section opposite the relevant heading.	
PAGE MEDIUM									
*EVALUATION								TOT	REMARKS
PERSONALITY AND APPEARANCE									
Appearance: Groomed? Neat/Untidy? Flashy?	••••	4	3	2	1	0	••••		
Bearing: Self-confidence; movement; mannerisms; facial expression; animated/dull; spontaneous/tense	••••	4	3	2	1	0	••••		
Teaching style: Attitude towards pupils; enthusiasm; motivating ability; gaining pupils' attention	••••	9	8	6	4	2	1	••••	
Delivery and language usage: Quality of voice; articulation; clarity; fluency and correctness of language	••••	9	8	6	4	2	1	••••	
LESSON PREPARATION									
Teaching aims/objectives: Meaningful? Clear? Relevant? Adequate?	••••	4	3	2	1	0	••••		
Method(s): Appropriate? Correct? Original? Is it appropriate to the particular subject and topic?	••••	4	3	2	1	0	••••		
Lesson design: Quality of lesson scheme/notes—layout; system; sufficiency; neatness	••••	4	3	2	1	0	••••		
Teaching aids/materials: Suitability; relevancy; adequacy; originality; trouble taken	••••	5	4	3	2	1	0	••••	
Choice of subject matter: Scope/quantity; correctness; arrangement/logical sequence; relevancy to aims/topic	••••	19	16	12	8	4	2	••••	
PRESENTATION OF THE LESSON									
<i>Introduction</i>									
Creating relationships/desirable atmosphere: effecting motivation and inclination to learning	••••	9	8	6	4	2	1	••••	
Actualisation of pre-knowledge: Recalling relevant pre-knowledge, linking it to new matter	••••	9	8	6	4	2	1	••••	
Posing the problem: Were pupils led to observe the problems of new matter in the context of pre-knowledge?	••••	9	8	6	4	2	1	••••	
<i>Exposition of the new subject matter</i>									
Mastery of subject matter: Has student mastered content? Has it been presented logically and clearly?	••••	14	12	9	6	3	1	••••	
Teaching strategy:	••••							••••	
Questions: Clear? Well-aimed? Properly timed and spaced? Reaction to pupils' questions/answers	••••	9	8	6	4	2	1	••••	
Blackboard work: Neatness; legibility; lay-out; effectiveness; used throughout; sufficient	••••	9	8	6	4	2	1	••••	
Other teaching aids: Effectivity; synchronisation; integration	••••	5	4	3	2	1	0	••••	
Methods/techniques: Suitability; meaningfulness; effectiveness; success	••••	5	4	3	2	1	0	••••	
Communication and pupil involvement: Class involvement; individualisation; activity; explanation of concepts	••••	9	8	6	4	2	1	••••	
<i>Conclusion</i>									
Actualisation of content: Opportunity of gaining insight/productive thinking; summarising of insights	••••	5	4	3	2	1	0	••••	
Achieving of objectives: Have aims/objectives been achieved?	••••	5	4	3	2	1	0	••••	
Actualising: Integration of pre-knowledge and new matter; application of new knowledge; mastery	••••	9	8	6	4	2	1	••••	
Class control: Quality of guidance/control; spontaneous reaction encouraged? (Disregard discipline)	••••	9	8	6	4	2	1	••••	
Time allocation: Realistic for each part of lesson? Steady pace? Time spent profitably throughout?	••••	9	8	6	4	2	1	••••	
Teacher flexibility: Continuous evaluation? Accommodation of circumstances; reaction to pupils	••••	9	8	6	4	2	1	••••	

** The final mark is obtained by dividing this total by two →

APPENDIX M

Educational media test
question papers.

