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Basic Education Reform in Mozambique

The Policy of Curriculum Change and the Practices at Marrere Teachers College

by

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ABSTRACT

Mozambique embarked on major curriculum reforms of basic education at the start of the 21st century. This study focuses on the implementation of these education policies at Marrere Teachers' Training College. It is guided by the following questions:

How has Marrere Teachers' Training College as an institution responded to the new government initiatives? What has changed and what has remained the same at Marrere? Why? What are the perceptions, beliefs and attitudes of lecturers and administrators regarding the new policies? What teaching strategies and practices are used in classrooms? How do lecturers teach? How are students assessed? What are the educational challenges facing the College? How can its practices be improved?

I have chosen a qualitative case study design in order to build a holistic picture of teaching and learning in a natural setting. Marrere College was chosen because it was among the first teacher training institutions to introduce the reforms and because a special programme, the Osuwela Project, introduced prior to the introduction of the new curriculum, included several of the reform's innovations. Marrere College has been experimenting with the implementation of curriculum change for longer than most of the other colleges in the country.

Among the emerging findings is that lecturers have a superficial understanding of interdisciplinary pedagogies, especially in the social sciences, and few of them have applied these pedagogies in classrooms. On the other hand, the reforms seem to have had a deeper impact on their advocacy of learner-centred teaching strategies, although question-and-answer practices continue to be widely used. The College has also gone a long way in changing the organisation of subjects and in implementing new methods of assessment. While there has been in-service training of lecturers, there are inadequate resources and follow-up support by the Ministry of Education.

The literature that informs this study is the scholarship on educational change, particularly the relationship between policy and practice. There are many international studies that have attempted to understand these problems over the last thirty years, but no such studies

on teacher training in Mozambique. This study seeks to contribute to our understanding of the modalities of educational change in resource-poor contexts. It also hopes to make a contribution to the implementation of the basic education policies by the Mozambican Ministry of Education and to the practices of lecturers and administrators at Marrere and other colleges.

Key words: Curriculum change; Policy implementation at Marrere Teachers; College; Mozambique.

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DEDICATION

I dedicate this thesis to my wife, Evelina Magret Luconga, my sons, Albano Kevin and Wesley Snipes, and to my daughter, Perry Ellis.



DECLARATION

I, Manuel Zianja Guro, declare that this doctoral thesis on

Basic education reform in Mozambique: The policy of curriculum change and the practices at Marrere Teachers College

and submitted to the University of Pretoria is my own work in design and execution.

All sources cited or quoted have been duly acknowledged. I have not previously submitted it for a degree at any university. And I have not allowed and I will not allow anyone to copy my work with the intention of presenting it as his or her own work.

Signature:

November 10, 2009

Date:

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ABBREVIATIONS (List of Acronyms)

ACF	Final Control Activity (avaliação de controle final)
ACP	Partial Control Activity (Avaliação de Control Parcial)
ACS	Systematic Control Activity (Avaliação de Control Sistemático)
ADPP	Humana People to People (Ajuda de Desenvolvimento do Povo para Povo)
BETD	Basic Education Teacher Diploma
CATEC	The House of Traditional Crafts and Community Meeting (Casa de Artes Tradicionais e Encontros Comunitários)
CFPP	Primary Teacher Training Centres (Centro de Formação de Professores Primários)
CFQE	Centro de Formação de Quadros da Educação
CRE	Resource Centre and Library
CRESCER	Professional Development Continuing
C2005	Curriculum 2005, the first post-apartheid national curriculum for compulsory schooling
DDE	District Directorate of Education
DEC	Directorate of Education and Culture
DNEB	National Direction of Basic Education
DPE	Provincial Directorate of Education
E	Examination
EP1	1 st Cycle of Primary Education (Grades 1-5)
EP2	2 nd Cycle of Primary Education (Grades 6-7)
EPF	College for the Training of Future Teachers
EST	Teaching Practice
GAZ	Support Group of School Cluster
GDP	Gross Domestic Product

GFE	Training Group in Exercise
GRC	Curricular Revision Group
HIV/AIDS	Human Immuno-Deficiency Virus/Acquired Immuno Deficiency Syndrome
IAP	Instituto de Aperfeiçoamento de Professores (Distance Education)
IMAP	Instituto do Magistério Primário
IMP	Instituto Médio Pedagógico
INDE	National Institute for Education Development
INEF	Instituto Nacional de Educação Física (National Institute for Physical Education)
INSET	In-service Training
IT	Information Technology
L1	First Language
L2	Second Language
MEC	Ministério da Educação e Cultura (Ministry of Education and Culture)
MINED	Ministério da Educação (Ministry of Education)
MINED/INDE	Ministry of Education/National Institution for Education Development
MNR	Mozambican National Resistance
NGO	Non Government Organization
NIED	National Institute for Education Development
OA	Other Activities
OBE	Outcomes-Based Education
ON	Osuwela Network
OP	Osuwela Project
OWU	One World University

PCEB	Curricular Plan for Basic Education
PP	Pedagogical Practice
PRESET	Pre-service Training
SNE	Sistema Nacional de Educação (National System of Education)
TEI	Teacher Education Institutions
TTC	Teacher Training College
TTI	Teacher Training Institutions
UCM	Universidade Católica de Moçambique (Mozambican Catholic University)
UEM	Universidade Eduardo Mondlane (Eduardo Mondlane University)
UNESCO	United Nation for Education, Science and Culture Organisation
UP	Universidade Pedagógica (Pedagogical University)
ZIP	Pedagogical Influence Zone (School Cluster)



CHAPTER 1

INTRODUCTION

The aim of this chapter is to introduce the study on the policy of curriculum change versus the practices at Marrere Teachers' Training College in Mozambique. Section 1.1 introduces the range of points to be developed by the chapter. A general overview of the education system in Mozambique is introduced and focuses on the structure of the education system after Mozambique became independent until the present time. A background of Mozambique is given in Section 1.2 in terms of the present socio-economic, cultural and educational context. The research problem is presented in Section 1.3 with the focus on the problem of implementation: from policy to practice, followed by the reasons or motivation for carrying out this study on policy implementation. The purpose of the study and aims and objectives are given in Section 1.4, followed by the formulation of the research questions in Section 1.4.1. Section 1.6 addresses the limitations of the study and, finally, Section 1.7 presents an overview of the chapters.

1.1 INTRODUCTION

This chapter starts by giving a general overview of the education system in Mozambique, followed by a geographical background of Mozambique.

The second part is devoted to the following: problem statement, formulation of research questions and purpose of the study, research aims and objectives and limitations of the study.

1.2 BRIEF HISTORICAL OVERVIEW OF MOZAMBIQUE AND ITS EDUCATION SYSTEM

Mozambique, with an area of 799.380 km², is located on the eastern coast of Southern Africa south of the equator. It is bordered by Tanzania in the north, Malawi and Zambia in the north-west, Zimbabwe in the west, South Africa and Swaziland in the south-east, and also by South Africa in the south.

With a population of 20 million, Mozambique is the 7th largest country in Sub-Saharan Africa. In 2002, 68 percent of the population lived in rural areas (Guro & Lauchande, 2007).

The country's internal borders are defined by eleven provinces, namely Cabo Delgado, Gaza, Inhambane, Manica, Maputo City, Maputo Province, Nampula, Niassa, Sofala, Tete, and Zambézia. "The most populous provinces are Nampula (20% of the national population) and Zambézia" (19%) (Januário, 2008:14).



Figure 1.1 Political Map of Mozambique

Portuguese is the official language and language of instruction. Mozambique is a multicultural and multilingual country, with eighteen main Bantu languages. Bilingual education, including local languages, has been introduced at Basic Education level.

At educational level, "when Mozambique became independent in 1975, the illiteracy rate was 97% (1974) and it was reduced to 53% by 2004" (Mário & Nandja, 2005).

Mozambique has a very long coastline (2 470 kilometres) and a diverse climate, prone to natural disasters. Mozambique was a colony of Portugal for 470 years.

Metical is Mozambique's national currency and has substituted the *Escudo* after National Independence.

The presence of the colonial power in Mozambique lasted from the sixth century to the twentieth century (1974). That is why Lopes (1995:47) states the following:

“...it is in the colonial period that the embryo of the conditions inherited by independent Mozambique can be found: its poor school net and educational system, its ‘Europeanizing’ objectives and the deep authoritarianism, an indispensable element for the economical demands of the colonial system.”

In particular, the case of education, “the history of education in Mozambique started in 1799 when the first school was set up in Mozambique Island” (Belchior, 1965:643).

During the time of colonialism, there were two types of teachers training colleges, namely Primary Teaching Colleges (*Escola de Magistério Primário*) and the Primary Teachers’ Qualification Colleges (*Escola de Habilitação de Professores Primários*).

Primary Teachers’ Qualification Schools trained teachers to work in schools intended for the native, in the rudimentary schools. The candidates had to complete a grade 4 education and the course lasted three years. The length of time maintained when this training college evolved into Adaptation Primary Teaching Colleges (*Escola de Magistério Primário de Adaptação*), except for the School Post Primary Teachers’ Qualification Colleges, the duration of which was four years.

Primary Teaching Schools trained teachers to teach in official primary schools for five years. The course took two years and its candidates had to hold the 2nd cycle of secondary education (Grade 5 of secondary education or equivalent).

The Catholic Church, through its mission, “was assigned the responsibility of a very important sector of indigenous education, including the teachers training, to promote the Catholic Spirit and the colonialism’s objectives by the colonial government” (Sambo, 1999:38). In this way, “Primary Teachers Qualification School” *Posto do Alvor* was created in the district of Manhiça, 72 km from the capital of Mozambique, Maputo, in 1926 by the Portuguese colonial government. EHPPA was the first school to train teachers in

Mozambique (Sambo, 1999:9). Before that, teachers used to be sent from Portugal. Only in 1962 did the Portuguese government create the first Primary Teaching School in Mozambique for official Estate schools (Guro, 1999:51). In 1973 there were four Primary Teaching Schools in Mozambique and twelve Teachers' training schools (Lopes, 1995:75).

The nationalist and fascist government established in 1928 adopted the collaboration between the State and the Church as part of the colonial strategy. "The missionary agreement signed between the Portuguese state and the Vatican in 1940 and the missionary statute published in 1941 were the main instruments used to institutionalize this collaboration" (Sambo, 1999:10).

During the colonial period, the education sector faced several difficulties just like the ones facing independent Mozambique at present. It implies those problems were inherited from the Portuguese colonialism, and still persist. They are:

- Lack of quantity quality teachers at all levels (in all education sectors);
- Lack of qualified teachers ;
- The existence of teachers with no psycho-pedagogy training;
- A high number of non-literate people ;
- Lack of schools in rural areas;
- Low salaries, among others.

In short, the Portuguese government was in charge of education in Mozambique, but after the missionary agreement between the Portuguese Estate and the Portuguese Church, the latter took over the responsibility for education. At the beginning teachers were trained in Portugal for official schools and later they were trained in Mozambique, after the introduction of Primary Teachers' Qualification School (1962). From 1930, teachers were trained at the *Posto Escolar* Teachers' Qualification School for rudimentary and native schools.

After independence, one Primary Teachers' Training Centre (CFPP) was created in each province in 1976, a total of ten centres, to teach from grade 1 to grade 4. The entry level

was grade 6 and the course lasted six months. From 1979, the course lasted a year. In 1990, a new model 7+3 years was introduced.

School System

Mozambique became independent in 1975. The National System of Education (SNE) was introduced only in 1983. It comprised five sub-systems, namely General Education, Adult Education, Technical/Vocational Education, Teacher Training and Higher Education. The education system was organised into four levels, namely Primary, Secondary, Pre-University and Higher Education.

The following table summarises the education system into four levels.

Table 1.1

General Educations

Primary Education	It is subdivided into two levels: lower primary (EP1) which consists of five years of schooling (from Grades 1 to 5) and upper primary (EP2) which is two years (Grade 6 and 7). The starting age at primary school is 6 years.
General Secondary Education	It comprises three years (Grades 8 to 10). After completing this level, students have a choice of enrolling in general pre-university schools, primary teacher training colleges (medium level) or technical and vocational schools (medium level).
General Pre-University	It comprises two years (Grades 11 and 12).
Higher Education (Universities, Higher Education Institutions and Schools of Higher Education, Academies)	The entrance level is Grade 12. After completion of Grade 12 or equivalent, everyone has to sit for an entry examination.

Source: Passos et al. (2005)

Teacher Education

The quality of teacher training is one of the controversial issues under discussion among the stakeholders in education in Mozambique. The low level of effectiveness of the education system is in some way explained by the lack of a coherent teacher training policy (Passos et al., 2005). For instance, since national independence Mozambique has

witnessed a succession of different models of teachers training courses, without reaching an ideal model. The change from one model to another has not been accompanied by a deep and thorough evaluation to determine the strengths and weaknesses of the previous models.

Teacher Education takes place at the Lower Primary School Teacher Training Colleges (CFPP), Primary School Teacher Training Institutes (IMAP) and Universities (UP and UEM).

The entry qualifications for lower primary school teacher training colleges is Grade 7 and the teachers are trained for three years, after which the teacher is able to teach in lower primary schools, Grades 1 to 5 (EP1). The entry qualification for primary school teacher training institutions is Grade 10. The teachers are trained to teach both lower (EP1) and upper primary schools (EP2), which cover Grades 6 and 7. The duration of the course is two years of INSET.

Teachers for secondary education, pre-university and post-school institutions are trained at universities (public and private institutions).

The annual need for primary school teachers “is estimated at 10,000 new teachers” (MEC, 2006:44). The annual graduation of teachers in either public or private institutions is still far less than the demand, hence the hiring of people with no pedagogical training to teach in primary schools with the aim of providing Education for All, as the number of learners admitted to primary school increases every year.

Under the peace agreement, the Government, in collaboration with local communities, seeks a rapid improvement in educational services. Consequently, primary school enrolment has increased sharply, assisted by an expansion in the number of classrooms, many of which were built by the local communities. Although still low, the quality of education has improved steadily as resources have shifted to the schools. Major problems, however, remain. The Government now addresses wide disparities between rural and urban areas as well as between and within regions and provinces by gradually allocating resources to the needy areas, increasing gender sensitivity and decentralising education management and budget allocations.

Due to those changes at political, socio-economic and historical level, the education sector can show some gains. Among these, the following can be highlighted:

- The greatest progress was achieved by facilitating access to education and this is significantly reflected in the increase in enrolment at all levels of primary and secondary education.
- The most marked increase was access to education for Grades 1 to 5, EP1 and EP2.

Shortly after gaining independence in 1975, Mozambique was plunged into a civil war, which became regionalised as neighbouring *apartheid* South Africa backed the anti-government guerrillas, the Mozambique National Resistance (MNR or Renamo). A cease-fire agreement was signed in 1992 between the government and the MNR which brought the war to an end. Today Mozambique is a multi-party democracy under the 1990 constitution. Mozambique successfully instituted multi-party elections and a peaceful transition to new leadership within the ruling party in December 2004.

The resettlement of war refugees and internally displaced people, political stability and continuing economic reforms have led to a high economic growth rate. Between 1994 and 2004 the annual GDP grew on average by 8.2 percent. The GDP per capita is \$310, which indicates an expected growth of 7 percent to 10 percent a year over the next five years. Focusing on economic growth in the agricultural sector is one of the major challenges for the Government.

Other major challenges are HIV/AIDS and epidemic diseases such as malaria and cholera. In 2006, the HIV/AIDS prevalence rate of infection was 16 percent and life expectancy was 39 years.

In the education sector, illiteracy figures decreased and the number of pupils in primary education rose from 1.7 to 4 million. The literacy rate is now 47 percent and the proportion of pupils completing primary education has increased from 22 percent to 40 percent. The gross enrolment rate in lower primary education is 130 percent, while upper primary education records 60 percent. However, lower secondary education is below 30 percent (Guro & Lauchande, 2007:1).

1.3 BACKGROUND, MOTIVATION, RATIONALE OF THE RESEARCH

1.3.1 Problem of Implementation: from Policy to Practice

In the context of the global strategy of development the government of Mozambique adopted the national policy of education in 1995, which guides the National System of Education.

Through the strategic plan of education, the Ministry of Education reaffirms the defined priorities of the National Policy of Education with prominence for the “improvement of the quality of education, the increase of access to educational opportunity for all Mozambicans at all levels of the educational system and the development of the institutional framework” (MINED, 1997; 1998).

However, Mozambique has embarked on education reforms resulting in the policy of the new curriculum for basic education. “In the classroom context the new curriculum for Basic Education expects teachers to change their practices in the teaching and learning process from a teacher-centred approach to a learner-centred one” (MINED/INDE, 2003:74).

The teaching and learning process in the post-independence period was dominated by the teacher, with the student being a passive receptor. Since the new curriculum for basic Education has been introduced in 2004, the teacher is expected to be a facilitator in order to make the teaching and learning process more dynamic and promote students’ creativity and active participation. Teachers are expected to have mastered and use flexible strategies in the teaching and learning process. This new strategy of teaching constitutes a radical change from the previous practices - a shift from teacher-centred to an emphasis on child-centred learning methods.

It is within this context that this study is located, the purpose of which is to explore the relationship between policy and practices by answering the research questions, such as the following:

What do teachers say about the New Basic Education Reform? What teaching strategies are used at this College? Why? How do the lecturers teach? How do teachers' trainers deal with the challenges and what do they say about them? How does the College deal with the problems related to basic education (low quality of education and curriculum, under-qualified, unqualified and untrained teachers, the high teacher-pupil ratio and the lack of facilities and teaching resources) through change agents?

There are two levels of implementation in curriculum reform in education, namely a macro and a micro level. This study fits well into the micro level implementation because it intends to explore the relationship between the policy and practice by observing classes and interviewing teachers in order to get their opinions, perceptions and attitudes related to the phenomenon under investigation. According to Craig (1990), Warwick et al. (1992), McGinn (1996), Fuller & Clarke (1994) quoted by Benveniste & Mcewan, (2000) "implementation at micro level comprises the following variables: perceptions, attitudes, incentives of teachers, students and parents, and the 'fit' between local culture and educational innovations".

Fullan & Hargreaves (1992:1) argue that "effective implementation consists of alterations in curriculum materials, instructional practices and behaviour, and beliefs and understandings on the part of teachers involved in given innovations." However, the gap between policy and practice in education is relevant in this study because the process of implementation of any policy is complex and not linear.

The implementation process depends on certain conditions to be created in real schools (context), how people are involved in the process, and on final beliefs, perceptions and commitment.

Thus,

"the key to successful change is the improvement in relationship between all people involved and not simply the imposition of top-down reform. The new emphasis is educational change, which is based on creating the conditions to develop the 'capacity' of both organisation and individual to learn. The focus moves away from an emphasis on structural change towards changing the culture of classroom and schools; an emphasis on relationships and values"(Fullan, 1991).

In addition, one belief is that “most people do not develop new understanding until they are involved in the process” (Fullan & Stiegelbauer, 1991). It means that both teacher and school administrator must be involved in the process of change in order to understand what changes are proposed and how to implement them in real school.

Due to political, economical and social changes at internal and external level, Mozambique started to design the new curriculum for the basic education in 1996. This curriculum was designed in Mozambique and introduced in 2004; it is now being implemented. It was anticipated by the involvement of different stakeholders, starting from civil society to trainers. This reform introduces, among others, some innovations in the curriculum, namely an integrated approach, a learner-centred approach, interdisciplinarity. After one year of its implementation, it is necessary to know how these issues are implemented by the teacher trainer at Marrere CFPP. One of the focal areas that concern this study is the extent to which trainers deal with such innovations, as change agents in classroom.

Steensen (2000:1) argues that “educational reforms are currently being experienced in many corners of the world, in developing countries as well as in developed countries.” More specifically, curriculum reform developments are taking place in North America, Singapore, South Africa, Japan, the Caribbean and Mexico (Pinar, 2003).

A review of some international literature has identified four major problems related to basic education in Africa, which also impair the basic education in Mozambique. These are low quality of education and curriculum, under-qualified, unqualified and untrained teachers, the high teacher-pupil ratio and a lack of facilities and teaching resources.

The four factors mentioned above form a web of problems that affect and compromise the improvement of the quality of education in Africa and in Mozambique. In the case of this study, I became aware that several challenges exist. Obviously, Mozambique and other African countries still have much to do in order to minimise the negative effects of the above-mentioned factors in basic education.

For the improvement of teacher quality, Fwu & Wang (2002:15) state the following:

“Improving the teacher’s quality through the teacher’s education has become a major focus of education reforms. Among the public discourse on educational reform in Taiwan, teacher’s education was the first and foremost target for reform because the teacher quality plays a crucial role in improving education. Teachers are the heart of educational reform.”

If we assume that the curriculum policy can flow from training colleges to teachers and schools, that is to say top-down, we must confront questions such as: How effectively is the curriculum referred to above being implemented? Why have trainers not been involved in the process from the beginning? What must be done with the trainers in order to invert this situation (feeling, perceptions, understanding and commitment)?

The reform process has not been adequately accompanied by the necessary changes at INSET (schools) and PRESET (Teacher Training Colleges) levels. Adapting the institutions and their curricula to match the needs of the basic education curriculum is the biggest challenge at the moment. Currently, there are three types of institutions with different curricula – the CFPPs and College for Training Future Teachers (EPF belonging to the ADPP). The first ones are the Primary Teacher Training Centres requiring, seven years of formal schooling, followed by three years teaching training (7+3). Secondly is the College for Training Future Teachers, privately owned by a well-established local division of an International Non Government Organization, 10+2,5. The question is how are these institutions going to meet the demands of the new curriculum for basic education? What are the strengths and the weaknesses of the pre-service curriculum? Have the institutions developed the capacity for in-service training to upgrade teachers for the challenges of the new curriculum? Most important of all: Is a change in teacher education enough to change the practice of the future teachers in schools?

Rationale of the study

There are various reasons that have motivated me to carry out this inquiry. Firstly, it is my interest to understand the phenomenon of policy implementation, which is of paramount importance to the needs of the country. According to Knapp (2002:5), ever since the earliest attempts to study the implementation of complex governmental policies, the impulse to trace the connections between reform policies and instructional practice has been strong; in the same vein the growing body of policy implementation research points out that there are many gaps between the policy as formulated and its actual practice in the classroom. That is why a scholarly arena is imperative for further research on this topic.

Secondly, “emphasis is given to the assumption that the relationship between policy and practice is not linear, rational and predictable” (Jansen, 2003).

Thirdly, it is believed that teacher training institutions play a crucial role in education as a whole. This statement is illustrated in an article written by Torres (1996), entitled *Without Reform of Teacher Education there will be no Reform of Education*. This shows that teacher training reform in education must always be first. Teachers are key agents of change in any educational reform. Teacher training institutions must act in consonance with Basic Education.

Fourthly, “there is very little research on curriculum practice in African schools, especially those produced by indigenous writers” (Jansen, 2003). It is to encourage teachers or investigators to write about their countries in general and about their regions (local) in particular.

In Chapter 1 it was stated that the gap between the primary school curriculum and TTC in Mozambique persists. This justifies the reason why it was pertinent to carry out this study.

1.4 PURPOSE OF THE STUDY, AND RESEARCH AIMS AND OBJECTIVES

The purpose of the study is to explore the relationship between policy and practice in the classroom at Marrere CFPP.

The main aim of this study is to contribute to the reform of teachers' education in Mozambique through an analysis of how the present form of teachers' education relates to the needs of the new school curriculum.

The literature that informs this study is the scholarship on educational change, particularly the relationship between policy and practice. There are many international studies that have attempted to understand these problems over the last thirty years, but no such studies on teacher training in Mozambique. This study seeks to contribute to our understanding of the modalities of educational change in resource-poor contexts. It also hopes to make a contribution to the implementation of the basic education policies by the Mozambican

Ministry of Education, and to the practices of lecturers and administrators at Marrere and other colleges.

The underpinning objectives of the research are the following:

1. To identify the weaknesses and strengths of the TTC in relation to the new curriculum for basic education in Mozambique as well as the factors behind these weaknesses and strengths.
2. To explore to what extent the TTC in Mozambique can play a crucial role in ensuring the implementation of the new curriculum for basic education.

1.4.1 Research Questions

1. How have theories about curriculum change been implemented in Marrere CFPP?
2. Why they been implementing in these way?
3. What is the relationship between curriculum change and practice on the ground?
4. To what extent does the teachers' training curriculum match the Basic Education curriculum and how does it do so?
5. To what extent does the teachers' training curriculum assessment match the Basic Education curriculum and how does it do so? What are the outcomes?

Motivation of the study

It is vital that the teacher education system in Mozambique, which is presently not at all well, fits the needs of basic education. In order to achieve a change in teacher education and not to repeat the previous mistakes, it is necessary to understand what the current situation is, how teacher education operates and why it is so. Insight into these variables will contribute to the reform of basic education.

The new curriculum for basic education was introduced in 2004 and had a direct influence on the TEIs because of their mission. All these colleges train teachers for primary school, enabling them to deal with the new curriculum for basic education in primary schools in Mozambique. Inherent in this training is the demand for future teachers to change and their teaching practice.

The implementation of educational changes involves “changes in practice” and these changes are aimed at attaining particular goals. To achieve these goals, Fullan (1991 & Stiegelbauer:37) has identified three dimensions which together support any programme or policy, namely new or revised materials, new teaching approaches and alterations of beliefs.

According to Passos & Cabral (1989:15), in their study about TTC, the curriculum for the TEI for primary schools in Mozambique is less professional because the balance between professional and academic disciplines is biased in favour of academic disciplines. This means that more time is devoted to academic disciplines. For Africa, Stuart & Lewin (2002:216) point out that:

“...for example Lesotho’s new curriculum was oriented towards more academic study, while Ghana’s was moving towards a more practical and school-based course. Many curricula are heavily over-loaded with content, and seem mismatched to the experiences, needs and expectations of the trainers. There are often internal inconsistencies with regard to aims, objectives, pedagogy, teaching-learning materials and assessment.”

While Craig, Kraft & Du Plessis (1998:109) suggest that:

“the program needs to provide a balance of pedagogy and subject matter as opposed to exclusive emphasis on one or the other. It should also include practical methods to teach subject matter, child development, and learning theories in ways which are relevant to the student content, ways to evaluate teaching and learning, multi-grade classroom management, ... participatory learning strategies such as discussion, simulating, and teaching practices.”

There is a mismatch between what Craig, Kraft & Du Plessis (1998) consider as being the most appropriate model, founded on a view of a balance between subject contents, and professional’s ones. However, relating to the models Stuart & Lewin (2002), found to be in use in some countries in Africa, which are unbalanced and place more emphasis either on practical courses or academic courses for teachers’ training.

The gap between curriculum for the primary school and the TTC persists in Mozambique, which justifies why it is pertinent to carry out this study.

1.5 SIGNIFICANCE OF THE STUDY

The contribution and significance of this study is to explore the relationship between policy and practice. Fullan & Stiegelbauer (1991), Fullan & Hargreaves(1992) and many others authors (Psacharopulos, 1990; Kiros, 1990; Magalula, 1990; Maravanyika, 1990; Odaet, 1990; Thelejani, 1990; Galabawa, 1990; Eshiwani, 1990; Cohen, 1990; Cohen & Ball, 1990; Dyer, 1999; Craig, 1990; Cohen & Hill, 2000; Knapp, 2002; Chau et al., 2006; Cohen, 2006) have written about this. The four major problems related to basic education in Africa and Mozambique underscore the lack of correspondence between the policy of basic education and the practices at TTC. I want to investigate how the Marrere CFPP deals with these issues.

To make this analysis possible, we need to investigate the main aspects that constitute these demands of the new curriculum, namely the learner-centred approach, the approach that integrates the subjects, interdisciplinarity and the introduction of a local curriculum (MINED, 2001; MINED/INDE, 1999).

I want to investigate how the particular characteristics of Marrere CFPP relate to these demands inherent in the new school curriculum. Firstly, I want to determine how the different agents become aware of the change and what they are doing to face the challenge; secondly, I want to determine what the teachers' understanding, beliefs and attitudes are with regard to a learner-centred approach.

1.6 LIMITATIONS OF THE STUDY

Observable changes in the teaching and learning process in the colleges that train future teachers and in the primary schools where former students of the colleges teach children must be investigated. There is a trend today in educational policy discourse that seems to start from the hypothesis that learning achievement can be fabricated in the same way as Coca-Cola, cars or corn - that is to say, by will of an entrepreneur who invests the right means and uses the right techniques. But that is not the case with propagating learning. The process is much more complicated and in the last instance depends on the learners themselves.

It is also true that the achievements of the learners depend on a certain number of objective conditions, which can only be manipulated to a certain extent and mostly not by learners and teachers. Most of these are beyond the control of the teachers and learners; they have to do with the economic, social and cultural capital and dispositions of the communities and families where learners are brought up. And they have to do with the very different conditions in which urban and rural people, men and women, people from different social classes and ethnic groups live. Factors that have an impact on these aspects are beyond the control of teachers and learners.

I am therefore aware that this research will not be able to identify one single factor and the way to manipulate it in order to change the outcomes of teacher training and the quality of learning in schools. I can merely attempt to describe and explain how different models are functioning and which results they are connected with, everything else being equal. Deciding on which type of teacher training is most adequate would require a controlled experiment to be done, comparing the achievements related to the three systems. No such a study has been done, and it is almost impossible to do it because teachers educated by the three systems are scattered in schools all over the country. So the best one can do is to observe the teacher training in the three systems systematically. It would be something totally new to make some assumptions about the impact of training, and to follow at least some of the students' teachers during their practicum and later in their different teaching contexts, again with systematic comparative methods, with a view to accounting for all other factors that have an impact besides teacher training.

Sometimes I feel that before investigating change and the conditions under which change takes place, it would be more important to try to understand why things do not change, although everybody says that change is necessary and unavoidable.

1.7 STRUCTURE OF THE THESIS

This dissertation is divided as follows:

Chapter 1 introduces the reader to the study, states the problem and explains the aims of the study, and its limitations.

Chapter 2 provides a brief summary of the literature on policy implementation.

Chapter 3 offers a description of the research instrument and research design and describes the methodology.

Chapter 4 provides the context of the Osuwela Project and background to the CFPP of Marrere.

Chapter 5 shows how the curriculum and content are organised and discusses constraints on its implementation.

Chapter 6 describes how teachers understand the new curriculum for basic education and, more particularly, the learner-centred approach and interdisciplinarity.

Chapter 7 shows and discusses three different teaching styles during the teaching and learning process with the emphasis on teacher methods used in classroom practices.

Chapter 8 shows an overview of assessments conducted at Marrere CFPP.

Chapter 9 provides a brief summary of the literature on policy implementation, the conclusion in the light of the research questions and discusses the main findings and recommendations of the study.

CHAPTER 2

LITERATURE REVIEW

The aim of this chapter is to present the relevant literature related to policy and implementation with the focus on a case study at a teacher training college against the background of the implementation of new policies in Section 2.1. Subsequently, Section 2.2 gives the linkage between the research question and the literature as well as sub-research questions to the problem (problem: theory versus practice) is also addressed. Policy implementation is presented and discussed, taking into account various reasons for failure and success of implementation (Section 2.2.1). Section 2.2.2 deals with agencies and structures. The chapter also presents two types and dominant theoretical traditions of implementation policy and possible solutions for those two approaches (Section 2.2.3). Section 2.2.4 addresses agents involved in the policy implementation. The failure of policy implementation is presented in general and the South African context relating to OBE also is presented (Section 2.2.5). The problems of policy implementation and practice in developing countries are discussed (Section 2.2.6). The four common problems that basic education in Africa and Mozambique are presently facing are presented and discussed, taking into account the same context (Section 2.3). Section 2.3.1 deals with the quality of education and curriculum, Section 2.3.2 focuses on teacher qualification, Section 2.3.3 on teacher-pupil ratio, while Section 2.3.4 deals with facilities and teaching resources. The conceptual framework which supports the study is addressed in Section 2.4. Finally, the discrepancy between policy and practice are posed in Section 2.5.

Policy implementation is like a telephone game: the player at the start of the line tells a story to the next person in line who then relays the story to the third person in line, and so on. Of course, by the time the story is retold by the final player to everyone it is very different from the original story. The story is morphed as it moves from player to player - characters change, protagonists become antagonists, new plots emerge. This happens not because the players are intentionally trying to change the story; it happens because that is the nature of human sense-making” (Spillane, 2004:8).

2.1 INTRODUCTION

The previous chapter dealt with the statement of the problem, the aims and objectives of the study, research questions, and the structure of the dissertation and limitations of the study. This chapter presents a case study of a teacher training college against the background of the implementation of new policies.

The first part of this chapter focuses on the rationale, statement of the problem of policy practice and general review of the literature related to implementation from policy to practice in developing countries. The second part is devoted to the review of literature about the problems of Basic Education in Africa/Mozambique that affect the improvement of education and implementation of the policy.

Education reforms are not new. They can be traced back before the 21st century. McCulloch (1998:1203) points out that:

“Over the past forty years, in many different nations, reform of the school curriculum has been widely sought as a key instrument of educational change. Reforming the content and form of what is taught has often appeared to be even more important in this respect than other familiar approaches, such as reforming the organisation of educational system.”

Therefore, “education is broadly used as an instrument for social change” (Chimombo, 2005:130).

This study intends to find out how the theories about curriculum change have been implemented and the reason why they have been implemented in that way. It also seeks to identify the relationship between curriculum change and practice at Marrere CFPP, the extent to which the teacher training curriculum and assessment match the Basic Education curriculum and how they do so, as well as their outcomes.

Research questions; linkage between research questions and literature

The literature review related to policy implementation is a response to the research questions of this study. These will help trainers to understand perceptions, beliefs and attitudes about innovations in the new curriculum in Mozambique, in particular regarding teaching strategies in the classroom and the practice at the College being studied.

The research questions stated above are intended to help trainers as change agents at the college to understand the perceptions and attitudes to the new curriculum, and how such changes can be implemented in the classroom. Scholars and researchers pay attention to the relationship of policy and practice, that is, to policy implementation as a part of the learning process.

2.2 PROBLEM: POLICY VERSUS PRACTICE

2.2.1 Policy Implementation

Policy implementation is a process whereby people put in practice the norms, regulations, policy and decisions taken by policymakers. Ball (1990:14) points out that “the purpose of implementing new policies in the education system is often associated with a need to effect changes. Therefore there is an assumed direct link between policy implementation and change.” However, “education policy faces a familiar public policy challenge: local implementation is difficult” (Spillane; Reiser & Reimer, 2002:387). The term implementation involves both *carrying through* and *realizing*. Moreover, *carrying through* a decision does not always result in a *realization* of the objective target” (Lane, 1992 in Roste, 2005). That is why Ramsuran (1999:99) states that “research suggests that policy intentions seldom define classroom practice.” In the same vein, Elmore & Sykes (1992) are of the opinion that “innovations are seldom implemented in the classroom in exactly the same way developers had intended.” This is where the problem of policy and practice resides. It means that once policy has been stated and prescribed on paper, it must be translated or implemented at micro-level, that is in the classroom. The policy is implemented in schools in different contexts. The literature shows that the gap between policy and practice is still a major concern (Cuban, 1990; Ball, 1990; Psacharopoulos, 1990; Kiros, 1990; Magalula, 1990; Maravanyika, 1990; Odaet, 1990; Thelejani, 1990; Galabawa, 1990; Eshiwani, 1990; Cohen, 1990; Malen & Knapp, 1997; January, 2002; Ward et al., 2003) to mention a few. In other words, the problem with policy and practice is at the stage of implementation. According to Fullan & Stiegelbauer (1991:65) “implementation consists of putting into practice an ideal programme or set of new activities and structures for the people expected to change.” For implementation, Malen & Knapp (1997) suggest that:

“the connections between policy and practice predict policy success or failure. Moreover, the analysis is a useful tool for policy-design and strategy planning. According to the organisational category of policy-practice connections, reforms aim at sustaining institutions and removing threats that they face rather than resolving practical problems.”

In the United States of America and in other industrialized countries, political, economics and management science have long been concerned with policy implementation research.

Hariparsad (2004:10) states the following:

“The basic knowledge on policy implementation in the context of Educational Change and reform is formidable, and important for examining and understanding the relationship between macro and micro level policies or classroom practice. Research on educational reform implementation has been, and still is, the subject of a substantial volume of research, database and analysis among scholars, both in developing and developed countries. Most of these studies have been more rhetorical than substantive in their impact in classrooms and schools, thus exposing the dissonance between policy intention and policy outcomes at the level of practice.”

In the same line, “in the South African context, since the release of Nelson Mandela in 1990, most education policies have been symbolic, substantive and redistributive” (Jansen, 2001). This view highlights the messiness of the policy process and projects policy as often comprising symbolic gestures. Researchers working with this perspective would see it as a government-led political process which, they would argue, ignores the “realities on ground” (Sayed, 2004:251-252). The following quotation shows clearly the role exchange between policymakers and implementers during the implementation process:

“Implementers such as schools become key decision makers rather than mainly agents of others’ decisions, roles traditionally held by policy makers. Policy makers become supporters rather than directors of others’ decisions, roles traditionally held by implementers. Calls for these role redefinitions stem in part from decades of research and experience with social policy implementation that teaches that policy makers might improve policy implementation and schools’ performance if they increased school’s discretion over basic school operations as a central reform strategy; such discretion might result in decisions that address local needs and tap local resources rather than strategies developed by policy makers outside schools” (Darling-Hammond, 1998; McLaughlin, 1990).

The following example clearly shows when teachers have an opportunity to make sense of a policy in their local context. Cohen & Hill, 2001, argue that “the policy established by the California Department of Education improved the teaching and learning of

mathematics only when teachers had sustained significant opportunities to make sense of the reform initiative in their local context.”

The relationship between policy and educational change is based on the role of policy which functions as a guide, stimulating stakeholders to enact those contents already stated from the policy such as school curriculum and others.

In this research a college was used as a case study for investigating the policy-practice relationship by looking at some innovations included in the new curricula implemented in Mozambique. The topic is supported by the literature related to policy and practice.

In order to get a good understanding of the relationship between policy and practice, it is inevitable to talk about agencies and structures, power and agents involved in the process of implementation as well as factors that influence it.

2.2.2 Agencies and Structures

When talking about agencies, I refer to the range of institutions subordinate to the Government, in this particular case, to the Ministry of Education. The administrative organization of each country (Federal state in the USA or Province in Canada) has an influence in terms of numerous agencies involved in each country. As Fullan (1993:220) said, *Governments* means federal and state departments in the USA, provinces in Canada (because there is virtually no federal policy in Education), and national governments in countries that are governed as one system.

In the past, “government agencies have been preoccupied with policy and programme initiation, and until recently they have vastly underestimated the problems of implementation” (Fullan, 1993:86). This issue is overcome when the importance and difficulties of implementation is acknowledged by the government agencies, and, as a result, resources are allocated in accordance with the needs to improve the standards of practice, implementation units, quality assessment, quality of potential changes, professional development and the monitorization of implementation policies (Fullan, 2001).

According to Cohen & Hill (2001), “the effective implementation of instructional policies depends not only on making connections among disparate agencies but also on creating adequate opportunities for professionals to learn what the policy requires from them.”

There is also the problem of the complexity and weight of the structure that manage educational affairs. On the one hand there is the top level, where we find the Ministry with its own departments and staff; on the other hand there is the bottom levels, the real implementation field, with its hierarchical structure; and in between these there are transition stages. The complexity of the channels through which the information has to pass is another problem for implementation due to the high number of institutions and the number and qualifications of the people that are involved .

2.2.3 Top-down and Bottom-up Strategies/Approaches

The literature identifies two theoretical traditions on policy implementation (Roste, 2005; deLeon & deLeon, 2002; Fullan, 1994; Pulzl & Treib, 2006), namely **top-down** (the top-down school, represented by scholars like Van Meter & Van Horn (1975), Nakamura & Smallwood (1980) or Mazmanian & Sabatier (1983) quoting Pulzl & Treib (2006:1) and **bottom-up**. Scholars belonging to the bottom-up came, such as Lipsky (1971, 1980), Ingram (1977); Elmore (1980); or Hjern & Hull (1982), Lipsky (1980) quoting Pulzl & Treib (2006:1). It means that **top-down** corresponds to centralized power (*authority*) and **bottom-up** corresponds to the decentralized power (*democratic*). However, “centralization errs on the side of over control; decentralization errs towards chaos” (Fullan, 1993). Fitz (1994) argues that “top-down studies tend to render the policy process as hierarchical and linear.” On the contrary, Fullan (1994:12) states that “change is non-linear and complex.” In the same vein, Jansen (2003) argues that “the relationship between policy and practice is not a linear, rational and predictable process.” “Top-down models put their main emphasis on the ability of decision makers’ to produce unequivocal policy objectives and on controlling the implementation stage” (Pulzl & Treib, 2006:2-3). “Bottom-up critiques view local bureaucrats as the main actors in policy delivery and conceive implementation as a negotiation process within networks of implementers” (Pulzl & Treib, 2006:2-3). In addition, Pulzl & Treib (2006) argue that “policy makers should start with the consideration of policy instruments and available resources for policy change (forward

mapping); and they should identify the incentive structure of implementers and target groups (backward mapping).”