GRIFFITHS MXENGE COLLEGE OF EDUCATION

EDUCATIONAL MEDIA 1

Time : 15h00 - 1600

1 Hour

Date :

1 Sept. 1993

ANSWER ALL QUESTIONS

Question 1

Classify the following Media as follows :

- 1a. Visual, Auditory and Audio-Visual Media.
- 1b. Projecting and Non-Projecting Media

Overhead Projector, Models, Demonstrations, Drawings, Maps, Graphs, Field and study trips, Sound Films, Language Laboratory, Micro Projector, Printed materials with recorded sound. (11 X 2)

2. Differentiate between Learning Media and Teaching Media. (6)

3. A teacher has to understand how pupils learn, how they assign meanings to concepts. Having this in mind the teacher can be in a position to prepare every lesson such that the student can get the best understanding. In the background of this paragraph please state the significance of perception in learning. (12)

4. Discuss briefly the reasons why teaching media should be used in teaching. (15)

5. Explain how you would use a model, real object or a specimen and a picture, drawing or the chalkboard when you present a lesson. Base your explanation on an example that is extracted from any of your major subjects. (20)

6. Why is it important to ensure that the media that corresponds with the objectives of the lesson is prepared beforehand? (5)

7. Describe the use of the overhead projector in the classroom. (10)

8. Distinguish between :

8.1 a chart and a diagram (5)

8.2 a picture and a photograph (5)

October 1991

Answer all questions

QUESTION 1

Fill in the missing word(s)

1. The aim of education is (1)
2. The use of help in making the lesson meaningful. (1)
3. Classroom situation is also known as the (1)
4. The principle of includes learning through the five senses. (1)
5. Education takes place in one of the three forms (3)
6. The use of teaching aids is essential to couple words with reality in order to avoid (1)
7. Teaching aids are classified into three main categories (3)
8. are the tools of the teacher which make teaching easy, interesting and effective. (1)
9. Television is used in schools for & (2)
10. is an establishment for the active creation of media collection. (1)

/ 15 /

QUESTION 2

1. Which principle gives you a background to the use of audio - visual materials ? (2)
2. Too many media should not be used in a lesson. Why? (2)
3. Which is the oldest teaching aid ? (2)
4. What do audio and visual mean ? (2)
5. You have an interesting but small picture to show to your class. Which apparatus would you need ? Mention four. (4)
6. Name three subjects you can think of where maps are necessary. (3)

/15 /

QUESTION 3

Match the statement in column B with column A.
Do not write the whole sentence only the number is required.

A	B
audio tape	3.1 The angle at which a light beam is projected.
rod	3.2 Long rod made of plastic.
simulations	3.3 It is used between sheets to make copies.
projection angle	3.4 Instructional projected medium.
adhesive strip	3.5 A white pliable plastic adhesive.
carbon paper	3.6 An enclosing border.
marker	3.7 Replication of real life situations.
glue stick	3.8 Felt - tip pen.
MP	3.9 Magnetic tape for recording sound
marker	3.10 A strip of card used to name an item.

/ 10 /

- .1 Why do we use teaching aids ? (10)
- .2 Distinguish between teaching and learning aids. Give two examples in each case. (10)
- .3 What rules should be kept in mind in the choice and use of teaching and learning aids ? (10)

/ 30 /

QUESTION 5

- .1 Describe the role of the teacher during a lesson:
 - (a) before the lesson
 - (b) during the lesson
 - (c) after the lesson
 (12)
- .2 Mention five advantages of the OHP. (10)
- .3 Give four functions of a media centre. (8)

/ 30 /

- 100

CHECKED
 SIGNATURE *Amjefo*
 11 MAR 1991
 HEAD OF DEPARTMENT OF
 PROFESSIONAL SUBJECTS

APPENDIX N

Criteria for evaluating
educational media sets.

Department of Professional Subject

Allocation of marks for Educational Media

Criteria for allocation of marks

Criteria	Evaluation/Marks	Remarks
Relevancy to the lesson	20%	
Originality	20%	
Any trouble taken	20%	
Suitable for age level of pupils	20%	
Attractive	10%	
Neatness	10%	
<u>Total</u> →	<u>100%</u>	