Further, “first-wave reforms were criticised for relying primarily on top-down approaches to reform; research has demonstrated that relying exclusively on either a bottom-up or top-down approach to change is ineffective, and that successful reform demands a combination of these approaches” (Darling-Hammond, 1997; Fullan, 1994b; Goodlad, 1975; Porter, Archbald & Tyree, 1990; Purkey & Smith, 1983, 1985 cited by Desimone, 2000). From the combination of top-down and bottom-up results the *hybrid* or *synthesising* theories, that appear as an alternative approach to both. “Hybrid theories try to overcome the divide between the other two approaches by incorporating elements of top-down, bottom-up and other theoretical models.” The hybrid theories are represented by Majone & Wildavsky, 1978; Scharpf, 1978; Mayntz, 1977; Windhoff-Héritier, 1980; Ripley & Franklin, 1982; Elmore, 1985; Sabatier, 1986; Goggin et al., 1990; and Winter, 1990, in Pulzl & Treib, 2006:3).

The top-down perspective “claims that the implementation process needs a clear start and a clear end to study and evaluate the implementation” (Pressman & Wildavsky, 1973). In addition:

“The implementation process is understood to start after the policy decision is made. The decision-making process is clearly defined by the discussion and framing of political objectives by the members of the central formal democratic institutions of the Parliament and the Government. Hence decisions are made at the top of the public policy pyramid and implemented downwards in the hierarchy, in the bureaucracy and public agencies, public service institutions and regional and local level” (Roste, 2005:19-20).

Similarly, “top-down theories started from the assumption that policy implementation starts with a decision made by central government” (Pulzl & Treib, 2006).

On the contrary, the bottom-up perspective:

“...insists that the demarcation line between policy decision and implementation is unclear, and that studies of implementation have no value unless the whole process is included. Implementation is a continuous process without a beginning or an end, rather policy decisions and implementation happen at all levels in the public system to all time involving both policymakers and political actors at all geographic levels,

bureaucrats in a number of specialized field and service providers in different public institutions. This understating of implementation has a clear normative point of view, emphasizing the need of decentralizing the decision making process; to include the perspectives of the service level and of the users of public services in order to maker ‘good’ decisions” (Roste, 2005:20).

While traditional organizations require management systems that control people’s behaviour, learning organizations invest in improving the quality of thinking, the capacity for reflection and team learning, and the ability to develop shared visions and shared understandings of complex business issues (Senge, 1990:287). It is theses capabilities, which show the difference between traditional organizations and learning organizations, which will allow the learning oraganizations to be more locally controlled and better coordinated than their hierarchical predecessors.

Coordination between local units and the centre is necessary either in centralised or decentralised setting. The information obtained from individual school is relevant for personnel moves, selection and promotion criteria, budget decisions and staff development resources. For this a different two-way relationship of pressures, support and continuous negotiations is required. Failure to understand this will result in inability to cope with the cross-cutting forces of change (Fullan, 1993).

Policy implementation everywhere “depends on how it is interpreted and transformed at each point during the process” (McLaughlin, 1998). For example, at provincial level, district level, school level. In the same vein Jansen (2003) argues that “the relationship between policy and practice is not a linear, rational and predictable process.” “Policy thus seems a chief agent for changing practice” (Cohen, 1990).

Fullan & Hargreaves (1992) argue that “the effective implementation consists of alterations in curriculum materials, instructional practices and behaviour, and beliefs and understandings on the part of teachers involved in given innovations.” Thus,

“...the key successful change is the improvement in relationship between all involved and not simply the imposition of top down reform. The new emphasis is educational change, which is based on creating conditions to develop the ‘capacity’ of both organisational and individual to learn. The focus moves away from an emphasis on structural change towards changing the culture of classroom and schools, an emphasis on relationships and value. In addition, one believes that ‘most people do not develop

new understanding until they are involved in the process” (Fullan & Stiegelbauer, 1991).

It should not be surprising that the bottom-up reform results are disappointing. The primary institutions of policymakers - their professional knowledge based, practice and workplace norms - reinforce policymakers’ top-down control over school operations, not their support of school decision (Honig, 2004). Pulzl & Treib (2006) point out that “implementation and policy formulation are inter-dependent processes. What bottom-up scholars already suggested for a long time has become more and more accepted, also among the proponents of *hybrid* or *synthesising* theories.”

For the South African context, Jansen (2003) highlights “the likelihood of curriculum policy processes remaining top-down but not necessarily authoritarian. This is because the logic of a top-down ‘policy-to-practice’ curriculum mode is so strongly entrenched in policy-makers and teachers.” In light of this, Jansen (2003:44) states the following:

“There is little understanding that practice can direct policy and less that practice could represent policy. Policy is something that happens in Pretoria, something that is handed down to teachers for implementation. There are no established traditions of locally-driven curriculum development; in fact, studies have repeatedly shown teachers willing to declare themselves impotent with regard to the curriculum process in South Africa. Again, such as orientation coexists comfortably with a public discourse about participation, ownership and transparency.”

Taking into account the types of power already discussed above helps to analyse the curriculum model of Mozambique within the system as a whole, relating it to agencies and structures established in Mozambique (the Ministry of Education, Provincial Directorate of Education, Districtal Directorate of Education and the schools). It also helps to identify the kind of power relation involved between different government agencies of education, including Marrere CFPP, which is located at the bottom level of the all structures.

2.2.4 Agents involved in the policy implementation

Teacher

As we have seen earlier, policy is not implemented in classroom as intended by policy developers. In the process of implementation, teachers are seen as key agents of change at school, more concretely, in the classroom (Spillane, 2004; Spillane 1997; Darling-

Hammond & McLaughlin, 1995; Elmore & Sykes, 1992; Cohen & Ball, 1990). In other words, “early policy implementation research recognised the importance of ‘ground-level’ actors who were tasked with enacting policies” (Pressman & Wildavsky, 1973), and educational scholars have gradually come to recognise the importance of teachers as the key agent to successful policy implementation (Odden, 1991). There are many actors involved in the process of implementation in the school level, namely parents and the community, the school administrators, students, the principals and the teachers themselves. However, it is the teacher, together with students, who puts it into practice. The success of the teacher depends on the support of the other above-mentioned actors and interaction with other teachers. He also needs to get moral, material and other kinds of incentives.

It is important to ensure that the policy is well interpreted by its implementers. This is one of the crucial conditions for implementation to be successfully in the classroom. As Fullan, 1993, said: “... each and every teacher has the responsibility to help create an organization capable of individual and collective inquiry and continuous renewal, or it will not happen.” In summary, “every person is a change agent” (Fullan, 1993). In the same vein, “teachers figure as a key connection between policy and practice and teachers’ opportunities to learn what the policy implies for instruction are both a crucial influence on their practice, and at least an indirect influence on student achievement” (Cohen & Hill, 1998:329). In the last instance, policy implementation of a curriculum “depends on how it is interpreted and transformed at each point during the process” (McLaughlin, 1998), for example, from provincial level, district level, school level. In the same vein, Jansen (2003) argues that “the relationship between policy and practice is not a linear, rational and predictable process.” “Policy thus seems a chief agent for changing practice” (Cohen, 1990). Hence, “the change process is exceedingly complex as one realizes that it is the combination of individuals and societal agencies that make a difference. Teachers are major players in creating learning societies, which by definition are complex” (Fullan, 1993). Cohen & Hill (2001) concluded that “the effective implementation of instructional policies depends not only on making connections among disparate agencies but also on creating adequate opportunities for professionals to learn what the policy requires from them.”

2.2.5 Failure of Policy Implementation

Implementation is a problem of both third world and western nations. It means that the implementation problem occurs in developing as well as in developed countries. “The problem of implementation is as profound in western as it is in non-western nations: it derives from complex organizations” (Van Meter & Horn, 1975). In addition, Cohen & Ball (1990) point out that “Policymakers believe that *policy* can steer school practice and change school outcomes.” This idea is corroborated by Grindle & Thomas (1991) when they argue that “policymakers tend to assume that decisions to bring about change automatically result in changed policy or institutional behaviour.” And then, Saranson (1990) suggests that “educational reformers must not confuse a change in policy with a change in practice. Reformers must understand that in order to accept changes in practice, a process of unlearning what custom, tradition, and even research have told education personnel is right, natural and proper.”

The main idea to be retained here is that policymakers believed that once policy is defined, it will be put in practice by school agencies. The implementation process is very complex and not linear. It means that it is important to see the context where it is put in practice as well as the support, motivation, opportunities given to teacher at local level. “Successful change involves learning how to do something new. The process of implementations is essentially a learning process. Thus, when it is linked to specific innovations, teachers’ development and implementation go hand-in-hand” (Fullan & Hargreaves, 1992).

There is no doubt that “a common challenge facing education policy to date is the persistent difficulty of ensuring local implementation of instructional reforms by teachers” (Chau et al., 2006).

Cohen & Ball (2006) identified three schools of thought that explain policy failure: these are when innovations are badly designed, and teachers are not given opportunities to learn them; limited incentives to change practice in schools that culminate in resistance; and finally, a lack of robust treatments that address problems that seriously concern practitioners.

In short, the failure of policy implementation is attributed to badly designed policy, schools that are unprepared to implement such policies (educator resistance, conditions, etc.) and, finally, to only a few innovations addressing the problem. That is, “the real change is never accomplished because societal, political, and economic forces inhibit change within the educational system (Fullan & Stiegelbauer, 1991). However, Dreeben (1970), points out that “perhaps the distinguishing characteristics of school systems are the vague connections between policy formation at both high and middle levels of the hierarchy and their implementation at the level where instruction takes place – the classroom”.

One key factor for a successful implementation of innovations is the participation of those who are influent in policy and implementation in their design; it should not be imposed by outsiders. Implementers such as managers, school heads and teachers should know is expected of them and necessary means should be made available for them to act. Also, the policy should not be offensive to the values of the region where it is going to be implemented (Page, 1995).

Jansen (2002:199) states that “the literature policy in developing countries is replete with narratives of ‘failure’ attributed to the lack of resources, the inadequacy of teacher training, the weak design of implementation strategy and the problems of coherent policy.” Along the same lines, Bennie & Newstead (1999:1) argue as follows:

“There are several factors that can restrict curriculum innovation. These factors are related to both the teacher and the context in which the innovation is taking place. They include time, parental expectations, public examinations, unavailability of required instructional materials, lack of clarity about curriculum reform, teachers' lack of skills and knowledge, and the initial mismatch between the teachers' lack of skills and principles underlying the curriculum innovation.”

To summarise, “all policies will probably encounter some degree of resistance and play themselves out in different ways in the various ways” (Wolf et al., 1999). “...any reforms seldom go beyond getting adopted as a policy. Most of them get implemented in word rather than in practice, especially in classrooms” (Cuban, 1990). “Policy outcomes fall far short of matching expectations, mainly because of insufficient or the absence of implementation” (Psacharopoulos, 1990). In the same vein, Reimers & McGinn (1997) argue that “policies fail because conditions to facilitate dialogue and organisational learning are usually absent.”

“The failure of educational change may be related to the fact that many innovations and reforms were never implemented in practice (i.e., real change was never accomplished) as to the fact that societal, political, and economic forces inhibit change within the educational system. There is a greater problem of clarity. In short, lack of clarity – diffuse goals and unspecified means of implementation – represent a major problem at the implementation stage; teachers and others find that the change is simply not very clear as to what it means in practice” (Fullan & Stiegelbauer, 1991).

According to Cohen & Ball (1990), policy

“...has been interpreted – and thus enacted – in a variety of ways. Policy is a bundle of disparate ideas, many vaguely stated, and thus especially vulnerable to many different constructions. Any teacher in any system of schooling interprets and enacts new instructional policies in the light of his or her own experience, beliefs and knowledge.”

Emerging research suggests that success in implementing curriculum innovations hinges on the supply of teachers with appropriate professional development

Burgess & Lowe (2002:87) in their study about Australia advance states the following:

“The greater the disparity between existing teaching practices and the aims of the new curriculum, the more complex the task of translating policy directives in practice will be. Difficulties in implementation are compounded if teacher professional development is not appropriately matched to the nature of the reforms imposed. The increased responsibility imposed on school principals to manage the implementation process may create difficulties in situations where leaders are inadequately prepared to provide direction for staff on curriculum implementation and professional development.”

Educational change may be viewed as a response to broader social, cultural, economic and political change. Taylor et al. (1997) state that “the transformation of the educational system does not take place without resistance, especially from the privileged minority.” “Implementers apprehend and enact new policies in the light of their inherited knowledge, beliefs and practice”

Swarts (2002:10) states the following:

“Policy failure can often be attributed to the view that implementation is separate from policy making and because policy makers in general underestimate the complexity and difficulty of coordinating the tasks and players and players involved in implementing programmes and policies.”

Cohen & Ball (1990) agree and state “that policy has been interpreted – and thus enacted – in a variety of ways. Policies regularly announce a new instructional order for the classroom slate, which is never clear.” In addition,

“Policy makers need to understand that policy is not so much implemented, as it is re-invented at each level of the system. What ultimately happens in school and classrooms is less related to the intentions of policymakers than it is to the knowledge, beliefs, resources, leadership and motivation that operate in local contexts” (Darling-Hammond, 1998:646).

Uneven local implementation is sometimes a function of local unwillingness to change. At other times limited prior knowledge and lack of expertise, material and time to put into practice the proposed changes advanced by policy are barriers to successful implementation of a new policy (Spillane, 2004). A final comment:

“Little is known about how teachers perceive instructional policies, how they interpret them, and how different kinds of policies influence teaching and learning. Many policies and programs have aimed at classrooms, but what we know about those policies stops at the classroom door, for policy research has seldom investigated the effects of policies on the actual works of teaching and learning” (Cohen & Ball, 1990:1).

Let us look at the South African context where the new curriculum (C2005) has recently been implemented. It was introduced to replace the *apartheid* curriculum. Earnest & Treagust (2006:257) tell us briefly how C2005 has been built when they stated that:

“Based on the legacy of apartheid, South Africa’s curriculum reform was accepted by the masses largely on political grounds and policy makers wrote the reform curriculum without consideration for the implementers of the reform, i.e. the teachers. Educational policy implementers, at the request of politicians had to produce demonstrable curriculum innovations in a short space a time. For this reason, C2005 was hastily borrowed from foreign contexts, namely Australia and Scotland. There was inadequate research into their success and effects and C2005 was bundled together with insufficient consultation on research in the name of change and redress. Teachers were challenged with every conceivable type of change espoused in reform curriculum.”

Although, in theory, the implementation was designed to reach all learners by the year 2005, in reality numerous problems were experienced (Earnest & Treagust, 2006:257). It means that policymakers failed to visualise different contexts where the curriculum was going to be implemented, such as qualifications of teacher, poor resources, and inequalities existed in South Africa schools as well as socio-economic problems. In other words, there

was no homogeneity in terms of conditions, teacher qualifications and resources because the nations came from the *apartheid* regime where school segregations were visible across the country.

Taylor & Vinjevold (1999:257) state that “classrooms in rural schools are still characterised by teacher talk, pupil passivity, rote learning; low-level questioning dominates the classroom environment and teachers generally dominate lessons.” In addition, Taylor & Vinjevold (1999:257) have found the following:

“There is broad consensus that teaching and learning in the majority of South African schools leaves much to be desired and that lessons are generally characterized by a lack of structure and the absence of activities that promote higher order skills such as investigation, understanding relationship and curiosity as espoused by the curriculum reform goals. Although teachers are implementing some aspects of C2005, the level of implementation is questionable and progress may be retarded.”

In response to the difficulties experienced by C2005 in schools, among other actions have been undertaken, policy curriculum was revised and researched, and it was formulated and written in a language acceptable to the majority of teachers, resources for teacher were provided, and sustainable INSET were provided by qualified personnel.

In many instances, policy failure can be attributed to poor implementation or lack of foresight in the policy process. Systematic change can also be undermined when leaders attempt to underestimate conceptual and practical complexities in the interest of fast-paced implementation. This is evident in the South African context where the imperative of political change underpins much of the education reforms (Mokoena, 2005).

2.2.6 Policy and Practice in Developing Countries

Policy implementation in developing countries continues to be studied in order to get more insight into it. “In developing countries implementation is assumed to be a series of mundane decisions and interactions that are not worthy of any scholarly attention” (Khan, 1996). Thus, “in developing countries policy-making is seen as more prestigious than implementation and it is to the formulation of policy that attention is paid” (Ganapathy, 1985). In the same vein, “reform initiatives in developing countries seem to pay little

attention to the complexity of implementing policy under system-wide conditions of disadvantage and underdevelopment” (Sayed & Jansen, 2001).

As can be seen from the above, the process of implementation is ignored by policymakers and the design of policy is given more importance. It is like giving more attention to the content and teacher during the teaching and learning process and ignores the role of learners.

In summary, the implementation process in developing countries is characterised by poverty, inequality and financial constraints, lack of resources, the inadequacy of teacher training, the weak design of implementation strategy and the problems of policy coherence which affects the implementation process. And, “little research attention has been directed at providing information about the implementation process that policy makers can draw on. ...educational policy implementation in developing countries has not received sufficient analytical attention; many aspects of the process involved are not yet well” (Dyer, 1999).

A review of some international literature agrees on four major persistent problems related to basic education in Africa, which also affect basic education in Mozambique. These are the low quality of education and curriculum design; unqualified, under-qualified and untrained teachers; the teacher-pupil ratio, and facilities and teaching resources. They affect and compromise the improvement of the quality of education in Africa and in Mozambique.

It is necessary to make the teachers’ training curriculum adequate for the new basic education curriculum; to upgrade all the teachers by PRESET and INSET; to make methods or strategies adequate for a higher teacher-pupil ratio classroom and to provide the basic instructional material, with emphasis on textbooks to be used in primary school by future primary school teachers. The above-mentioned problems are located between policy and practice and impair the process of implementing the new curricula.

In summary, change such as the shift from teacher-centred to learner-centred instructional methods (as policy) represents the establishment of a new era in the teaching and learning process in Mozambican primary schools, which constitutes a big challenge for the TTC.

The implementation of this change in schools can be positively or negatively influenced by the problems already identified.

This research aims at exploring the reform of teacher education in Mozambique through an analysis of how the current teacher training curriculum relates to the needs of the new curriculum for basic education. In other words, how does practice reflect what is prescribed in the curriculum? Or what is the linkage between policy and practice? In this regard I intend to investigate how the Marrere CFPP deals with such problems.

Let us look at each problem in a national and international context.

2.3 BASIC EDUCATION IN AFRICA AND MOZAMBIQUE (THE MAJOR COMMON PROBLEMS IDENTIFIED)

“Everyone has the right to education. Education shall be free, at least at the basic and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit” (United Nations, 1978:6).

2.3.1 Quality of Education and Curriculum

In developing countries, such as African nations, there is a problem of policy and practice at the micro level. The following comments illustrate this problem:

“In many countries there is a gap between the official curriculum and its implementation at the classroom level and they attribute this to the existing teaching-learning conditions. Classroom practices have remained very much teacher-centred, using talk-and-chalk methods and in many cases teachers do not have means or the skills to implement proposed reforms” (UNESCO, no date).

Teacher Training Colleges have been called upon to be prepared in order to meet the demands of the official curriculum and its implementation. There is also a call for graduate teachers with the required skills in order to implement the proposed reforms as a way to guarantee quality in education.

In Mozambique, there is a major concern related to teacher training. Daun (1992:18) states that:

“the number of teachers with the stipulated type of training has increased, but there is a strong criticism of the training given at the centres. Their curricula have not been adapted to the new education system, which means that there is a low degree of correspondence between what the future teachers learn at the centres and what they are supposed to teach when they have been recruited to the schools.”

Teachers are not sufficiently prepared to do their work. This means that the curricula could be well designed, but this in itself does not guarantee an improved quality of education because teachers are a determining factor in implementing the curriculum and in guaranteeing the teaching and learning process. The TTC must reduce or eliminate the existing gap between their curricula and the curriculum for basic education.

Lockheed & Verspoor (1991:91) argue as follows:

“To avoid producing new teachers with the same inadequate skills and professional commitment as many incumbent teachers, developing countries must design policies that a) raise the level of knowledge of the prospective teachers; b) increase pedagogical skills of the new teachers, and c) improve the motivation of all teachers. To improve the knowledge and skills of new teachers, it is necessary to change the recruitment practices and pre-service training; to improve teachers’ motivation and performance; incentives must be provided. Low competence and poor motivation are also the result of the low status afforded by the teacher in many countries. Status plays an important role in attracting academically prepared candidates and in encouraging them to remain teachers.”

In order to improve the quality of education, a new curriculum has been designed for basic education but this has not been accompanied by PRESET at TTC.

The challenge of the teacher training institutions in Mozambique lies in adjusting their curriculum to the requirements of basic education. It has been said by Lovat & Smith (2003) that “one of the major problems in implementing an effective change in any system or organisation is the tendency for it to revert gradually to the situation prior to the change.”

2.3.2 Teacher qualification (Under-qualified, unqualified and untrained teachers)

The African continent is facing problems related to the teacher's qualification. About this, Craig, Kraft & Du Plessis (1998:6) state that:

“In most developing countries, nations are forced to employ some under-qualified and often unqualified teachers in order to achieve universal primary education. This has generally been a major factor in the decline of the overall quality of education and the increase in recurrent budget expenditure” (Craig, Kraft & Du Plessis, 1998:6).

In the African context as well as in developing countries, “most of the educational systems have large numbers of untrained teachers or teachers who have no formal teaching qualification” (Kelaghan & Greaney, 1992 in Stuart & Lewin, 2002).

There are two ways of solving this problem. The first one is to upgrade the teacher by PRESET and the second is by INSET. Both could be facilitated by the TTC but the main problem is that the existing colleges themselves often use the wrong way of teaching. Therefore PRESET and INSET just contribute to the continuation of the problem instead of solving it.

Since 1975 “a profound and often expressed belief in Mozambique is that the overriding problem of Mozambican schools is the bad teachers and classroom observations confirm that learners have an almost totally passive role in the teaching-learning process” (Palme, 1993:39).

A Report about *Education Sector Assessment* concludes the following:

“Most of the teachers in the basic education system are quite young, and most have received relatively little pre-service training before assuming their posts. They will remain in the education system for many years. If the quality of instruction in primary schools is to be improved significantly, then the knowledge and skills of teachers now in the schools will have to be upgraded through in-service training’ (Dzvimbo et al., 1992:85). “The quality of the education system, and of the educational sector as a whole, is worsened by the acute shortage of qualified teachers. At the primary level alone, teachers have about seven different kinds of qualifications. PRESET in Mozambique is also very weak due to the poor qualifications of teachers’ educators. The majority of the teacher trainers in the CFPP ... have no experience of teaching at the primary school level” (Dzvimbo, 1995:47-48).

The challenge for the teacher's training system in Mozambique is to train all teachers for basic education with all basic requirements needed in order to meet the criteria of the new curriculum. One of the best strategies teachers in developing countries can adopt to do this is mastering appropriate skills, academic knowledge and pedagogical methods (Craig, Kraft & Du Plessis, 1998).

2.3.3 Teacher-learner ratio

In Africa, the teacher-learner ratio is often used for measuring quality. Although there is no clear correlation, many countries aim at bringing the ratio down in order to facilitate and create a better and more direct interaction between teacher and learners. However, this ratio can easily be misleading as it does not take into consideration double shifts or under-utilisation of teachers in low-populated areas (UNESCO, no date).

According to Nilsson (2003b:8) "the teacher-student ratio varies between and within countries", especially in sub-Saharan Africa and Southern Asia where it still remains high. Most countries have experienced either no change in this ratio or have increased the teacher-learner ratio during the decade" (UNESCO; see Ishumi, 1994). Nilsson (2003a:11) concludes that "in many African countries class sizes as big as 100 learners to one teacher are not uncommon."

What kind of implications do these issues have in the educational process? At centres or TTCs all barriers which directly or indirectly affect the training process must be minimised or eliminated by reducing the number of learners per class or by equipping teachers with good strategies for working with large-sized classes; examples are pair work and group work.

In Mozambique, "the number of learners per class varies considerably from grade to grade as well as from region to region" (Daun, 1992:20). Mozambique, like other African countries, has very high class sizes, between 70 and 80 pupils. According to Golias (1993) "the quality of education in Mozambique is markedly weak. A contributing factor is the unacceptable teacher-learner ratio."

“Actually, the quality of Education in Mozambique is a major concern in the Basic Education. This is stated in INDE Projects promoting the Transformation of the Curriculum for Basic Education in Mozambique. This project outlines the main activities of the students in the classroom. In a recent seminar on curriculum development activities aimed at hearing, waiting and copying without guaranteeing the essential activities of understanding and application” (INDE, 1997).

The use of expository teaching became dominant and fundamental in the classroom but has its limitations. The old curriculum at primary school level focuses mostly on memorisation and mechanised procedures rather than challenging learners to demonstrate all their skills and abilities (Assis et al., 1992). In this regard, Bazilashe, Dhorsan & Tembe (2004:233-234) state the following:

“The main characteristic of the national pedagogical tradition in Mozambique has been the recognised authority of the teacher in the classroom: teaching dominates, and the pupils are not seen as being at the centre of the learning process. The students have to listen while the teacher is teaching, and they have to do the homework and the teacher assigns.”

Thus the new curriculum promotes a different pedagogy that places the learners at the centre of the entire teaching-learning process. For this to be possible, the teacher cannot continue to be dominant, but he must, instead, facilitate the learning process and actively involve the learner.

A pedagogical shift is the major concern in the Mozambican new curriculum for Basic Education. The shift from teacher-centred to child-centred learning methods represents a radical change because it opposes the teacher-centred approach practised in schools. Teachers must understand the approach and be aware of what it means before they go ahead. They must be able to deal with large classes, to get the basic instructional materials and so on. This is underscored in the following paragraphs:

“Learner-centred education presupposes that teachers have a holistic view of the learner, valuing the learner’s life experience as the starting point for their studies. Teachers should be able to select the content and methods on the basis of a shared analysis of the learner’s needs, use local and natural resources as an alternative or supplement to ready-made study materials, and thus develop their own and learners’ creativity... A learner-centred approach demands a high degree of learner participation, contribution and production ... is based on democratic pedagogy, a methodology that promotes learning through understanding, and directed practice towards empowerment to shape the conditions of one’s like” (The Broad Curriculum for the BETD cited from NIED, 2003).

Along the same lines,

“In the classroom learning should clearly be a communicative and interactive process, drawing on a range of methods as appropriate for different groups of learners and the task in hand. These include group and pair work, learning by doing, self- and peer assessment, with emphasis on the supportive and managerial role of the teacher” (Pilot Curriculum Guide for formal Senior Secondary Education, 1996).

However, there is a controversy related to the use of learner-centred pedagogy in the African context. Tabulawa (2003), in his article entitled International Aid Agencies, learner-centred Pedagogy and Political Democratisation: a critique, points out that the indigenous knowledge is an alternative to learner-centred pedagogy in schools in developing countries, although he recognises that it has not been sufficiently investigated yet.

The author tries to establish the linkage between international aid agencies, learner-centred pedagogy and political democratization. The 1980s and 1990s have marked a new epoch because neo-liberalism as a development paradigm considered political democratisation as a prerequisite for economic development. After the fall of the Berlin wall, international aid agencies (DFID, USAID and the Norwegian Aid Agency (NORAD) became interested in learner-centred pedagogy and required it to be disseminated in the Third World Countries (periphery states) so that a democratic society could be achieved through the replacement of the authoritarian school methods in third world countries. It was believed that it could be possible through education, where schools would act as an instrument of dissemination of democratic relations between teachers and students. International aid agencies strong defence of learner-centred pedagogy was merely for political and economic reasons rather than pedagogical ones.

In order to illustrate the statement above, Tabulawa (2003) gives as an example the Primary Education Improvement Project (PEIP) developed in Botswana (1981-1991) with the objective of consolidating Democracy. It was funded by USAID and was aimed at providing technical assistance to the Government of Botswana for the improvement of the primary pre-service and in-service education. Three instructional innovations were implemented during the PEIP in order to change teachers and students practice. These were the Breakthrough to literacy in Setswana, the Project methods, and the Botswana teaching competency instrument.

Tabulawa (2003:19) argues that the USAID interest in a democratic pedagogy can be understood in the context of the USA's foreign policy. The US Government funds projects aimed at promoting democracy globally as part of its wider foreign policy.

The interventions taken by PEIP in classrooms through the three instructional innovations showed the presence of democratic social relations (*social and political values of individual autonomy, open-mindedness and tolerance of other people's views*) but not the quality of education in terms of students' achievement.

The author concludes that:

“essentially, aid agencies saw the pedagogy's efficacy as lying in its ability to promote values associated with liberal democracy. It was envisaged that the pedagogy would assist with the breaking of authoritarian structures in school and that latter, through its erosion of traditional modes of thought, would produce individuals with the right disposition towards a liberal democracy” (Tabulawa, 2003:22).

In summary, changes such as the shift from teacher-centred to child-centred learning methods represent the establishment of a new era in the teaching-learning process in Mozambican primary schools and constitutes the big challenge for the TTC.

It is important to state that the learner-centred approach is contained in a Mozambican policy document (Curricular Plan for Basic Education, 2003) as a pedagogy that must be used in the classroom by primary school teachers. However, it does not tell one clearly what a learner-centred approach means. Consequently, teachers, as key agents of change, are not unanimous in interpreting the approach. In my opinion it is important to produce a document that can explain the meaning of a learner-centred approach accurately, thus providing a common explanation of the concept as the point of departure.

As can be seen above, my understanding of a learner-centred approach is based on the explanation given by the Namibian policy document which focuses on the key points such as the teacher's roles/activities, learner activities, methods (different strategies) and classroom organisation. I am of the opinion that the concept *learner-centred approach* is not a universal concept; it is defined and interpreted differently around the world.

Among other things, the orientation to the new curriculum for basic education in Mozambique is a learner-centred approach. The relevant questions raised are how the TTC deals with these issues in order to ensure effective teaching and learning in primary schools; what role must be played by the TTC; how should large classes in schools be dealt with, managed, and what kinds of strategy may be followed to teach in this type of class. Lovat & Smith (2003:201) argue that “if a change is centrally concerned with people’s values, perceptions, feelings, practices and interests, then successful change strategies must take these into account and provide opportunities to negotiate them.” Likewise, Lockheed & Verspoor (1991:116) advise that “strategies for developing good pedagogical skills should include pedagogical methods, and incorporate practice teaching into pre-service training.”

The challenge of the teachers' training institutions in Mozambique is to adopt pedagogical teaching methods and practices at PRESET in order to develop good pedagogical skills for dealing with large class size, so as to guarantee an effective child-centred approach of the new curriculum for Basic Education. “One of the effective strategies for education in developing countries is to get the teacher to master the use of individualized, small group and large group instruction” (Craig; Kraft & Du Plessis, 1998:149).

2.3.4 Facilities and teaching resources

In the African context, the image of the school has been characterised as follows:

“A solitary teacher stands before 70-80 students. Perhaps, there is a blackboard and chalk. The students may have desks, maybe just benches or the floor to sit on. Some may go to a school that has a few books or exercise tables. Some may have no classrooms but must sit outside, under a tree” (Harsch, 2000).

Therefore

“improving working conditions enables teachers to function better and students to perform better. When students perform better, the teacher’s motivation is reinforced; Teachers cannot do their job efficiently without basic instructional materials. Poor working conditions de-motivate teachers, weaken their professional commitment and affect students’ performance. Even competent teachers, who are well prepared, cannot teach effectively under adverse conditions” (Lockheed & Verspoor, 1991; see Heneveld & Craig, 1996).

The TTCs have to minimise or eliminate all barriers which directly or indirectly affect the teaching and learning process by using adequate basic instructional materials such as textbooks, and teachers should know the content well and should be able to teach it. Learners must learn in better conditions in the classroom (chair, table, green or black board and chalk).

According to Martins (1992:67), “books are a very important way of achieving the objectives outlined in an educational programme, especially in recently independent countries where the building of a new society is a major priority. Most primary teachers in Mozambique work in difficult conditions.” In the same vein “teaching and learning conditions are important” (UNESCO, 1998).

Let us look at teacher training institutions as they are faced with similar problems as primary school teachers at primary school. According to Dzvimbo (1995:50), “teaching and learning facilities in all CFPPs are grossly inadequate. Most of the CFPPs do not function properly because they do not have enough classrooms and housing facilities for students and staff. Library facilities are almost non-existent.”

Dzvimbo (1995:50) outlines the need for resources as follows:

“As far as teaching and learning resources are concerned, it is impossible that existing institutions can play a critical role in both PRESET and INSET with the current paucity of basic reprographic and teaching equipment. The severe shortage of basic teaching, learning and training materials in all CFPPs parallels the situation in the schools, where pupils sit on the floor without adequate teaching and learning materials.”

For example, integrated education approaches are one of the demands of the new curriculum. Various books must be consulted in order to guarantee a good teaching and learning process as a whole. If we assume that primary teachers come from TTC, they must be provided with better conditions in terms of facilities and teaching resources.

The challenge to the teachers in the teacher training institutions in Mozambique is to work in better conditions and use the basic instructional material like textbooks, books, etc. in order to meet the new curriculum requirements for basic education. Emphasis is placed on necessary inputs for the future teacher to produce didactic materials. Regarding effective

change, Lovat & Smith (2003:205) say that “amongst other things, there are many things that might prevent effective change in schools, including lack of interest, lack of resources, no leadership, lack of support, lack of time and conservatism.”

At pedagogical level, “educators in most regions are faced with large classes and the teacher-learner ratio seems to be higher than in any other place in the world except South Asia” (Novicki, 1998). Teachers are often unqualified, not trained to implement better strategies or methods in order to deal with large classes.

The literature review, in the last instance, emphasises the role of teachers. Teachers are still the most important change agents in the classroom (Fullan, 1993). That is why the study focuses on teacher trainers at a college since they should understand the changes made in the curriculum and their implications in the classroom.

Where does my work fit in with what others say about this topic?

The current curriculum for basic education has been changed in Mozambique. This study attempts to determine how the Marrere College implements this change. The emphasis is on a learner-centred approach and an interdisciplinary approach. Since teachers are regarded as key agents of change in the classroom, the study also tries to gain insight into their understanding, perceptions and attitudes towards the phenomena under investigation.

2.4 CONCEPTUAL FRAMEWORK

“Many still do, writing about the ‘effect’ of class size or expenditure on learning. This view implies that resources carry ‘capacity’, such that schools produce better learning by virtue of having more books or teachers with more degrees” (Cohen; Raudenbush & Ball, 2002:80).

In this study I intend to explore the relationship between policy and practice at Marrere CFPP in the Mozambican context, taking into account all major problems that affect Basic Education in Mozambique in particular, and Africa in general. These problems have a negative impact on the implementation of the curriculum. As stated above, Fullan & Stiegelbauer (1991); Fullan & Hargreaves (1992) and others have written about this issue

(the problem between policy and practice). By analysing this, answers to the key research questions stated below are sought, such as:

This study intends to find out the way the theories about curriculum change have been implemented and the reason why they have been implemented in that way. It also seeks to find out the relationship between curriculum change and practice at Marrere CFPP, the extent to which the teacher training curriculum and assessment match the Basic Education curriculum and how they do so, as well as their outcomes.

According to Miles & Huberman (1994:18) “a conceptual framework explains, either graphically or in narrative form, the main things to be studied - the key factors, constructs or variables - and the presumed relationship among them.” (See scheme below).

IMPLEMENTATION

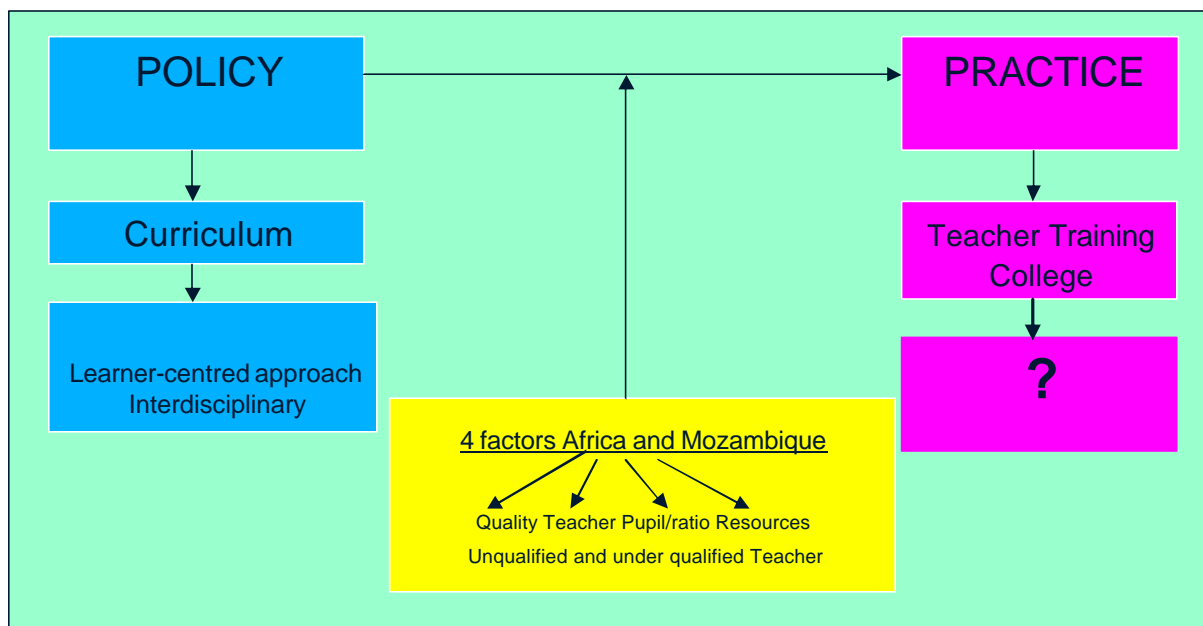


Figure 2.1 Thinking how the TTC prepares teachers for the basic education

In this regard, it is intended to present the variables to be used in this study and to show through the above diagram the relationship between the new curriculum for Basic Education and the TTC.

For the explanation of the relation among the variables already identified we have resorted to the help of Cohen, Raudenbush & Ball (2000, 2002 & 2003) in their works entitled *Resources, Instruction, and Research*, in which they talk not only about the relations among variables but also about the current tendencies in the literature.

The study is about the relationship between policy and practice in African developing countries in general, and in Mozambique (Marrere CFPP) in particular; under poor conditions (unqualified, untrained and under-qualified teachers; high teacher-pupil ratio; lack of resources). This has not been done yet. In other words, the literature reviewed about policy and practice relates more to developed countries where conditions are the opposite. For instance, qualified teachers, low teacher-pupil ratio, updated books, among others.

Our conceptual framework and its variables are in the scope of the conventional term resource. Cohen, Raudenbush & Ball (2002:85) point out that "...conventional resources include teacher's formal qualifications, books, facilities, expenditures, class size, time, libraries and laboratories, and more." From the abovementioned list we identified only four, namely teachers, books, facilities and class size. As can be seen, the purpose of this conceptual framework is to guide this study showing the interdependency among the variables that are used in the research in order to answer the research questions. I would like to mention that this work has a limited number of variables compared to what the teaching and learning process involves. These four variables are the ones identified in the literature as the most striking ones in the teaching and learning process in African and Mozambican processes. Next is the relation between the variables. Cohen; Raudenbush & Ball (2003:127-8), argue that:

"Students in classes of 35 probably have less access to teachers' time and expertise than those in classes of 15. Students with outmoded texts probably have access to less substantial content than those with up-to-date books. Students in less developed nations, with uneducated teachers and few books have fewer resources than those in industrialized nations with better-educated teachers and more books."

As can be seen, the authors make a relation between the variables, namely class size, students and teacher and resources. More students per class mean that there is less chance for each learner to have the attention of the teacher. In other words, the fewer students in the classroom the more time the teacher will have to interact with each student individually. Concerning books, the more updated the books are, the better their content

will be. Finally, in developing countries, where there are many untrained teachers and few resources, students are at a disadvantage compared to those in developed countries, where teachers are highly qualified and have access to many and updated books. Having many and updated books in a class with few students and qualified teachers is likely to result in better students' performance. However, it cannot be taken for granted as if it were linear, although "education policymakers have long believed that conventional resources, i.e., books, bricks, class, and teacher qualifications, directly affect student learning and achievement. Learning is affected by how resources are used in instruction, not by their mere presence or absence" (Cohen, Raudenbush & Ball (2000:4). It means that the availability of new books in the school does not mean that students' performance will automatically improve because they have an affect when they are used properly at the right time. "Textbooks alone do not improve student learning. Books must be well used by teachers, and their use must be supported by the larger instructional system" (Cohen, Raudenbush & Ball, 2002:23). They add:

"... several decades of research suggest that relationship between resources and outcomes are not that direct. Researchers report that schools and teachers with the same resources do different things, with different results for student's learning. Resources are not self-enacting, and differences in their effects depend on differences in their use. That makes school improvement a much more complex enterprise, one that depends as much on what is done with resources as what resources are available" (Cohen, Raudenbush & Ball, 2002:80-81).

It is clear that there is no direct relationship between resources and student achievement because it depends on how the teacher leads with resources, since teachers with the same materials lead the class differently and, as a consequence, they get different outcomes on student achievement. In the last instance, learning depends on the available resources and how they are used by the teacher. Apart from this, there is another factor that could be added, which is instructional environment. For this, Cohen, Raudenbush & Ball (2002:97) state the following:

"Resource use also depends on instructional environments. Other things being equal, teachers who work in schools that focus on students' work and offer opportunities for teacher to learn how to interpret it will be better able to make sense of student's idea. Principals who structure school budgets to support instruction help to bring resources to bear on teaching and learning, and make the resources more usable."

After knowing that there is no direct correlation between the use of textbooks and student performance, it seems contradictory, when the same authors assume that “there is research evidence that the presence of textbooks affects school achievement positively. However, the dynamics and efficacy of book use in schools is not well understood” (Cohen, Raudenbush & Ball, 2002:18). Along the same lines, “teachers necessarily select from and adapt materials to suit their own students. So, good teachers do not follow textbooks, but instead make their own curriculum” (Ball & Cohen, 1996:6). In short, the value of resources is much dependent on the ways in which they are used. “Textbooks and other printed materials are expensive resources that are used far from optimally in industrialized as well as developing countries” (Multon, 1997:23). Textbooks are important for learning, yet we cannot assume that because they are available in the classroom, they are actually used. It is believed that:

“Students would not learn more if they and their teachers did not use existing personal resources more intensively. Teachers given a smaller class might not spend more time with each student; instead they might assign more seat work, have students correct their own worksheets, and do other tasks themselves” (Cohen, Raudenbush & Ball, 2002:101).

In relation to the class size, Cohen, Raudenbush & Ball, (2002:101) admit that “class size could affect learning only as teachers and students use it. Suppose that teachers in a particular state used to have fifty students in each class and taught in didactics fashion.” On the contrary, Hoxby (1998) found that “reduction of class size from a base 30 to 15 students have no effect on student achievement.” This statement shows that there is no common view about the effect of class size on student achievement. But, the positive view about class size is seen in terms of good learning and behaviour. However, “small class size does not automatically improve learning and teaching behaviour, and, in fact can lead to a more interrupted teacher-learner interaction, as children expect to have their demands met immediately” Gupta (2004:376). Greater individualization of the students in the classroom is seen as the biggest advantage of a small class size. In relation to large class, Hayes (1997:115) suggests that “if you have to teach in large classes, the first important thing you have to do is finding some students who can help you. This is a good thing because students can practice more and they can help you.” This opinion or conclusion shows that teachers as the main agent of the teaching and learning process, whatever qualification they might have, cannot by their own improve the student’s performance. In

this case, they need the best learners in the class to help them in the teaching and learning process. Robbie et al. (1998:3) say that “no one knows what the optimal class size is.”

As can be seen from the above, there is no unanimity of opinion concerning the direct relation between availability of books and the learner’s performance, as well as between class size and learner’s performance in the classroom. For the variables to have the desired effect there is one factor that cannot be ignored : that is the teacher. Jusuf (2005:1) points out that “research shows that teachers are the single most important factor in student learning in schools. Students who have access to highly qualified teachers achieve at a higher rate, regardless of other factors such as class size, resources (books and textbooks), and so on.”

The new curriculum for Basic Education influences the teaching learning process at the teacher’s training education directly or indirectly. This influence is possible through the innovations made in the curriculum, particularly in the strategies and methods adopted in order to make the teaching and learning process more effective as well as the content to be taught at primary school level, and the context in which this process takes place. The whole process of teaching and training must reflect the context in which the trainees will teach, in terms of content, methods and support material (curriculum plan for Basic Education, primary school programmes and books, etc). In this regard, the TTC must reorganise and create all the necessary conditions in order to meet the demands of the new curriculum for Basic Education. Prior to that, the involvement and commitment of all trainers is crucial for the implementation of the new curriculum. Experience is another factor that plays a significant role in this process. Interaction among trainers at different levels is also important to allow for the sharing of ideas on related issues. Interaction between the director and the trainers is equally important. Likewise, the school library must contain the relevant materials, like a variety of instructional materials related to the new curriculum. These could help to motivate trainees and assist them in gaining an understanding of their mission and in getting acquainted with the new curriculum for Basic Education.

The diagram above shows the policy on the left side and practice on the right side. The policy represents the new curriculum for Basic Education introduced in 2004 in Mozambique, with the emphasis on a learner-centred approach as one of the key

innovations, while the practice is represented by Marrere CFPP, where the researcher looked at how the policy is implemented in practice in the classroom. Between policy and practice there is implementation, the effectiveness of which can be jeopardised by barriers. In this study variables such as teachers, class size, facilities and learning conditions, which can have a negative effect on the quality of education, were considered. The Government of Mozambique, through the Education Sector Strategic Plan (1999-2003), has identified the improvement of the quality of education as one of the highest priorities, among others. In the Mozambican context, the variables mentioned above are still prevalent and are dependent upon each other. The absence of any of them affects the whole picture. This means that if, for example, teachers do not have adequate training, in both content and pedagogy, the learning and teaching process can collapse, even with better class size and good didactic materials. Class size can also affect the teaching and learning process even with qualified teachers and better facilities and learning conditions. In the last instance the teacher is a key determinant for a more effective teaching and learning process. More than ever, students depend on qualified teachers for their academic success and future prospects (CFE, 2001). Research shows that teacher quality is the most important school-based factor in determining student success (Darling-Hammond et al., 1999). In addition, only teachers who have both knowledge of their content areas and are extremely skilful in a wide range of teaching methods can respond appropriately to diverse student needs (Darling-Hammond et al., 1999).

After all the discussion, we have seen that those variables are interdependent upon each other, although eventually the teacher continues to be the key agent of change of everything in the real classroom and of improvement of students' achievement.

There is a difference between expected and actual findings that can include surprises. It means that successful implementation of basic education curriculum (learner-centred approach, interdisciplinary) by the teacher trainers from Marrere CFPP was expected. However, the findings reveal that teacher trainers still lack the most basics resources as well as basic training in order to achieve the curriculum objectives. Teacher trainers still teach in old ways, i.e., the teacher dominates the lesson in the classroom. This process is characterised by questions and answers. And learners do not perform well.

2.5 SUMMARY AND CONCLUSION

The first part of this chapter looks at relevant literature about education policy implementation in general, especially in developing countries. Most educational reforms seem to improve the educational system in general, but at micro-level, in the classroom, they are not effective. The literature review sheds light on the nature of the disjuncture between policy and practice.

The second part of this chapter has identified four problems (low quality of education and curriculum, under-qualified, unqualified and untrained teachers, the teacher-learner ratio and lack of facilities and teaching resources) which affect basic education as well as the process of policy implementation in Africa in general, and in Mozambique in particular. The impact of the identified factors on education depends on the educational context of each country.

The problem of policy implementation is not new; early scholars have attempted to understand the problem of policy implementation through research. Research suggests that policy intentions seldom determine classroom practice. Once policy has been formalised, it should be put into practice in the classroom. The literature review shows that the gap between policy and practice is still a major concern. The main problem of policy and practice is policy implementation. The purpose of implementing new policies in education is often associated with a need to effect new changes. Therefore there is an assumed direct link between policy implementation and change. Change is non-linear and complex.

There are two dominating theoretical traditions of implementation in policy, namely a top-down and bottom-up perspective. Top-down underlines the linear relationship between policy and practice (policy process as hierarchical and linear), while a bottom-up perspective assumes that the demarcation between policy decision and implementation is unclear. The relationship between policy and practice is not a linear, rational and predictable process. On the contrary, research has demonstrated that relying exclusively on either a bottom-up or a top-down approach to change is ineffective; successful reform demands a combination of these approaches.



Success or failure is determined by the interaction between policy and practice. In general, failure of policy implementation is due to badly designed policy and schools unprepared to implement such policies. However, in developing countries failure of policy implementation is attributed mainly to economic reasons (Malen & Knapp, 1997).

The next chapter is devoted to the methodology and conceptual framework of the study.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

The aim of this chapter is to introduce the research design and methods of the study of policy curriculum versus practices at the Marrere College in Mozambique. Section 3.1 presents the items covered. The definitions of qualitative research and their characteristics are addressed using different authors and methods (Section 3.2). The interview as a method used in this study and its advantages and disadvantages are addressed and discussed (Section 3.2.1). The definitions of interview and kinds of interview are addressed and discussed (Section 3.2.2). The difference between interview and observation is given and the advantages and disadvantages are addressed (Section 3.2.3). The question about what documents are and when and how to use them are addressed in Section 3.2.4. Section 3.3 presents and explores what case study research is in relation to the Marrere CFPP. The sample used in the study is outlined and it is justified why the study was conducted at Marrere CFPP instead of at other colleges (Section 3.3.1). Section 3.3.2 outlines the process of getting access to Marrere CFPP for the field work. The methods used for data collection are outlined in Section 3.4. The data was collected through interviews, observation and documents and the relevant constraints are presented and discussed (Section 3.2.1). The process of data analysis is presented in Section 3.5. Section 3.6 focuses on ethical issues. Section 3.7 states the research questions and outlines the conceptual framework of the study. Finally, Section 3.8 presents the limitations of the study.

“Qualitative methods consist of three kinds of data collection: (1) in depth, open-ended interview (2) direct observation and (3) written documents, including sources such as open ended written items or questionnaires, personal diaries and program records” (Patton, 1987:7).

3.1 INTRODUCTION

This chapter comprises two parts. The first part is devoted to the concept of qualitative research using definitions by different authors: Denzin & Lincoln (2000); Miles & Huberman (1994); Creswell (1998); Yin, (1994, 2003); and Silverman (2001), who are listed in the bibliography. The second part focuses on the relationship between different

variables (large classes, unqualified teachers and the quality of teacher-learner interaction) and the impact of these on the implementation of the policy in Basic Education, which constitutes the framework of this study.

3.2 RESEARCH PARADIGM

Any research work has an epistemological orientation as its base that guides the process of knowledge production. As stated by Henning, Van Rensburg & Smit (2004:12), “Research cannot be conducted in a theoretical vacuum, even though it may be exploratory.” That is to say that an inquiry must be framed in a philosophical tradition. In this way, Carr & Kemmins (1986) identify and distinguish clearly between three basic forms of educational research. These are: Critical Research, Positivist Research, and Interpretive Research. What differentiates these research forms? In the critical research, knowledge is an ideological critique. In the positivist research, knowledge acquired is objective and quantifiable, while in the interpretive research the researcher is a participant observer because he does not stand above or outside the research. This type of research seeks to discern the meanings of actions as they are expressed within specific social contexts. “The purpose of interpretive approach in social science is not to provide casual explanations of human life, but rather to deepen and extend the knowledge of why social life is perceived and experienced in the way that is” (Carr & Kemmins, 1986:90). It means that “Knowledge is constructed not only by observable phenomena, but also by descriptions of people’s intentions, beliefs, value and reasons, meaning making and self-understanding” (Henning, Van Rensburg & Smit, 2004:20).

This study intends to explore the relationship between policy and practice of teacher training college, more particularly in classroom (school). It is located in the interpretive paradigm since this paradigm is concerned with understanding and interpreting the meaning and intentions that underlie everyday human action (Schurink, 1998 in Griessel-Roux, 2004), which in this case would explain teacher trainers’ experiences and understanding of the curriculum, rather than “not to explain human behaviour in terms of universally valid laws or generalisations” (Griessel-Roux, 2004:11). It is because the social world is viewed from subjective experiences of individuals. Since this paradigm deals mainly with meaning and it seeks to understand social members’ definitions and understanding of situations (Henning, Van Rensburg & Smit (2004), it will assist in

answering the research questions of the study and achieve the aims of the research as it calls for exploring the relationship between policy and practice, describing OP, curricular organization, etc., understanding teacher trainer's points of view of about curriculum. In this research I will explore and describe teacher trainer's experiences in classroom practice at Marrere CFPP related to the learner-centred approach.

Within this paradigm there is interaction between the researcher and teacher trainers and learners as participants. The reality in this context is subjective and constructed, as would be the experiences teachers construct from the learner-centred approach. Taking into account that construction of knowledge is a process, the teacher trainers' experiences are not viewed as constant but as dependent on the social context in which these are acquired.

3.3 QUALITATIVE RESEARCH

According to Struwig & Stead (2001:11), "qualitative research does not describe a single research method. However, there are many research methods associated with qualitative research." "Qualitative research is any research that uses qualitative data. It refers to any information (words, pictures, drawings, paintings, photographs, films, videotapes, music and sound tracks)" (Merriam, 1988) that a researcher gathers that is not expressed in numbers. Along the same lines, Miles & Huberman (1994:1) state that qualitative data usually come in words rather than in numbers.

The word *qualitative* implies an emphasis on the qualities of entities and on processes and meanings that are not experimentally examined or measured in terms of quantity, amount, intensity or frequency (Denzin & Lincoln, 2000). In addition, qualitative methods are generally supported by the interpretivist (also referred to as constructivist) paradigm, which portrays a world in which reality is socially constructed, complex and ever-changing. The ontological belief for interpretivists, therefore, is the social reality constructed by the participants in the social setting (Glesne, 1999).

By methods we mean the range of approaches used in educational research to gather the data that is to be used as a basis for inference and interpretation, for explanation and prediction (Cohen, 1987); in other words, a set of procedures and techniques for gathering and analysing data (Strauss & Corbin, 1998). In this study I have used methods such as

interviews, documents and observations. The reason for using qualitative methods is succinctly captured by Creswell (1998:15):

“Qualitative research is an inquiry process of understanding based on distinct methodological traditions of inquiry that explore social or human problems. The researcher builds on a complex holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting.”

According to Silverman (2001:32), “methods used by qualitative researchers exemplify a common belief that they can provide a ‘deep’ understanding of social phenomena than can be obtained from purely quantitative data.” He adds that “qualitative research implies a direct concern with experience as it is ‘lived’ or ‘felt’ or ‘undergone’...” In the same vein, “qualitative research has the aim of understanding experience as completely as possible as its participants feel it or live it” (Ely et al., 1991, in Sherman & Webb, 1988).

Miles & Huberman (1994:10) state the following:

“One major feature is that they focus on naturally occurring, ordinary events in natural setting, so that we have a strong handle on what ‘real life’ is like. In addition, state that the confidence in buttresses by local groundedness, the fact that data were collected in close proximity to a specific situation rather than through the mail or over the phone.”

However,

“Qualitative research is concerned with understanding of the social phenomenon from the participant's perspective. The methods are based on ‘constructionism’, which assumes multiple realities that are socially constructed through individual and collective perceptions or views of the same situation” (McMillan & Schumacher, 2001).

It cannot be taken for granted that qualitative research is the one method that can be used to capture any kind of reality in any circumstances and for all purposes. It has its own weakness and strengths. In fact, the choice of the adequate approach depends on the kind of phenomena being studied, whether objective or subjective, the purpose and other factors.

The topic of this research is the policy of curriculum change versus practice at Marrere CFPP. Through research questions already stated an attempt is made to explore and understand the teachers' perceptions of the new curriculum for basic education and its

implementation in the classroom. In order to carry out the study, a qualitative paradigm has been chosen to guide the research. It means that this study has been designed taking into account the main characteristics of qualitative research; the main sources of data collection are interviews and observations. Through classroom observations and teachers' interviews the meaningful qualitative information has been captured (words, pictures, drawings, paintings, photographs, etc.) about the new curriculum for Basic Education in Mozambique.

Adendorff (2004:102) provides characteristics for qualitative research, which are summarised in the table below:

Table 3.1
Characteristics of qualitative research

Characteristics	Bogdan & Biklen (1992)	Creswell (1998)	Merriam (1988)	This Study
Natural Setting	✓	✓	✓	Classroom environment at TTC
Research as a key instrument of data collection	✓	✓	-	Observe Select, collect, read, select, analyse text, systematised Interview
Data collected using words or pictures	✓	✓	✓	Documents, emotions during recorded interviews, photography
Outcomes as process rather than product	✓	✓	✓	
Inductive analysis, focusing on particular aspects	✓	✓	✓	
Focus on participants' perspectives and meaning	✓	✓	✓	Face-to-face interviews and focus group

Source: Adendorff, 2004

This study was conducted in a natural setting in a concrete institution (Marrere CFPP), where interviews were conducted and classroom observations were made. This was done in order to avoid distorting these important characteristics of the qualitative inquiry.

As the researcher of this work, I play a key role in the data collection as well as in further steps (observations, selection, collection, reading, analysis of texts, and systematisation of interviews).

In short, the characteristics (natural setting, classroom observations, interviews, etc.) shaped and guided the study.

3.3.1 The meaning of participants' points of view and voice

According to Fontana & Frey (2000:645), “interviewing is one of the most common and powerful ways of data collection through which we try to understand human beings,” “because we can gather opinions, perceptions, and attitudes” (Glesne, 1999). In this study we explore what teachers understand by a learner-centred approach and how they put it into practice in the classroom. Glesne (1999:69) says that “the strength of the interview in qualitative research is to get an opportunity to learn about what one cannot see and explore.” He adds that “the serendipitous learning emerges from the unexpected turns in discourse that the questions evoke. In the process of listening to respondents a person learns what questions to ask.”

Cohen & Manion (1994, 1997 and 2000) argue that “an advantage of interviews is to gather data through direct verbal interaction.” In the same vein, Bell (1992:70) points out the following:

“A major advantage of interviewing is its adaptability. A skilful interviewer can follow up ideas, probe responses and investigate motives and feelings, which the questionnaire can never do. The way in which a response is made (the tone of voice, social expression, hesitations etc) can provide information that written responses would conceal.”

As we can understand, interviews can be used for several purposes and many aspects an interviewer can get, not only from the verbal message but also from the interviewee's facial expressions, gestures and pauses.

McMillan & Schumacher (1993, 2001) state the following:

“Interviews involve direct interaction between individuals; and this interaction has its advantages. An interview technique is flexible and adaptable. It can be used with many different problems and types of persons, such as those who are illiterate or too young to read and write. Responses can be probed to follow up, clarified, and elaborated to achieve specific accurate responses. Non-verbal as well as verbal behaviour can be noted in face-to-face interviews, and an interviewer has an opportunity to motivate the respondent. Interviews result in a much higher response

rather than questionnaire, especially for topics that concern personal qualities or negative feelings.”

This view is echoed by Gordon (1980) when he states that through an interview, the interviewer can manipulate the course of the interview to his own interest and purpose and thus get precise and complete information he aims for. There is also the advantage of the possibility of having access to non-verbal features which can help to get the information that may not have been issued verbally or the interviewer may feel reluctant to issue.

For Koul (1993:176) “an interview provides the opportunity to the interviewer to question thoroughly certain areas of inquiry. An interview offers greater depth of response, which is not possible through any other means.” “It also enables an interviewer to get information concerning feelings, attitudes or emotions in relation to certain questions” (Koul, 1993). In the same vein, “it can provide information about participant’s internal feelings and ways of thinking and they are useful for exploration as well as confirmation” (Johnson & Christensen, no date).

3.3.2 Interviews

An interview is an instrument for data collection whereby two or more people engage in a conversation aimed at a previously established purpose designed by the interviewer. In an interview, one or more people ask questions and the other or others provide the answers.

Gillham (2000:1) states that “an interview is a conversation, usually between two people. But it is a conversation where one person - the interviewer - is seeking responses for a particular purpose from the other person, the interviewee.” Then, “the purpose it is to obtain descriptions of the life world of the interviewee with respect to interpreting the meaning of the described phenomena. An interview is a conversation that has a structure and a purpose.” In addition, “the research interview is not a conversation between equal partners, because the researcher defines and controls the situation. The researcher, who also critically follows up on the subject’s answers to his or her questions, introduces the topic of the interview” (Kvale, 1996).

An interview is used when the information to be collected is not possible through documents or other sources of information. “Interview is one of the major ways of gathering data in social science” (Holstein & Gubrium, 1997). According to Yin (2003:89) “the interview is one of the most common sources of case study information.” In addition, “interviewing is one of the most common and powerful ways in which we try to understand our fellow human beings” (Fontana & Frey, 2000).

According to Creswell (1998:124), “focus groups are advantageous when the interaction among interviewees is likely to yield the most useful information, when time to collect information is limited and when individuals interviewed one-on-one may be hesitant to provide information.” In the same vein, “focus groups offer some advantages compared to other methods of collecting data, such as interviews and participant observation. They present a more natural environment than an individual interview” (Litoselliti, 2003:2).

“For one-on-one the interviewing the researcher needs individuals who are not hesitant to speak and share ideas and needs to determine a setting in which this is possible. The less articulate, shy interviewee may present the researcher with a challenge and less than adequate data” (Creswell, 1998:124).

In this study, I firstly tried to explore what the policy says about the teaching and learning process issues in Basic Education in Mozambique; then how teachers understand it and finally how it is implemented.

3.3.3 Observations

Another way of collecting data is through observation. It allows for data to be collected while the phenomenon is actually occurring in the place where it is happening. The observer can chose to involve him- or herself or to be outside it; that is to participate or not to participate in it.

Merriam (1988:87) argues that “interviews are a primary source of data in doing case study research; so too are observations”, while Blanche & Kelly (2002:134) state the following:

“Observation, the second popular form of collecting data in interpretive research, takes place while things are actually happening, and thus gets you even closer to the action. Because the interpretive approach emphasises studying phenomena in a naturalistic way, observation most often takes the form of participant observation, where you as researcher become fully involved in the setting being studied.”

For Merriam (1988:87), collecting data from observing phenomena of interest is commonly referred to as participant observation. Participant observation is a major means of collecting data in case study research. It gives a firsthand account of the situation being studied, and, when combined with interviewing and document analysis, allows for a holistic interpretation of the phenomenon being investigated. It is the technique of choice when behaviour can be observed firsthand or when people cannot or will not discuss the research topic” (Merriam, 1988:102).

There is a great deal of advantages when data is collected through participant observation because the researcher is involved and can get the understanding of every side and aspect of the phenomenon under observation in a very privileged way.

“Participant observation maximises the advantages of the human being as instrument. The human instrument is capable of understanding the complexity of human interaction encountered in even the shortest of observations. Like any other data collection instrument, the human instrument can be refined through this method” (Merriam, 1988:103).

Overall, however, there is no substitute for the participant observer. Participant observation is a major means of collecting data in case study research. It gives a firsthand account of the situation being studied, and, when combined with interviewing and document analysis, allows for a holistic interpretation of the phenomenon being investigated. It is the technique of choice when behaviour can be observed firsthand or when people cannot or will not discuss the research topic (Merriam, 1988:103).

Observation “is a research tool, and it has a relationship between observer and observed and recording observations” (Merriam, 1988:87). “An observation is a research tool when it serves a formulated research purpose, is planned deliberately, is recorded systematically, and is subjected to checks and controls on validity and reliability” (Kidder, 1981; in Merriam, 1988). In addition, “observation in qualitative research occurs in naturalistic contexts” (Struwig & Stead, 2001:100).

Observation can include one researcher or a team of researchers. The researcher or observer does not structure the setting in any way or make the actors in the environment aware of his or her presence. The participants continue with their everyday lives unaware

that someone is observing them. The observer looks for larger trends or patterns of behaviour pertinent to the study rather than looking for minute aspects of behaviour (Struwig & Stead, 2001:100).

Denscombe (2003:192) points out that “observations offer the social researcher a distinct way of collecting data. It does not rely on what people say they do, or what they say they think. It is more direct than that. Instead, it draws on the direct evidence of the eye to witness events firsthand. It is based on the premise that, for certain purposes, it is best to observe what actually happens. It usually produces qualitative data” (Denscombe, 2003:192).

As with interviews, “observation can be more, or less structured. At the more structured end one finds essentially positivist studies, for example, studies using standardised rating scales to record samples of children’s classroom behaviour or job applicant’s behaviour in ‘assessment centres’” (Blanche & Kelly, 2002:134). “During an observation an observational protocol is used to record information” (Creswell, 1998:128).

Observation as a tool of data collection,

“can be conducted by cameras, video cameras, tape recorders, binoculars or without any technological assistance. It may take place within an hour or over a period of months or even years. The observer can take notes of what occurs, including using a map or drawing of the setting” (Struwig & Stead, 2001:100).

During the research “the length of observation time depends on the purposes of the study, the financial cost of the project and the point of data saturation, i.e. when no new observations are made” (Struwig & Stead, 2001:100).

Blanche & Kelly (2002:137) argue that “observation is more than for the researcher to be a passive spectator. It entails actively seeking out answers to one’s questions.” “As with tape recordings, it is crucial to make copies of one’s notes and to keep them in a safe place” (Blanche & Kelly, 2002:139).

In relation to participation, “there are two pitfalls that participant observers should avoid: getting too close to the participants (losing perspective) and staying too distant from the participants (losing empathy)” (Blanche & Kelly, 2002:138).

According to Jorgensen (1989:82) “observation begins the moment the participant observer makes contact with a potential field setting. Remember that, aside from gathering information, a basic aim of preliminary observation is to become familiar with the setting.”

Knowing about the setting can help grasp understanding of some aspects of the phenomenon that would otherwise be impossible or difficult. The understanding of the setting is critical for the understanding of any phenomenon happening within this same setting. The researcher may fail to understand some relevant aspects of the phenomenon due to a lack of understanding of some relevant aspects of the setting.

During the fieldwork “when one begins one's role as a participant observer, one should try to observe everything that is happening: making notes and jotting down thoughts without narrow, specific regard for one's research problem. One should study the setting and describe it in words and in sketches, using all one's senses” (Glesne, 1999:47).

The setting is a range of aspects and features that embrace the phenomenon and in which the phenomenon occurs, thus establishing different and varied correlations with them. Glesne (1999:48) makes it clear what setting is when he states that “as a participant observer, then, one has to observe the research setting consciously: its participants, the events, acts and gestures that occur within them. In the process, one has to note what one sees, hears, feels and thinks.”

Descriptive notes or field notes should be both descriptive and analytic. In recording details, one has to strive for accuracy but avoid being judgmental. One has to make sure that the notes will enable one, a year later, to visualise the moment, the person, the setting, the day (Glesne, 1999:50). “After observing, one slowly withdraws from the site, thanking the participants and informing them of the use of the data and their accessibility to the study” (Creswell, 1998:126).

Observation may seem an easy and all advantageous technique to use. In fact there are a number of disadvantages associated with its use. Adler & Adler (1994) contend that “disadvantages of observational techniques include their trustworthiness, reliability, and ethics.” And according to Struwig & Stead, (2001:101) “trustworthiness can be a concern as a single observer has no one to support his or her perceptions of what transpired and therefore may be biased.” It is always advisable for a researcher to have someone who can help him or her to guarantee that his perception of the reality or phenomenon under observation is not a biased one.

3.3.4 Documents

Data can also be accessed by means of documents, probably the easiest one to have access to. There are several different kinds of documents.

In relation to documents, Denscombe (2003:212) argues that “in the social sciences, library-based research, desk research, black letter research and archive are all types of research in which the data come from documents of one kind or another.” In addition, Denscombe (2003:218-219) states the following:

“Probably the greatest attraction of using documentary sources is their accessibility. To get hold of the material the researcher needs only to visit the library or use the World Wide Web via a home computer. Vast amounts of information are conveniently available without much cost, without delay, without prior appointment, without the need for authorization and without ... and likelihood of ethical problems. Documents, in other words, pose considerably fewer problems than people as a source of data for social researchers.”

Documents include a great range of sources of information, which may be produced for different purpose. They may be produced under a request aimed at a specific purpose; but they may also be produced for sake of the author’s own information.

Merriam (1988:117-118) adds the following:

“Documents broadly defined include public records, personal papers, physical traces and artefacts and **are third major sources** of data in case study research. Although some documents might be prepared at the investigator’s request (such as a respondent keeping a diary or writing a life history), most are produced independently of the research study. They are thus non-reactive and grounded on the context under study.

Because they are produced for reasons other than the study at hand, some ingenuity is needed in locating documents that bear on the problems and then in analysing their content”.

Documents have the advantages of being able to be kept for use at a future time and being accessible at any time again and again. Written documents may exist across time and make it possible for contemporary people to know about the past.

In addition, Hodder (2000:703-704) states the following:

“Documents (written texts) closer to speech, require more contextualized interpretation. Such texts are important for qualitative research because, in general terms, access can be easy and low cost, because information provided may differ from and may not be available in spoken form, and because texts endure and thus give historical insight.”

Documents are by themselves a source of data and can be used to substitute or complement instruments of data collection such as questionnaire, interviews or observation. In the social sciences, as Denscombe (2003:212) states, “library-based research, desk research, black letter research and archive research are all types of research in which the data come from documents of one kind or another.”

According to Atkinson & Coffey (1997:48) there are many documents such as books and journals, web site pages and the Internet, newspapers and magazines, records, letters and memos, diaries and government publications and official statistics, to mention but a few. In addition, “at a common-sense level, it is known that official documents, reports, and so on are often couched in language that differs from everyday language use. Indeed, as we shall try to illustrate, that is often the mode of documentary representation” (Atkinson & Coffey, 1997:48).

Besides written documents there are other kinds of documents which are non-written documents and take the form of visual sources (pictures, artefacts, etc.) and even sound (music). These are alternatives to written documents in the research and are rarely used in the social science.

As a way of advice on the use of written documents in research, Denscombe (2003:212) states that:

“From the academic researcher’s point of view, books and journals should be the first port of call. In principle they contain the accumulated wisdom on which the research project should build, and also the latest cutting-edge ideas which can shape the direction of the research. Libraries provide a means for accessing the publication and, for most purposes, the costs to the researcher should not prove to be a deterrent.”

Any source of data for research purposes needs to be assessed for quality of ideas and information and books and journals are no exceptions. Academic journals and commercial publishers’ materials are usually analysed by experts in the field before they are published. It would be naïve for researcher to judge all documentary sources as equally valid.

Not every content from the Internet are trustworthy concerning authorship, reliability, authenticity, so one has to be careful when using Internet documents, regardless of their relevance for the research problem in question. In general, all information or documents can be of help for the researcher depending on how he or she manages it.

Therefore, “documents of all types can help the researcher uncover meaning, develop understanding and discover insights relevant to the research problems” (Merriam, 1988:118).

Research instruments for each critical question

1. How have theories about curriculum change been being implemented in Marrere CFPP?

This critical question has been answered by multiple source evidence collection such as policies (literature reviewed), teachers’ beliefs and understanding, teachers’ practices, interviews before and after observation.

2. Why has it been implemented in this way?

In answering this critical question, observation and interviews to the teacher trainers will be applied. These provide evidence about curriculum intention and practice.

3. What is the relationship between curriculum change and practice on the ground?

This critical question was answered by multiple source evidence collection such policies, teacher beliefs and understanding, teachers' practices, interviews before and after observations. So, interviews provide the most direct evidence of teacher trainer's intentions and observation provide the evidence of different strategies used in classroom during the teaching and learning process.

4. To what extent does the teachers' training curriculum match the Basic Education curriculum and how does it do so?

In order to answer this critical question I examined policy documents, both curricular plan for basic education and curricular plan for teacher training. Doing so allowed me to get to know and visualize the subject areas and subjects prescribed. Observing timetable schedule and classroom observation allowed me to see what is actually going on at the college and possible constraints facing the implementation. And finally, individual teacher interview allowed me to get to know the teachers' opinion about the curriculum.

5. To what extent does the teacher training curriculum assessment match the Basic Education curriculum and how does it do so?

This critical question has been answered through multiple sources of evidence collection such as policy documents analysis (Assessment Regulation of both curriculum). It allowed me to visualize what is going at the college related to assessment through minutes of meetings – at the pedagogical level it allowed me to observe the difficulties that face trainees, such as lack of paper to reproduce tests for students. Interviews allowed me to grasp their understanding of how it should be implemented.

3.4 CASE STUDY

Why case study research?

According to Yin (1994, 2003), "case study is an empirical inquiry, which investigates a contemporary phenomenon within a real-life context, especially when the boundaries between phenomenon and context are not clearly evident." In addition,

“A case study is an exploration of a ‘bound system’ or a case (or multiple cases) over time through detailed, in-depth data collection involving multiple sources of information rich in context. This **Bounded System** is bounded by time and place, and it is the **case** being studied - a program, an event, an activity, or individuals. For example, several programs (**multi-site** study) or a single program (**within-site** study) might be selected for study” (Merriam, 1988; see also Stake, 2000).

As can be seen, the essence of case study is that inquiry should be conducted in a natural setting or in a real-life context. In other words, the research occurs in a limited place and time as opposed to an experimental or survey context.

This is applicable to this study, which is a single case of Marrere CFPP. Its purpose is to explore the relationship between policies and practices in order to understand the trainers' views, beliefs and experiences in the classroom at Marrere CFPP. These views are supported by Merriam (1988:xii).

“Investigators use case study design in order to gain an in-depth understanding of the situation and its meaning for those involved. The interest is in the process rather than in a specific variable, in discovery rather than in confirmation. Such insights into aspects of educational practice can have a direct influence on policy, practice and future research.”

In the same vein Temu (1995) quoting House (1980) contends that case studies are superior to any other mode of inquiry when the purpose is to get a better understanding of social phenomena.

In summary, “a qualitative case study is an intensive, holistic description and analysis of a bounded phenomenon such as a program, an institution, a person, a process or a social unit” (Merriam, 1988: xiv).

3.4.1 Sample

At the moment, there are 24 teacher training institutions (TTI) throughout the country spread over the eleven provinces. They are divided into groups, namely ten CFPPs (Primary Teacher Training Centres requiring seven years of formal schooling, followed by three years teaching training (7+3) (Mário et al., 2002), seven IMAPs (Primary Teacher Training Colleges requiring ten years of formal schooling followed by two years of training) and seven EPF of ADPP (College for the Training Future, privately owned by a

well-established local division of an International NGO, 10+2,5). The first type of institution is CFPP, which trains primary teachers for Basic Education from Grade 1 to Grade 5, has existed since Mozambique became independent in 1975 and introduced the new curriculum in 2005. The second (IMAP) has existed since 1996. The third one, belonging to ADPP, is private and has existed since 1993. The first two are public institutions.

This research is a case study of Marrere CFPP, which is located in the north of Mozambique, in the Nampula Province. To achieve my purpose and answer the research questions, I have chosen Marrere for the following reasons:

Firstly, Marrere CFPP has introduced a new curriculum and it is a unique institution that introduced some innovations in the curriculum (study plan and syllabus) before the introduction of Basic Education. Innovations include the shift from a teacher-centred to a learner-centred approach and the adoption of a more professional and less academic curriculum. In other institutions these changes have not been introduced.

Secondly, in 1998 the Osuwela Project (OP) started pilot activities (see the objectives of OP) in Nampula at Marrere CFPP. In the same period the following transpired:

“Mozambique embarked on a long process of constructing the new curriculum for Basic Education. INDE promoted open discussions about the structure and content of the curriculum; teachers, parents and other stakeholders were involved in these discussions. The main objective of the Basic Education curriculum Transformation project was to make the curriculum more relevant to the new socio-economic and political reality” (Mucavele, no date). This has brought some innovations at pedagogical level, among other aspects.

This new curriculum for Basic Education was introduced in the country in 2004; the new curriculum was introduced six years later than the OP did so.

As is evident, the OP had the major concerns of a learner-centred approach, didactic material and so on for PRESET and INSET. These concerns guided the design of the new curriculum for Basic Education.

This leads to a number of advantages of choosing Marrere CFPP:

- The improvement, by OP, of some working conditions in administrative and organisational areas, a resource centre and capacity building for teacher trainers (upgrading trainers to bachelor degree or upper levels), and
- The introduction of incentives in terms of financial support and instructional materials in order to make the teaching and learning process more effective.

However, some disadvantages are that the financial support was reduced and the extra-salary allocated by the OP to motivate local trainers and other staff at Marrere CFPP was also reduced when the OP moved to its own office.

Reviere (2003:45) states the following:

“OP began working directly with the CFPP of Marrere. OP financed an expansion of the facilities and provided substantial equipment to the CFPP. They also provided salary subsidies to the CFPP administrators and a general subsidy of US\$2,000 per month to the CFPP. At the end of the phase, OP moved into the city of Nampula and cut most direct financial support for the CFPP. The general subsidy of US\$2,000 continues.”

In summary, by carrying out my study at Marrere CFPP, afforded me, as a researcher, new insight into policy implementation of the new curriculum for Basic Education by observing the teaching and learning process.

3.4.2 Getting access to the selected institution and accommodation

I first discussed this work with the Director of the National Institute for Educational Development (INDE), the institution responsible for curriculum design for Basic Education. After obtaining his consent, I got a letter from the Permanent Secretary of the Ministry of Education and Culture (MEC) (Appendix E). After that I contacted the Deputy Director - Pedagogical of Marrere CFPP and told him about my intention to do my research in that institution. He told me that he was going to inform his director and I would get the answer later on. Two weeks later I contacted him again and he said that there was no problem but that I should inform him about one week before the day of my arrival in Nampula Province. I followed his instructions and in the following week I telephoned and told him that I would arrive on 6th March 2005.

I got a letter from my institution to present to the Provincial Education of Nampula and afterwards at Marrere CFPP. I arrived in Nampula Province on a Sunday. After accommodating myself in the hotel, I telephoned the Director of Marrere CFPP and informed him that I was in Nampula. The next day, on Monday (7th March), he came and took me to the Provincial Education Directorate where I had my letter stamped. After that the director and I went to Marrere CFPP. I presented myself to the Director - Pedagogical the same day and explained the objectives of my visit, the purpose of my study and other details. I left my research proposal with the director just to confirm what I had told them. The director made all the necessary arrangements for my accommodation at Marrere CFPP.

3.5 DATA COLLECTION

There are several ways of collecting data in qualitative research. According to Yin (1994, 2003), “no single source has a complete advantage over all the others. In fact, the various sources are highly complementary and a good case study will therefore want to use as many sources as possible.” In summary, “case study is known as a triangulated research strategy” (Tellis, 1997:7). In this case study many sources have been used for data collection, namely documents, interviews, observations and photographs, minutes and pamphlets.

The study was divided into three stages. The first stage (from 6/3/2005 to 16/4/2005) was devoted to interviewing teacher trainers and collecting documents in order to get a general picture of the institution. During the second stage (from 18/5/05 to 2/7/05) the emphasis was on classroom observation and the continuation of collecting documents of the College. At the same time, some documents relating to OP were collected at the OP office located in the city of Nampula. I took this opportunity to set a date for an interview with the coordinator and the consultant of the OP. Unfortunately it was not possible to interview them due to time constraints. Finally, the third stage (from 17/8/06 to 7/9/06) was devoted to collecting the complementary data in order to enrich the data already collected. This was achieved by making use of focus groups (disciplinary groups), pedagogical reports produced by different subjects groups, and reports from the general meeting in which all teachers and administrative staff participated.

During the first and second stage it was not possible to interview the director of Marrere CFPP. A possible meeting was scheduled three times but unfortunately never materialised.

The following table summarises the number of teachers or groups who were interviewed.

Table 3.2

Teachers interviewed

Fieldwork	Interviewed Trainers	
	Face-to-face	Focus Interviews
First stage	26	
Second stage	26	
Third stage		3
All together	52	3

Looking at table above, at the second stage 26 teachers were interviewed after classroom observation. At the third stage, three disciplinary groups were interviewed, namely Maths, Natural Science, and Visual Education and Technology.

3.5.1 My first meeting with the Pedagogical Director

During my first meeting with the Pedagogical Director, I told him that the interviews should start on Monday, 14th March. He gave me the timetables of the teacher trainers of Marrere CFPP to become acquainted with them. The Deputy Director-Pedagogical and I nominated two trainers to be interviewed each day, from Monday to Friday. I suggested that teacher trainers be interviewed on a day when they did not have classes because then they would be free from the pressure of thinking about their classes. However, I was told that these trainers did not come to Marrere CFPP when they did not have classes. In general, trainers were interviewed after the long break after the first four classes at 09.55. Unfortunately the interviews were not conducted as we had planned. For instance, some days I interviewed only one trainer and other days I did not interview anyone at all.