PROFESSIONAL SUBJECTS
DEPARTMENT OF
1 MAR 1993
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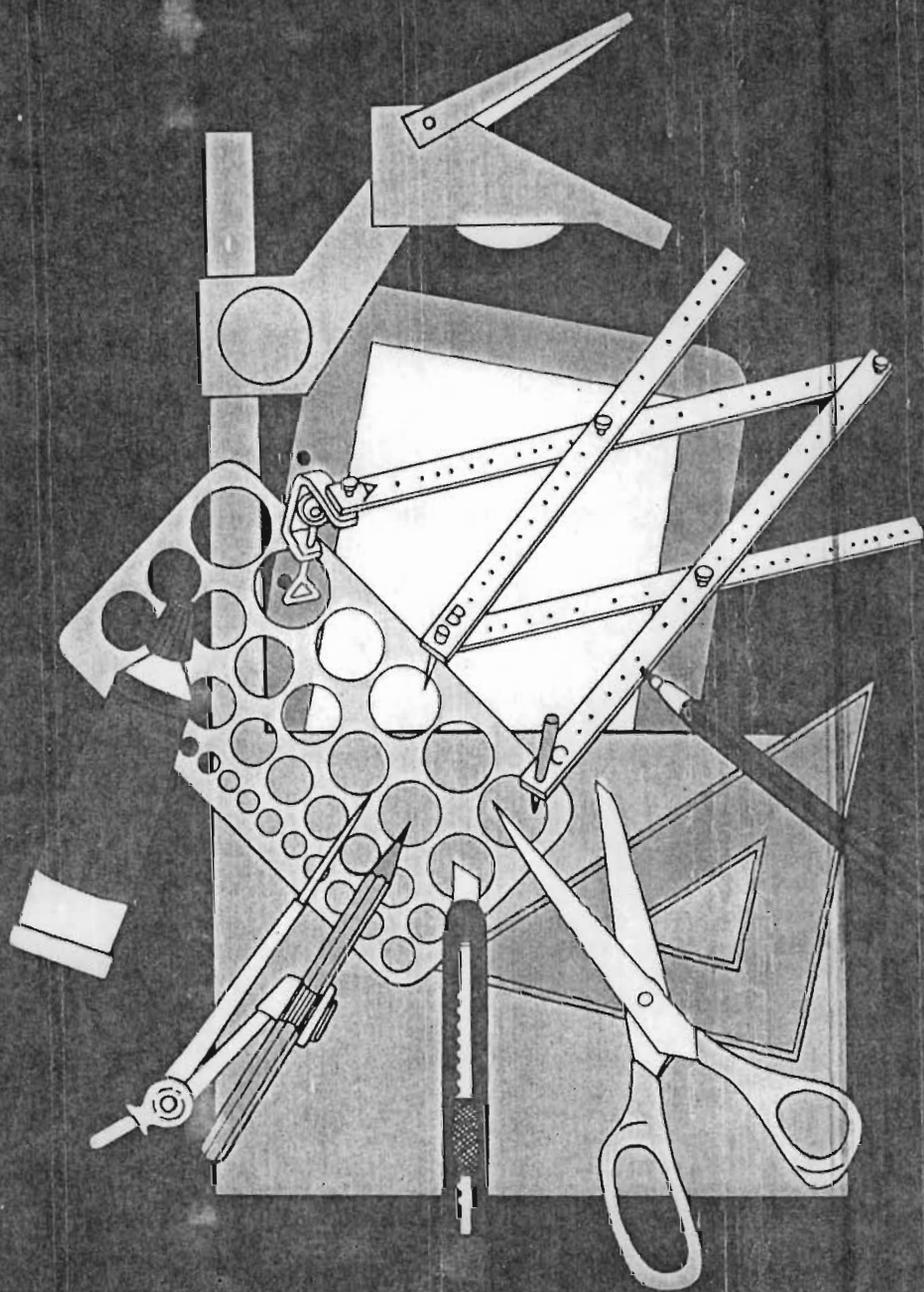
APPENDIX O

Content lists of prescribed
books.