I would like to emphasise that every Friday after the interviews, the Pedagogical Director and I did the planning for the following week. We first checked the achievement (how

many trainers had been interviewed) and planned for the next week. The interview schedule was completed weekly.

I spent my first week at Marrere CFPP just observing and reading relevant documents to get acquainted with the environment and learn more about the institution itself and about OP.

Interview before observation

All twenty-six trainers were interviewed, except for the Director of Marrere CFPP. I conducted face-to-face interviews with each trainer, before and after classroom observations. “The interviews provided the discursive space and opportunities for each teacher to reveal the understanding, beliefs and actions in their own words” (Hariparsad, 2004) about the teaching and learning process in the classroom at Marrere CFPP. All interviews were audiotaped and transcribed verbatim. The average duration of each interview was 45 minutes.

The interviews took place in the dining room of the Director, Deputy Director and Hostel director and Head of the office. It was the best place where the interviews could be conducted because it was quiet and comfortable (see the photographs below). Gillham (2000:7) states that a room where you can avoid interruption, background noise or intrusive curiosity (see Glesne, 1999; Blanche & Kelly, 2002) is needed. I am convinced that it was the best place to conduct a formal interview at Marrere CFPP.



Figure 3.1 Interview room



Figure 3.2 Interview room

How the interviews were organised

The director of Marrere CFPP, the Pedagogical Director and I discussed the issues related to the interviews. The first problem we faced was related to the time slot for conducting the interviews. We checked the timetable of all teacher trainers and we concluded that the

interviews should take place from 07:00 to 12:00. The reason was that trainers are usually tired after four classes of 90 minutes each and they are not willing to be interviewed. My intention was to conduct interviews early in the morning (07:00) before teacher trainers present any classes.

Some teacher trainers presented themselves after four 90-minutes classes to the rooms to be interviewed. I did not conduct these interviews because I realised that they were tired.

On the days that teacher trainers had no classes they did not avail themselves to come to Marrere CFPP to be interviewed. That is why it took twice as much time to finish the interviews. Patience was the secret of success.

Interviews: From recording to transcription

All interviews were recorded and transcribed verbatim. I enlisted someone to help me do the transcription. I transcribed approximately 12 cassettes myself. After that I showed my assistant the transcription already completed. I explained by showing how a record player works, how to deal with the recording, how to listen to an interview and jot down notes. We listened to a recorded interview together and I demonstrated how to jot down notes. I checked how the assistant interpreted the interview and revised errors committed during the transcription.

I used semi-structured interviews. In the first stage, I expected each interview to last for 60 to 90 minutes. In the second stage, classroom observations were made with each observation followed by an interview about issues related to the observed class. I expected to find out how the teaching and learning process occurred in the classroom, with particular reference to a learner-centred approach, among other things. The interviews after classroom observations did not take more than 20 minutes each.

In this study, teacher trainers have responded to the questions posed to them to answer the research questions. These questions were related to OP, Basic Education, the teaching and learning process (PRESET and INSET), etc. Participants had a chance to refuse to answer any questions. Interviews were free, not compulsory.

I conducted informal interviews with some students on different occasions in their free time in order to get more insights into how class groups are organised and formed at the beginning of the year and during the classes. This information was compared to the information given by the teacher trainers.

Interview schedule

Semi-structured interview guidelines were used to conduct the interviews (See Appendix A). Obviously, during the interviews some questions flowed naturally from the answers given by the respondent.

Some problems were encountered during the interviews, particularly in questions related to a learner-centred approach. A case in point is the question, *what do you understand by a learner-centred approach?* I realised during the project that teacher trainers at the College use the term *participative methods*. From then on I used the term *learner-centred approach* and *active methodologies* interchangeably. I do not think this affected the content or the essence of the questions because I detected this problem early. Perhaps it could have been detected during the pilot interview but it never materialised then. This is because the pilot interview was carried out in an institution that is similar to the centre under study. I found that the trainers used that concept or term in the same way in is found in the curricular plan of Basic Education. The situation in the centre was different because of the OP having been started in 1998, a period when the terms *active methods* or *participative methods* were introduced and that was sufficient for the concepts to be internalised. The terms *learner-centred approach* and *integrated approach* emerged with the curricular plan for Basic Education. As has been mentioned earlier, I faced this problem during the first two interviews; that is why I had time to avoid these misunderstandings in the next interviews.

Sometimes it was difficult to conduct interviews after classroom observations because teacher trainers had to teach a next class immediately.

General impression of interviews

In my point of view many teacher trainers who were interviewed showed enthusiasm. I can state this because many of them spoke loudly, were eager to provide the answers and provided them confidently. They also seemed serious because sometimes, when they could not provide the answer, they would say so. For instance “*I can’t, I don’t know,*” “*I am new*

in this institution” and “*I can’t answer that question.*” I felt that they were eager to say something, which could contribute to the improvement of the teaching and learning process, and even to improve their socio-economic condition.

During the classroom observations the major focus was on how they manage the learner-centred approach and how they deal with the problems of large classes as well as teaching media.

I chose observation as a method because it is one of the best tools to capture classroom reality in a natural setting. I carried on classroom observations in order to compare what the different teacher trainers had said about classroom performance during the interviews and what they actually did in the classroom (methods, strategies, instructional materials, etc.). Doing this gives more credibility to such information in order “to check and control” validity and reliability (Kidder, 1981 in Merriam, 1988).

During my first meeting with the Director of Marrere CFPP, I expressed my concern about getting an assistant to help me with classroom observations and he referred me to the Pedagogical Director who helped me. Before observations started, I informed him about my objective and the specific aspects I wanted to observe. I also provided him with a checklist of items to be observed. However, due to time constraints and other activities, he did not participate in all classroom observations.

I had planned to observe teacher trainers who teach methodology subjects, who teach both subject and its methodology. But what transpired is that a teacher had to teach either the subject or its methodology.

After a long time of classroom observation, I observed some teacher trainers who could somehow satisfy my research purposes. After two weeks of classroom observations, I identified one focal point trainer whom I observed six times in the same stream three times a week.

The participation of the Pedagogical Director in classroom observation

Let me elaborate a little on the participation of the Pedagogical Director as my fellow in the classroom observation. Taking into account that he is in charge of pedagogical

activities in the college, some questions may immediately be raised. What was the role of the Deputy Director in the research? Can the presence of the Deputy Director in classroom observation impair the process of data collection? Can it affect the trainer or learner behaviour during the classroom? Before going further I would like to say that the Pedagogical Director did not participate in all the classroom observation sessions because of time constraints. To answer these questions, my departure point is a comparison between classroom observations where he was present and those in which he was not present in order to get some insight into how both trainers and learners behaved. In my opinion, there is no relevant difference between how the teaching and learning process in the classes where I was alone and those where he was present, occurred. It means that the presence of the Pedagogical Director in the observation session did not influence the teaching and learning process at all. I can state this because both trainers and learners performed equally well in all the classes. The participation of the learners during the class was optimal; they acted voluntarily and participated spontaneously. The good teacher trainers' performance may be due to their thinking that they were being evaluated on how they conduct their teaching and learning process, either by the Pedagogical Director or by me. This might have motivated them to do their best.

During my stay at Marrere CFPP there were two visits, and there were no classes on those days. One of the visits was by the Provincial Governor and took place during the second stage of the fieldwork where the main task was classroom observations.

When OP moved from Marrere to its own office in Nampula City, documents, equipment, cars, computers, etc. were also moved. On my first visit, the ex-coordinator of OP of Marrere who was also the Director of Marrere CFPP, told me that all the materials produced during the OP had been handed to the project. I wrote a letter to the present coordinator asking him to let me have access to some of them. He answered that they were confidential; in other words, access to them was restricted. On my second trip to Nampula, I took credentials from the National Institute for Educational Development (Appendix E) with an official stamp and signature of the Director. I phoned the coordinator and we agreed to meet in his office. The following Monday I moved to the OP Office. I explained the purpose of my research and showed him the credentials. The coordinator told me to report on Tuesday at 10:00. On the next day I was there on time. He brought the documents for me to consult them right there in the office. I told him the time was not

enough for me to read them and take notes. He said he would give the documents I needed to a teacher who works in the OP and teaches at Marrere CFPP to bring them to me. A few days later the teacher gave me some documents (checklist and report from CRESCER), which were different from the ones I was interested in. I told him to inform the coordinator that those were not the documents I expected to receive. I never received the right documents. Later on I received some key documents (papers, reports, pamphlets, official documents) of OP from the senior official of OP at National Level by e-mail.

Among the documents referred to above the following can be highlighted:

Visser, Muriel (2005) Project Document for Building -up Phase in Nampula Province (official documents)

It shows the stage of the project building between the government of Mozambique and the Dutch embassy in Maputo and the different levels of intervention.

Rede Osuwela, Estratégia 2001 a 2005: Desenvolvimento Profissional Contínuo na Educação básica (pamphlets)

It presents the performance model and shows the different hierarchy from the central level to the base (the school), mechanisms and the functioning conditions, etc.

Avaliação da fase de Inserção do Projecto Osuwela – CFPP de Marrere, Maputo, 2000 (Report)

It highlights the antecedents of the Osuwela project, its objectives, and the activities that were carried out, the people involved in the activities and finally, as the heading suggests, it does the evaluation of the project during its implementation.

Pereira, F et al. (2003) Middle Term evaluation of Osuwela Project-second Phase report. Maputo (Report)

It describes the second phase of the Osuwela net, the people who participated in it, namely teacher trainers from the CFR, teacher trainers from IMAP, technicians from DEP, from DEC and DDEs, directors of school cluster (ZIP) and of school, in classroom centred training, the objective of the project and the results of the insertion (first phase).

These documents outline how the OP was designed, what their main objectives and the main activities were, its working field, people who have worked on it and finally the outcomes. In other words, they provide an overall idea of how the project functioned in the Nampula Province.

Few documents have been written during the OP

My impression is that during the OP in Marrere few documents (reports) were produced. Taking into account the OP objective, I suppose that a great deal of work was done. Unfortunately the information had not been recorded in written form or systematised. Yet they refused to avail themselves to people who need information about OP/Marrere CFPP.

The assessment report of OP stated that the project did not have analytical documents for registering the results of the experimentation and what was successively incorporated or refused. There are no research reports (2^a phase, 2003:4).

Field work experience and constraints

During this study I faced some constraints, namely visits at Marrere CFPP, transport problems, timetable changes among trainers, absence of the interviewees without justification, etc. However, it did not interfere with the content quality of the gathered data, but affected the research in terms of time; it was time-consuming.

This kind of constraint must not be interpreted as indicating that the teacher trainers were not interested in being cooperative. Rather, most of them were highly motivated and happy to participate in the research. After all, it was a unique opportunity they had to participate and express their experiences, their viewpoints, beliefs, etc. They said formally and informally that they were motivated to participate in the research either as an institution or individually. In addition, they told me they were waiting patiently to see the report.

3.6 DATA ANALYSIS

Qualitative data analysis transforms data into findings. No formula exists for that transformation. Guidance, yes. But no recipe. Direction can and will be offered, but the final destination remains unique for each inquirer, known only when – and if – arrived at. (Patton, 2002:432)

There is no consensus amongst authors about when data analysis begins (starting point of data analysis). Some defend that data analysis is a process beginning simultaneously when data collection begins and others defend that data analysis begins after data collection is complete. For example, Merriam (1988:119-120) states the following:

“Data collection and analysis is a simultaneous activity in qualitative research. Analysis begins with the first interview, the first observation, the first document read. Emerging insights, hunches, and tentative hypotheses direct the next phase of data collection, which in turn leads to refinement or reformulation of one’s questions, and so on. It is an interactive process throughout which the investigator is concerned with producing believable and trustworthy findings.”

Although data collection may provide very important insight, it does not necessary have to be prior to data analysis. The information extracted from the data gathered may serve as the base for further data collection.

Data analysis methods enable one to organise and make meaning of a large amount of data. Before attempting to analyse the data, ensure that all the field notes, interviews transcripts, and documents are available and complete (Struwig & Stead, 2001). Also, data analysis involves organising what you have seen, heard, and read so that you can make sense of what you have learned. Working with data, you describe, create explanations, and pose hypotheses. To do so, you must categorise, synthesise, search for a pattern and interpret the data you have collected (Glesne, 1999).

Creswell (1998) says that “undoubtedly there is no consensus for the analysis of the forms of qualitative data.” General data analysis strategies advanced by three qualitative authors (Bogdan & Biklen, 1992; Miles & Huberman, 1994; Wolcott, 1994) are the following:

“First, a general review of all information, often in the form of jotting down notes in the margins of texts or reading through all collected information to obtain a sense of the overall data. And then, writing findings in the form of memos and reflective notes is an initial sorting-out process. Also, begin to write summaries of field notes. Next stage is the process of reducing data (sort material into categories, note patterns and themes and identify patterned regularities) followed by creating display of information such as diagrams, tables, or graphs - means for visualizations of the information and representing it by case, by subject, or by theme (make contrasts and comparisons).”

Data analysis begins when the researcher is in the process of collecting data. That is, it begins as he collects data through several data collecting instruments such as documents,

semi-structured interviews, class observation, field notes, etc. The data reduction/transforming process continues after field work, until a final report is completed (Miles & Huberman, 1994).

It has been said earlier that the data collections for this study were interviews, observations, documents related to the issues under investigation, and so on. Interviews have been recorded, transcribed and put into verbatim form. Before data analysis, I followed some basic procedures/steps. That is before data analysis I checked all the raw data I collected (typing and organizing handwritten field notes, interviews, transcriptions completed in the verbatim form). As Patton (2002: 441) said, “a verbatim transcription is an essential raw data for qualitative analysis and provides an opportunity to get immersed in the data, an experience that usually generates emergent insights.” During data analysis some information is discarded and the useful and relevant one remains.

In this study, firstly, I identified the sense units in the text. I made sense or meaning of these units. I looked at what different teacher trainers’ responses to the same question were and looked at the regularities in the data (sense units). Through the regularities I found patterns that have been sorted (transformed) into categories. That is to say description, analyse interpretation as three means of data transformation, or of moving from organisation to meaning (Wolcott, 1994).

As stated earlier in this chapter, interviews were recorded and transcribed verbatim. The interview transcripts, observations notes and government, school and classroom documents were repeatedly read and studied. I used interviews schedules as well as the memos written during the period of fieldwork with the following ideas in mind: what are the main categories and themes of analysis? What are different teachers’ perceptions of the learner-centred approach?

This data was integrated and combined with transcripts of the lessons that were tape-recorded before they were presented.

The process started by trying to understand the interrelationships of the categories generated from coding within a wider context. For this data had to be shaped and reduced around themes. When developing codes and categories, qualitative analysts seek to find out

things that fit together by looking for recurrent regularities, which can reveal patterns that can be sorted into categories.

According to Miles & Huberman (1994:10), an *analysis* consists of three concurrent flows of activity, namely data reduction (writing, summaries, coding, teasing out themes, making clusters, making partitions, writing memos), data display (graphs, charts and network), and conclusion drawing/verifications (noting regularities, patterns, explanations, possible configurations, casual flows, and propositions).

That is what I have tried to follow in this study.

Validity and Reliability

Member checking and peer reviews or briefing sessions were conducted. During the research, after the interviews in particular, the interviews were transcribed and taken back to the interviewees for certification. The interviewees had the opportunity to make any changes. In addition, several presentations were made to the group that was involved in the research so as to broadcast the findings of the research.

Triangulation

Triangulation was achieved through cross-checking the different information sources, namely interviews, documents and class observations. It also included the trainers, pedagogic director and the director of the boarding school.

3.7 ETHICAL ISSUES

First of all I obtained a clearance certificate with the following number CS10/08 after having filled in the form and submitted it, and got the approval of the Ethics Committee of the Faculty of Education, University of Pretoria. The researcher has followed all procedures in order to carry out the study. However, ethical concerns were considered in this research by using accepted basic principles and practices, such as informed consent, right of privacy (confidentiality and anonymity) and harm (Glesne, 1999; Fontana & Frey, 2000; the Codes of Ethics of The American Anthropological Association, 1998; Jorgensen, 1989; Fetterman, 1989). The individual respondents in any interviews provided their responses freely. Access to people to be interviewed was negotiated with the respondents

and the management of the institutions involved. Pseudonyms were used in the written dissertation. Discussions were held periodically. All data from the field work, such as tape-recorded interviews and internal discussions, will be destroyed after the presentation of this dissertation. This study, like any other dissertation, is a scientific one, which tries to address and explain comprehensively the major research questions stated in order to understand the problem to be studied.

The next chapter is devoted to the OP at CFPP of Marrere.

CHAPTER 4

BACKGROUND OF MARRERE CFPP AND CONTEXT OF OSUWELAPROJECT (OP)

The aim of this chapter is to present a background of Marrere CFPP and the context of OP and their relationship. In Section 4.2 the Basic Education curriculum is presented in terms of areas and subjects and its main innovations are characterised. It also presents the graduating profile and ways of assessment and strategies for implementing the Basic Education curriculum. Section 4.3 is devoted to the objectives of OP and its insertion in Marrere CFPP and activities developed in PRESET and PRESET. The relationship between the College and OP are addressed and discussed in Section 4.3. The relationship between the CFPP Curriculum and the Basic Education curriculum are discussed, including the process of building curriculum (Section 4.3.1). The brief historical background to Marrere CFPP since the colonial period is presented (Section 4.5). The organisation and management of Marrere CFPP is outlined. The chapter also addresses the teacher trainers' profiles (Section 4.6). Section 4.6.1 presents the main entry conditions and the process of announcement and dissemination as well as admission is discussed, including positive discrimination. Section 4.6.2 presents the physical characteristics of the college.

“A fundamental purpose of education is to prepare young people for life in society, and since societies throughout the world are constantly changing and developing, education can also be expected to change” (Sikes, 1992:2).

4.1 INTRODUCTION

This chapter aims at describing the objectives and missions, background and context, organisation and management, as well as working conditions and entry requirements of Marrere CFPP. It outlines its characteristics in terms of physical facilities such as classrooms and sports facilities and daily activities (organisation and school production, etc).

The context and background of the OP are outlined. The relationship between the OP and the College is emphasised. It addresses issues related to the curriculum innovations established by the OP and by the curriculum of Basic Education.

4.2 NEW BASIC EDUCATION CURRICULUM IN MOZAMBIQUE

In Mozambique, there is only one National Institute for Development of Education (INDE) responsible for designing curriculum and teaching and learning materials. In this respect, Bazilashe, Dhorsan & Tembe (2004:226) stress the following:

“the INDE is the central institution of the Ministry of Education whose main objectives are to deal with curriculum and curricular material for primary and secondary education, and primary school teacher training. It was created in 1978 as a specialised institution, under the authority of the Ministry of Education and Culture but with academic and administrative autonomy. It is responsible for translating policy decisions through the development of curriculum, syllabi, textbooks, and other teaching and learning materials.”

The Curricular Plan for Basic Education, also designated by PCEB, constitutes the pillar of the curriculum of Basic Education in Mozambique, presenting the general guidelines that sustain the new curriculum, as well as the perspectives on Basic Education in the country.

The new curriculum was formulated and introduced in 1983 by Act No 4/83 of March, and reviewed in 1992 by Act No 6/92 of May. Its aims are to make education more relevant and to contribute to the improvement of community life in the country. The objective of the curriculum is to develop knowledge, skills and values in an integrated and interdisciplinary way.

Thus, primary education remains, comprising seven grades divided into two levels: Lower Primary (Grades 1 to 5) and Upper Primary (Grades 6 and 7). PCEB is structured in order to guarantee the integrated development of abilities, knowledge and values.

Innovations

The New Basic Education Curriculum is characterised by innovations such as learning cycles, integrated curriculum, local curriculum, curricular areas, new subjects, Mozambican languages, new teacher distribution, semi-automatic promotion or normal progression, English language, Art, Craft, Musical Education, Civic and Moral Education, learner-centredness and participatory methods (INDE/MINED, 2003).

Learning Cycles

Basic Education comprises seven classes, from Grades 1 to 7, divided into three cycles. The first cycle comprises the first two classes (Grades 1 and 2); the second comprises Grades 3 to 5; and the third comprises Grades 6 and 7. This is recorded in the following table:

Table 4.1

Curricular Structure Organisation

Age	6	7	8	9	10	11	12
Grade	1	2	3	4	5	6	7
Cycle	1		2			3	
Level	1					2	

Source: INDE/MINED, 2003:25

Integrated Curriculum

In Mozambique, from PCEB, integrated Basic Education is defined as the seven-standard full primary education with articulated structure, objectives, contents, didactic materials and pedagogical practice. It develops learners' skills, knowledge and values in all learning fields in an integrated and articulated way. The integrated Basic Education is supported by an assessment system that integrates formative and summative components. However, it does not neglect the influence of the hidden curriculum.

The PCEB proposal allows for integral development through major integration of different materials. The teaching programmes are tools that facilitate an integrated approach.

Local Curriculum

The old curriculum framework (7+3) was very prescriptive. It allowed few opportunities for regional or local adaptation. However, the new school curriculum for Basic Education is constituted by two components, namely a core curriculum and a local curriculum.

The Core Curriculum, centrally planned, is 80% and the Local one, locally planned; is 20% of the whole curriculum calculated on the basis of each subject time. The Local Curriculum can be an extension of the content of the core curriculum or an addition from the community content. (INDE/MINED, 2003:27).

Curricular areas

In terms of study areas, the New Basic Education curriculum comprises three major areas of study, namely Communications and Social Sciences, Mathematics and Natural Science and Practical Activities and Technology. Communication and Social Sciences comprise Portuguese, Mozambican languages (L1 and L2), English language, Music Education, Social Science (History, Geography and Moral and Civic Education). The Mathematics and Natural Science area comprises the subjects of the same name. Technology and Practical Activities area include the following subjects: Arts, Crafts (Practical Arts) and Physical Education.

Table 4.2 below summarises areas and subjects that are part of the Basic Education curriculum.

Table 4.2

Subject areas and their respective subjects

Areas	Subjects
Communication and Social Sciences	Portuguese
	Languages
	Mozambican-L1
	Portuguese-L2
	English
	Music Education
	Social Science (History, Geography and Moral and Civic Education)
Moral and Civic Education	
Mathematics and Natural Science	Mathematics
	Natural Science (Biology, Physics, Chemistry)
Practical Activities and Technology	Craft and Arts
	Visual Education
	Physical Education

Source: INDE/MINED, 2003:40

Mozambican Languages

The introduction of indigenous languages in the education system will give the learners the opportunity to start their learning in reading and writing as well as numeracy in the language they speak before joining school. This will hopefully allow for a process of valuing their cultural identity and respecting their rights as well as reducing the gap between the home and the school (INDE/MINED, 2003).

The PCEB contends the use of Mozambican languages in school in three ways: *Bilingual education*, in which Mozambican language is taken as a language of instruction in the first two years, and gradually switching to Portuguese; Mozambican language as a resource in the monolingual programme, where Portuguese is the means of instruction and a subject. The bilingual program will be introduced in linguistically homogenous areas. It will not be compulsory.

New Teacher Distribution

At EP1 (from Grade 1 to 5) a single teacher teaches a class. This scenario remains the same for the new curriculum for Basic Education. It means that limited changes have been effected at this level. EP1 is constituted by two cycles (first and second cycles) of learning. For EP2 the situation differs. The old curriculum encompassed seven subjects and each teacher taught only one subject. In the new curriculum for the same level (EP2), there are 11 subjects and the policy (PCEB) proposes that they be taught by three or four teachers for each class in the third cycle (EP2). It implies that each primary school teacher should teach more than one subject.

Semi-Automatic Promotion or Normal Progression

Primary education is divided into three learning cycles. Within each cycles, learners progress automatically. This is different from the current practice where the learner may pass or fail at the end of each grade. The study carried out by Assis et al. (1999) in the context of Educational Assessment in Mozambique shows that “student performance does not necessarily improve in the case of repetition. Conversely, the risk to fail again and to drop out is high due to the lack of motivation that results from school failure.”

However, it is not assumed that semi-automatic or normal progression is a solution for the high failure rate in our schools. In the context of the new curriculum, it is a pedagogical measure that takes into account the different students’ learning pace. It allows for learners to have a reasonable time to remedy a low level of academic performance.

New subjects

The new subjects introduced are English, Crafts (Practical Arts), Civic and Moral Education, and Music Education.

Learning-centred Approach and Participatory Methods

In terms of innovation, a pedagogical shift is the major concern in the new curriculum. “The actual curriculum in use in the primary school focuses mostly on memorisation and mechanised procedures rather than challenging pupils to demonstrate their skills and abilities” (Assis et al., 1999). In this respect, “the main characteristic of the national pedagogical tradition in Mozambique has been the domain of the teaching and the teacher as well as the non-centrality of the pupil. On the contrary, the new curriculum places the

pupil in the center of the teaching and learning process and the teacher as a facilitator” (Bazilashe, Dhorsan & Tembe, 2004).

The shift from a teacher-centred to a learner-centred one represents a radical change because it opposes the teacher-centred approach followed in the schools.

The new curriculum refers “to a constructivist methodological perspective, with the learner at the centre of the teaching-learning process, focusing on the teacher-learner, learner-learner, and learner-community interactions” (Bazilashe, Dhorsan & Tembe, 2004:227).

In summary, change such as the shift from teacher-centred to learner-centred learning methods represents the establishment of the new era in teaching in Mozambican primary schools; this constitutes the big challenge for the TTC. For instance, the teacher is expected to use active methods, using learners’ previous knowledge, and to avoid dominating the lesson and questions and answers during the teaching and learning process.

The Profile of the Basic Education Graduate

The main challenge of this curriculum is to supply the most relevant teaching. Taking into account this principle, it is intended that when concluding the basic teaching, the graduate has acquired knowledge, abilities and values that allow him/her to be accepted in his/her community and in society in general. It falls to Basic Education to mould a student capable of reflection, who is creative and who is capable of questioning reality.

Ways of assessment

Formal and informal assessment is proposed - diagnostic, summative and formative assessment, among others.

Implementation strategies

The main strategies to implement the new curriculum for Basic Education are Teacher Education (PRESET and INSET) and teachers’ upgrading, as well as the expansion of primary schools.

4.3 OP IN MARRERE CFPP AND ITS CONTEXT AND BACKGROUND

Osuwela in Makua is a word that means knowledge. It is probably the appropriate name for a project that looks forward to developing a training model based on a central philosophy of acquisition of knowledge, through a active learning – “learn by doing”, of moments of reflection of criticism, of continuous evaluation and of modification (Hooker, 1999).

Three phases of OP can be distinguished: From 1997 until 1999, which is characterised by its insertion; the second phase from 2000 until 2002. The third phase from 2003 up to now is characterised by extending its action to 16 more districts.

The Osuwela Project (OP) emerged in 1995 as a part of the Strategic Plan for Education in order to improve the quality of education by testing models of initial and in-service training (Visser, 1995; Carvalho, 1999; Zalzman & Cabral, 2000; Middle Term, 2003; Pereira et al., 2003; Mucavele, 2004). It means that the OP’s objective was to find an alternative teacher training model both for an initial and in-service training.

The project at the central level is based on DNEB and at provincial level it focuses on the Marrere Teacher Training in Nampula Province. According to Zalzman and Cabral (2000:14), this province was chosen for several reasons, two of which can be highlighted:

“The first reason is that an educational system is characterized by a weak quality, a significant school drop out rate and a low adherence of girls, of the basic education to the secondary education and the high secondary school; The second reason is that Nampula Province is supported area of the Government of Kingdom of Netherlands that, together with the Government of Mozambique, fund the OP.”

In an initial phase,

“The project was taken by the training centre as a supporting instrument to its work. At that time, attention focused more on initial training. When the Project expanded its testing to a greater number of ZIPs, it moved its focus to in service training and ended finding its own facilities to carry own its work” (Pereira et al., 2003:1).

The main Technical Counsellor, based in Maputo, and the Pedagogic and Administrative Assistant, based in the Marrere CFPPs, contract an external institution, the Institute of Education of the University of London, to give technical support to the OP. However,

internally, the OP has relied on the support of DDE of Rapale, DPE and DEC of Nampula, DNEB, INDE, IAP and UP in mutual interaction.

The selected professionals began their functions in early April 1997 but the Pedagogical Assistant only began in September of the same year. Later on, some important individuals were selected from the Education Sector to develop the OP in Nampula. These people carried out the curricular reform during the initial training of teachers; they consist of members of the Provincial Executive Committee, members of the Provincial Executive Unit and trainers of Marrere CFPP.

During the OP at CFPP of Marrere it was found that the majority of teacher trainers have low academic and professional qualifications. Besides five who have bachelor's degrees, the remaining teachers' highest qualification was a matriculation certificate. In this regard, a training strategy was designed for all those who had a matriculation certificate only to study for a bachelorship.

A proposed bachelor degree course in Basic Education was designed and then introduced at the Pedagogical University, which was the institution that worked and developed the course models. The course started in August 1998. Due to the relevance of this course, not only for Marrere, but also for the whole Northern area, eight people (among trainers and professionals from Provincial Directorates) from each neighbouring province (Niassa, Cabo Delgado, Tete and Zambézia) were invited. At least 52 people attended the course. All of them were Marrere CFPP teacher trainers (Nampula, 20), Montepuez (Cabo Delgado, 8), Unango (Niassa, 8), Nicoadala (Zambézia, 8), and Chitima (Tete, 8), a total of 32 from Nampula, and there is no female students. The bachelor course was presented at Marrere CFPP (Zalzman & Cabral, 2000)

All trainers of Marrere CFPP have signed an undertaking to be present at the College from 07:00 to 16:30, carrying out several activities. They had to give up extra classes in Nampula and, in compensation, the OP provided them with some subsidy incentives that corresponded to 90 percent of their wages, with improved working conditions.

In short, it can be highlighted that:

“the CFPP, OP worked with CFPP trainers and others in order to produce a model of in-service training for elementary school teachers in all subjects and analyse the functioning of (school clusters) as institutions in the training and supervision of teachers. Training modules, materials and a cascade system for class delivery were developed for the subjects of sciences, maths, and Portuguese language and one for school administration” (Reviere, 2003).

In collaboration with the University of London, the following teachers were sent to Mozambique: Sheila Aikman, John Anderson, Roy Carr-Hill and Graham Tarrent. They worked with Marrere CFPP in the areas of teacher training courses as trainers, monitoring and investigating the areas of curriculum development. In collaboration with the national institutions, the Marrere CFPP - OP benefited from a Distance Education Course, with IAP involving about 190 teachers and four ZIPs, including the OP. Some of these already completed the 50 course modules.

The Company Joggings & Lybrand provided financial and administrative support to the Project, having produced a manual of procedures, to be used at OP/MINED.

An educational resource centre was established and, besides constituting interesting innovation for its users, it introduced them to the world of information technology. This provides a relevant change for the College that has to familiarise its students with the concept of E-learning.

One of the incentives introduced by OP is the school uniform for all students, assistants and guards. The uniform allows Marrere CFPP students to be identified as such and gives them the feeling of belonging to a certain group. This is recorded in the graphic.

The OP is mainly intended to support teacher training courses for Basic Education, either in PRESET and INSET. For in-service, 39 schools for Basic Education were chosen in four ZIPs, namely Marrere, Mutauanha, Namaña and Minícuca, with the objective of improving the teachers’ pedagogical performance. This involved 39 primary schools. From these schools, three primary schools taught from Grade 1 to Grade 7 and the other 36 taught from Grade 1 to Grade 5. The number of direct beneficiaries of the OP is around 950 people (Zalzman & Cabral, 2000).



Figure 4.1 Students sing the National Anthem

Among the 950 beneficiaries of the in-service training, 200 are primary school teachers from four ZIPs; 42 are directors of schools; 50 are education professionals from DPE, DDE, CFPP and ZIPs; 600 students are from CFPP Marrere (1997 to 1999); 52 teachers' trainers of Nampula Province, 20 from Cabo Delgado, eight from Niassa, eight from Zambézia and eight from Tete (Zalzman & Cabral, 2000).

School clusters were practically paralysed when they were revitalised in Nampula with the dynamics created by the OP of in-service teacher training courses.

“The primary school cluster’s aim is to provide professional and academic support to each other. In practice many ZIPs (school clusters) are not functioning; this is partly due to the lack of support and orientation to their activities. Within the framework of this project, the ZIP will be reactivated so that they can gradually strengthen their role” (Visser, 1995).

In summary, when OP was established in Marrere CFPP, the director of Marrere CFPP became the coordinator of the OP. Marrere and OP function as one body. Then it became necessary to recruit technical staff (for pedagogical assistance) for the project, get aid for the teaching and learning process (in order to carry on OP activities), upgrade the teacher trainers and give them incentives in order to be fulltime employees of Marrere CFPP. That is to say, all pedagogical activities developed by OP during its stay in Marrere CFPP belong to both.

4.4 THE RELATIONSHIP BETWEEN THE COLLEGE AND THE OP

In the first phase, the OP was established at Marrere CFPP and the coordinator was at the same time the director of Marrere CFPP. All activities involved teacher trainers (CFPP and IMAP) and other technicians from the Provincial Directorate. In 2000, the OP was moved from the College to Nampula City in its own facilities. Many reasons have been forwarded for this move.

The first reason is that:

“...there is a need for being closer and more integrated into the DPE (Provincial Directorate of Education) and to other teacher training facilities. The continual drain of Osuwela resources by frequent requests for support from the CFPP, such as purchasing food for the school canteen used by students in the hostel, also played a large role in the decision to move. The OP was not intended to be a patron of the CFPP. Osuwela needed to change its relationship with the CFPP in order to work with other institutions and reach other districts as it expanded its activities” (Reviere, 2003).

In order to achieve its goals in an initial and in-service training, the OP produced a decentralised training model to be carried out in the ZIPs (school clusters). IMAP and CFPP teacher trainers took part in this production as part of the system, together with the consultants. This means that, even after OP moved from CFPP, the trainers have continued working with OP in in-service training up to present.

“The OP began working directly with the Marrere CFPP. The OP funded an expansion of the facilities and provided substantial equipment to the CFPP. They also provided subsidies to the CFPP administrators and general subsidy of US\$2,000 per month for the CFPP. At the end of the first phase, OP moved to Nampula city and cut most direct financial support for the CFPP but the general subsidy of US\$2,000 continues” (Reviere, 2003:45).

In on-going training, special attention was given to the preparation, planning and evaluation for change at the teacher’s level in the classroom as well as the management and administration of schools, the need for teachers to produce low cost materials and the need for teachers to know the local languages for teaching and problem solving.

The curriculum (7+3) at CFPP does not meet the socio-cultural and economic reality, so its objectives are no longer justifiable. In addition, its content is too scientific (either in terms

of length or depth) and irrelevant for the teachers of Basic Education. OP proposed a variant that would come to be designated as 7a+2+1 curriculum, that emphasises more professional aspects and the development of personal autonomy of the young future teacher, integrating him/her as a trainee in the educational career soon in the third year. National Institute for Education development presented the proposal, promoted its development and the design of programmes that were experienced as from 1999.

The 7+2+1 curriculum was introduced at Marrere CFPP that was a product of OP as a curricular model in its experimental stage, the objective of which was to be introduced in all teacher training institutions in Mozambique. This curriculum prescribes that learners will enter Marrere CFPP after accomplishing Grade 7 or equivalent and will take a three-year teachers' training course. The training course will be subdivided into two first years devoted for professional academic training and the last year for teaching practice activities in a given school, where the trainee will be in charge of one EP1 stream under the supervision of an experienced teacher of that school. This means that talking about OP at Marrere CFPP is the same as talking about Marrere CFPP itself working with the 7+2+1 curriculum elaborated by themselves with the collaboration with INDE.

Talking about OP established at Marrere CFPP, which lasted from 1998 to 2001 is, as mentioned above, the same as talking about Marrere CFPP and 7+2+1 because the OP headmaster is the same as that of Marrere CFPP with the 7+2+1 curricular model in use. So OP was part of Marrere CFPP. However, when the OP moved from CFPP Marrere premises it became an autonomous institution (with its own directorate) working in ZIPs in INSET basis, while Marrere CFPP remained with the 7+2+1 curricular model only.

4.4.1 The CFPP Curriculum vs. the New Basic Education Curriculum

An investigation of the context in which OP was designed to understand its essence should reveal whether the OP objectives match the current Basic Education curriculum.

“The OP was designed in 1995 within the context of the preparation for the Basic Education Curriculum Transformation in Mozambique, which was about to be undertaken. It was conceived with the aim to assess the teacher training models both for an initial and in-service training, as well as to ensure the effective preparation of teachers and schools for successful implementation of the new curriculum” (Mucavele, undated:1).

The general objectives of OP were to contribute to the curricular reform of the initial and in-service training, among others. In order to achieve these objectives, a Curricular Revision Group (GRC) was created.

“This group involved teacher trainers that worked directly with the different teaching fields, integrated learners of the second and third years of the CFPP of Marrere. The GRC has worked in the process of curricular review and in April of 1998, it proposed to INDE a sketch of a new curriculum with the intention of introducing innovations in the course of the EP1 teachers training that serves the national and local interests, through a common component that responds better to the EP1 children’s needs, respects and takes an advantage, positively, including the regional specificity” (Aikman, 2000).

This group produced a draft to pilot a new curriculum, which comprises the main issues related to the new curriculum. This draft was then sent to INDE at the Teacher Training Department. Improvements were made and the final document produced is the 7+2+1 curriculum. Emphasis in this curriculum is on strategies for the teaching and learning process. The Curricular Plan for the course in teacher training for 1st degree Basic Education (1999, 2003, and 2004) states the following:

“Emphasis is on methodological issues, more concretely, active learning teaching process (learner-centred approach). It can be stated from the following statement: ‘From the methodological point of view, we recommend the use of methods and teaching techniques that appeal to the active participation in seeking the knowledge, to know how to do and know how to be. And, to ensure that the learners become the object and subject of the learning process and not just recipients of information transmitted by the teacher or trainer. An individual study programme should be maximized and in-groups, taking an advantage of the resources available at the CFPP and in other institutions involved in the teacher training courses. Furthermore, one should have in mind that the future teachers will work, most of the times with large number of students, what presupposes that they should be well equipped with appropriate methodologies’” (INDE, 1998).

In this study, one of the major questions that was asked is how can a learner-centred approach be understood by the trainers and implemented at the College? In addition, how can trainers, as agents of change, understand and respond to the implementation of the new curriculum for Basic Education?

The following must be borne in mind:

“The training model developed in Marrere by the OP created the conditions for the process of Curricular Revision from the **base** to the **top (Bottom –up)**. An important

dimension of the professional development continues being that of providing opportunity to all participants to acquire, in the first hand, the experience of producing tests, revising and re-testing materials for the new curriculum” (Aikman, 2000, see also Rede Osuwela, 2001).

Besides classroom activities, teachers must create opportunities for debates on different subjects relevant to teacher training through running seminars, lectures, study visits and workshops. This is to give an opportunity to trainees to participate in activities of this kind (talks or study visits), at least once a month.

The following is relevant for the classroom teaching:

“Model of Osuwela Training a key group of trainers was given an important reflection opportunity on their own training methodologies and teaching methods, as well as on the integral relationship that should exist alongside the initial training in the training institution and the teachers’ preparation to work in the real context of the classrooms. The training model developed by Osuwela, was important for it establishes a narrow connection between the course of an initial training and the on-going professional development” (Aikman, 2000).

In terms of subjects it can be noted that the 7a+2+1 curriculum is different from the last one introduced in 1983 (7a+3). The latter was less professional and most of the training time was devoted to academic subjects (Passos & Cabral, 1989).

The curriculum is organised into two different subjects or areas of study, general and professional subjects (Methodologies). The table below illustrates this.

Table 4.3

General and Methodology Subjects

General subjects	<i>Methodology subjects</i>
<ul style="list-style-type: none"> • Psycho-pedagogy • School Organisation and Administration • Teaching Practice • Art/Crafts/Community Development Activities • Portuguese 	<ul style="list-style-type: none"> • Language Teaching Methodology • Mathematics and Teaching Methodology • Natural Science and Teaching Methodology • Social Sciences and Teaching Methodology • Moral and Civic Education and Teaching Methodology • Musical Education and Teaching Methodology • Visual Education and Teaching Methodology • Physical Education and Teaching Methodology

Another aspect related to the training is that the 7+2+1 teaching practice lasts for a year at school where each trainee is given one class to teach under the supervision of one of teachers of the school. In the old curriculum (7+3), only three months were devoted to teaching practice. Later on, this curricular model (7+2+1) was converted into the curriculum 7+3 with the same designation as that of the National System of Education in 1983. The new model (7+3) differs from the previous one (7+2+1) because of the reduction in the period of teaching practice and the introduction of the new element called *Jornadas Pedagógicas* (Pedagogical Practices), which take place at the centre after the return of the trainees from teaching practice. The essence of *Jornadas Pedagógicas* is to share (teacher trainers and trainees) different experiences acquired from the schools by the different trainees. This is the only opportunity that trainees have to present and debate the doubts and difficulties, at a pedagogical level, they have experienced, before they leave the College.

From the discussion above concerning the innovations introduced in the new curriculum (7+2+1), during OP, it can be concluded that some innovations incorporated into the New Curriculum for Basic Education come from the OP curriculum. In other words, some of the innovations found in the new curriculum for Basic Education have emerged from the OP. Examples are the following:

- A learner-centred approach;
- Grouped subject areas (Social Sciences and Natural Sciences, etc.); and
- New subjects (Crafts, Musical Education and Civic Moral Education).

According to the Curricular Plan for Basic Education, the general methodology comprises the following methodological considerations: General methodological principles, instructional materials; time and space (how long can real and concrete learning take, other than the traditional forty-five minutes?) What other space can be explored for teaching, besides the classroom? How to motivate students for a better learning process? It is also necessary to define the main directions of the teaching and learning process clearly. In the definition of the directions, the following methodological principles are recommended: teaching based on skills or competences; learning centred in the student; constructivism and reflexive learning; interdisciplinary treatment of the content; integrated approach to the content (MINED/INDE, 2003).

This study aims at capturing the perceptions of the trainers about the integrated approach as one of the innovations of Basic Education. In short, the OP curriculum contributes to the new curriculum for Basic Education in three main ways: a learner-centred approach, grouped subjects areas and new subjects.

The Relationship between the Initial (PRESET) and In-service (INSET) Training

The relationship between pre- and in-service training is based on focus on participative methodologies, modules of didactic materials, teacher trainers' and school cluster (ZIPs) and annex schools (Escolas anexas), the latter ones being the schools where the trainees did their teaching practices.

Teacher trainers at CFPP and IMAP do their best to apply participative methodologies in both the CFPP and the school cluster during the training of primary school teachers. Trainers and trainees produce modules of didactic materials at CFPP, which are then enriched by the feedback given during the training. These modules are used as a basis for INSET in different schools.

School clusters and the annex schools work as a laboratory to test and enrich the modules, taking into account the reality experienced by trainers and primary school teachers in the classroom. It must be emphasised that the teacher trainers who participated in the initial training at CFPP are the same as those who participated in INSET in primary schools.

4.5 BRIEF HISTORY OF MARRERE CFPP

The facilities (building and other infrastructures) that constitute CFPP of Marrere were built in 1947 by the Catholic Priests who baptised them as "São João Baptista", with the purpose of training teachers.

The first teacher training model, which was in force until 1974, was a 4-year course and required candidates to have Grade 4. The graduated teachers were employed in indigenous schools under the missionaries' jurisdiction, and the training programmes were highly religion-based.

After independence in 1975, Marrere CFPP started its teacher training activities that lasted one month. Two years later, Marrere became a high school (now EP2), losing its initial function. In 1978, the Murrupula Teacher Training course was introduced. Later on it was called the Primary Teacher Training Centre (CFPP). Due to the inadequacy of facilities, it was transferred to Nahadje in the district of Nacarôa. In 1983 the centre returned to Murrupula and began its activities in the same year, with the 6^a +3 curriculum. This means that students entered with Grade 6 or its equivalent plus three years of training.

In 1987, due to the war, the centre was transferred to Marrere, where it was unified with the one from Momola in 1992. Currently it is called the Primary Teacher Training Centre.

The CFPP of Marrere is a result of the fusions of two institutions, namely Murrupula and Momola, that had to abandon their infrastructures due to the war in the Nampula City (Rupela, 1999).

The mission of CFPP is to provide the Mozambican youths with the possibility of academic-professional training that will allow them to face the teaching profession in a society that is in constant change, socially, economically and politically.

The aim of CFPP is to train teachers for the Basic Education level, which is from Grade 1 to Grade 5, referred to as EP1. CFPP is also responsible for the professional development of the primary school teachers in Nampula Province, through continuous pedagogical support on ZIPs (school clusters) and schools. This action is developed by trainers in coordination with DPE and the Osuwela Network (REDE Osuwela).

4.6 SCHOOL ORGANISATION AND MANAGEMENT

According to Guro (2000:145), during the OP the structure of CFPP of Marrere:

“was defined as function of the OP. The composition of the direction in the Marrere CFPP were the Management Council, Director of CFPP, Pedagogical Director of the initial training (INSET Deputy Director), Pedagogical Director of In-service training (Deputy Director Pedagogical for INSET), responsible for boarding school and CRE (Resources Centre and Library). There is also a Curriculum Revision Group (GRC), the support group School Cluster (GAZ) and the training group in exercise (GFE). At internal level, they tried to adapt to the formation of the local conditions. The operation of the direction seems to having frequent meetings for articulation of the activities and improvement as aspirations. With the introduction of the OP, already referred to, the direction was enlarged. The direction of the College has as perspective to become collegial.”

Since 2002, the Management of the Centre is constituted by a Management Council (*Conselho alargado da Direcção*) which comprises Marrere CFPP Director, Deputy Director, Boarding School Director, Head Office; Representative of School and Community Centre.

The meetings of the council take place in the first two weeks of each month (fortnightly), while the meeting with the teacher trainers is held monthly; the meeting between students and management is also held monthly. The general meeting (assembly) is held twice a year.

The most common issues discussed during the meetings between management and trainers are the following:

- Collaboration among trainers during the assessment period;
- Preparation and creation of the commission responsible for the examinations supervision;

- Upgrading of the planning, taking into account the lost classes ;
- Supervision of trainees' teaching practice; and
- Analysis of how the subject groups and Marrere CFPP function.

In order to ensure the effective operation of the pedagogic sector, trainers are organised in groups of subjects; they develop among other activities, the following:

- Permanent planning of the contents.
- Direction of the groups to guarantee a uniform pedagogic action.
- In-service teacher training in schools in coordination with the Osuwela Network (ON) and the Provincial Directorate of Education.
- Curricular and extra-curricular activities.
- Supervision of teaching practice.

To summarise, the trainers collaborate in the definition of the pedagogic orientation of the Centre, transmit information and advise students to comply with rules and stimulate students to participate in the schoolwork.

In 2005, the CFPP of Marrere had 28 trainers, six of whom were being women.

Looking at the two tables (Tables 4.4 and 4.5) in the appendices, one more recent (2005) and the other older (1998), which present information related to the trainer's qualification situation, academic level acquired, professional training, experience in primary education, age, sex and the subject they taught, we conclude the following:

In 1998 there were three female trainers and in 2005 there were six female trainers at Marrere CFPP. We can see that there is an unbalanced gender distribution. The same situation occurs in other colleges across the country. It means that there are few female trainers at colleges.

In 1998, the minimum age of trainers was 31 and the maximum was 47, and in 2005 the minimum age was 23 and the maximum 60.

In 1998, three of the 20 trainers had a bachelor's degree. In 2005, 18 of the 26 had a similar degree. It means that during the OP teacher trainers were upgraded. For example, in Table 4.5, 16 trainers have Grade 12 or equivalent, but after the establishment of the OP approximately 18 trainers obtained bachelor's degrees. They obtained their degrees in 2004.

There is a correspondence between the subjects that trainers teach and the ones in which they specialise. For instance, teachers who specialise in History and Geography now teach Social Sciences.

Generally, in terms of professional experience, at least 15 of the 26 have no primary school experience. It means that there are no criteria for one to be trainer at teacher training institutions. In addition, many trainers have much more experience as secondary education teachers than as primary teachers. Some others have relatively few years of experience (from 0 to 4 years of experience) as teachers' trainers at Marrere CFPP.

4.6.1 Entry Conditions and Requirements, Announcement, Dissemination and Recruitment

The candidates must not be younger than sixteen and older than twenty-five years of age, must hold a Grade 7 of the National System of Education certificate or equivalent; an identification document or birth certificate; Health Certificate attested by health authorities and must be Mozambican citizen. Female candidates were encouraged.

This general requirement for access to the Colleges is applied to all CFPP in Mozambique.

Before they enrol for the course, candidates to the Marrere CFPP are subjected to two entry examinations, namely Portuguese and Mathematics. After the written examination, they are interviewed. The fees are paid after the publication of the results of the entry examinations.

All districts of the Nampula Province have been provided with an advertisement containing information about the course (the 7^a+2+1 course) and inviting students who have finished Grade 7 to apply for the course at the College.

As CFPP did not have the capacity to administer examinations because of the high number of candidates and lack of facilities in the centre, it asked for the collaboration of the high school and of the Railway Club School. The collaboration of external teachers' invigilation and correction purposes was also required.

After the conclusion of this process, which is much demanding in organisational and financial terms, successful candidates were likely to come from schools where there are good teachers at EP2 level.

The Provincial Director of Education opted for what is called positive discrimination, giving orders for 60% of women to be admitted, leaving out some men with higher marks compared to those of some admitted women (Carvalho, 2000).

The Pedagogic Directorate of CFPP heads up the process to the middle of November every year, contacting the Provincial Directorate of Education (DPE) and requesting the disclosure of the pre-registration records and their publication within the District Directorate of Education (DDEs). Then it awaits the arrival of the envelopes with the names of candidates from the districts, which is due in the middle of December. When the envelopes arrive, the data are inserted in the database that will function for subsequent years.

An examination board, nominated by the CFPP Directorate, asks the Portuguese and Mathematics subject groups to design their respective exams and correction guidelines, nominates the invigilators, photocopies and packs the 250 exams.

Students sit for the two-entry examinations in the morning under the supervision of two teachers per room, with the support of two head teachers and specialists of each one of the subjects. The examination scripts are submitted to the secretariat exams to ensure their anonymity.

In the afternoon and on the following day, four teachers of each subject area correct the anonymous examination scripts and insert, together with the general office, the results in the above-mentioned database. Once the results are published the following stage is the selection of the best candidates.

Generally, the benefit was given to people who lived in Nampula City or any locality near the College. After finishing their studies, it was difficult to send them far outside because they were unwilling to leave the city. Few women entered the college; consequently few women graduated. In order to revert this situation, the OP introduced the so called ‘positive discrimination’, which means the positive discrimination was used to benefit women, allowing them to enter with 9.46 marks; it has been verified that 46% of the women that enter have classifications below that mark. However, among the first 23 positions only seven were female, while the last 23 positions were all occupied by women.

As an illustrative example, in 1999 the new students’ admission for the training at the CFPP - OP presented to the DPE three scenarios to increase the women’s registrations. The first is that girls would be in the minority, due to their actual weak participation in the school, the second is 50%-50% of boys and girls, where a portion of the girls would not have the required academic levels, and 60% of girls, where a considerable number would not have the minimal academic level of entrance and it would be necessary to promote action that changed the situation and guaranteed the girls to reach the minimum level allowing them to carry on with their training.

There are two decision criteria for the candidates to be admitted after they have written the examinations. The first is that being a girl is an advantage in the selection process; the second is having better marks in Portuguese and Mathematics in the certificate of the previous grade and in the entry exams.

In 2005, 210 candidates were selected. Among the 114 admitted candidates, 42 were men and 72 were women.

The tables indicate the distribution of students by years of study and by gender.

Table 44

Numbers of students by Gender -2005

	Groups	Male	Female	Total
First Year	A	15	46	61
	B	26	34	60
	C	32	29	61
	Total	73	109	182
Second Year	A	19	31	50
	B	26	29	55
	C	25	29	54
	D	24	30	54
	E	12	39	51
	Total	107	158	265
Third Year	A	22	25	47
	B	19	28	47
	C	16	32	48
	Total	57	85	142
	Total	237	352	589

4.6.2 Facilities (buildings, classrooms and college physical conditions)



Figure 4.2 Marrere CFPP

The College is located about 10 km from the city centre of Nampula Province, in the rural area.



Figure 4.3 Main building – Marrere CFPP

The Marrere CFPP comprises various buildings, which differ from one another in terms of size according to their function. The main building (See Figure 4.3) comprises classrooms, a Resources Centre (CRE), administrative services, director office and pedagogic office.

Other buildings comprise the pedagogical workshop, school dormitory (Hostel), Health Post, Arts and toilets.



Figure 4.4 Marrere CFPP Hostel

Generally speaking, it can be stated that the classrooms differ from one another in terms of size and equipment. Firstly, the classes are presented at the college and in the annexed school, approximately 50 metres away from the College; secondly, some classrooms are smaller than others, some of them are better equipped than others. Two types of desk can be found in the classroom: one with the table separated from the chairs and the other with them all joined together. Very few classrooms have something fixed on their walls such as maps, figures and so on. Whatever is stuck on the wall is related to class organisation (list of names of the learners who belong to the class, the class leader, group distribution and its members as well as each group leader).

4.7 SUMMARY

The first part of this chapter outlined the history of the College, its features, composition of the management, pedagogical organisation, teacher trainer profile, student population, conditions and requirement, criteria of decision, recruitment, dissemination and announcement.

The second part describes the OP context, aims and objectives. It examined the relationship between Marrere CFPP and the OP and the contribution of the Curriculum of CFPP to the new curriculum for Basic Education.

The new curricular plan for Basic Education adopts participative methods in the teaching and learning process in classroom. This marks a new era of classroom practice in Mozambican primary schools, in which the learner is seen as an active participant and becomes involved in the different activities presented during the class. The learner has stopped being a passive subject. It is admitted and believed that the learner brings some knowledge when he comes to school. Therefore, the role of teachers changes and they are seen as facilitators in the teaching and learning process. The new approach has been tested during the OP in both INSET and PRESET. Under the responsibility of the OP, trainers have been sent to primary schools to teach primary school teachers how to use the new approaches. Before that, the trainers applied the same techniques in the classes at Marrere CFPP. This has resulted in the production of the module used to train primary school teachers dealing with these techniques. The new approach has been incorporated as a law in the new plan for Basic Education. The curricular plan for teacher training (OP) serves as

a basis for the rest of institutions devoted to training primary school teachers at the same level, in Mozambique. The implementation of active methods has faced some constraints because of a lack instructional materials, official policy documents and large classes, among others.

Emphasis will be placed on Integrated Science (*Ciências Integradas*), which was the first proposed designation, and comprised two sub-areas namely Social Science (History and Geography) and Natural Science (Chemistry, Physics and Biology). They are supposed to be two subject areas (Natural Sciences and Social Sciences) and later on one subject area, called Integrated Sciences. For instance, the module produced by teacher trainers during the OP was designated within the scope of Integrated Science. That is, the Integrated Science module comprises Chemistry, Biology and Physics. Nevertheless, the prevailing subjects in Marrere CFPP and primary schools are Natural Sciences and Social Sciences.

The Integrated Sciences seek to develop the training information of the future teachers through an approach that tends to be based in several areas of knowledge (habitually anchored in the subjects of Biology, Physics, Chemistry and Geography, gathered under the designations of Sciences of the Natural and Social Sciences).

In my point of view, an integrated approach implies a radical change for the education system. That is why decision makers have preferred to move on slowly in only two subject areas.

To summarise, the contribution of OP/Marrere CFPP is still valid because it has proposed two areas of study, Integrated Science (Chemistry, Physics, Biology, History and Geography) and subject areas, namely Social Sciences (History and Geography) and Natural Sciences (Chemistry, Physics and Biology). The remaining and accepted proposal is the last one: Natural Sciences and Social Sciences. I would like to emphasise that one of the modules used in PRESET and INSET was called Integrated Science and was published in 2002. The same module was revised according to the last designation (Natural Sciences) and was published in 2005. This shows an attempt to adjust the designation currently in use at Marrere CFPP and primary schools. In spite of content such as energy, environment and living things, the Natural Sciences' module has added the denomination currently in vogue.

“The educational integration of those areas of knowledge seems to be an imperative for teachers’ professional training whose activities are based largely on the creation of learning situations that enforce the children’s actions in contact with the natural atmosphere and in their interactions with others, promoting balanced and global development” (CFPP de Murrupula/Marrere OP, 1998:9).

The upgrading of trainers of the Marrere CFPP was one of the most important actions of OP because at the beginning of its pedagogical activities there were fewer qualified trainers. In order to allow trainers to improve their performance, the OP in collaboration with the Pedagogical University (UP) organised in-service bachelor degree courses, which are presented at Marrere CFPP. The courses take at least four years to complete. The advantage is that they deal with theory and practical changes.

One of the problems that emerge at Marrere CFPP is the moving of teacher trainers, not from the education system but from Marrere CFPP (from 2005 to the present, five trainers left Marrere CFPP). For example, some of them have been called up by the Provincial Directorate of Education in Nampula to take over positions as heads of department in the Provincial Directorate of Education, District Directorate of Education and Primary School Directors. As a consequence, Marrere CFPP had to appoint new teacher trainers, who need some time to become familiar with the system. This problem is aggravated firstly because the new teachers have low qualifications compared to the ones who have left; and secondly, they lack teaching experience at primary school level. For instance, a Craft trainer with high school level and no teaching experience is appointed as the subject head teacher in his second year of experience as trainer at Marrere CFPP.

CHAPTER 5

CURRICULUM ORGANISATION AND CURRICULUM CONTENT

The aim of this chapter is to present the organisation of the curriculum in Marrere CFPP and primary school (Basic Education) and the relationship between both curriculum in terms of areas and subjects. Section 5.1 gives a detailed description of the curriculum in Marrere CFPP. The organisation of the Basic Education curriculum is presented in terms of subjects and areas of study and in comparison with the College curriculum. Changes made at subject level are addressed and discussed in Section 5.2. The weight of subjects is discussed in both curricula and similarities among them are presented in Section 5.3. Social Sciences (Section 5.4.1), bilingual education (Section 5.4.2) and Crafts (Section 5.4.3) as innovations in Basic Education and their implementation at Marrere CFPP are discussed. Community participation in the College activities and production of non-conventional materials are outlined. Section 5.5 presents and discusses the facilities and teaching resources in the Mozambican context, particularly in urban and rural areas. Crafts are presented as responsible for the production of non-conventional materials for other subjects in the College (Section 5.5.1). Finally, the summary is presented in Section 5.6.

5.1 INTRODUCTION

This chapter intends to answer the following research question:

To what extent does the teachers' training curriculum match the Basic Education curriculum and how does it do so?

As outlined in Chapter 1, the curricular plan for basic education has been changed. After Basic Education Curriculum was designed there was a need for changes in the teachers' training curriculum in order to adjust it to that of the Basic Education in terms of areas and subjects. In the light of those changes, explore convergence between both curricular will be explored, namely basic education curriculum and teacher training college curricular, in terms of subjects' areas and respective disciplines and showing their similarities and

differences by giving detailed descriptions of both. Based on the documents, observations and interviews, it should be discussed how those changes enact in practice at teacher training, looking more specifically to the constraints encountered during the implementation of subjects such as Social Science, Bilingual Education, and Craft as a subject responsible to the production of non-conventional materials for other subjects at the college.

5.2 ORGANISATION OF THE COLLEGE CURRICULUM

The curricular plan 7 +2+1 was designed for the first two years of full-time training at the College; the third year was reserved for teaching practice.

The curricular plan for teacher training for primary school comprises the following subjects: Educational Sciences, School Administration and Organisation, Methodology of Portuguese, Methodology of Mathematics, Methodology of Natural Science, Methodology of Social Sciences, Visual and Technological Education and its Methodology, Physical Education and its Methodology, Music Education and its Methodology, Community Development Work. The table below shows all subjects taught for the three-year course (Table 5.1).

Table 5.1

A study plan presenting the weekly time for each area or subject

No.	Areas/and or subjects	Year 1		Year 2		Year 3	
		First Semester Hours	Second Semester Hours	First Semester Hours	Second Semester Hours	First Semester Hours	Second Semester Hours
1	Science Education	4,5	3				
2	School Administration and Organisation			1,5	1,5	Teaching Practice	
3	Methodology of Portuguese	1,5	3	3	1,5		
4	Methodology of Mathematics			3	1,5		
5	Methodology of Natural Science			3	1,5		
6	Methodology of Social Sciences			3	1,5		
7	Visual Education, Technological Methodology	1,5	1,5	1,5	1,5		
8	Methodology of Physical Education	1,5	1,5	1,5	1,5		
9	Methodology of Music	1,5	1,5	1,5	1,5		
10	Pedagogical Practice	6	6	6	12		
11	Craft/Community Development						
12	Teaching Practice						
13	Portuguese Language	4,5	3	1,5	1,5		
14	Mathematics	3	1,5	1,5			
15	Natural Sciences	3	3				
	Social Sciences	3	3				
Total		30	30	27	25,5		

Source: INDE/MINED, 1998

The numbers in the table above correspond to times allocated for each subject. This is the weekly time allocated for the subject of Science Education. 4.5 correspond to 270 minutes, thus each hour corresponds to 60 minutes and 0.5 to 30 minutes.

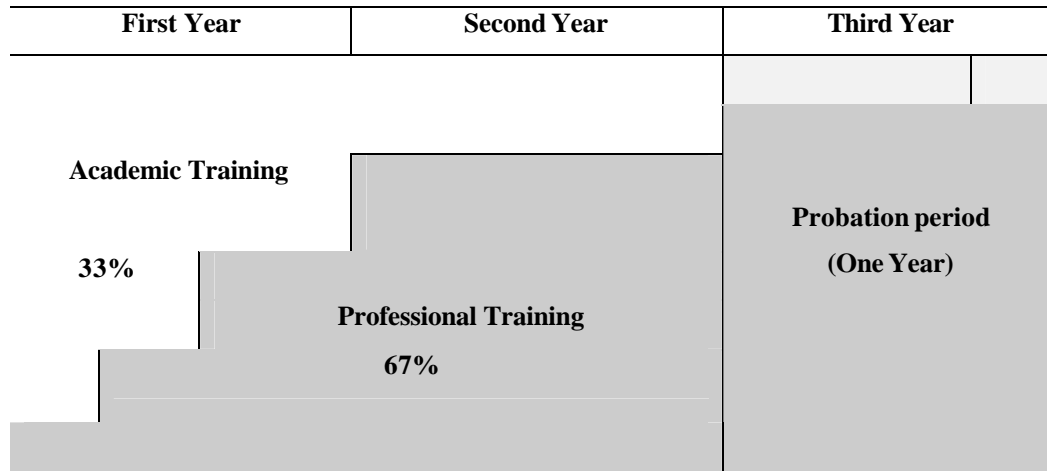
The study plan presented above has a total of 2.250 hours per year, 640 of which are utilised for general training, 1.010 for professional training, and 600 for the pedagogical practices and occupations/community development work. The plan still mediates one year of pedagogic apprenticeship (probation).

However, this study plan emphasises an initial strong reinforcement of the basic scientific knowledge and then slowly moves to professional training, as outlined in the curricular plan for teacher training (see Table 5.2 below). It is imperative that the future teachers master the subject matter. In addition, the future teacher should be able to do the following:

- Master the content in the programmes of EP1;
- Use the proper vocabulary of each curricular area.

Table 5.2

Time distribution of different areas of training



Source: Study Plan Course for Primary Teacher Training (1998:7)

As has been stated in Chapter 2, one of the problems found in primary schools is the large number of unqualified and untrained teachers. It is also well-known that candidates for teacher education at the primary school are those who have lower competence.

After introducing the new curriculum for Basic Education, all subject programmes were adapted at Marrere CFPP to meet the content taught in primary school. However, in general, most of the topics remained the same.

5.3 ORGANISATION OF THE BASIC EDUCATION CURRICULUM

The Basic Education curriculum comprises three major areas of studying, namely Communications and Social Sciences, Mathematics and Natural Sciences, and Practical Activities and Technology.

The area of Communication and Social Sciences comprises the following subjects: Portuguese, Mozambican Languages, English, Music Education, Social Sciences, Civic and Moral Education. The area of Mathematics and Natural Sciences includes the following subjects: Mathematics and Natural Science, while the Technology and Practical

Activities area comprises the following subjects: Arts, Crafts (Practical Arts) and Physical Education.

The new curriculum for Basic Education was designed and introduced in Mozambican primary schools in 2004. This curriculum is characterised by the introduction of some innovations, which make it different from the old curriculum. What was changed? The new subjects introduced in the curriculum are English, Crafts (Practical Arts), Civic and Moral Education and Musical Education. This means that these subjects were not part of the old curriculum and note that these subjects were introduced during the OP in the Marrere CFPP curriculum.

In spite of these changes that occurred in the College, Crafts is still a subject taught without an official programme that guides the teacher trainers in terms of lesson planning, and consequently, facilitating the teaching and learning process in classroom becomes a challenge to most teachers. How important are these changes? First of all, the subjects and their respective programmes used during the OP constitute a basis for the decision makers to produce the study plan for Basic Education. The content of the programme for OP serves as basis to form the new programme for Basic Education. Note that the groups of authors from INDE, who designed both programmes for the primary school and for Marrere CFPP, are the same. After the introduction of the new curriculum for Basic Education in primary schools all over the country, a process of adjusting the Marrere CFPP programmes was initiated, taking into account the new programme for Basic Education.

What has remained unchanged? Despite the innovations taking place in the new curriculum, there are some classic or traditional subjects that have remained the same for years, namely Mathematics, Portuguese and Physical Education. The new ones are Crafts, Social Sciences, Civic and Moral Education.

Table 5.3

Primary school curriculum versus Marrere CFPP curriculum

Comparison between the curricular plan for Basic Education and teacher training

Areas	Subject (Basic Education)	Subject (Marrere CFPP)
Communication and Social Sciences		Sciences of Education School Administration and Organisation Probation
	Portuguese	Portuguese
	Languages Moçambican-L1 Portuguese-L2	Methodology of the Portuguese Language
	English Language	
	Music Education	Music Education and Methodology
	Social Sciences (History, Geography and Moral and Civic Education)	Methodology of Social Sciences Social Sciences
	Moral and Civic Education	-
Mathematics and Natural Sciences	Mathematics	Mathematical Methodology of Mathematics
	Natural Sciences (Biology, Physics and Chemistry)	Natural sciences Methodology of Natural science
Practical Activities and Technology	Craft	Pedagogic practices / Work of Community Development
	Visual Education	Visual Education, Technology and Methodology
	Physical Education	Physical Education and Methodology

Source: MINED/INDE, (1999) & (2003)

According to the curricular plan for Basic Education (PCEB), English Language is taught as subject only in the third cycle (Grade 6 and 7). In this case, it does not correspond with the curricular plan for the College because the CFPP graduate teachers are going to teach at EP1, that is from Grade 1 to 5, where there is no English. In other words, English as subject can be learned in Grade 6 and 7 (third cycle). This means that English as subject does not appear in the study plan for teacher education at this level.

As can be seen, the PCEB (INDE/MINED, 2003) is organised into three study areas, namely Communication and Social Sciences, Mathematics and Natural Sciences and

Practical Activities and Technology. Each area comprises different subjects. The curricular plan for teacher training is organised in terms of professional and academic subjects.

To compare both curricular plans in terms of areas and their respective subjects, we need to match the areas and their subjects from one curricular plan to those of the other. The organisation of the curricular plan for Basic Education was taken as a basis for comparison. All subjects integrated in the curricular plan for Basic Education have their correspondent in the curricular plan for teacher training at the College, except for the professional subjects, which constitute the specificities of the curricular plan of Marrere CFPP, namely science education, school administration and organisation, and the methodology of specific subjects. I would like to emphasise that, for example, in the curricular plan for the College (INDE, 1998, 1999 and 2004), we can find Natural Sciences and their methodologies. In practical terms there are two programmes in one: Natural Sciences and methodology of Natural Sciences. The methodology of Natural Sciences is concerned with techniques on how to teach the corresponding content in the classroom in primary school. Generally speaking, it is not the same teacher who teaches those subjects. For example, one teacher teaches methodology of Natural Sciences and another teaches Natural Sciences as a subject.

5.4 THE WEIGHT OF THE SUBJECT

The Portuguese language in the primary school curriculum occupies the first place in terms of weight, followed by Mathematics and the remaining subjects have almost the same weight. This scenario is applicable to the monolingual programme, with two or three shifts in primary school. In the bilingual programme, the scenario is similar, and the emphasis is placed on the local languages.

In relation to the curricular plan for teacher training, the weight of the subjects is the same as in the primary school curriculum. For instance, in academic subjects, Portuguese is in the first place and is followed by Mathematics; in professional subjects the scenario is similar. The methodology of Mathematics follows the Methodology of Portuguese. It is important to stress that the curricular plan for teacher training places greater emphasis on professional subjects.

The composition of the curriculum is similar worldwide and the curriculum for primary education is similar in terms of subjects and importance assigned to individual subjects (Bonavot & Kamens (1989) in Lockheed & Verspoor, 1991).

In the same vein, it has been consistent in emphasis and steady in primary school language skills, mathematics, science, social studies and arts have time, and other areas are assigned less time (Lockheed & Verspoor, 1991).

This raises the following question: Do all subjects have equal value? There is recognition by stakeholders that skills, English and Mathematics are equally important, however, in practice skills is given less importance. Only very few pedagogues are likely to implement such equality (Callewaert, 1999).

In short, languages and Mathematics continue to have more prestige than other subjects, including practical subjects.

In general, we can say that there are convergences between the primary school curriculum and the curriculum for the teacher training college, except for the subjects Science Education, Management and School Administration and specific methodology found in the Marrere CFPP because of their nature. However, the organisation is different. At college level the organisation is based in two axes, namely professional subjects and academic subjects, while the study plans of Basic Education are organised around three areas or subjects, namely Communication and Social Sciences, Mathematics and Natural Sciences, and Practical Activities and Technology.

I would like to return to the departure point, which is that learners as prospective teachers at Marrere CFPP have only to learn the content that they are going to teach in primary school.

5.5 RESTRUCTURING THE CONTENT OF THE NEW CURRICULUM

5.5.1 Social Sciences

Social Sciences are defined as “any subject or branch of science that deals with the socio-cultural aspects of human behaviour. Generally, the Social Sciences include cultural anthropology, economics, political science, sociology, criminology, and social psychology.” In addition, Social Science “is a term for any or all of the branches of study that deal with humans in their social relations.” <http://www.answers.com/topic/social-sciences>.

Byrnes (1996:206) defines Social Sciences as “the social studies that consist of an interrelated set of topics related to the history, environment, economics, lifestyles and governments of peoples who live in this and other regions of the world.” In addition, (Schunk, 2000:294) states that “social studies typically are viewed as comprising history, geography, civics, and political science, economics, psychology and sociology may also be included.”

Unclear definitions of Social Sciences as subject lead to confusion. There is the undefinition of the new subject profile. It was once considered for teaching generic notions and concepts of the subjects it consists of. Then it was considered the synthesis of geography and history (Fonseca, 2001). And the Portuguese experience of the introduction of Social Science such as undefinition of its objectives (Felgueiras, 1994).

From these definitions we can conclude that there is no doubt that Social Sciences are a branch of science that deals with the relationship between human beings; however, it is still unclear and difficult to characterise the subjects covered by this branch of science.

In order to determine how some Mozambican teachers perceive Social Sciences as a subject, recent studies conducted at different secondary schools all over the country concluded that teachers ignore or have different concepts of what concerns Social Sciences are. Among the definitions given, it is possible to distinguish common aspects such as the following:

“Social science as joining of history and geography; as a science that has the human being as its study object as a science that studies the human being as related to the society. ... In other cases, some teachers are confused about the concept of Social Sciences as a subject” (Sengulane et al., 2005:7).

It was said early in Chapter 4 that Social Sciences is one of the innovations that comes from the OP that was introduced in the new curriculum for Basic Education.

The study plan for the teacher training course in Basic Education (1998) clearly states that History and Geography and Moral and Civic Education compose the Social Sciences. The curricular plan for Basic Education (INDE/MINED, 2003:37-38) states the following:

Social Sciences have contents of history, geography and moral and civic education; they try to develop abilities and basic competences to recognise the past, to understand the historical process, to place the events in the space and in time; to know and to locate the physical aspects, such as the geographical and economic aspects of the country, of the continent and of the world in general; to know their rights and duties; to respect the rights and faiths of other people and to show attitudes of tolerance and of solidarity.

In the context of South Africa, “two main school subjects fall into this learning area, viz. Geography and History. At tertiary level there are dozens of Social Sciences subjects, such as psychology, sociology, education, political science, law and philosophy” (Jacobs, 2004).

Examining the programme of Social Sciences used by the College we can see and understand that this subject is the sum of two subjects, namely History and Geography. Thus, there is a problem when we refer in depth to the programme of Social Sciences. We can conclude that the content is not organised in an integrated manner as a whole. The content of Geography appears first, followed by the content of History or *vice versa*. The integration of the content in the curriculum is one of the major concerns of the curriculum for Basic Education. It is an attempt to avoid higher compartmentalisation of the curriculum, which was the main characteristic of the old Basic Education curriculum.

According to the Curricular Plan for the Basic Education (INDE/MINED, 2003)

“the introduction of Social Sciences represents a new concept in the curriculum. It includes history, moral and civic education, and geography. At the primary level, all of these subjects are to be taught in an integrated manner. The concept of the different subjects, in other words, is not being handled in an isolated manner, but it is within a specific context based on the thematic units. The role of the Social Sciences in the context of basic education, according to the Social Sciences curriculum, is to contribute to the civic education of the citizens, so they can live well integrated into the environment and participate actively into the economic development of the country.”

In the first learning cycle, the content of the Social Sciences (including the cross-cutting curricular approach of Moral and Civic Education) is integrated in the subject of Natural Science. Starting from Grade 4, the Social Sciences are dealt with as a separate subject. The Mozambique territory is studied in Grade 6. In the third learning cycle, Grades 6 and 7, the African continent is approached in its physical, economic, social, and historical aspects (Tovela, no date).

Why is it important to integrate the approach or to change subjects into learning areas? Jacobs (2004:65) asserts the following:

“An integrated approach to knowledge is one of the basic principles of OBE because it is believed that the single subject approach causes learners to ‘specialise’ at too young an age, and therefore limits their options for finding employment when they leave school. The labour market for school-leavers demands general skills rather than subject knowledge to give young people first better first job opportunities in general junior positions such as office assistants, waiters, factory workers, messengers, painters, handymen and shop assistants. An integrated approach usually means that learning is centred upon a theme. For example, a child learns to look at a tree from different perspectives: as a biological entity, as an economic commodity, as a topic of conversation, as an object of art and as a technological raw product.”

Taking into account that prospective teachers are going to teach Social Sciences as a subject in Mozambican primary schools, it is important for them to learn at College how to teach it in an integrated manner before they go to real schools. However, the annual syllabus of the Social Sciences group (2006) presents Geography and History content separately. Consequently, prospective teachers are likely to leave the College without knowing how to deal with the subject in the integrated manner. In other words, prospective teachers will face great difficulties in dealing with an integrated approach in a classroom setting. The principle is that one teaches as one has been taught.

The topic of Social Sciences has appeared as an innovation in Mozambique because it joins the content of three subjects, namely History, Geography and Moral and Civic Education. The content of the three subjects should be treated as one. Initially, the Social Sciences programme at Marrere CFPP included only the content of History and Geography. Later on, it took into account the curricular reform carried out for Basic Education. Now, Social Sciences include History, Geography and Moral and Civic Education.

To summarise, it is important to emphasise that Social Sciences as a new subject introduced in the new curriculum for Basic Education differ from the Social Sciences introduced at Marrere CFPP in terms of the content and subjects (see CFPP Murrupula/Marrere /Projecto Osuwela, 1998a; 1998b). For instance, the study plan for Basic Education states that the Social Sciences are composed of three subjects, namely History, Geography and Civil and Moral Education, while the study plan for the teacher training college states that Social Sciences are composed of History and Geography.

Social Sciences in the Basic Education curriculum are supposed to be approached in an integrated manner, while at colleges the content of History and Geography appears in separate programmes. This means that the content is taught independently. Prospective teachers who are going to teach in primary schools should be trained to be able to approach Social Sciences in an integrated manner. This does not happen at College.

According to Jacobs (2004:65), “an integrated curriculum teaches learners to have better problem-solving skills while a single-subject curriculum leads to students adopting a fragmented approach to problem-solving. A fragmented approach makes learners think of only one or two solutions instead of many.” Similarly, it can be concluded that Social Sciences as subject both in Basic Education and at teacher training colleges should be composed of History and Geography, except for Civil and Moral Education, which is integrated in the Social Sciences as a subject in Basic Education. In other words, Civic and Moral Education does not form part of Social Sciences at teacher training colleges. This subject appears as an independent one. Moreover, Civil and Moral Education as subjects follow an integrated approach in classrooms for Basic Education.

5.5.2 Bilingual education

Benson (2000:149) states the following:

“Changing the language of instruction in Mozambique required an unprecedented acknowledgement on the part of Ministry of Education officials that Portuguese, the official language of the country and its schools since colonial times, was not the mother tongue of the overwhelming majority of citizens, nor was considered the best language for primary schooling.”

Taking into account that effective learning occurs when instruction is conducted in the language that the learner knows best, it would seem logical that the medium of instruction in rural areas be the mother tongue. But this does not happen in Mozambique (Moíses, 2005).

“Interest in the use of Mozambican languages in primary schooling began to grow in the late 1980s, particularly among a group of linguistic scholars at the national Eduardo Mondlane University (UEM) in Maputo. Along with educational researchers at INDE and representatives of relevant governmental and non-governmental organizations, they organized a series of seminars to discuss pedagogical and linguistic strategies in order to improve the basic education in Mozambique. Most of these scholars believed that the exclusive use of Portuguese created a barrier to learning, and was at least partially responsible for the repetition and drop-out rates which characterized the national system” (Benson, 2000:152).

This point of view is underscored in the following quotation:

“The general use of Portuguese as medium of instruction brings consequences such as failure and drop-out, reduction of participation in the classroom, especially for girls, it deprives the students of their culture. Taking into consideration the consequences of using Portuguese as the medium of instruction, the results of the consultations with the civil society namely parents, community leaders, members of religious, members of parliament, chancellors of universities, teachers, students and the recommendations of the experts and educational officers/advisers, the Mozambican Government introduced Mother Tongue Based Bilingual Education, in primary schools as a part of the new curriculum” (Moíses, 2005).

Bazilashe, Dhorsan & Tembe (2004:233) declare the following:

“Mozambique is a country that possesses, like many other African countries, linguistically homogeneous areas (mostly rural) and heterogeneous ones (urban and per-urban areas). Several cultures and, consequently, several languages converge in these areas, and the pupils there speak Portuguese as the mother tongue or the L2. In linguistic contexts of this nature it is not possible to apply the proposed model of

bilingual education, because its application presupposes that the pupils and the teacher share the same language.”

From a pedagogical point of view, the ideal situation would be to ensure that initial literacy skill acquisition occurs in the mother tongue. However, economic and logistic constraints do not allow bilingual education programmes to cover the whole country in the short or medium term. We should therefore conceive a strategy in which local languages may be used as auxiliaries of the teaching-learning process, especially in rural areas where Portuguese is hardly used. This is why the Curricular Plan for Basic Education (2003) advocates the use local languages as a resource, with appropriate methodologies.

When we look at the study plan for teacher training colleges during OP, we can see that there is lack of a subject that teaches one how to deal with local languages or how to use bilingual education. However, Mozambican languages are being used in some primary schools in three different ways, as mentioned in Chapter 4.

The Curricular Plan for Basic Education was introduced in 2004 but no subject related to bilingual issues has been introduced at College so far. This means that bilingual issues are not being addressed, although teacher trainers at College are aware of the introduction of bilingual education in primary schools and sometimes they mention it in the classroom.

Once bilingual education has been introduced in primary school, there is a need to adjust the study plan of the teacher training at college to provide prospective teachers with competencies and abilities to deal with issues relating to bilingual education. It is important to emphasise that Mozambique is a linguistically heterogeneous country with approximately 20 local languages.

The deputy director of Marrere CFPP confirmed that no aspects related to bilingual education were being taught at the college, but he was not able to give us plausible reasons for this state of affairs. This innovation has not been introduced at the college because of a lack of specific programmes and materials as well as qualified teacher trainers for bilingual education.

During the fieldwork I observed that occasionally a teacher trainer of Portuguese told the prospective teachers that they would have to use local languages as an auxiliary resource in primary schools during class activities. One consequence of the lack of training in bilingual education is that when teachers are faced with the need for local language as an auxiliary resource, some primary school teachers merely translate the whole sentences from Portuguese to the learner's mother tongue.

5.5.3 Craft as subject - Practical Arts

Crafts as a subject fills a gap in the curriculum of Basic Education and it meets the demands of the civil society. Its content develops learners' abilities and skills to produce useful objects with the purpose of improving their life world and that of the community through the use and sale of these objects (INDE/MINED, 2003a; 2003b).

The introduction of Crafts as a subject “is applied to all of the learning cycles to develop the practical activities necessary for the learners' integration in their community” (Bazilashe, Dhorsan & Tembe, 2004).