BASIC MEDIA SKILLS

A GUIDE FOR TEACHERS

Naomi Maasdorp



MML Classroom Series



Contents

1. Practical hints on working with paper, card and cardboard	1
Introduction	1
Useful equipment	1
Useful suggestions	3
2. Skills and techniques for pictures, posters and labels	5
Introduction	5
Drawing	5
Equipment	5
Tracing	6
Tracing using carbon paper	6
Quick tracing	6
Tracing on paper, poster sheet, card or cardboard	7
Tracing on transparent plastic or on transparencies/acetate sheets	7
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Laminating with clear plastic bags or sheets of food-wrapping	35

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Making stands or supports for mounted pictures and figures	35
Displaying posters and pictures	36
Methods	36
Duplicating	37
Spirit duplicator	37
Stencil duplicator	38
Making a copying device (gelatine pan)	39

3. Overhead projection made easy 40

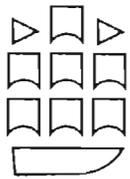
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Teaching Science I

P. A. DUMINY & A. J. THEMBELA
(Faculty of Education, University of Zululand)



Longman

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<i>White and coloured chalk</i>	8
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Teaching Science 2

FACULTY OF EDUCATION
University FORT HARE Universiteit
FAKULTEIT ONDERWYS

P.A. Duminy
A.H. MacLarty
A.J. Thembela
R.A. Walters



Maskew Miller Longman

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MEMORANDUM in support of a request for a grant to be made in January 1977 for Teacher Training facilities in the Nowu Circuit, submitted to the Ciskei Government, on behalf of the people of Nowu, through their member of the Ciskei Parliament; The Honourable B.D. Nyatasa.

PREAMBLE:

Due to the re-regioning of the districts of Glen Grey and Herschel, the subsequent falling of these former Ciskei areas in the Transkei; a situation has been created where the Government of the Ciskei has to absorb two Training Institutions. The two institutions have traditionally absorbed quite a number of students from the Nowu district. Their incorporation into the Transkei has considerably reduced the chances of pupils from this district being absorbed into existing training institutions. Already a considerable number could not be accepted anywhere during the 1976 academic year.

We know that the Ciskei Government has it on its drawing boards, to build a training establishment in the Nowu Circuit in compliance with its well-known Maxim of bringing Education to the door step of every child in the Ciskei. At the same time we are not unaware of the ever rising inflation; the huge Capital Outlay which goes with a venture such as putting up a Training Establishment. However, the realities of the situation- the requirements of a training institution in this Circuit resulted in a meeting of a few selected principals in this circuit to see if a constructive suggestion could not be made and presented to the Government of the Ciskei for a favourable consideration.

THE PLEA:

1. That the Government of the Ciskei considers converting one of the existing schools at SADA into a training school with effect from January 1977. That such a school already exists at SADA, and could thus, for a start, be used as a training school.
2. That the three Secondary schools in the circuit which have Form III have together over 200 Form III Candidates. With three other secondary schools which will be added to these with Form III, the number for next year's candidates will easily double this 200.

All Nowu students have to apply to St. Matthews for teacher training next year. This, to a St. Matthews which could not accept this year with other training schools opened to the students of

this circuit.

4. That already there is this year quite a number of students who could not be admitted at any Training School- about 17 are at the moment employed at the Sada Factory- walking the streets.
5. Two Population groups from Herschel and Glen Grey have been added to the Hewu numbers. Thus further justifying the claim for an early start of a training school.

We are perturbed by this state of affairs, and we are quite convinced that the Government of the Ciskei is not aware of the seriousness of the situation. It is in this light that we have asked our Member of Parliament of the Ciskei Government to bring this sad picture to the notice of the Ciskei Government as a matter of urgency and top Priority.

We would hope that the government will view the plight of the people of Hewu with sympathy, and grant the start for training teachers at this school at Sada by January 1977. Be it noted that the Authors of the Memorandum do not in any way suggest that the bigger scheme of the Government- of putting up a training school at Hewu be dropped in favour of the plea made. We would like it to be understood that this is just a temporary measure.

Presented by B. K. K. M.P. for Hewu

21-9-76

APPENDIX Q

Memorandum from the Chief
Education Planner requesting
establishment of a college.

THE CASE FOR THE BUILDING OF A TEACHER TRAINING SCHOOL IN WHITTLESEA

The Ciskeian Government has had the building of a Teacher Training School in the Hewu Area (Whittlesea) since 1974 but owing to the lack of funds it has not been possible to carry out this project.

As a result of the excision of Glen Grey and Herschel Districts from the Ciskei two teacher training schools were almost, namely, Bensonvale and Mount Arthur. A large number of people from these two areas have been settled at Thornhill and Pavet. The number of people in these areas number about 50 000. Sufficient secondary school facilities have been provided for these people but it has not been possible to provide teacher training facilities in this area for the refugees from Herschel, Glen Grey and Hewu people. The lack of a training school in this area is an embarrassment.

At the present moment there are four training schools in operation in the Ciskei whilst the fifth one namely the Lennox Sebe Teacher Training College for the J.S.T.C. will be opened next year. It is regrettable to say that all these schools are in the Southern portion of the Ciskei. The Northern Ciskei is therefore without a teacher training school. In the circumstances it is strongly recommended that any teacher training school in the Ciskei should be built in the Whittlesea area. It must be mentioned that Whittlesea is one of the towns which has been consolidated into the Ciskei and therefore a teacher training school can be built in or near the town. Should there be no site at Whittlesea the possibility of finding a site in Sada township may be considered. Sada is very near Whittlesea.

Whittlesea and Sada are about +/-32 kilometres from Queenstown. White teachers would easily find accommodation in Queenstown whilst Black teachers can find accommodation in Sada township. This school would serve the whole Whittlesea area together with the new resettlement areas at Thornhill and Pavet. In favour of a training school in the area is the regular bus service between Queenstown and the Whittlesea areas.

A training school in this area would also serve the Cape White Areas well as it would be accessible to students from Queenstown, Dordrecht, Aliwal North, Tarkastad, Steynburg, Molteno, Port Elizabeth and Cape Town. The future of this teacher training school should be considered in relation with the other teacher training colleges in the Ciskei. It must be mentioned that the transfer of the J.S.T.C. from Lovedale will open more room for H.P.T.C. students at Lovedale. This seems to suggest that there is a possibility of over-production of H.P.T.C. teachers if the number of H.P.T.C. students is

not limited to a reasonable number at the newly proposed teacher training school at Whittlesea. To avoid over-production of H.P.T.C. teachers it is recommended that the proposed training school should be planned to accommodate a larger number of J.S.T.C. students. It must be further mentioned that many students who wished to do the J.S.T.C. at Lovedale could not gain accommodation. The need for J.S.T.C. teachers for our secondary schools cannot be over-emphasised. The planned Senior Secondary Teachers' Course should also be taken into consideration when this new training school is planned.

There are 4 lower primary schools, three higher primary, one high school and one secondary school where practice teaching can be done. Not very far from Whittlesea there is Shiloh village with a combined L.P./H.P. School and Khanya Secondary School. It must be mentioned that each primary school has +-500 pupils whilst the high school has about 600 pupils while each of the Secondary Schools mentioned have about +-300 pupils. The exact figures are attached.

For these reasons a teacher training school should be built in Whittlesea as such a school will benefit the White Areas and the Ciskei.

K. B. TABATA

CHIEF EDUCATION PLANNER

DATE :- 25 MAR 1977

APPENDIX R

Memorandum from the Ciskei
Minister of Education
requesting establishment of a
college.

F

7/15/3/7

K.W.T. 2369/2423x387

17 MAY 1977

Mr. N.G. Scheepers

The Honourable
The Commissioner-General
Private Bag X477
5600 KING WILLIAM'S TOWN

MEMORANDUM FOR A COMPENSATION TRAINING SCHOOL

Attached is a memorandum from the Honourable the Minister of Education (Ciskei) for your further attention please.

I wish to support this request.

N. G. SCHEEPERS

SECRETARY FOR EDUCATION

MEMORANDUM TO THE HONOURABLE COMMISSIONER-GENERAL ON THE CASE FOR
COMPENSATION TEACHER TRAINING SCHOOL FOR PEOPLE FROM THE HERSCHEL
AND GLEN GREY DISTRICTS.

The Department of Bantu Administration and Development has made provision for the erection of primary schools and secondary schools for the people from the districts of Herschel and Glen Grey. These compensation schools have been highly appreciated by these residents and by the Department of Education. It must be mentioned, however, that these people require a teacher training school to compensate them for the loss of teacher training school facilities which they lost as a result of the excision of the two districts from the Ciskei.