“Craft as a subject will develop the student’s skills and competences in activities such as sculpture, craft, cookery, farming, sewing, gardening, agriculture-cattle/raising, fishing and others. This subject appears to meet the need of endowing students of useful skills for their lives” (INDE/MINED, 2003:39).

Before we go further, it is important to note that although Crafts as a subject appears in the curricular plan for Basic Education (PCEB), it is being taught without an official programme at College.

The study shows that policy seldom meets practice in the classroom. Any subject should have a programme to provide the content and guidelines for teaching and assessing the content. However, classroom implementation does not always happen according to a programme.

In summary, according to the analysis of the content-based syllabus (2005 and 2006) of Crafts, it can be concluded that there is no convergence between the primary school's programme and the content of Crafts taught at College. Due to the lack of a programme,

teacher trainers themselves decide what they are going to teach. In general, most of the content taught in the CFPP in Crafts matches the content taught in the third cycle (EP2 - Grade 6 and 7). Prospective teachers learn something different from what they are going to teach in primary school. Moreover, in general, they are taught the content of Crafts but they are not taught how to teach it.

Community participation in College activities

I would like to supply a brief description of what was considered Crafts as subject when it was introduced in 1999 at Marrere CFPP. As already stated above, this subject is more practical than theoretical. In other words, the main ideas were to deal with practical activities such as sculpture, craft, cookery, farming, sewing, gardening, agriculture-livestock, fishing, carpentry and others. A building was made available for Crafts classes and it was called CATEC, standing for *Casa de Artes Tradicionais e encontros Comunitários* (see below). The name suggests the house of traditional crafts and community meeting; this is the place where different stakeholders meet, namely teacher trainers, learners and community participants. Community participation is necessary to carry out these activities. This is done by finding people in the community who are experts in the field to teach trainees about specific Crafts aspects, for example agriculture-livestock, farming, sewing, etc.

The curricular plan for Basic Education clearly states that the local potential in the community should be utilised in the interest of the students (INDE/MINED, 2003:57). It is within this spirit that the College has tried to bring experts in certain occupations to teach the learners to do practical work and to produce different objects.

School management is responsible for formally contacting and bringing the experts into the College to teach the learners how things work or are made. The first constraint pointed out is the problem of payment. The experts claim payment after teaching the practical activities because people do not feel part of the programme or of the College.

After this negative experience a model which avoids facing this kind of problem was adopted. Learners who have experience or skills in a certain field now teach the others. The weakness of this initiative is that learners with experience are not always available in all fields.



Source: photography taken by the researcher (CATEC)

Figure 5.1 The house of traditional crafts and community meeting

Production of low cost material (non-conventional materials)

One of the most important initiatives undertaken during the OP was the production of instructional materials using local resources. The main objective was to make trainees aware of the shortage of resources in schools. This was done in order to prevent them from waiting for conventional materials before facilitating the teaching and learning process. By the end of the training each prospective teacher was supposed to have produced her/his kit of instructional material for use in primary schools. The main idea is that, taking into account that most of the prospective teachers are probably going to work in remote areas where there is a lack of instructional material, they would be able to mitigate this problem. Most of the primary schools do not have a library where teachers and pupils may read books, etc.

During this study I observed that Marrere CFPP has one building called *Oficina Pedagógica*, where the low-cost didactic material produced at college is exhibited. I have seen teaching materials such as wooden chairs, wires, covers for refreshments and rulers made of paper produced during Crafts classes.

It cannot be taken for granted that any prospective teacher ever produces his/her own kit of instructional material and takes it to the school where he/she wants to teach. According to

the interviews, it seems that currently the production of instructional material using low-cost materials is the responsibility of Crafts. There is no doubt that this practice is really an answer to the lack of some instructional material in most schools in Mozambique, especially in primary schools.

To illustrate what was stated above about non-conventional materials, see the picture below.

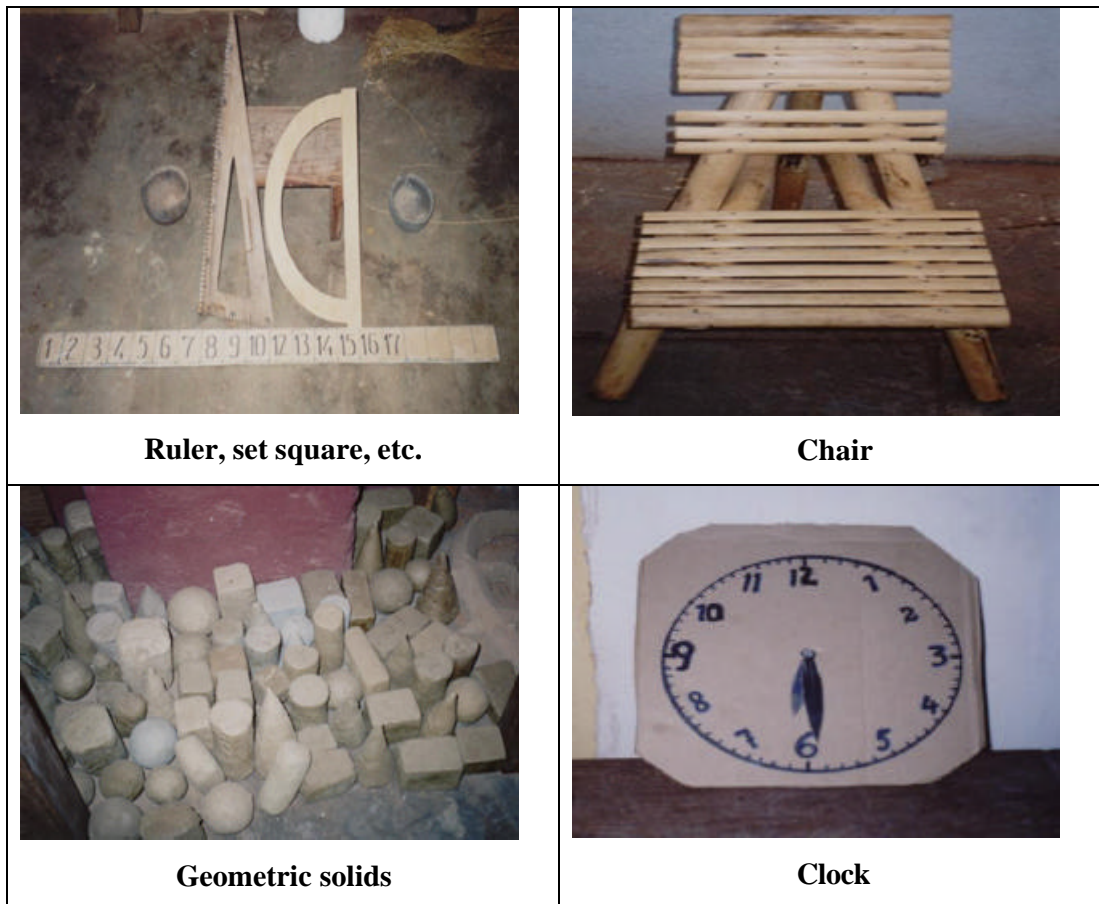


Figure 5.2 Non-conventional materials



Figure 5.3 Non-conventional materials

“We develop material all the time in **OSUWELA/CRESCER**. However the idea is to develop materials with teachers and teacher trainers in accordance with the teaching and learning strategies that are proposed in the modules. This is also carried out in accordance with the context in which teachers are currently working. We therefore tend to avoid sophisticated materials and encourage teachers to improvise materials using local resources ...”¹.

She was a pedagogical adviser during the OP at Marrere CFPP and now she works at Ministry of Education and Culture and she is responsible for the CRESCER programme.

Most of the teacher trainers interviewed stated that Crafts is responsible for producing supplementary teaching materials for other subjects taught at the College. The trainers who teach Crafts are of the same conviction:

“We have produced for natural science mats, reed mattress, etc. We have produced some pipes, globes for Mathematics. For instance, make a ... cone, of paper; we implemented those things so that other disciplines can use them.”

¹ Information given by Hooker. She was a pedagogical adviser during the OP at Marrere CFPP and now she works at Ministry of Education and Culture and she is responsible for the CRESCER programme.

The teacher who teaches this subject confirmed that there is no official programme for this subject. For lesson planning he used notes from the IMAP of Nampula and some private books. The content is based on the Basic Education programme.

He recently (2004) graduated from IMAP. It was his first experience as teacher at college. He never taught before at any school, even in primary school.

The instructional material produced during the learning activities is kept at the pedagogic workshop, the *Oficina Pedagógica*. This venue is no longer used for its original purpose; it is now a storehouse. The initial function of the pedagogical workshop was to produce teaching materials.

The chairs produced in 2006 had two destinations. The best chairs were put in the visiting room at the student hostel and the others were put under the trees for the students.

5.6 FACILITIES AND TEACHING RESOURCES

In this study facilities refer to what the classroom is made of, size of classroom, table, chair, illumination conditions, window, etc., while teaching resources refer to learning materials such as books, textbooks, maps, posters, etc.

Facilities and teaching resources play an important role in the teaching and learning process in any school - even in primary schools, and in teacher training institutions.

Basic learning materials are scarce in the urban and peri-urban Mozambican primary schools. "The quality of educational facilities is often poor" (MINED, 1998).

In the interviews conducted, teacher trainers complained about the lack of teaching resources (books, textbooks and teachers' guide), more particularly in their areas of study. For example, Portuguese trainers complained about lack of grammar books, dictionaries and textbooks for primary school (from Grade 1 to 5). They said that during the OP the library of Marrere CFPP was an obligatory reference for everybody from secondary school

to university. Students from both institutions used to go to the College library because of its richness and diversity of books.

After some time several books gradually disappeared. The relevant books are now kept in boxes called “*baú pedagógico*” (see below).



Figure 5.4 Boxes (*Baú Pedagógico*)

Nampula City is not rich in books related to the pedagogical activities. The inaccessibility of books affects the pedagogical activities because learners do not have opportunities to read. Most of the time student reading is limited to reading exercise books, which is unsatisfactory. Another constraint is that Marrere CFPP is far from Nampula City, and internal students do not have enough time to move from Marrere to Nampula City to consult books.

5.6.1 Textbooks and materials

Heneveld & Craig (1996:34) state the following:

“The research evidence that the use of textbooks has a significant impact on student learning is considerable. Their impact is even better when there are supplementary reading materials and when teachers have guidebooks for the texts that describe what to teach, how to teach it, and how to assess student learning.”

In the case of Marrere CFPP, the lack of student and teacher textbooks does not allow trainers the opportunities to visualise and familiarise themselves with the contents taught.

Cohen, Raudenbush & Ball (2000, 2002, and 2003) state the following:

“Researchers report that schools and teachers with the same resources do different things, with different results for learning. Resources are not self-enacting, and differences in their effects depend on differences in their use. ... Resource has no direct effects, but that their effects depend on their use.”

In this study I regard resource material as books and other teaching media such as pamphlets, etc. “Most primary school students attend school on double shifts and in urban and peri-urban areas triple shifts are common. Basic learning materials are scarce in many schools” (MINED, 1998).

In principle, “the curriculum should build on the knowledge that children bring to school; it allows regions and communities to adapt the curriculum in their schools to local demands and preferences, including the increased use of maternal languages and teacher-produced materials in the classroom” (MINED, 1998).

5.7 SUMMARY

In this chapter I have discussed the convergence of both the study plan for Basic Education and the study plan for the teacher training college in terms of areas and the respective subjects. It can be concluded that, in general, there is convergence of both study plans in terms of subjects areas, except for some specific subjects, which we call professional subjects, only found at Marrere CFPP.

However, the emphasis is on the gap between policy and practice. Social Sciences, which comprise History, Geography and Moral and Civil Education, are supposed to be taught using an integrated approach, but this does not happen at Marrere CFPP.

Despite the relationship between the Basic Education curriculum and College curriculum, it is important to emphasise that there is a need to provide both trainers and prospective teachers with the necessary skills to be able to deal with the integrated approach outlined in the curricular plan for Basic Education, more particularly in Social Sciences. Organising and stating the intention of policies is not enough; it is also necessary to meet all requirements in order to achieve them. Intentions are located at the rhetorical level because the lack of practice is explained by lack of knowledge to implement such intentions.

It has been stated above that preference is given at College to the content that prospective teachers are going to teach in the near future. This means that during training special attention is given to the content which covers the Basic Education curriculum from Grade 1 to 5. This is because of the low competence acquired by the learners by the time they join the College. In addition, the entry requirements are very low. Mozambique perhaps has the lowest entry level - Grade 7 or its equivalent - to be admitted to teacher training colleges in Southern Africa. I believe that if we need good teachers, their background must be better than this. We should remember that we are living in the 21st century; entry requirements must reflect this period.

Lockheed & Verspoor (1991:115) point out the following:

“A key determinant of student achievement is the quality of training. An effective teacher should possess at least a thorough knowledge of the subject matter being taught, an appropriate repertoire of pedagogical skills, and motivation. The teaching force in many developing countries fails to meet these standards.”

Not only is mastering content important in a teacher training curriculum, but also providing the necessary tools or strategies for teachers to teach effectively in the classroom. Content and pedagogical skills complement each other. Teachers should have knowledge of subject matter and appropriate strategies to teach them.

Another important aspect is that instructional materials should be relevant to and adequate for the age and interests of the learners.

Much is still to be done before practice meets policy. It seems that changes are not being implemented effectively.

CHAPTER 6

TEACHERS' UNDERSTANDING OF THE NEW CURRICULUM

The aim of this chapter is to present teacher trainers' perception of the Basic Education curriculum reform with the focus on a learner-centred approach and an interdisciplinary approach in Section 6.1. The implementation process is presented in Section 6.2 and discusses the obstacles to implementation in Section 6.2.1 and to the training process of the teacher trainer in Section 6.2.2. Key characteristics of the curriculum, namely learner-centredness (Section 6.3.1) and interdisciplinarity (Section 6.3.2) are discussed in Section 6.3. And finally, conclusions are presented in Section 6.4.

6.1 INTRODUCTION

This chapter intends to explore the teachers' views of the new curriculum reform for Basic Education, as well as to understand the concepts *learner-centred approach* and *interdisciplinary approach* as the main and fundamental part of the new curriculum for the Basic Education introduced in Mozambique in 2004. This chapter also discusses teachers' points of view on constraints to the implementation of a policy, particularly the case regarding the implementation of the new curriculum for Basic Education at Marrere CFPP.

6.2 IMPLEMENTATION

6.2.1 Obstacles

In the implementation process of curricular reform there are some constraints that may impair its implementation by the teachers as key agents. It means that policy rarely meets practice in classroom. In the case of Marrere CFPP, teacher trainers pointed out some constraints resulting from the process of implementation of the new curriculum, as the following quotation illustrates:

“I think that the new curriculum for Basic Education is welcome, but we are facing many problems related to teaching material. We don't even have the new books for the new curriculum. We have asked for the directorate of Marrere CFPP to contact the

directorates of Nampula City which is in charge of making the free distribution of books, but we haven't had a plausible answer yet. If only we could get the material for year three which is having teaching practice in a near future. They will face difficulty in the teaching practice. Some schools haven't received material so far. Our school has large classes, but not as large as those they will find when they finish their course. So they will face many difficulties."

It must be clear that teacher trainers are worried about the lack of instructional material, namely books, because some content is complex and appears in the curriculum for the first time. It is worth remembering that the current programmes of the CFPP of Marrere were readjusted in the light of the new curriculum. There has also been an effort to reconcile teaching and learning strategies to the large number of learners in the classroom. I expected teacher trainers to mention the lack of PCEB as a basic policy document containing the philosophy of the new curriculum. This is a document that orientates users about the pedagogical implications of the new curriculum.

During the fieldwork in 2005, I observed the existence of the programme and the absence of student books in the library.

There are a reasonable number of teaching programmes available in library, namely those of the first, second and third cycle, but there is no PCEB that explains Basic Education. There are programmes for every subject, but there is a lack of books on Basic Education and the content to be taught. This scenario has changed slightly during the research conducted in 2006, as Marrere CFPP received some teacher and students' books (a reasonable number of books) for all subjects from Grade 1 to 7, which comprises Basic Education. These books were kept in the deputy office. If teacher trainers want to use any books they go the deputy office and sign a paper and get the books. This procedure prevents theft of the few books available. These materials reduced the dire need for students' and teachers' books. There is no security for making student books available to everyone in the library. As has been mentioned in Chapter 4, it is a paradox that the most significant books were "well kept" in the cases "*baú pedagógico*". The acquisition of new books was useless because they would neither benefit the teacher trainers nor the trainees since they were kept in cases.

In summary, none of the teachers mentioned the need for a curricular plan for Basic Education as an obligatory policy document, which would prescribe the mission and

philosophy of the Basic Education System; they referred to the lack of books only. One teacher trainer said the following:

“I think that we should get only some training advice because the centre should have received the new material such as the students’ books. The trainers would then discover the most difficult areas that the trainee would face his graduation at primary school as prospective teacher.”

Teachers expected to receive instructional material relating to the new curriculum in time before implementing the new curriculum; this would help them develop the content prescribed in the new programmes. At least 15 of 26 teacher trainers interviewed at Marrere CFPP said that they had a problem concerning instructional material. It is worth mentioning that there is the lack of books to aid the teaching of each subject and of students' book.

The introduction of new content that they are not familiar with challenges the teacher. For instance, in the subject Crafts there is content such as weaving and modelling or moulding for which the teacher trainer needs the necessary literature. Teacher trainers are concerned about the fact that the materials related to the new curriculum are not treated as a major concern as the PCEB prescribes. One teacher trainer talked about the lack of literature on teaching methodologies; is worried about how the content should be taught.

It is important to highlight that when teachers were asked to talk about the new curriculum for Basic Education, they emphasised constraints, e.g. the lack of instructional material related to the new curriculum for Basic Education.

All the teachers that were interviewed confirmed that they had heard about the reform from different sources of information. Some heard about the new curriculum by participating in training in primary schools and others by participating in seminars about the new curriculum for Basic Education organised by INDE.

It is also important to focus on what the interviewed teachers said before answering the questions on curriculum reform for Basic Education in Mozambique. Some teacher trainers stated that the need for instructional material was the major constraint. They referred to student books, saying that the College had not received new student books

related to the new curriculum. Besides talking about student's books, they also referred to the lack of the teachers' books as supporting material to teach the subjects. These complaints could be considered positive because they are concerned with teaching and the management of primary school student books, with which prospective teachers must get acquainted. However, one of the major concerns of primary schools authorities is to prevent teachers from using students' books as a key instrument in the planning of their lessons. The key instruments for planning lesson are still the programme of each subject, such as the programme for Social Sciences, the programme for Natural Sciences, the programme for Mathematics, and so on.

6.2.2 Training

Any curricular programme requires that those who are going to implement it be trained to be able to deal with it. Mozambique is no exception. There was a seminar for the teacher trainers of Marrere CFPP organised by INDE/MEC to prepare teacher trainers for the new curriculum.

The Deputy Director of Marrere CFPP confirmed what has been said above:

“Concerning implementation of the curriculum, we have had a week seminar facilitated by technicians from INDE. Every teacher trainer got acquainted with the Curricular Plan for Basic Education, materials for every area, programmes as well as the content of the curriculum.”

Besides the pedagogic director, three teacher trainers who participated in the study supported the deputy director when he said that there had been preparation for the introduction of the new curriculum for Basic Education. One of the preliminary actions was the seminar (2004) for all teacher trainers of Marrere facilitated by INDE, the institution that was in charge of designing the new curriculum for Basic Education. It was hosted at Marrere. The current programmes at Marrere CFPP and the programmes for Basic Education were readjusted and made compatible with the requirements of the new curriculum for Basic Education.

It means that the introduction of the new curriculum for Basic Education made it necessary to empower teacher trainers of Marrere and other primary teacher training institutions. The

seminar took place at Marrere and lasted for one week. Some teacher trainers say they participated in the seminar; others say they did not. According to the report by INDE, every teacher trainer of Marrere CFPP participated in it, and this can be evidenced by the signature of each participant. The person in charge of pedagogic affairs also says they all participated.

Although three teacher trainers said they had participated in a seminar, they did not remember the issues that were addressed. Two of them say that the seminar was too short so the content could not be elaborated on.

In my opinion the seminar was short because of financial constraints suffered by the Ministry of Education and Culture. After the seminar, teacher trainers were expected to have a more profound knowledge resulting from reading documents distributed during the seminar. Only three PCEB, which are key documents, were provided. It was expected that the institutions would make copies for each teacher trainer to have a deeper reading. The PCEBs were kept in the pedagogic office. Concerning syllabuses, teachers' own subject syllabuses were distributed to them. This might have made them place more emphasis on their own subject area. This explains why teacher trainers talked more about their own subjects.

It was also clear that most of the interviewed teachers had received information about the new curriculum for Basic Education from the Ministry of Education and Culture through the seminar.

6.3 KEY CHARACTERISTICS OF THE CURRICULUM

6.3.1 A Learner-centred Approach

Teacher don't understand

Before we go to what teacher trainers understand by the concept *learner-centred approach*, I would like to highlight that at least three teacher trainers did not answer these questions. They alleged that they did not know the new curriculum for Basic Education. However, this answer contradicts those of the deputy director and other teacher trainers, according to

whom every teacher trainer had taken part in the seminar that was organised by INDE on the College premises.

These trainers did not answer the question because they did not know the Basic Education curriculum. They know very little about it, but the essence of learner-centred teaching does not depend on knowing the curriculum, since in the Basic Education curriculum plan the principle of learner-centred teaching is mentioned but not developed as a concept.

Teacher understanding, belief and attitudes

Let me present five quotations showing similarities and differences from teacher trainers that the researcher found most relevant to illustrate the understanding that these teacher trainers have about a learner-centred approach and its applicability at Marrere CFPP:

MZG: What do you understand by a learner-centred approach?

Learner-centred approach is an approach wherein the learner is the centre. Differently from what used to happen before, when the teacher was the great orator. In learner-centred approach there is an attempt to make the learner active. For him not to be passive, this is the present situation. The learner is only listening to the teacher, who is the great orator, explaining what he knows. The learner just listens and writes. In learner-centred approach the learner must be active and he searches for knowledge. The teacher now is a facilitator. He organises the work (teaching and learning); he gives learners an opportunity to carry on actions because knowledge, learning must start from an activity. If the learner does nothing and just listens how he is going to grasp the knowledge. The teacher organises reading and research activities, activities which lead student to searching for knowledge. The learner must be the owner of his the knowledge. Of course, there is some knowledge which is provided by the teacher, most of it must result from the learner's own research. So, that is what I understand by learner-centred approach: the learner being the owner of his own knowledge.

The teacher trainer first emphasised the role of the learner as the centre of the teaching and learning process, with the learner being an active participant. The role of the learner is no longer a passive one, as it used to be. He no longer just listens and writes down in the exercise book what he hears or is told to by the teacher. The teacher trainer shows knowledge of what is going on in Mozambique, particularly in the area of education, when he says that differently from what happened before the introduction of the new curriculum, when the teacher was the great orator and he delivered the material, now, with the new curriculum, the teacher is a facilitator and can now use the knowledge that the learner brings and his experience, he organises group work, assigns activities to get learners to

apply new knowledge. The teacher organises a range of activities from reading to research; he is responsible for developing the knowledge that the learner brings from home. The teacher trainer highlighted two important aspects in his statement, namely the teacher's role and the learner's role during the teaching and learning process in both teacher-centred and learner-centred approaches. In short, this teacher trainer shows what a learner-centred approach is by emphasising the following aspects: the role of the teacher (facilitator); the role of the learner (active participant); teaching method and strategy (group work) starting point for the teaching and learning process (take into account the experience or previous knowledge of the learner) and finally the fact that the learner is the owner of his or her own knowledge.

In the second quotation another teacher trainer expresses his idea about a learner-centred approach.

MZG: What do you understand by a learner-centred approach?

The learner-centred approach I understand as that process of learning in which the learner chooses what he wants to learn. The learner-centred approach has much to do with the dynamics of the learner, where the teacher already is not the one who is the holder of the proper knowledge (learning), but a teacher to orientate and help.

As can be seen, this teacher trainer emphasises the learner choosing what he or she wants to learn in class. Perhaps the learning and teaching process is impossible to manage when based on the learner's preferences or what he feels like learning. However, these two teacher trainers have something in common. For example, both teacher trainers say that the teacher is no longer the holder of the knowledge. He just directs the teaching and learning process and helps the learners. In other words, the teacher guides the teaching and learning process in the classroom. It is worth highlighting the terms that were used to characterise the role of the teacher trainer during the teaching and learning process. The former teacher trainer says he is a facilitator and the latter uses the term guider. They are essentially the same terms.

The third teacher trainer contributed the following:

MZG: What do you understand by a learner-centred approach?

About learner-centred teaching we can say that... the learner is the subject of study, he must have more time to speak and work. We must take the most advantages of his experience. The learner is fundamental in this teaching and learning process. The teacher just helps to mediate the teaching and learning process, however, taking advantage of the learner himself. Things didn't use to be like that. The teacher was almighty, and dictated everything to learners. Learner-centred teaching provides an opportunity for the learner to have a go, think, do many exercises and present them to the teacher so both can come to a conclusion. Everybody works towards to the most important point. The learner is the key of the lesson so he must have most of the talking in the classroom, touch, indicate, demonstrate, dramatise, illustrate, ask questions, answer them and handle the material.

This teacher trainer differs from the first one who emphasises the role of the learner and the teacher in learner-centred teaching. He emphasises only the learner's role in stating that the learner has more time to talk and perform tasks or carry out practical activities, expressing, thinking, touching, demonstrating, dramatising, illustrating, asking questions, answering them and doing several exercises and presenting them. He also emphasises the experience learners brings with him, while the teacher is a mediator.

He introduces a new term to characterise the role of the teacher during the lesson in a learner-centred approach: mediator. This term links with other terms such as *facilitator* and *guider* used to characterise the role of the teacher in the classroom. These terms refer to the same teacher's role. However, this teacher trainer is more exhaustive in describing the role of the learner. He explicated the terms *active* and *dynamic*; he mentioned the possibility to talk, experience, think, touch, demonstrate, dramatise, illustrate, ask questions, answer them, etc.

Interestingly enough, the next teacher trainers who provided the most accurate definitions of a learner-centred approach showed better knowledge of the curriculum for Basic Education; they declared that they tried to use strategies related to a learner-centred approach in the classroom. One of them went so far as to say that he did not know whether he was on the right track.

MZG: What do you understand by a learner-centred approach?

The learner as the participative element, therefore, is the learner who is supposed to acquire his/her knowledge. The learner-centred approach is a kind of teaching where the teacher, instead of expressing or delivering the contents along the 45 minutes, must give priority to the experiences of the students. So, he must take advantages of the

knowledge the child brings from home to develop the same child. So, he must take the child's knowledge and develop this experience I based on the present curriculum.

I think that it is a method that is possible to use in the school because no child comes from home without a minimum of knowledge. When a child leaves home he/she knows something. For example, he/she knows water, he/she has already talked about food and many aspects related to environment and the nature of where he/she lives. So it is possible to take advantage of this knowledge that the child has to develop.

I have tried to use but I don't know whether I do it well or wrongly. This is new business. We had some experience with the OP and the continued teacher training. The programmes that were being used are practically the ones that are linked to this; they were more learner-centred than teacher-centred. In our trainings in the ZIPs with the students, the activity was more learner-centred than teacher-centred. We are trying to do the same here, the same strategy and the same methodology in the classroom.

Okay, one of the strategies is the group activities, the other is bringing the subject matter to the classroom, raising some questions and the students discuss them in the classroom with the teacher. It is a strategy I have used. Or write it on the blackboard and get students to discuss.

This teacher trainer, besides emphasising the active role of the learner like the previous three interviewees, also emphasises the responsibility of the learner in the building of his or her own knowledge. He also highlights the use of the learner's existing knowledge as the starting point to develop the teaching and learning process in the classroom, instead of spending forty-five minutes exposing the content.

Those teacher trainers who provided less accurate answers to the question in case appear to be much more optimistic concerning the teaching and learning process in the classroom. They declare that they use a learner-centred approach. However, I noticed that the teacher trainers who were most cautious about a learner-centred approach are the ones who really seem to try to use participative methodologies in the classroom.

This teacher trainer believes that it is possible to use a learner-centred approach in our schools. He bases his belief on the truth that any child brings to school some experience or knowledge. He adds as an example that the learner knows water, food and many other things related to the environment he or she lives in. These experiences and knowledge need to be developed and elaborated on. In summary, he mentions three aspects that should be emphasised: the use of previous knowledge, the role of the learner (he is responsible for his own knowledge) and the teacher's role (the teacher does not expose the contents).

The fifth teacher trainer has the following perspective on the topic:

MZG: What do you understand by a learner-centred approach?

If everyone had the capacity to use the learner-centred approach... I think that not all teachers can do it because some bring their dogma of the content transmission system. I use the expository method. Some teachers do not use group work in the class. I think that the large number of students can be minimised by using the participative method, using group work.

In all classes it is possible to use the learner-centred approach because there is no class which does not allow for a debate. With the expository method the teacher has a lot of work and gets tired soon. With the learner-centred approach a teacher can teach 12, 13, 14, or even 20 classes without getting tired because the major work will be done by the students and the teacher just moderates.

This teacher trainer talks about group work, debates as learner's activities and refers to the teacher as a moderator. He refers to teacher exposition in the classroom but does not talk about learner activities, although it is implied that learners just listen to the teacher. But he talks about the advantages of a learner-centred approach linking it to excessively larger classes. According to him, to reduce the impact of the problem of large classes, teachers should assign group activities whereas by using the expository method the teacher gets tired. In short, this teacher trainer highlights the role of the learner and that of the teacher (moderator) in a learner-centred approach (group work) and the advantages of this approach for the large classes.

Comparing this teacher trainer with the previous one, we can say that the latter clearly explains the role of the teacher and that of the learner in both teacher-centred and learner-centred approaches but does not specify how learners become active. He does, however, manage to say that it is group work that makes learners work in the classroom. Neither of the last two respondents refers to learners' previous knowledge in the teaching and learning process.

Concerning the role of the teacher, one teacher trainer says he is a facilitator and the other says he is a moderator. Essentially they mean the same thing. In a learner-centred approach the teacher guides the lesson in the classroom.

In short, all teacher trainers made reference to the role of the teacher and that of the learner. The terms used to characterise this role are *facilitator*, *guider*, *moderator* and *mediator*.

To summarise, teacher trainers view a learner-centred approach in terms of the role of the teacher and learners, methods used in classroom and the use of previous knowledge by the teacher. However, most of them view it in terms of the role of the teacher and use terms like *facilitator*, *mediator*, *moderator*, *guider*, and *controller* to characterise their roles. In order to prove that they understand the term *learner-centred approach*, they also mentioned some methods they use during the teaching and learning process and said they avoid expository methods that characterise a traditional lesson or teacher-centred lesson. They further mentioned that in a learner-centred approach teachers are not seen as having great wisdom or being the great orator, rather as the person who is going to facilitate the classroom activities as a whole; the existing knowledge that learners bring to school must serve as a departing point for the course of the lesson. It shows that teachers must take into account learner experience in developing their lesson. Finally, they pointed out relevant practical activities to acquire knowledge.

The teacher trainers who participated in the study view learners as active agents in the teaching and learning process in a learner-centred approach. Learners must be dynamic, creative and active agents; this is different from the traditional lesson, where a teacher dominated the entire lesson during the teaching and learning process. During the class, learners can experiment, i.e. do practical activities, can touch, manipulate things or objects, demonstrate, illustrate, ask questions, answer questions, and reflect. In summary, learners make the class or lesson (the student is the maker of the class). In a learner-centred approach, the existing knowledge possessed by the learner is emphasised. It means that a learner does not have an empty head, he/she is not a *tabula rasa* but has some knowledge that he/she brings from home. Learners discover and build knowledge through investigation or research. During the teaching and learning process learners reflect and at same time they are agents of the teaching and learning process.

Teaching methods

Most of the interviewed teachers pointed out that group work was a first teaching method used in their classrooms and sometimes a unique method used in order to involve learners

during the class. It seems that a learner-centred approach is synonymous to group work. However, they mentioned other strategies used in the classroom such as asking questions, independent work, etc. Van Graan (1998) in her study *Learner-centred Education: equal to group work?* concluded that it seems that when one talks to teachers about learner-centred education, the single method that is immediately connected with the approach is group work.

I could learn the following lesson from the classes I have observed: most of the teacher trainers try to use one of the strategies of a learner-centred approach. I found that the teacher trainers do not follow up wrong answers supplied by the learners. When a learner gives a wrong answer to a question, the teacher trainer chooses another learner to answer it until he or she gets the correct answer. However, he does nothing with the wrong answers. I found that the learners' participation was spontaneous and those whose answers were wrong tended to become shy; their spontaneity tended to be affected.

From the answers supplied by the respondents it can be concluded that they do not have the same background about the new curriculum for Basic Education because some of them were involved in its dissemination and others were not. Some trainers work directly with OP and other not.

At the pedagogical level, classroom practice is emphasised. The interviewed teachers said that this curriculum differs from the former in that the strategies stressed by the new curriculum for Basic Education focus on the use of participative methods in the classroom. This comment suggests a more active learner participation in the teaching and learning process. This means that new strategies are needed in order to make learners participate actively in the teaching and learning process in the classroom.

Similarities and differences

The above-mentioned five teacher trainer perspectives on a learner-centred approach have only one aspect in common, namely the teacher's role (facilitator, mediator, guider, etc). As can be seen, there are few similarities and more differences as explained below.

Trainers had a clear idea concerning policy - what it was and what it should be in the teaching and learning process, what the process was before curriculum reform and after the

reform of Basic Education, what the role of the teacher and that of the learner was before and what it should be after the reform. They unequivocally declared that the changes were effected at policy document level, since we are talking at theoretical level. There is no doubt the classroom practice was teacher-centred, but mentioning that teaching should be learner-centred does not mean that that it really happens in the classroom. It is a question of the relation between policy and practice. This will be discussed in Chapter 7.

Not one teacher trainer could give a complete definition of the term *learner-centred approach*. One gave a broad definition and talked about the role of the learner and the other pointed out the strategies that must be used to make the lesson dynamic. In general, the role of the learner and teacher in the learner-centred teaching process was also mentioned.

During the interviews some teacher trainers said that they were neutral about whether the lectures they presented were learner-centred or not; some indicated that they believed that the lectures were learner-centred, while others said they were not sure whether they were learner-centred.

Many teacher trainers believe that their lessons are learner-centred. However, three teacher trainers questioned themselves whether the approach they used was really learner-centred. For learner-centred teaching much material must be planned and used; this includes making photocopies and distributing handouts.

6.3.2 An interdisciplinary versus an integrated approach

Teacher trainers don't understand

At least six teacher trainers did not know the terms *interdisciplinary and integrated approach*, so they could not say what it is. These are some of the answers to the question:

MZG: What do you understand by interdisciplinarity?

What?

MZG: What do you understand by interdisciplinarity?

Sorry, I do not know what that is ...

MZG: What do you understand by interdisciplinarity?

I cannot answer that now.

MZG: What do you understand by interdisciplinarity?

I do not know. I would need to read before I answer that, I will not answer that question.

In short, it can be said that some teacher trainers did not know the concept or term. In this research respondents were not supposed that to prepare for the interviews.

As mentioned in Chapter 3, *interdisciplinarity* was used and defined by the teacher trainers as being synonymous to *integrated approach*. The following two quotations provide evidence:

MZG: What do you understand by interdisciplinarity?

Integrated content approach is what we call interdisciplinary. So I think that I might also already use it. For example, In Science I tell my students to make a drawing, when they do it they take the knowledge from natural science. When I am introducing a theme and I tell a story or I sing song, it means that I am integrating visual education and musical education.

MZG: What do you understand by interdisciplinarity?

Integrated content approach is an approach where there is interdisciplinarity. For example, when I am teaching Portuguese I mention some terms belonging to other subjects. There terms that can be used for geography or history, etc. In a Portuguese class we must not only approach what constitutes linguistics, but we must also take into consideration these phenomena - history; science; geography; culture; morality. They must be introduced whenever necessary. The teacher must refer to all these concepts.

The above extracts are examples of the use of interdisciplinarity/integrated approach as synonyms. At least seven teacher trainers used them as synonyms. Apart from this, there is one teacher trainer who said that a spiral approach was synonymous to interdisciplinarity/integrated approach. This shows that there is no consistency in teacher trainers' use of vital terminology.

One teacher trainer, who is a Portuguese teacher, says that he can, for example, mention some terms that belong to other subjects, namely Geography or History. He adds that in

Portuguese he teaches not only Portuguese content but also content of History, Geography, Culture and Science. He also says that these aspects must be introduced whenever necessary in the teaching and learning process. From the trainer's comment it can be deduced that he considers the mere mentioning of terms relating to another subject as interdisciplinarity.

The above example illustrates that an interdisciplinary and integrated approach are the same thing. This notion is shared by two teacher trainers. Perhaps the second common aspect between them is the superficial definition of interdisciplinarity/integrated approach. It is logical that during the teaching and learning process terms belonging to other areas or subjects can be used. That is, for example, why the Portuguese teacher says that in teaching Portuguese, if students are asked to write the words *animal, man, plant, stone*, etc. he is integrating Natural Sciences. Using terms belonging to other knowledge areas does not by itself constitute interdisciplinarity or an integrated approach. The next teacher trainer, who was much more elaborate, based his perception of integrated approach on themes like plants and the human body:

MZG: Tell me what you understand of an integrated content approach?

I think that this integrated approach was good. In fact this approach was already used before. We said it is an innovation, but it is not. It is not actually innovation. We always talked about it. Although it was not written as an orientation, we talked about it. Even in the previous curricula. It is not possible for a teacher of Portuguese not to talk about science whether it has been planned or not. In the process of communication he will mention aspects of other fields, for example of natural science, namely the human body. When talking he mentions the human body, plants. This is all part of communication. It is all integrated. In general I think it was well designed. Learner do not learn as if they were keeping things in drawers; one mathematics drawer, then they close it and open another drawer. Learners learn everything at the same time. They learn mathematics at the same time they learn Portuguese. After all, whatever is spoken about in natural science, the names, are in Portuguese or any other language. So learners end up learning Portuguese in a math's class; math in science classes, in a Portuguese class. So integration has always existed. Teachers were not aware of it. Sometimes teachers do not have capacity to explore it to the utmost. Sometimes a teacher is talking about leaves in natural science and they should take advantage and talk about colours (dice) and aesthetics, the beauty of the leaves, their shape. So, in terms of maths, the size. Sometimes they can't explore it. These are positive aspects. They are necessary for an integrated approach, because as far as I know everything is related. Because there is a repetition. What a learner learn in maths, a science teacher can also teach. So this repetition helps to memorise it.

Another idea that was defended by this teacher trainer is that in any lesson there is interdisciplinarity. This is not true. This would be saying that a lesson delivered anywhere

is within the scope of an interdisciplinary approach. This is a simplistic view of seeing the concept.

This teacher trainer introduces a new element: that children learn as if they were opening drawers, filling them and then opening another, filling it and so on. He confuses the compartmentalisation of subjects and an interdisciplinary approach.

However, this teacher trainer says that interdisciplinarity is the philosophy of OP and that it is rarely practised at Marrere CFPP. This statement refutes the point of view of the other teacher trainer that interdisciplinarity is always present in every lesson. In fact, each teacher trainer is concerned with his own subject. He adds to say that HIV/AIDS and environment content are cross-curricular issues. It is true that the existing curriculum has some content considered to be cross curricular issues that must be covered in every subject. Examples are HIV/AIDS, environmental studies, etc.

“The cross cutting issues which emerge from curricular plan for teacher training institutions are: education of values, human rights, gender and democracy; reproductive and sexual health (ITS, HIV/SIDA), school health (first aid, most frequent disease in the school ages, nutrition, drugs and alcohol prevention and environment education) ...” (Guro & Lauchande, 2007).

This teacher trainer started by saying that he thought that the introduction of integrated teaching in the Basic Education in Mozambique was good. He added that the use of an integrated approach to content is not new because it has been used before in the classroom and that they have always talked about it though it had not been formulated in writing. He was of the opinion that it was impossible for a Portuguese teacher not to talk about science, regardless of whether it has been planned or not.

That is because during the communication process he would mention some aspects from other fields of knowledge; he cited Natural Science as an example, more specifically the human body and plants. All this is part of communication and thus the content of these themes is integrated. He said that learners do not learn content as in compartments: a drawer for Mathematics, one for Portuguese, and so on. In fact, learners learn Portuguese and Mathematics simultaneously. He called attention to the fact that the teacher was not always aware of this fact. That was why sometimes some teachers could not follow this approach.

In contrast to the previous teacher trainer, he mentioned the fact that an integrated approach was the philosophy of the OP. However, he thought that this approach was implemented. According to him teacher trainers were more worried about the subjects they taught. They should plan cross-curricular activities.