The people from Herschel were served by the Bensonvale Teacher Training Institution whilst those from Glen Grey were served by the Mount Arthur Training School. It is relevant to mention at this stage that since these schools have fallen to the Transkei the refugees from these areas can no longer send their children to them for teacher training as the Transkei is refusing to admit them. On the other hand the Ciskei has only four teacher training schools which serve the Ciskei and the White Areas. It is therefore clear that a large number of the children from Thornhill and Bushly Park are not likely to get accommodation in the existing Ciskeian Teacher Training Schools.

The problem is further aggravated by the fact that in the Northern Ciskei there is not a single teacher training school^{at} situated in the Southern Ciskei i.e. Lovedale, St. Matthews, Mdantsane and Zwelitsha. This means that those who are fortunate to gain admission have to pay a lot of money travelling which factor imposes a hardship on the parents who have no employment at the moment.

In the light of the demand and need for a teacher training school in the area an appeal is humbly made to the Honourable Commissioner General to draw the attention of the Department of Bantu Administration and Development to the urgent need of a teacher training school in this area to meet the needs of the people from Herschel and Glen Grey who are now settled in the Ciskei. The Honourable Commissioner General is further requested to use his influence over this Department to take up the matter with the Department of Bantu Education which is quite conversant with the problem of a teacher training school in this area.

It must further be mentioned that this training school should be erected at the Whittlesea commonage which is underused. Having this school in this area will have the school near the electrical and water supply. It will be convenient for White teachers who reside in Queenstown to travel to Whittlesea daily as they will cover a distance of 64 $\frac{1}{2}$ both ways daily. Black teachers can find accommodation in Sada township. The Training School would also serve the Henu people who have been crying for a teacher training school for years.

The Department of Bantu Administration and Education should be advised of the advantages which are likely to be derived from

Cape Urban Areas if such a training school could be built as it would also provide for children from Queenstown, Dóárecht, Aliwal North, Tarkastad, Steynsburg, Molteno and Stormberg.

The urgency of the matter must be stressed and investigations should be made as to the possibility of building six temporary classrooms, an office and administrative block this year so that the first group of P.T.C. I should be able to start next year.

In view of the urgency of the matter it has been felt that the matter should be taken up with you so that the urgency of the matter should be appreciated by the two departments.

D. M. JONGILANGA 17/4/77

17 MAY 1977

APPENDIX S

Stipulations for number of
teaching posts and classrooms
for Masibulele College of
Education.

A 0068/C

31 AUG 1977

2363 K.W.T.

Mr. Mzalazala

The Secretary for the Chief Minister
and of Finance (Treasury)
Private Bag X 516
ZWELITSHA
5600

ESTABLISHMENT OF Masibulele Training School

1. After investigations by professional officials of this Department it has been ascertained that there is a need for a Training School in the Whittlesea Magisterial District
2. The following facts have been established:-
 - (a) A School Site will be applied for in the Sada Township of the Whittlesea district in the vicinity of Mhlotshana High School.
 - (b) There is no school of the same type in this vicinity
 - (c) The school will be controlled directly from this office.
 - (d) The school buildings will be erected by the Government and will be the property of the Government.
 - (e) The school will be situated on Trust land.
 - (f) Permission to Occupy the site will be applied for
 - (g) The anticipated enrolment will be \pm 200
 - (h) The initial number of teaching posts will be 12

- (i) The number of classrooms to be erected 12
- (j) Classes are to be provided for I.T.C. I & II
- (k) The anticipated date of commencement of the school will be 1 January 1978.
- (l) The school is one where Departmental Revenue will not be collected.
- (m) Departmental Equipment will be kept at the school.
- (n) The postal address of the school will be:-

c/o The Inspector of Education
Private Bag
WHITTLESEA
5360

3. In terms of Section 3 (1) of the Ciskei Education Act, 1974; Act No. 6 of 1974, Treasury Approval for the registration of this school will be appreciated.

W. BROOKS

SECRETARY FOR EDUCATION

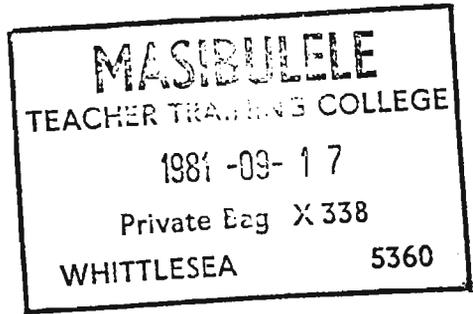
APPENDIX T

Letter from the Rector of
Masibulele College of
Education.

20647

60 Whittlesea

Mr. J. L. Gugushe



The Secretary for Education
Private Bag X 511
ZWELITSHA
5608

APPLICATION FOR INSTALLATION OF ELECTRICITY AT THE ABOVE MENTIONED COLLEGE

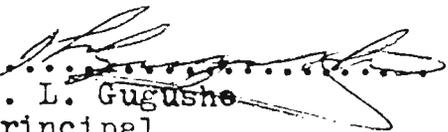
The Governing Council of the above mentioned College which met on the 17/09/81 decided that another application for the installation of electricity be made for the following reasons:-

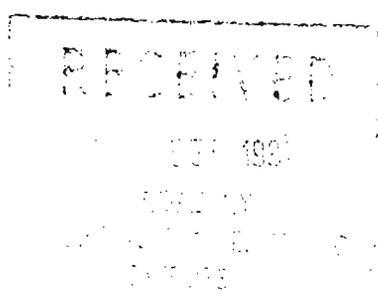
1. It was difficult to proceed with the development of the College due to the doubtful site for the College. But now that it has been confirmed in writing by the manager of the Irrigation Scheme that there are no projects at the place where the buildings are situated. They will only remove the play grounds and place them above the school buildings.
2. Most of the teaching aids donated by the firms to the college are lying unused in the storeroom, as well as Departmental supplied electrical appliances.
3. Slides and overhead projectors cannot be used as teaching aids and students complete their course in complete ignorance.
4. Most students complete their course at this College without having seen a film show.

For these reasons we feel that students produced from this College are not well trained.

We hope that this application will be considered sympathetically by the Department and also request that at least by 1/1/82 this will be in operation.

Yours faithfully

.....

 J. L. Gugushe
 Principal



.....
 Chairman Governing Council

APPENDIX U

Demands from the students of
Masibulele College of
Education.

STUDENT'S DEMANDS

We as concerned students of Kathrada College of Education have resolved to stage a "Step-in" protest in an attempt to remind the authorities to meet our demands. We undertake that the action will be as peaceful as possible.

1. COURSE (111) CREDIT RESULTS

Course (111)'s must see their credit results on Friday, the 26th October 1990.

2. HOSTELS

Hostels should be erected and that the foundation should be seen being done before the end of this month, October 1990.

3. DEMOCRATICALLY ELECTED P.T.S.A.

The existing governing council should dissolve with immediate effect and be replaced by the democratically elected P.T.S.A.

4. ADMISSION OF STUDENTS

There must be admission of students irrespective of the area they come from and irrespective of their matriculation Aggregate Symbols.

5. REFUNDING OF INDEMNITY FEE AND BOOK FEE

Course (111) students must be given their indemnity fee before the 29th October 1990 and that they must be refunded for the books they did not get.

6. COURSE (111) COMPLETOR'S FUNCTION/FAREWELL

The College must organise the completor's farewell and be held on Saturday, the 27th October 1990.

7. RENAMING OF THE COLLEGE

The students would like to ~~rename the College~~ after the A.N.C veteran, AHMED KATHRADA.

8. EXCLUSION AND ADMISSION

The students should be involved in the admission and exclusion of the applicants.

NOTE WELL: If the above mentioned demands are not positively met, the Rector should resign immediately.

APPENDIX V

Circular from the Ciskei
Minister of Education: closure
of Masibulele College of
Education.

→ file Masibulele A

NOTICE OF SUSPENSION OF CLASSES

In view of the disobedience and unacceptable behaviour of the students of Masibulele College of Education I, the Minister of Education in the Republic of Ciskei have decided to suspend classes at the the above named college of education in terms of Schedule 1 regulation 1(b) (c) (d) (h) of Government Notice No. 37 of 1986 for an indefinite period with effect from Monday 26 March 1990. Nobody is therefore allowed to enter premises of the aforementioned College of Education.

U. I. NABE

MINISTER OF EDUCATION

DATE: 26 MAR 1990

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