MZG: Tell me what you understand of an integrated content approach?

This is the philosophy of this project. But here in the centre I think we rarely use (d) the integrated approach. We are much more concentrated on the subject itself. We can (should) have a **cross cutting vision** of contents, but we haven't paid much attention because I see in the work that is done in the ZIPs, in our work, one of our colleagues from any field goes there with all integrated approach of the contents, but here in the centre each one teaches something of his own field, except for once and a while when, in a **cross cutting way, they quickly mention of other fields contents**. Maybe he/she touches those aspects of actuality related to AIDS, we can talk about it, environment, but it is not traditional we only do that once in a while.

Yes, for example we saw in maths methodology it is impossible to integrate psychology elements. So I think that interdisciplinarity is present in every class regardless of the subject.

This teacher trainer said that interdisciplinarity was always present in any lesson; however, in the methodology of Mathematics it was impossible to integrate Psychology content.

MZG: Tell me what you understand of an integrated content approach?

We had subjects I would call compartmentalised subjects; however, in fact they are not, something has been changed. For example, Social science subject is not compartmentalised. One of the advantages of non compartmentalisation is that learners will know that knowledge is not isolated and that subjects need to collaborate, they need to mobilise knowledge from one another subject.

When I am in a Portuguese class surely I am not only going to teach Portuguese, there is something else I use from other subjects to integrate in this subject area. For example, when I am teaching Portuguese and I ask students how many types of sentences they know and they say four types, we have mathematics in this case. When they name the types of sentences we are also using maths. I may also ask them "How is the weather today?" "Is it good or bad?" "How is the sun?" "How is the sky?" students may say we are fine because the weather is humid. We are talking about geography, but I am teaching Portuguese.

What I understand by *integrated contents approach* is that in a subject such as maths, for example, as the teacher teaches maths content it is possible to use content from other areas and integrate them in maths. I as a maths teacher may intervene on language-related issues. Well, in a maths class we can talk about basic vocabulary, for example. There are terms which are applicable either to maths or to language. We can also integrate social science, for example, when we talk about the statistics of the population activities, for example. So we integrate in maths issues of population density. It is one of the examples related to other areas.

Two teacher trainers believed that interdisciplinarity was present in any lesson or in almost every lesson. The following quotation is just an example:

MZG: Tell me what you understand of an integrated content approach?

“Talking about an integrated approach is talking about what we have mentioned in what we call spiral ... when addressing the content we find some integration. Content of one subject is related to content of another subject. When we address the content of that subject we must not forget the responsibility to talk about content of other subjects. We might find it difficult to address the contents of other subjects but we must address them and show the *integrality* of these contents with those of other subjects. I am talking about science and social science, and we must show them that this is a science and we may need to make calculus... that is math and social science. These subjects are related and therefore there is integration and interdisciplinarity.”

The findings on these issues show us that most of the teachers have very superficial knowledge of interdisciplinarity and they regard an integrated approach as synonymous to interdisciplinarity. For example, when they were asked to give some examples on their own subject we got answers such as, “When I teach Maths I use Portuguese to teach it. This is integration of Portuguese in the Mathematics class.” As we can see in this case, there is no doubt that Portuguese is used as medium of instruction.

The lack of common understanding of this concept makes it difficult to disseminate information on teaching in a training session or seminar at the college. For example, a Namibian document, which serves as policy for education, clearly states in many pages what is meant by a learner-centred approach. It is believed that it will be difficult to implement change in the curriculum if the change agents do not understand basic educational terminology. Policy makers and policy documents have stated clearly what changes should be made in the curriculum during the reform.

It can be concluded that the implementation of the curriculum for Basic Education in the Mozambican context commenced with a deficit at policy level; is impossible for agents of change to implement something that is not clear to them.

Various sources of collecting information were employed, such as interviews, observation, papers and articles.

It has been highlighted that the new curriculum for Basic Education is welcome, but there are some constraints which hinder the successful implementation of the process. I refer to the provision of the curricular plan for Basic Education as a law which guides the subject programmes. No teacher trainer referred to the lack of the curricular plan for Basic Education (PCEB) which justifies the reason why this new curriculum was designed. Theoretical concepts such as such as *semi-automatic promotion* emerged from the philosophy behind the design of the new curriculum for Basic Education. Automatic promotion is linked to formative assessment. This aspect will deal be dealt with in Chapter 8.

In short, it can be concluded that each teacher trainer understands the concepts in his or her own way and according to their own professional experiences. This is due to the fact that there is no official document from the Ministry of Education clarifying concepts and principles that appear in the curriculum so that people can share the same understanding of the concepts.

6.4 CONCLUSIONS

All of the interviewed teachers have heard about the educational reform from different sources of information. Some have heard about the new curriculum by participating in training in primary schools, others by participating in seminars about the new curriculum for Basic Education organised by INDE.

In my point of view events of this kind are just beginning to disseminate the notions of the Basic Education curriculum. The knowledge acquired in this way can be consolidated by studying documents related to the issue. During my stay at the College I found that there were few copies of the curriculum for Basic Education. These could be found in the pedagogical director's office.

The pedagogical director stated that "for the implementation of this curriculum here at Marrere CFPP some seminars had been presented. We had a seminar lasting one week. All the teacher trainers were informed about the changed curriculum for Basic Education."

It is important to highlight that when teachers were asked to talk about the new curriculum for Basic Education, they emphasised the constraints, the lack of instructional material related to the new curriculum for Basic Education, the lack of books for Grade 1 to 5, the lack of teachers' book and the lack of books for the different learning areas.

A learner-centred approach vs. participative methods

In general, teacher trainers that were interviewed provided different definitions of a learner-centred approach. Apart from this, they shared more viewpoints since they all highlighted the role of the teacher and that of the learner. They are aware of the changed role of both the teacher and the learner when there is shift from a teacher-centred approach to a learner-centred one. The first innovation in the new curriculum is the use of different terms to characterise the role of the teacher: *facilitator*, *director*, *mediator*, etc. Some teacher trainers highlighted the importance of learners' previous knowledge. One of them elaborated on the role of the learner, saying that learners must have the opportunity to speak, experience, think, touch, indicate, demonstrate, dramatise, illustrate, ask questions, answer questions, handle the material, do several exercises, etc.

It seems that most of the trainers have a notion of the concepts relevant to the new curriculum for Basic Education. However, putting them into practice is the problem.

Interdisciplinarity vs. an integrated approach

Seven teacher trainers said that interdisciplinarity and an integrated approach were synonymous. Two of them said that there was interdisciplinarity in every lesson, regardless of the subject. There was a contradiction among some teacher trainers, evidence of lack of clarity about the concepts under study. Besides regarding interdisciplinarity and integrated approach as synonymous, the examples show that the teacher trainers have a superficial knowledge of the concepts.

In summary, many teacher trainers do not have a basic notion of methodological principals which guide the teaching and learning process prescribed in the PCEB. This results in inconsequent application of the terms by teacher trainers.

A study by Adler & Flihan (1997:7) shows that “interdisciplinarity and integrated approach are generally used as synonyms or interchangeably but in real terms they are different

concepts”. “Interdisciplinarity literally refers to a study of *relationships among disciplines*, while integrated approach refers *to a cross-disciplinary approach* that is the result of sifting related idea out of subject matter content” (Adler & Flihan, 1997:64).

It can be concluded that the implementation of the curriculum for Basic Education in the Mozambican context starts with a deficit at policy level; it is impossible to implement something that is not clear to those who have to implement change.

The new curriculum for Basic Education curriculum has been designed in order to improve the quality of Basic Education in Mozambique. To achieve these goals, it is very interesting to focus on a learner-centred approach and semi-automatic promotion which is much related to the cycle of learning.

Respondents pointed out a lack of material, such as a curricular plan for Basic Education and inadequate primary school programmes as major constraints in following and implementing the innovations stated in the new curriculum for Basic Education. One of the functions of the Director and Deputy Director is to guarantee the application of the approved curricula for Ministry of Education; this means creating all conditions, from dissemination to execution or implementation. The college must create the conditions, such as making copies in order to share documentation with trainers to improve the innovation.

The principle of a learner-centred approach is understood as a change of the role of teachers involved in the process of learning. This means that the teacher is seen as a facilitator or mediator and the learner as the object of his learning. The learner is active in his/her learning. A learner is supposed to work in groups with instructional material.

The library at Marrere looks like an abandoned place; many books are kept in the big wooden boxes (*baú pedagógico*). The cleaner is the person who helps people in the library. There is no librarian in the library. This situation affects the teaching and learning process and, more particularly, the implementation of the new curriculum. The constant absence of the person who deals with photocopying affects the teaching and learning process as well. The next chapter is devoted to the teaching practice at the College.

Some trainers say that the curriculum for Basic Education does not have many innovations; they had experienced similar reforms in the OP. This point of view is based on their having been introduced to participative methodologies. However, they do not take into consideration the fact that there are many other innovations. For example, they forget concepts such as semi-automatic promotion, interdisciplinarity, etc.

Most of the trainers are aware of the problems that Basic Education is facing. The teacher-learner ratio, for example, is one teacher per 100 students and they agree it is very high. They also add that it is very difficult to work with such a high number of students because it is not possible for them to interact with every student in the classroom. They are of the opinion that the average number of students should be 35 to allow for better transmission of the pedagogy and the content to the prospective teachers. As an example, during the OP, classes had no more than 35 students. From there on, matters have changed. For example, in one of the years one class had 82 students. This situation should be compared to a learner-centred approach as one of the main pedagogies referred to in the curriculum.

Once a curriculum has been designed, it needs to be implemented. As we know, teachers can act as key agents of change. However, the lack of teaching materials, especially books, affects the implementation of the curriculum.

Attitudes concerning the new curriculum differ in some cases because of the degree of knowledge that individual trainers have about the new curriculum for Basic Education. Some teacher trainers participated only in the seminar delivered by INDE; others took part in the diffusion and seminars about the new curriculum for Basic Education at the ZIPs through actions organised by OP.

The results that were obtained concerning the concepts *learner-centred approach*, *interdisciplinarity* and *integrated approach* show that the trainers have different backgrounds and educational experience and that they lack access to the literature that supports the above concepts. Even the policy documents neither define nor explain the terms.

The next chapter is devoted to classroom practice at Marrere CFPP.

CHAPTER 7

TEACHING METHODS AND CLASSROOM PRACTICE

The aim of this chapter is to present and discuss the main teaching styles at Marrere CFPP. Section 7.1 introduces main points to be addressed or covered in this chapter. Classroom organisation and the main features followed are discussed in Section 7.2. The lecture as teaching method will be addressed and discussed in Section 7.3 and discussion as a method will be presented and discussed in Section 7.4. Group work as a method will be presented and discussed in Section 7.5. Section 7.6 presents a conclusion to the chapter.

“... 'best practice' is assumed to be learner-centred (where curriculum and pedagogy are based on learner interests and experience) and geared to assisting learners to do things within their particular, localised contexts” (Gultig, 1999:59).

7.1 INTRODUCTION

The review of the literature in Chapter 2 shows that policy is rarely implemented in classrooms as policymakers intend it to be. Teachers as change agents are seen as the key factor in the implementation of the proposed changes.

In this chapter I will present three different teaching styles, namely *lecture*, *discussion* and *group work*. They will be discussed because by doing so it can be illustrated what is going on at Marrere CFPP in relation to the basic Education reform, more particularly, to a learner-centred approach. In other words, it is intended to stress the classroom practice in terms of what teaching strategies and methods are used in classroom, how lecturers teach and if the practice can be improved. I will refer to the teaching media used in each class and to its organisation.

The classes that are described in this chapter have been selected among the several (24) that were observed by the researcher in the company of the deputy director (see Chapter 3). The lessons chosen help answer the research questions. In other words, they address problems posed in the research questions. The choice has much to do with the observation guide (appendix - teaching methods, participative methods, didactic materials, interaction

teacher pupil, and classroom organization) as well as the main happenings in all the classes observed. Most of the classes had common characteristics, namely the teacher-centred teaching based on questions and answers without teaching materials. The psycho-pedagogy class should be highlighted, which was chosen for the same theme having been taught by two teacher trainers differently. One class was more teacher-centred and the other more learner-centred and was based on group work in a number of four trainees each. I found this class representative either for teacher-centred teaching or for learner-centred teaching. Finally, for discussion, only one class was chosen among the ones that were observed. It is important to comment on it as a strategy that occurred (discussion, question and answer, problem solving, the teaching and learning in the classroom and discussion). In summary, the lesson was chosen in order to show the general picture of the main strategies followed during teaching and learning process at Marrere CFPP.

Before going ahead, I will present a brief and general description of the classroom where the classes took place in order to give a general picture of the physical and classroom environment.

7.2 CLASSROOM ORGANISATION AND MAIN FEATURES

Basically classrooms differ in terms of size, furniture (chairs and table) and illumination conditions. There are four types of classrooms: small, medium, big and very big (saloon) classrooms. There are only double desks, some are joined to the chairs and others are not.

In small classrooms the teaching environment is less appropriate because there are too many learners in them. The first learners of each row are too close to the blackboard and there is not enough room for the teacher trainer to move. Also, too many people in a small room reduce the air supply and the classrooms become stuffy; as a consequence breathing becomes difficult.

The Marrere CFPP has some classes located outside their own premises due to the number of learners and the lack of classrooms. The College had to negotiate with a neighbouring primary school located 50 metres away from the College premises and was awarded two classrooms for two year-three classes. The CATEC (*the house of traditional crafts and community meeting*), which was mentioned in Chapter 5, originally intended for housing

activities with the community, was used as a classroom. The hall (saloon) which was intended for housing theatre and cultural activities was also used as a classroom and it accommodated 82 students. Finally, the library/resource centre was divided into, two using a piece of carpet and one of the rooms was used a classroom.

This was done with a view to accommodating all learners, from year 1 to year 3, and to presenting their classes in the morning. Classes begin at 07:00 and finish at 13:00, from Monday to Friday. The classrooms differ from one another in terms of size, desks, and the number of tables and chairs inside them.

All classrooms are organised in the traditional manner: the blackboard is in front and is stuck to the wall; the chairs and tables are generally organised in four rows. No posters are found in the classroom except for two classrooms which had a piece of paper with the group organisation of the class written on it, stuck on the wall.

7.2.1 Brief characterisation of the classroom

When talking about the characteristics of some classrooms in terms of size, it is important to mention that classrooms differ from one another in terms of length and width. Here are some examples of the measurements of some classrooms. The following numbers refer only to the classrooms that were physically located at the College because at least two classes were attending lessons at an annex school nears the College (see Table 7.1 below).

Table 7.1

Classroom measurements at Marrere CFPP

Measure	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7
Length	9.20 m	9.20 m	9.20 m	9.20 m	9.20 m	9.20 m	9.20 m
Width	5.10 m	5.10 m	5.10 m	5.10 m	9.10 m	9.10 m	25 m

Classroom sizes differ in terms of length and width. Some classrooms are smaller and others are bigger. Paradoxically, the smaller classrooms accommodate more students than the bigger ones. For instance, in classroom number 5 there were only 47 students, while classroom number 1 had 60. There is no correlation between the classroom length and the number of students in each class.

7.3 LECTURE ANALYSIS

Classroom organisation and composition

The lesson observed was a pedagogy lesson in the hall (saloon). Before the class began, the teacher took the register by numbers, not by names. A student was absent and the teacher asked if he was ill or not. No one could tell if he was absent for health or for any other reason.

The Topic was “Fundamental Concepts used in Pedagogy”

Instructional materials: Chalkboard and chalk. Other instructional materials such as textbooks, handouts and newspapers were absent.

The key concepts to be learnt were written on chalkboard; these were *learning, teaching, instruction and education*, as can be seen below:

1. Learning is holding knowledge, retaining something, acquiring knowledge and keeping it in the memory.
2. Teaching means conveying something, knowledge, experience, skills to others.
3. Instruction is a teaching process that is concerned with practical aspects of education or a teaching process that deals with the practical aspects of education. It guarantees that each person gets capacity to perform several activities that are necessary for the development of personality. We characterise instruction in teaching as a joint work by the teacher and the learner, according to a determined plan, in a determined place and time, where the teacher teaches, organises and directs the teaching.
4. Education is a social process aiming at preparing people for life and work. It focuses on working, production and life experience. Education is also the process of personality building for life and work in society. It is a social process, the aim of which is to prepare man to live and work. Education is also the process of personality building for life and work in the society.

The lesson followed the same order of the concepts written on the chalkboard, namely what is learning, teaching, instruction and education. The main strategy adopted by the

teacher trainer for developing each concept was asking many questions to the class as a whole and getting answers from it.

One concept was developed and, after that, the teacher trainer provided the definition and trainees wrote it down while the trainer dictated. Then he moved to the next concept and so on. It should be noted that as the trainees were giving their answers the teacher trainer wrote the key words on the blackboard and moved to the next concept and so on, up to the end of the lesson. The questions were directed at the entire class; then the teacher trainer pointed out someone who had put up his/her hand. Sometimes only one trainee had his/her hand up and others several times.

The trainer was good at writing on the chalkboard. The size of the letters was big enough for the learners to see. His chalkboard writing skills exemplified best practice.

The motivation for the lesson started with revision of the previous lesson's content, with the following question: "Who remembers what the necessary conditions for learning to take place are?" Trainees provided their answers voluntarily. Among the answers given by the learners were the following:

Good relations between learners and teacher are one of the conditions for learning to take place.

Age is a necessary condition for learning to take place.

The psychological conditions are also important for learning to take place.

Maturity and repetition.

Learners kept on giving their answers as the teacher trainer was eliciting more conditions. To the third answer provided by the trainees, the teacher trainer got annoyed, and raised his voice and said the following: "Please, ladies." He seemed disgusted with some answers provided by trainees for not meeting his expectations, as well as being nervous about our presence. He expected a good performance from the trainees, which would somehow impress us. This attitude might have affected trainees, inhibiting them to participate spontaneously. The fact that he interacted with the same trainees most of the time may account for this. Only those who were absolutely sure that what they were saying was correct, participated.

It is worth highlighting that when the teacher trainer dictated the concept “teaching”, the word *outrem* (another person) appeared in the concept. When the teacher trainer found out that trainees were not familiar with the word, he asked how it was spelt. One volunteer went to the board and wrote it correctly. Then the teacher thanked him/her as the example below illustrates:

Teacher trainer: How do you write this word?

Trainee: *Outrem* (another person)

Teacher Trainer: Thank you.

This is an example of exemplary teacher trainer attitude. It encourages other trainees to participate. It is rare for teacher trainers to do so. However, it seems to be a casual attitude because in all other cases his attitude was the same for wrong and correct answers.

Another example of the teacher trainer’s attitude was when he asked if trainees had doubts after the third concept; he said that the trainees should have the habit of expressing their doubts in the classroom so that he could help them. The learners did not take long to respond. One learner asked about the meaning of a word he had written on the blackboard. “What is the meaning of *outrem*?” The teacher said that the question was not for him to answer but the whole class. A learner said that that meant “*uma outra pessoa*” (another person). See the example bellow:

Learner: What is the meaning of *outrem*?

Trainer: This undoubtedly is not for me; it is for the class.

Learner: It means *outra pessoa* (another person).

Trainer: Are there any more doubts?

Advising trainees not to take doubts home is a praiseworthy attitude. It is part of a teacher's job description to clear any doubts learners might have in the classroom. However, some trainees feel shy to say when they have doubts.

It is also worth highlighting that during the lesson the teacher trainer asked several questions, some of which were not correctly answered and he said he did not agree with

the answers provided by individual trainees. He then asked the whole class to answer, as the example below illustrates:

Trainer: When did education come to existence?

Learner: Education came to existence at the beginning of humanity.

Trainer: Does anyone have a different idea? I don't agree with the answer myself.

Learner: Since our childhood.

Trainer: Where did it come to existence? Was it in early Greece or where?

Trainer: So what is education?

Learner: It is a permanent process.

The teacher's saying overtly that he does not like the trainee's answers and him not correcting the wrong answers inhibit trainees to participate. The teacher trainer does not value trainees' efforts and participation. This attitude is in contrast with that described before, when he thanked a trainee. That is why the first example is termed casual. This behaviour should be abandoned because trainees might act in the same way in the future as prospective teacher in primary schools. Mahaye & Jacobs (2004:191) say the following:

“A common weakness of incompetent teachers is that they disregard the reaction stage; in other words, they fail to give feedback after the learner has responded and merely ask another question of another learner. If a teacher consistently fails to react to responses, it creates an atmosphere in which learners are reluctant to answer questions because the teacher does not acknowledge their efforts and seems not to even listen to their answers.”

In addition,

“There are times when learners give incorrect answers which need to be corrected by the teacher. In correcting the learner, the teacher should guard against hurting the learner's feelings because it may result in resentment or withdrawal. For example, a learner may feel hurt when the teacher reacts by saying: you are wrong! That is very bad! Learners should be made to feel that the criticism is directed at the answer and not at them. They need to be told that the answer is incorrect in a way that keeps them interested in the discussion and does not discourage future participation” (Mahaye & Jacobs, 2004:193).

It should be emphasised that the teacher trainer did summarise the main points of the lecture. According to Killen (2007), a teacher at the end of any lesson must “give an adequate summary of the main points of the lesson.”

Sometimes the trainer tried to link concepts to the life world of the learner. For example, he showed how the problem of teachers lacking psycho-pedagogic training negatively influences the teaching and learning process in the classroom, in particular in Basic Education in Mozambique. This is a problem for many teachers without psycho-pedagogic training in Mozambique. By referring to this issue, the teacher trainer intended to show that it is important for a teacher to have psycho-pedagogic training. He demonstrated that he was aware of the problem of a lack of trained teachers in the country, especially at Basic Education level. A teacher without methodological training, however good he or she may be in terms of knowledge of the contents, will most probably fail to convey the content adequately, because he or she lacks the appropriate strategies and techniques. As a consequence, the improvement of the quality of education that is one of the objectives of the strategic plan of the Ministry of Education will be jeopardised.

The same learners kept answering the questions but the teacher did not say anything. The class was designed jointly, based on question-and-answer. In my opinion, the teacher could have delivered the lesson better than he did. It would have been better if the teacher had brought a text on the issue for learners to read and discuss in groups and later make a synthesis of the relevant issues covered in the lesson.

During the lesson the teacher trainer, seeing that the same people kept on putting their hands up, said: “Please, it must not be the same learners that answer the questions.” Unfortunately it kept on being the same learners who answered the questions and he said nothing. He conformed to the situation. The teacher-learner interaction was limited to the teacher and the few learners who answered the questions; the remaining learners had a passive role, though they exchanged ideas among themselves. One praiseworthy aspect is the fact that the teacher praised the learner who went to the chalkboard to write the word “*outrem*” correctly. “Thank you for writing the word *outrem* on the chalkboard”, said the teacher trainer. Almost nobody knew its meaning. Praise is rarely given.

The lesson ended with homework with questions such as the following:

1. Define education in both narrow and broad senses, using your own words.
2. Why is it said that education is a personality building process?
3. What do you understand by instruction?

4. What is the relation between learning and teaching?

In summary, the lesson described above had the following main activities:

- Teacher asked questions
- Learners answered questions
- Teacher wrote notes on the chalkboard
- Teacher dictated
- Learners wrote in their exercise books.

Judging by the previous scenario, it is clear that the lesson was teacher-centred. He did most of the talking and dominated the questions and answers from the beginning to the end of the lesson. The question-and-answer to the whole class was a strategy complemented by the teacher writing on the chalkboard, explaining and dictating to learners. In other words, the lesson was based on questions formulated by the teacher trainer and answers provided by the learners, although a few questions were asked among learners. Finally, learners wrote in their exercise books the concepts dictated by the trainer. Before the end of the lesson, the trainer did not summarise the main points to be fixed by the learners. Mahaye & Jacobs (2004:203) state the following:

“The teacher can write the important points from a textbooks or lecture on the chalkboard before the lesson. To write on the board while the lesson is in progress is detrimental to class discipline because the learner’s become restless and rowdy when a teacher turns his or her back to the class for longer than a minute. It is a good idea to tell the learner’s to copy notes from the board and to expect learners to study this material as minimum knowledge.”

However, some aspects are obviously strengths and others weaknesses, as can be seen below:

Strengths

- Revision of the previous lesson before introducing the new lesson.
- Clear handwriting on the board.
- The fact that he assigned homework and the questions demand students to think because trainees had to answer them using their own words.
- The teacher’s mentioning that the same learners should not dominate the discussion.

- The teacher's asking if students had doubts and writing the difficult word on the board and asking its meaning.
- The teacher trainer noticed that there was a word (*outrem*) with which the learner might not be familiar with and asked them how they spelt it.
- The student answers were written on the chalkboard.
- There are great moments in this lesson that deserve highlighting. One of the first moments is the revision of the previously mastered content before introducing the new topic. In other words, motivation was about the previous lesson's issues.

Weaknesses

The weak points of this lesson are the fact that the teacher trainer did not take handouts to the classroom for the students to broaden the content as well as the absence of bibliography for further reading. The fact that the teacher trainer dictated the materials from his exercise book, probably the one he used as a student, is another negative aspect. Dictating material is time-consuming and learners have difficulty writing, apart from the fact that they write slowly. If the teacher trainer had brought handouts there would be no need to waste time writing difficult words on the blackboard.

Only the same trainees participated and kept on answering all the questions. The teacher-learner interaction was restricted to a very small group of learners and the others continued to feel shy.

He did not summarise what he had taught at the end of the lesson.

The teacher asked a question about when and where education originated for the first time. He moved to another question without answering the question.

Another lesson with the same characteristics in which the teaching was teacher-centred is now analysed.

Classroom organisation and composition

It was a Mathematics lesson presented in the classroom (room 1). The classroom was arranged in six rows of desks and there were four desks in each row. The classroom was traditionally organised. It is one of the classrooms that was divided into two, so it was so

small and the students were too close to one another and could not feel at ease. The light was good. So students were sitting in pairs, with 49 students present in the classroom.

Topic: Conventional model

Instructional material: chalkboard and chalk

Non-conventional measurement

Rope, Steps, Palms and Jumps

Non-conventional measurement does not have a fixed measure.

Conventional measurement

The main unit: metre (m)

Sub-multiples: decimetre (dm), centimetre (cm) and millimetre (mm)

Multiples: kilometre (km), hectometre (hm) and decametre (dam)

Table 7.2

Summary of multiples and sub-multiples of metre

Multiples	The main unit	Sub-multiples
Kilometre (km)	Metre (m)	Decimetre (dm)
Hectometre (hm)	M	Centimetre (cm)
Decametre (dam)	M	Millimetre (mm)

It was a question-and-answer-based lesson. The teacher trainer questioned the whole class. The teacher trainer indicated the trainee to answer the question from a group who had put up their hands. At first, during motivation, trainees were taken to the front to demonstrate for others to see. It was emotive because learners participated spontaneously. This may be because the content was familiar. Almost at the end of the lesson the trainee asked the learners to work in pairs to solve some problems. These exercises had as objective for the learners to make conversion as the example below illustrates:

1. Complete the following exercise:

A	1 m =	_____	Km
B	1 m =	_____	Hm
C	1 m =	_____	Dam
D	1 m =	_____	Dm
E	1 m =	_____	Cm
F	1 m =	_____	Mm

It should be highlighted that it was not necessary to move the learners to do the exercise in pairs because they were already sitting in pairs. The teacher just passed from desk to desk and explained any doubts the students had. There were some pairs with doubts and they were supported and kept on working.

The pair work was well organised. There was no other alternative because the desks could not be moved. The teacher moved from desk to desk checking the students' work. Some pairs asked the teacher to explain something.

Of all teaching strategies used the predominant one was question-and-answer. Apart from question-and-answer, the trainer used explanations on the chalkboard, demonstrations and pair work.

In this lesson on teaching the length unit, the teacher preferred to motivate the learners by starting with non-conventional measures. The Mathematics teacher decided to use the knowledge the learners had as the starting point and then moved to the new content. The teacher was successful. Several non-conventional measures were identified, namely rope, steps, palm and jumps. He then introduced the new topic by discussing how tall people are. Women are different from men; younger people are different from older people. That is to say that spans, jumps and steps are different from person to person. For example, people who are taller tend to have their span and steps longer and their jumps higher than those of shorter people. For this reason, we need to have a universal exact measure to be used everywhere in the world. Thus the length measure unit was invented.

Trainer: After the research there was the need to standardise it for its use worldwide. What do you call this measure?

Learner: length measure unit.

Trainer: so the topic today is...Length unit

You mentioned that the universal measure is the metre

Learner: Metre

Trainer: Metre has its sub-multiples. Let us organise them.

Trainer: I don't know that multiple. I don't know them.

Learner: There was a volunteer for the blackboard.

Trainer: What is the symbol? Think on the symbol of decametre.

Unfortunately, during that class there were some problems of learners answering in chorus. The teacher said nothing about it. The teacher should have told the students that whenever they felt like answering any question, they should raise their hands and he would indicate which learner should answer. Prospective teachers should be warned not to allow answering in chorus in their own classes.

In short, the Mathematics class had three important moments: motivation, development and pair work. At the end the teacher trainee assigned homework to the students. The teacher succeeded with motivation, based on the learners' existing knowledge.

The participation was moderately good and spontaneous. The teacher-learner interaction was exemplary. The only problem was that the teacher did not use visual teaching media. The teacher trainer should have brought a tape measure to make things much more concrete and asked a learner to measure some learners with different heights or even the length of some objects in the classroom. By doing so, the learners would have had a more concrete idea of the length measure and would know how to use a tape measure.

Finally, the teacher listed books for the students to refer to when doing the homework. In other words, he wrote the page numbers of the pages the students should read on the blackboard. It was an effective procedure. However, the teacher should have written the full reference on the chalkboard: the author's name, title, publisher, etc. Showing the book to the students at a distance is not enough.

The instructional material used in the classroom consisted of chalkboard and chalk. I think that the teacher could have used other teaching media such as photocopies (handout textbooks), metric tape, etc. as teaching media. A tape measure would have been very useful because students would visualise the difference between metres and centimetres, etc. The main length unit measure is the metre and a tape measure would be good for a better illustration. Lack of illustration and concretisation is one of the concerns of Basic Education in Mozambique.

Whenever possible, teachers should provide visual cues because it makes learning and remembering easier for students. In this case, the correct choice of media would enable the learners to see, touch and use a tape measure. For lack of the real object, a visual image can be used rather than learners' imagination only.

Practising these principles should begin right from the start of teachers' training. This will guarantee that prospective teachers will become familiar with sound didactic theory.

The lesson was dominated by question-and-answer. It can be said that question-and-answer was the predominant strategy in this lesson and this was complemented by writing and explanation on the chalkboard, although the teacher used pair work at the end of the lesson to solve the problems displayed on the chalkboard. These dealt with reducing from one measure to another. From the beginning to the end the lesson was teacher-centred and not learner-centred. Because question-and-answer is not equivalent to discussion (Killen, 2007:134) the lesson was teacher-centred. The fact that pair work was implemented does not mean that the lesson was learner-centred. What accounts for a lesson to be learner-centred or not is the predominant strategy during the 90 minutes of the lesson. Unfortunately the trainer spent most of the 90 minutes talking, thus monopolising the lesson. The reform of Basic Education recommends that the learner and teaching process in the classroom must be learner-centred, not teacher-centred.

The strengths of the lesson were that the teacher trainer links previous knowledge to the topic. Before telling trainees to copy from the board, he asked them if they had any doubts. The teacher left some time for the trainees to copy from the board. That was so that trainees would not forget the teacher's explanations.

The weakness of the lesson was the absence of instructional materials and incomplete bibliographical reference.

Comparing the two lessons described above, it be see that they have some common aspects concerning classroom organisation. The classrooms were organised in a traditional way, in rows. There was a chalkboard and chalk. Question-and-answer was the predominant teaching method and both lessons were teacher-centred. The lack of teaching media or instructional material and the absence of a summary of the main teaching points at the end of the lesson are weak points.

7.4 DISCUSSION

Classroom organisation and composition

Groups should have been organised in such a way as to allow a better identification of group members. It did not happen and the classroom was organised traditionally: four rows with six double desks each. In addition, learners were sitting spread in relation to the groups they were members of. A total of 43 students were present in the classroom.

The topic was Discussion of the Food Diet Chart.

Instructional material: chalkboard and chalk.

The topic of the lesson was “Discussion of the food diet chart”. Learners had to fill in a diet chart food for three days (Monday, Tuesday and Wednesday) ensuring a balanced diet (breakfast, lunch and dinner). They also had to take into account the three kinds of food that they had studied (protectors, constructors and energisers). The teacher asked groups 1, 2 and 6 to present the group work. Soon he realised that the first group did not have it ready to present and the group was replaced by another. They had to show the diet map of all the meals of the day on the board before they could do an oral presentation.

The lesson was characterised by written and oral presentation by at least three groups, followed by a question-and-answer activity prepared by the learners.

Table 7.3 below represents one of the daily meals presented by one of the three chosen as an example.

Table 7.3

Daily meals (breakfast, lunch and dinner)

Meals	Monday	Tuesday	Wednesday
Breakfast	Bread and tea, eggs, milk, tangerine	Sweet potatoes, maize and tomato, onion, oil and banana	Cooked cassava, curry of fish, tomato, oil, onion pine apple
Lunch	Rice and meat, oil, salt, potatoes and paw-paw	<i>Caracata</i> , dry fish, seasoning onion, tomato, orange	<i>Chima de Meixoeira</i> with chicken, tomato, garlic, onion Cashew-nut
Dinner	<i>Maize Chima</i> , beef, tomato onion, oil, pepper. Minutes	<i>Chima de mapira</i> com cabbage pea-nut, tomato, onion and apple	Salad and bread, tea and milk, eggs Mangoes

The first activity required one member of each group to go to the blackboard and write the meals for three running days, taking into account the three kinds of food that they had studied. The three learners completed their charts simultaneously as the teacher had divided the board in three parts. The writing took nearly 25 minutes, during which the remaining students had nothing to do but wait for their colleagues to finish writing. Consequently, students were involved in conversation about matters that had nothing to do with the lesson. As can be seen, there was a waste of time which could have been used much more productively. In addition, the lesson became boring and tiring. The teacher could have used this time for discussion. In my opinion students should have completed the chart in advance on A1-format paper using markers.

Oral presentation of the chart was followed by question-and-answer and possible explanation. It means that after completing the chart on the chalkboard, the group representatives presented the content of their chart taking turns. After the presentation they answered questions formulated by the teacher and the other students.

After the presentation of the first group, questions were raised and answered by learners themselves. From the second presentation on, questions were raised by the teacher trainer and answered by the learners. So the teacher trainer changed his role from facilitator to interrogator. In other words, learners ceased to exchange ideas and clarify doubts by asking

and answering one another because the teacher trainer dominated the lesson. Killen (2007:134) outlines the role of trainee and trainer in a discussion as follows:

“It is important that the teacher does not dominate the discussion; learners should be talking for their majority of the time. When the teacher does talk, it should not always be to ask questions. Questions and answers sessions are not discussions. The questions in a discussion are used to help learners gain knowledge, rather than to allow them to just demonstrate their knowledge. As a consequence when learners talk they will not always be answering a question from the teacher; they may be answering another learner’s questions, or making a comment, or agreeing with a statement, and so on. During a productive classroom discussion, learners will be thinking, offering opinions, developing reasons, and providing justifications.”

One aspect that is worth mentioning is that he urgently stopped the learners when they spoke more than one at a time. After the teacher’s warning, students did not speak all at the same time. The teacher wanted to show that speaking all at the same time is not correct and it does not render any advantage, since nobody can hear anybody.

The first interaction was among the learners. One student asked another from the same group something about the chart content and the latter answered him. For example, one student asked the group if there could be a dessert for breakfast on Monday. The answer to this question was that dessert could be served depending on the type of breakfast. The teacher praised the student for the answer. It should be noted that the teacher performed as a mediator.

Students kept on making comments on the work they presented and answering the teacher’s questions. The teacher did not know where he wanted the discussion to go.

When the discussion was not developing as he had planned, the teacher intervened and told the students that they should find out whether in each meal the three groups of food (constructors, protectors and energisers) were present. In my point of view, this is the role of the teacher: facilitating the teaching and learning process, leading the discussion according to the pursued objectives. However, he did not make it clear how the discussion would take place. The lesson ended up not being a proper discussion.

During the class, several questions were asked, either to the groups or the class. The question whether cashew nuts are a protector is a case in point. Students provided

diverging answers. Nobody explained why they thought cashew nut was a protector or constructor. At the end the teacher seemed to be doubtful about the correct answer when he said, “I am not sure which group cashew nuts belong to in the food chain”. The teacher’s position is questionable since he should be able determine the relevant facts in good time. He could have asked the students to answer questions for homework so that he could have time to ask his colleagues or consult any relevant bibliography. The teacher would not necessarily provide the answer himself; he could get students to discuss the answers they would have found at home.

The teacher’s silence means that he was satisfied with the answer. Once again the trainer did not give the learners any feedback after the question-and-answer session.

In fact, after the wasted time and with the large number of learners in the class it would not be possible for everyone to talk. His words could be understood as a warning for those who had not spoken to speak in the following lessons. It is definitely impossible for a teacher to interact with every student in a single class. One student made the following comment: There are some people that have a balanced diet but they neither grow well nor are they intelligent; similarly there are people who eat an unbalanced diet but they are intelligent and strong physically. The teacher said that it cannot be taken for granted that people without a healthy diet do not grow physically; there are many other factors interfering in this aspect.

At the end of the lesson the teacher asked the students why everybody, including themselves, the teachers and the community should know about the food diet:

- For the organism to function well.
- To keep our bodies healthy.
- To defend the organism against diseases; for the body to grow.

In fact, this question made students aware of the need for a balanced diet, which was the objective of the lesson. Because they were running out of time, the teacher gave students homework.

The lesson ended with homework, where learners were assigned the task of thinking of diseases that can be caused by lack of a balanced diet.

In short, the lesson has such important moments as writing on the board, presentation and discussion between learners. The teacher trainer asked questions. Learners' responses to other learners and explanations are important aspects of the lesson. The learning activity ended with ample student talking time. Asking and answering questions is not a discussion. However, there was an attempt to promote discussion.

In summary, the main activities developed during the class were the following:

- Writing on the chalkboard.
- Oral presentation of table contents followed by question-and-answer and possible explanation amongst learners.
- Questions and answer among learners.
- Answering the questions asked by learners.
- Interaction between learners

Strengths

The trainer had less talking time in the classroom in comparison to the trainees' talking time. He talked in his capacity as facilitator, despite the fact that he did not manage to clarify the doubt about cashew nuts.

Weaknesses

Wasting time by completing tables on the chalkboard.

For Killen (2007:133), discussion is both active and learner-centred and learners are expected to share their thoughts. In the case of the lesson under discussion, the beginning conformed both to the active and learner-centred character of discussion, but subsequently it became teacher-centred.



7.5 GROUP WORK

Classroom organisation and composition

Topic: Fundamental Concepts in Pedagogy

Instructional material: chalkboard and chalk

The key concepts written on the chalkboard were: learning, teaching, instruction and education.

Main activities in the classroom

- Learners discussing the concepts and writing down on paper and in their exercise books.
- Oral presentation by representative of each group.
- Learners answering the teacher's questions.
- Speaking loudly.
- Teacher writing on chalkboard and explaining.

The lesson concluded with a summary of the concept and was written on the chalkboard as follows:

Learning

- Assimilation, experience, and its retention in the memory.
- Acquiring knowledge.
- Getting skills.

Teaching

- Conveying knowledge, experiences to people.
- Process of conveying knowledge in a planned way.

Educating

- Preparing people to teach in society.
- Providing notions on how to carry out a certain activity.

It is teaching somebody which steps they will follow to carry out a certain activity. It is a process of intellectual training, of knowledge acquiring skills according to a given knowledge level domain.

Homework

1. Using your own words, define education.
2. Why is education considered a personality building process?

Before trainees joined their groups for group work, the teacher asked what the terms used for pedagogy were and what concepts were most used in pedagogy.

Among the four concepts that had been learned, trainees could mention only three, namely teaching, instruction and learning. So they could not remember education. The teacher told them the fourth, which was education.

Once they knew the four concepts to be studied that day, the teacher trainer gave instructions on what to do:

Trainer: Without wasting time, let's make groups of four students. You are organised in groups, aren't you?

Learner: Yes.

Teacher: Trainer: How many?

Learner: Five groups.

Trainer: How many are you? Five groups are too many. Let us make only four groups. Let's make groups of four.

Learners were instructed to discuss the concepts *learning*, *teaching*, *instruction* and *education*. They were allowed to write notes.

The teacher trainer gave instructions about the group work and the time he expected learners to take. This is important information to give to learners, for they can then organise their activity taking into account the time it will last. What sometimes happens is that teacher trainers do not tell learners how long the activity should take and when he asks them to present it, some ask for more time to finish.

Group members stayed in their groups and provided feedback on the concept *learning*. Thirteen groups were formed.

In this class, the teacher trainer made learners find the meaning of the concepts to be dealt with through question-and-answer. Then, the teacher trainer told the class to remain in groups of four to share ideas about the four concepts.



Source: Researcher (example of work group of 4 learners each).

Figure 7.1 Work group



Source: Researcher (teacher trainer looking at what is going on in the groups)

Figure 7.2 Work group

The picture above illustrates the groups formed during the lesson. Each group was composed of four learners. Generally, in each group two learners face two learners sitting opposite them. As can be seen, groups are sitting very close one another. Group members' talking easily disturbs other groups next to them. This is one of the largest classrooms in the centre. The organisation of the groups did not take enough time because the teacher trainer wanted to avoid spending too much time on it.

It was beneficial to the learners that the teacher trainer visited all groups to monitor group activities. However, due to the organisation of the classroom it was not easy to see all groups.

The first concept to be discussed was *learning*. Group members formulated their definitions in writing for the spokesperson of the group to present the result of the discussion. The teacher trainer circulated for some time, then he sat down in his chair. During the presentation the groups kept to their places and the presentation started with the question, “What is the meaning of ‘learning?’” While the group members were speaking the group's contribution was written on the chalkboard. The teacher trainer sometimes added something to the learners' statements.

Here are some passages of the main statements for each definition and the respective additions by the teacher trainer in italics. The teacher trainer did not dictate any notes. The learners wrote down what resulted from the discussions or from sharing of ideas.

A negative aspect of this lesson is the fact that it was difficult to see what was written on the chalkboard due to the fact that the board was damaged. The fact that the teacher trainer did not read what he was writing made it even worse for the students, who wanted to copy from the chalkboard. Students had to get up several times to go to the blackboard to better see what was written.

The teacher trainer passed from group to group to supervise the trainees' work, give some instructions and make sure that each group had someone jotting down the answers to be presented to the class. This procedure guaranteed that each group had a spokesperson. The remaining group members participated by adding and clarifying some specific aspects of the presentation.

The 13 groups discussed the four concepts. Maybe it would have been more productive if some groups discussed two concepts and the other groups discussed the other two concepts.

However, four members per group were not too many. It allowed for a somehow deeper discussion.

Noteworthy here is that the definitions were given by learners and the teacher gave or added some clarification to the definitions. The main and predominant activity was group work. Learners worked in groups and they produced definitions for *education*, *learning*, etc. The approach was learner-centred.

Strengths

The homework assignment, with questions such as “Define education using your own words” was a good point. It prevented the reproduction of the notes that were taken in the classroom. Learners often tend to reproduce the words from the notes without understanding their exact meaning.

Weaknesses

- Forming groups is sometimes time-consuming. This time may be necessary for the activity itself.
- The teacher did not determine the duration of the group work.
- The teacher wrote the homework assignment on the board and read it to the class.
- Questions asked by the teacher must be more productive than reproductive ones. In other words, start by asking a description of a concept and move slowly to questions on a higher cognitive level. Killen's (2007) advice is relevant:

“In their effort to link previous knowledge with new knowledge, teacher should encourage learners to ask and answer questions which will demand interpretation, analysis and application of knowledge. This form of learning is referred to as active reception because learners are not just sitting, but are also using imagination, accepting or questioning the content, making their own judgment, and so on.”

To summarise, regardless of the weaknesses this lesson might have, it is the only one, among the ones described in this chapter, which was learner-centred. The learner did most of the talking and worked in groups of four, which allowed for a better exchange of ideas. That is what trainees are expected to do when they go to teach in primary schools, where children will be working individually, in pairs or in small groups. There is no doubt that the overcrowded classes have a negative impact on the teaching and learning process. In the case under discussion, the teacher trainer did not manage to supervise the activities of all thirteen groups.

7.6 CONCLUSION

This chapter emphasises the different teaching styles in the teaching and learning process.

The pedagogy lesson observed was teacher-centred because the strategy used in class was question-and-answer, dictation and teacher exposition. This was complemented by writing and explanation on the chalkboard. Towards the end of the lesson the teacher trainer used pair work for learners to solve the problems written on the chalkboard.

The second lesson was teacher-centred as the teacher trainer relied heavily on question-and-answer, which does not constitute discussion strategy.

The third lesson was learner-centred and made use of group work; learners of each group presented content to the class; question-and-answer was also used as a form of direct instruction.

The lessons described have some common aspects:

The first observation is that the instructional material used facilitates the teaching and learning process was basically chalk and chalkboard. Teaching media were not incorporated. There is a need to use concrete material for the trainees to gain insight into abstract concepts. Taking into account that the trainees will teach primary school children who are still in their physical and cognitive developmental stage, it is imperative to realise the impact of illustrating, concretising, touching and experimenting on the learner who often has to master difficult content. For example, when the topic is plants in a Social Sciences class, the teacher should bring the real plant instead of a drawing. The teacher may also ask learners to bring one to the classroom to better observe its characteristics in the classroom.

According to Van Rooyen and Van der Merwe (2004:262),

“Researchers have found that information is remembered best if teachers are provided with many concrete experiences, since concrete experiences lead to improved perception. Perception is the active interpretation of sensory impressions and it makes learning meaningful. For this reason it is essential for teachers to use teaching media. If media are applied correctly, they benefit the learners in four ways: they are motivational, encourage participation, cater for individual needs and stimulate meaningful learning.”

However, no medium teaches on its own (Van Rooyen & Van der Merwe, 2004:273). Teaching media complement the techniques used in classroom and require careful lesson preparation.

Teacher trainers tend to use the chalkboard and chalk as instructional material. Illustration is rarely used. It is necessary that teacher trainers illustrate what they are talking about. Handouts can be time-saving. For example, in the Psycho-pedagogy class, the teacher trainer took a long time dictating the content that could have been avoided if he had brought a handout with the material he wanted learners to have. He even used material

from his exercise book he had used when he was a student. Learners should be given the handouts in advance to familiarise themselves with the topic for the class to be more productive. In short, the teaching and learning process requires a concretisation whenever possible for better understanding purposes.

The second finding is that incorrect answers were rarely used to develop the lesson. There was no praise for the trainees who answered correctly to stimulate them and others.

There is little evidence of some teaching strategies related to Basic Education concerns, namely learner-centred teaching and the use of discussion and group work.



CHAPTER 8

ASSESSMENT

The aim of this chapter is to present the kinds of assessment used at Marrere CFPP and students' results at the end of the year (graduation year). Section 8.1 briefly introduces the main points to be discussed in the chapter. Various forms of assessment are presented (Section 8.2). ACS test and teaching practice are defined as part of formative assessments (Section 8.2.1). Other kinds of assessments as part of summative assessment are defined and discussed (Section 8.2.2). The annual results are presented and discussed taking into account three periods, namely, before, during and after OP (Section 8.3).

8.1 INTRODUCTION

The assessment practices at the college are described at length. It is unclear how assessment fits in with the study's focus, its conceptual framework or the literature reviewed. A research question on assessment that clarifies its relationship to the other dimensions of the research, especially the relationship between policy and practice, should be included.

Among the several innovations that were introduced at the basic education besides the learner centred teaching interdisciplinarity, etc., it encourages the teacher to pay much attention on formative assessment. That is for them not to restrict themselves to texts (for example 2 ACS, 1 ACP, etc.) but to accompany the evolution of the students supporting themselves in an instrument that assures or facilitates the teacher trainer reminding him of the real development through the year, although this issue has not been deeply explored in the educative policy. The information obtained from the collective interview to the interviews with teacher trainers of the areas of Practical Activities and technologies and Maths and Natural Sciences allowed me to talk about the feeling they have about this issue (semi-automatic issues).

The PCEP points to summative assessment that allows the transition from one semester to the other or from one year to the other. Assessment comes to this study as part of the

curriculum. The basic education curriculum gives emphasis to the formative assessment, because it is the one that includes the diagnostic and the continuous assessment with the aim of providing information to the teacher about the level of realization of the objectives of the program. This information must be used to improve the teaching and learning process (INDE/MINED, 2003:49). This kind of assessment is given prominence because it is the great determinant for the basic education students. As you might know, the transition within cycles and through cycles is determined by the formative assessment. In the case of assessment by learning cycle it is called semi-automatic promotion.

The aim of this chapter is to see if the kind of assessments applied at Marrere match those prescribed in the basic education curriculum, on the one hand. It also intends to determine the different designation they take and finally the kind of difficulties that are found when applying the tests in the classroom.

Concerning semi-automatic promotion, it an issue that was not touched deeply, but the data collected can give an insight about this kind of assessment. This issue will be developed in this chapter. We do not want to talk about the kind of questions that are posed in the different kind of assessments. At the end we shall see if the results through the years will allow us to see any substantial improvements in relation to the learner's achievement and the number of graduates, since we have referred in Chapter 1 to the quantity of the graduates that the IFP graduate.

Assessment

What does assessment mean? Assessment is defined as “any systematic method of obtaining information (from tests and other sources) to draw inferences about characteristics of people, objects or programs” (Chatterji, 2003 in Januário, 2008). While Airasian (2001, in, Januário 2008:34) defines assessment “as the process of collecting, synthesising, and interpreting information to aid in decision-making.” Taking into account both definitions, the latter ones, it is clear that “assessment is more than administering, scoring and grading paper-and-pencil tests, and also accommodates the full range of information gathered by teachers in their classrooms” Airasian (2001, in, Januário 2008:34). Perhaps it must be clarified that the data information through various tools can be done formally and informally. It means that assessment could be formal (assessment of learning) and informal (assessment for learning).

According Black et al. (2003, in Januário, 2008:33) assessment **for** learning is any assessment where the first priority is to serve the purpose of promoting student learning. This kind of assessment is usually informal, embedded in all aspects of teaching and learning, and conducted differently by different teachers as part of their own individual teaching styles. While assessment **of** learning is for grading and certification, occurs in formal settings or rituals, involves non-frequent tests, is isolated from normal teaching and learning, is carried out on special occasions, and is conducted by methods over which individual teachers have little or no control. He adds that formal assessment refers to assessment for learning as part of formal assessment, while assessment for learning occurs as part of informal assessment.

In summary, assessment has the purpose not only to certify and grade people, but also to accompany the student progress. In both formal and informal assessment there is a range of assessment, authentic formative assessment, summative assessment, peer assessment, continuous assessment, self assessment, portfolio assessment, among other. In this study, assessment of learning was chosen because I wanted to see the type of assessment taking place at Marrere CFPP and problems encountered in its application in the classroom. I am referring to the formative and summative assessment.

One the most important issues in the assessment when we use tests in the classroom is the validity and reliability of it. Reliability refers to the “degree to which test scores are free from errors of measurement” (Killen, 2007), while validity refers to “a test measure what is meant to measure” (Hill, 1981:22, in Killen, 2007). These are very complex issues that are very difficult to achieve in the school. It involves contexts, environment, types of questions to be asked in the test, and content, among other aspects.

Assessment theories

There are three theories of learning and their implications for assessment practice; namely behaviourism, constructivism and socio-culturalism (James, 2006, in Januário, 2008).

- For **Behaviourism theory** environment for learning is seen as the determining factor, the learning is the conditioned response to external stimuli, and rewards and punishments are powerful ways of forming or eradicating habits. The implications for assessment practice are that the progress is measured by timed tests, performance is interpreted as either correct

or incorrect, and poor performance is remedied by more practice in the incorrect items (Januário, 2008:42).

- For **Constructivism theory** prior knowledge (what goes on in people's minds) determines the learning environment. Emphasis is on 'understanding', and problem solving is the context for knowledge construction through deductive and inductive reasoning. The implications for assessment are that self-monitoring and self-regulation are relevant dimensions of learning, and the role of the teacher is to help 'novices' to acquire 'expert' understanding of conceptual structures and processing strategies to solve problems. When students are involved in the construction of their own learning through formative assessment, they develop the ability to monitor and regulate their learning agenda (Januário, 2008:42).

- For **Socio-culturalism theory** learning occurs in an interaction between the individual and the social environment. Thinking is conducted through actions that alter the situation and the situation changes the thinking. The implication is that, prior to learning; there is a need to develop social relationships through language, because it represents the central element to our capacity to think (Januário, 2008:42).

Constructivism theory is outlined in the Mozambican curriculum because knowledge is constructed taking in to account a prior knowledge from the learners. It is different from what is advocated by behaviourism theory, that learning is determined by the learning environment.

8.2 HOW ARE STUDENTS ASSESSED?

The following assessments are those which are supposed to take place at Marrere CFPP:

- Systematic Control Activity (**ACS**)
- Partial Control Activity (**ACP**)
- Final Control Activity (**ACF**)
- Pedagogic Practices (Práticas Pedagógicas) (**PP**)
- Examinations (**E**)

- Teaching Practice (*Estágio*) (**EST**)
- Other activities (**OA**), which can range from community work, classroom activities, either individually or in group, research work, reports, etc.

In general, the most well-known assessments are diagnostic, formative and summative assessments.

In the case of Marrere CFPP summative and formative assessment, which are the most frequent forms of assessment, will be explored.

8.2.1 Formative assessment

The most well-known and most often applied formative assessment at Marrere CFPP is the ACS (Systematic Control Activity) and Pedagogic Practices (*Práticas Pedagógicas*).

Systematic Control Activity (ACS)

An ACS aims at assessing the assimilation degree of a thematic unit. Differently stated, an ACP aims at assessing the achievement level in a complete set of units or chapters and it must take place in the middle or at the end of each semester. This is a form of summative assessment.

Pedagogic practices

Before simulation proper, prospective teachers observe teachers of the annex schools. Simulation in the classroom begins after trainees have been taught how to write a lesson plan.

These, among others, are the activities that are carried out in pedagogic practices:

- Observing the lessons delivered by the teacher.
- Assisting the teacher in charge to manage the class.
- Attending classes and school meetings.
- Making a lesson plan and presenting it to the teacher.
- Making simulations in the classroom (the assessment is quantitative).

During pedagogic practices, the following elements are taken into consideration for assessment purposes:

- Analysing the planning frame.
- Observing the aptitude and behaviour.
- Analysing the report written by the trainee.
- Observing the achievement of the objectives of the pedagogic practices.
- Trainee/student relationship and trainee/teacher relationship.

The trainee is assessed by the teacher trainer and by the teacher of the class the trainee did his practice teaching in.

As is evident, in formative assessment we have two types of assessment, namely ACS and Pedagogic Practices. ACS, which is usually written, aims at checking how students assimilate the content, thus allowing the teacher trainer to find out the most appropriate strategies to improve the teaching and learning process (the academic area). At this level of assessment the academic area is complemented by the assessment of the professional area, the pedagogic practices. Pedagogic Practices begin with simulation in the classroom among colleagues and culminates in Pedagogic Practices (teaching practices) in the annex school, where trainees practise in a classroom together with primary students with the aim of getting familiarising the trainee not only with the teaching and learning process but also with how it is organised, planned, implemented, etc. In this way, trainees prepare themselves for the decisive phase which is the one-year teaching practice when they teach in a primary school under the supervision of the teacher in charge of that class. They put into practice everything they have learned (planning, teaching, assessing, organising, etc).

In short, the academic area (theoretical) and the professional one (practical) is at first assessed as a way of accompanying the progress, so as to improve trainees' actions (formative assessment). This formative assessment action is complemented by summative assessment to measure competences acquired by trainees; at theoretical level through ACP, ACS and examinations and at professional level through teaching practice. Marnewick & Rouhani (2004:269) say that “formative assessment takes place during the learning process in order to inform the learning experience for each learner.” In other words, “formative

assessment aims to help learners grow and progress.” In the same vein, formative assessment “provides feedback to students and teacher on learning progress” (Gronlund, 1993). Summative assessment is outlined as follows:

“Summative assessment takes place at end of the learning experience ... This usually means a major test or examination, written at the end of a school term or school year. Summative assessment aims to find out how much content a learner can remember. Traditionally, promotion to the next grade depends on summative assessment” (Marnewick & Rouhani, 2004:269).

It is worth remembering that the one year teaching practice is one of the greatest contributions of the Oswela Project to teaching practice assessment. It is different from the former three-month period teaching practice, which was very little time for a trainee to put into practice what he had learnt throughout the course. Unfortunately, the one year teaching practice did not last for long due to financial and legal problems. The former three-month period teaching practice was implemented again.

8.2.2 Summative Assessment

Summative assessment consists of Partial Control Activity (**ACP**), Final Control Activity (**ACF**), Examinations (**E**), Teaching Practice (*Estágio*) (**EST**) and Other Activities (**OA**).

Partial Control Activity

An ACP aims at assessing the achievement level in a complete set of units or chapters and it must take place in the middle or at the end of each semester. The design of ACPs must be coordinated by the delegate (the head of the subject) of the respective subject.

Final Control Activity

ACF (Final Control Activity) aims at confirming and assessing in global terms all the thematic units that were covered during the semester in subjects that do not have an examination in the respective semester. The ACF is designed under the coordination of the delegate.

In every semester students are submitted to at least two ACSs, two ACPs and one ACF as well as OA. There are no ACFs in subjects without examinations.

The subject groups have to present all the ACPs and ACFs designed by the respective teachers as well as the respective correction guides and marks distribution to the pedagogic directorate at least eight days before the date they are due to be submitted to the students. However, not all teachers comply with this prescription, thus making the analysis and reproduction of the test a big issue. The person in charge of the photocopying machine is not always available because he is regularly asked to do other work in Nampula some 11 km from Marrere. Most of the time teacher trainers have to write the test on the blackboard with the consequent inconveniences when the test includes maps and graphics that are not easy to draw. In addition, some blackboards are not easy to write on because the chalk does not adhere to them or they are not visible.

Each teacher usually designs both the ACP and ACS for his/her own classes.

Some subjects are taught for one year (annual subjects) and others are taught for only one semester (semester subjects). Students are submitted to an examination at the end of the school year for the former and at the end of a school semester for the latter subjects.

Assessment is conducted in written rather than in oral form. In terms of weight, ACPs are more important than ACSs and examinations are the most important of the three. Practical work consists of research work which may be presented in class or not.

One difference between forms of assessment is that ACS and ACP cover part of the content that were taught in the semester and the examination covers all the content, either of the semester or the year. Another difference is that an examination takes 120 minutes, while an ACP takes 90 minutes and an ACS takes only 45 minutes. Depending on each teacher trainer, should learners have a very poor performance in any test, they may be granted an opportunity to sit for an extra assessment session to improve their marks.

Every semester students are entitled to sit for at least two ACS, two ACPs and one ACF in each subject. ACS can be oral or written. It can also be in the form of an assignment, where students undertake some kind of individual or collective research work. ACS may be designed by individual teachers or may result from a coordinated action among teachers of the same subject. In the latter case, the same ACS is administered by different teachers to their different classes.

Similarities and differences

It is important to point out that there are some similarities and some differences between the terms used at Marrere CFPP and Basic Education to refer to formative and summative assessment. The similarity is that in both Marrere CFPP and Basic Education there is a formative assessment designated ACS with the same objectives. However, there are summative assessments with essentially the same objectives but different designations. In Marrere CFPP there are ACP and ACF (MINED, 2003a) which correspond to AP and AF (MINED, 2003b) respectively in Basic Education. Taking into account that both kinds of assessment exist in both primary school and Marrere CFPP, there should be an adjustment of terminologies. This would be like the process of adjustment which took place in Marrere after the reform, in terms of the content of the different subjects taught in primary school. This has already been referred to in Chapter 5. The reason why I defend this is that prospective teachers should familiarise themselves with the terms of assessment which they are going to use in primary school. It does not make sense to use different sets of terms.

Another aspect that is worthy of highlighting is the design of the ACS. It may be designed by each teacher for his/her own classes or by a group of teachers for all the classes. The advantages of each teacher designing his/her own ACP is that he knows better what he has taught and how he has taught; the mini-test (ACS) is more likely to meet what and how knowledge has been delivered. Two different teachers may teach the very same content in such different ways that one teacher's learners may find it too difficult to write the other teacher's test (ACS). In this respect, an individually designed ACS is more advantageous than a jointly designed one. However, a jointly designed ACS is pedagogically better, since it being a form of formative assessment, it allows the teachers to compare and think about how they teach based on the students' performance.

Teaching Practice

When the Osuwela Project (OP) was introduced, the curricular plan prescribed that teaching practice should last a year. So trainees should work with one stream for a period of a year. During this period they would be supervised by the teacher in charge of that stream and by CFPP teacher trainers. However, things were never done like that because of financial constraints. As from 2003, another curricular plan was introduced according to which teaching practice would last only three months in the second semester of the last

training year. It would take place in the neighbouring schools to allow the teacher trainers to accompany their trainees and interact with the teachers in charge of the streams where the trainees did their practice.

One aspect worth highlighting is the introduction of a white smock for trainees doing their teaching practice. The white colour is expected to induce trainees to worry much about their personal hygiene. The assiduity of the prospective teachers is taken into consideration in assessing them. How the teaching practice is organised, how long it lasts, how the assessment is done, etc. are other elements that are taken into consideration when assessing trainees. The teaching practice period is short. Now the question is what are the key elements to be taken into consideration for the final assessment of the student during teaching practice? What is the weight of the teaching practice in the final assessment?

The objective of the teaching practice is to get trainees to put into practice not only the theoretical knowledge about the teaching content acquired, but also primary education regulations and administrative aspects. Teaching practice takes place in the third semester and lasts for about three months. It takes place in the first cycle primary schools (from Grade 1 to Grade 5), the level the prospective teachers from Marrere CFPP are going to teach.

Criteria for lesson assessment

Assessing a lesson delivered by a trainee will be done by a jury and must be based on his performance, taking into consideration the level of written preparation and his capacity to provide arguments for his lesson delivery when analysing his lesson delivery with the jury. The criteria for assessing the trainees during their teaching practice consider the following aspects:

Correct formulation of the objectives of the lesson, based on the plan of the thematic units

- Scientific knowledge
- The teaching methodology
- The classroom control and assessment
- Measures to achieve the expected results.

The teaching practice score is equal to the arithmetic mean of the mean of the lessons delivered and assessed by the jury and the mean of Teaching Practice Activities. The publication of the teaching practice score depends on the trainee passing all subjects of the course. A trainee will be considered as having passed the teaching practice if he or she gets 10 marks or more.

Other forms of assessment that stimulate learning and allow for an assessment of capacities (community work, reports, homework, written or not assignments and their presentation, etc.) that are not assessed through the written and oral test should also be considered. It is thus unacceptable that assessment is limited to ACS, ACP, ACF and Examination.

In short, summative assessment also has a theoretical part (academic content) through ACS, ACP, ACF and Examinations, and can be conducted after a semester or a year and assesses the professional aspect through Teaching Practice.

Pedagogical practice report

Trainees' pedagogical practice reports do not follow a unique pattern (structure) because there is neither any recommendation on how they should be written nor are they written with assistance from the teacher trainer. Usually trainees find it difficult to put into writing what they saw, did, felt and other aspects they found during their teaching practice. The report is handwritten. From what I saw, there seems to be an attempt to follow the norms, but how it is done does not matter much. The result is poor quality reports, even though trainees get positive marks.

Should a trainee fail two subjects in the same year, he is banned from studying for a period of a year, after which he may be admitted on a written application to the CFPP headmaster.

Examinations

It is the pedagogic director's duty to demand of teachers to set good quality examination papers. Good quality examinations and students' success hinge on clarity of the language used. The different subject teachers write their test proposals and then the best one is chosen for the formal examination. All these decisions are made in a meeting chaired by the delegate (teacher in charge of the subject). Students write examinations at Marrere CFPP. The Ministry of Education and Culture in coordination with the Provincial

Directorate of Education and Culture as well as other technicians of the teacher training institutions supervise, monitor and validate the process.

Should a trainee get nine or eight as annual mean score (after writing the examination) in not more than two subjects, thus failing to go to the subsequent standard, he or she can be conceded an opportunity to write a second round of examinations on request in the subjects in question. The trainee must not get less than ten marks to pass. Absentees are also conceded this opportunity if they produce a plausible justification and prove it, such as health problems, death of a close relative or have received a summons to appear in court on the day of the examination.

The big difference between examinations and other tests is that, by regulation, if a student fails an examination he is submitted to a second round one, which does not happen in the case of tests. However, depending on each teacher, a student may write a special test to improve his marks.

A trainee who gets 10 marks is admitted to the examination. If he or she gets 14 marks or more he or she is exempted from writing the examination. Examinations take 120 minutes for every subject.

Second round examinations: One of the examination types to solve the problem of not meeting the requirements to pass (second round examinations, 2005).

Among the 15 students who were submitted to the examination only three did not manage to pass. It must be remembered that these are students who did not manage to get 10 points.

In general, assessment regulation offers good chances for learners to improve their scores if they get negative marks. Teacher trainers may submit learners to an ACS which can either be oral or written for the learners to improve their scores. Teacher trainers may give learners an assignment in the form of research work, etc. In the case of examinations, the regulation is beneficial since learners have the opportunity to sit for a second round examination, ask for a second correction of his examination script if he thinks his score is lower than it should be. Moreover, a learner with positive mean scores in all subjects

except for one subject may be offered one mark to get a mean of 10 so that he or she can pass. For example, in 2006 (26 June 2006), according to minute number 3/06, there was one class body (Council marks - *Conselho de notas*) in which the chairman asked the teachers to think about how many marks were going to be voted on each learner. From class body (*conselho de notas*) it was decided that two marks would be given to each learner. If any learner still did not meet the requirement to pass after writing the examination he/she would have to be subjected to a second round of examinations in October, after the regular examinations. Altogether there were about seven trainees in this situation.

Other activities

Community work reached its peak during the time of OP when community participation was popular. Learners used to do research by interviewing local community members about the local history, about how the College name came about, about other aspects including local cultural activities. It seems that this link with community does not exist any longer.

Concerning individual or group research work based on bibliography, teacher trainers are aware of the lack of sufficient literature for learners to table quality work so they rarely assign such a topic. One aspect worth mentioning is the lack of clear instructions on how research work should be done. This also happens when learners have to write their pedagogic practice and teaching practice reports. They only receive instructions concerning the content of the report but are not guided about its structure (introduction, development and conclusion).

Not everybody participates in group work. The reason is that not all group members live in the hostel or in the town. Those living in the hostel cannot afford to go to the town because of financial constraints.

There are daily compulsory extra activities that take up much of the internal students' time so that they have very little time to go to the library to do research work. It is during research presentations that teacher trainers become aware of learners' weaknesses. In order not to penalise such learners, teacher trainers do not assign any score to this work.

It is worth highlighting that assessment based on the research assignment was conducted easily during the OP due to the abundance of resources but with time passing by, the books disappeared and they had to be locked in the *baú pedagógico* (See Chapter 5); this state of affairs makes research resources almost inaccessible and is the reason for the poor quality of research assignments. During the OP research work was based on interviews with local community leaders; topics covered include researching the origin of songs of the area, Marrere's social history, the way in which the name Marrere came into existence, the predominant cultural activities and the main products grown, etc. These research assignments were assessed. But this is no longer the case. The departure of the OP caused a lack of motivation. In short, this kind of activity allowed the student to have an active and predominant role in searching for information and offered the advantage of the acquisition of knowledge through the learner's own efforts. Nowadays research work is of a poor quality.

Weight of each assessment (final, annual and semester scores)

In each semester students write the following kinds of test: ACSs, ACPs, PP (Pedagogical Practices) and ACF.

The semester mark, year and the final average marks are calculated using the appropriate formula. The figures are always rounded when there are decimal places. For example, if the average mark is 9 it is rounded to 10; if the average mark is 9.4 it is automatically rounded to 9, the rounding by default.

The semester mean

The formula for calculating the semester mean:

a) For subjects without examination

$$\text{NFS} = \frac{\text{ACS} + \text{ACP} + \text{ACF} + \text{OA}}{4}$$

The formula above means that NFS (semester mean) is obtained by summing up the means of ACS and ACP plus the ACF mark and the mean of OA divided into 4.

b) For subjects with an examination

$$\text{NFS} = \frac{\text{ACS} + \text{ACP} + \text{OA}}{3}$$

The formula above means that NFS (semester mean) is obtained by summing up the means of ACS, ACP and other OA divided into 3.

Annual mean

a) For subjects without examination

$$\text{NA} = \text{NAF} = \frac{\text{NFS1} + \text{NFS2}}{2}$$

The formula above means that NA (Annual mean) is obtained by summing up the means of the first semester and second semester divided into 2.

b) For subjects with examination

$$\text{NA} = \frac{\frac{\text{NFS1} + \text{NFS2}}{2} + \text{E}}{2}$$

The formula above means that the annual mean is obtained by summing up the means of the first semester and second semester divided into two plus the examination score divided into two again.

The average final mark of the semester of subject without examination is the same as the annual mark of the same subject.



The mean of each year

$$NG = \frac{NA1 + NA2 + \dots + NAn}{n}$$

The mean of the year is calculated by summing up the means of each subject and dividing it into the number of years.

$$MFC = \frac{NG1 + 2 \times NG2 + 2 \times NG3 + 2 \times EST}{7}$$

The final mean of the course is calculated by summing up the mean of year one plus two times the annual means of year two and year three plus two times the score of the teaching practices divided by 7.

The summary of formulae for calculating learners' marks can be seen in the table below.

Table 8.1

Formulae Calculating learner marks

<p>1. Semester mean: $NFS = \frac{ACS + ACP + ACF + OA}{4}$</p> <p>2. Semester mean: $NFS = \frac{ACS + ACP + OA}{3}$</p> <p>3. Yearly mean $NA = NAF = \frac{NES1 + NES2}{2}$</p> <p style="padding-left: 40px;">$\frac{NFS1 + NFS2 + E}{2}$</p> <p>4. Yearly mean: $NA = \frac{2}{2}$</p> <p>5. Average mark $NG = \frac{NA1 + NA2 + \dots + NAn}{n}$</p> <p>6. Final mark $MFC = \frac{NG1 + 2 \times NG2 + 2 \times NG3 + 2 \times EST}{7}$</p>
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Source: MINED, 2003a

All the assessments range from 0 to 20 marks. The ranges from 0 to 6 (not satisfactory) and 7 to 9 (acceptable) constitute negative achievement, and students are likely to fail. The ranges from 10 to 13 (satisfactory), 14 to 17 (good) and 18 to 20 (very good) constitute positive achievement, and students are likely to pass (MINED, 2003b).

There are several formulas to calculate the semester, annual, global means, etc., none of which is more advantageous than the other. Although they are different, in essence they are all equal. Teachers have a great job calculating the means of all the classes. This activity is time-consuming.



8.3 OUTCOMES

8.3.1 Final results at the end of last year of study or course

Table 8.2

Annual learners' results at Marrere CFPP (1993 – 2003)

		M	F	MF	M	F	MF	M	F	MF
1993	Preset	34	15	49	32	13	45	15	10	25
	Inset	5	0	5	5	0	5	5	0	5
	Total	39	15	54	37	13	50	20	10	30
1994	Preset	13	11	24	13	8	21	10	8	18
	Inset	26	1	27	26	3	29	23	0	23
	Total	39	12	51	39	11	50	33	8	41
1995	Preset	16	5	21	16	5	21	16	4	20
	Inset	36	8	44	30	6	36	29	6	35
	Total	52	13	65	46	11	57	45	10	55
1996	Preset	13	13	26	13	13	26	11	12	23
	Inset	17	2	19	17	2	19	17	4	21
	Total	30	15	45	30	15	45	28	16	44
1997	Preset	24	9	33	24	9	33	24	9	33
	Inset	21	2	23	21	2	23	18	2	20
	Total	45	11	56	45	11	56	42	11	53
1998	Preset	49	31	80	48	31	79	35	29	64
	Inset	35	5	40	34	5	39	35	1	36
	Total	84	36	120	82	36	118	70	30	100
1999	Preset	57	38	95	57	38	95	49	38	87
	Inset	14	3	17	14	3	17	16	2	18
	Total	71	41	112	71	41	112	65	40	105
2000	Preset	54	52	106	55	53	108	47	51	98
	Inset	4	0	4	4	0	4	4	0	4
	Total	58	52	110	59	53	112	51	51	102
2001	Preset	43	74	117	43	74	117	43	74	117
	Inset	0	0	0	0	0	0	0	0	0
	Total	43	74	117	43	74	117	43	74	117
2002	Preset	73	83	156	59	51	110	59	51	110
	Inset	0	0	0	0	0	0	0	0	0
	Total	73	83	156	59	51	110	59	51	110
2003	Preset	76	92	168	76	91	167	73	83	156
	Inset	0	0	0	0	0	0	0	0	0
	Total	76	92	168	76	91	167	73	83	156

Source: Annual maps of school results at Marrere CFPP

This chart shows Marrere CFPP year three trainees' school achievement from 1993 to 2003. In 1993 the initial number of students was 54, of which 39 were male and 15 female.

Among the 39 male students, 34 belonged to PRESET and five belonged to INSET. Only 50 trainees studied till the end of the year; 37 were male and 13 were female. At the end of the year only 30 graduated, 20 being male and 10 being female.

One aspect worth noting is that in 2001 there was not any INSET (teacher/students). From this we can conclude that INSET ceased in 1999. This is due to the fact that an INSET pedagogical nucleus was created and based at CFPP Marrere to deal with INSET (teachers/students).

Table 8.3

Graduate learners at Marrere CFPP (1993 – 2007)

Years	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Male	20	33	45	28	42	45	52	51	42	54	62	102	54	100	188
Female	10	8	10	16	11	55	53	51	72	46	97	151	76	156	163
Total	30	41	55	44	53	100	105	102	114	100	159	253	130	256	351

Source: Annual maps of school results at Marrere CFPP

The number of graduates at CFPP increased from 1993 to 2007. For example, in 1993, 30 future teachers graduated (20 men and 10 women). In 2003, 156 future teachers graduated (73 men and 83 women). Some time ago the number of graduate men was far higher than that of women but nowadays the number of graduate women is also increasing. For example, in 1993 20 men and 10 women graduated but in 2003 73 men and 83 women graduated. In 2000, although at the beginning of the year the number of men (58) was higher than that of women (52), the number of graduates was equal (51).

It is also important to highlight that in 2002 the number of male graduates was 59 and that of female graduates was 51, although at the beginning of the year there were 73 men and 83 women. In general, women fail more than men do. This and other factors account for the differences between the income and the outcome. The tendency for the number of female graduates to grow is a reality, partially due to the policy of positive discrimination mentioned in Chapter 4. This accounts for the higher number of women at Marrere CFPP. Some of the factors, among others, that explain the high rate of women failing are: drop out and death.

A percentage analysis shows the pass and failure rate. It is based on the yearly school achievement comparative data at Marrere CFPP before OP, during OP and after the departure of OP (see Table 8.4 below).

Table 8.4

School achievement 1990 - 2007

School achievement 1990 – 2007									
	Year	Start	End	Drop Out	Assessed	Positive Situation	%	Graduated	%
Before OP	1990	256	231	24	231	161	70	49	21
	1991	344	288	56	288	206	72	113	39
	1992	229	202	27	202	180	89	105	52
	1993	224	200	24	200	126	63	30	15
	1994	162	152	10	152	110	72	41	27
	1995	157	147	10	147	130	88	55	37
	1996	284	269	15	269	234	87	44	16
	1997	295	279	16	279	237	85	53	19
OP	1998	325	320	5	320	281	88	100	31
	1999	348	346	2	346	327	95	105	30
	2000	363	359	4	359	333	93	102	28
	2001	395	391	4	391	379	97	114	28
After OP	2002	569	564	5	564	513	91	100	18
	2003	762	755	7	577	533	89	199	27
	2004	732	688	44	688	633	82	253	37
	2005	588	568	20	568	537	95	130	23
	2006	1132	1128	4	1128	1082	96	156	23
	2007	1014	1013	1	1013	942	93	351	35

Table 8.4 shows school achievement of the trainees of Marrere CFPP between 1999 and 2007. The first column represents three fundamental periods, namely before, during and after OP. The second column refers to years. The third column represents the total number of trainees who are doing year three or last grade. The fourth column represents the number who continued till the end of the year. The fifth column represents the number of

drop outs (death, transferences, etc.). The sixth refers to the total number of those who were assessed. The seventh column represents trainees in a positive situation among those who were assessed. The eighth shows the percentage of trainees in positive situation, the ninth represents the number of graduated trainees and finally the tenth shows the percentage of graduated trainees.

In the period 1990 to 1997 the school achievement mean (average) was 28%. The lowest annual school achievement was 15% in 1993 and the highest was 52%, in 1992. This period was before OP. The next period (1998 to 2001), the OP period, the school achievement mean (average) was 30%. The lowest annual school achievement was 28% in 2001 and the highest was 31% in 1998. The last period (2002 to 2007), after OP, the school achievement mean (average) was 27%, the lowest annual school achievement 18% in 2002 and the highest was 37% in 2004.

Comparing the means (averages) of the three periods, we can see that there are not many differences; they range from 27% to 30%. Looking at the annual means of the 18 years, we can highlight 1992 when the annual school achievement was 52%, the highest of all; and 1993 when the annual school achievement of 15% was the lowest. Interestingly enough, the highest and the lowest annual school achievement were registered before the OP and they came one immediately after the other. Whatever percentage is obtained will be considered low, let alone if it is lower than 50%. The number of trainees who fail at the end of each year is higher than that of those who pass. The number of graduates does not keep up with the demand of teachers for primary education if we consider the annual need of 10.000 in Mozambique (MEC, 2006:44).

In view of this data it can be concluded that there are no significant differences among the three periods, namely before, during and after OP. This lack of difference can be explained with the short time duration of the project in Marrere CFPP. While OP was starting to gain roots, it moved in December 2001 to Nampula City. The four years were not sufficient for it to have an impact on school achievement. However, it is recognised that during the time of OP there were considerable improvements in the organisation, in the teaching practice and in the institutional capacity-building in terms of human resources and material resources for the teaching and learning process. Some examples are the upgrade of the

teacher trainers and the introduction of an incentive (subsidy) for those teacher trainers who were permanently appointed at Marrere CFPP, to mention a few.

As can be seen from Table 8.4, the percentage of trainees in a positive situation in the three periods is different. The percentage of trainees in positive situation ranges from 63% (before OP) in 1993 to 97% (during OP) in 2001. The last one is the highest percentage ever obtained and it was obtained during the Oswela Project. This shows an improvement in the performance of trainees, but they show an extremely low performance in the examination and fail. So the big problem is the examination. Note that the examination is local which, we believe, makes things easier for trainees. Imagine if it were national.



Table 8.5

School Achievement 1990 – 2007 by Gender

	Year	Start			End			Drop Out	Assessed			Positive Situation			Graduated		
		Total	M	F	Total	M	F		Total	M	F	Total %	M %	F %	Total %	M %	F %
Before OP	1990	255	197	58	231	180	51	24	231	180	51	161 (70)	120 (52)	41 (18)	49 (21)	35 (22)	14 (9)
	1991	344	285	59	288	241	47	56	288	241	47	206 (72)	175 (61)	31 (11)	113 (39)	98 (48)	15 (7)
	1992	229	189	40	202	163	39	27	202	163	39	180 (89)	142 (70)	38 (19)	105 (52)	82 (46)	23 (13)
	1993	224	182	42	200	165	35	24	200	165	35	126 (63)	103 (52)	23 (12)	30 (15)	20 (16)	10 (8)
	1994	162	128	34	152	123	29	10	152	123	29	110 (72)	89 (69)	21 (14)	41 (27)	33 (30)	8 (7)
	1995	157	121	36	147	115	32	10	147	115	32	130 (88)	104 (71)	26 (18)	55 (37)	45 (35)	10 (8)
	1996	284	206	78	269	195	74	15	269	195	74	234 (87)	174 (65)	60 (22)	44 (16)	28 (12)	16 (7)
	1997	295	201	94	279	191	88	16	279	191	88	237 (85)	159 (57)	78 (28)	53 (19)	42 (18)	11 (5)
OP	1998	325	197	128	320	183	127	5	320	183	127	281 (88)	163 (51)	118 (37)	100 (31)	45 (16)	55 (20)
	1999	348	175	173	346	174	172	2	346	174	172	327 (95)	161 (47)	166 (48)	105 (30)	52 (16)	53 (16)
	2000	363	166	197	359	162	197	4	359	162	197	333 (93)	145 (40)	188 (52)	102 (28)	51 (15)	51 (15)
	2001	395	173	348	391	157	248	4	391	157	248	379 (97)	150 (37)	241 (60)	114 (28)	42 (11)	72 (18)
After OP	2002	569	251	318	564	249	315	5	564	249	315	513 (91)	233 (41)	280 (60)	100 (18)	54 (11)	46 (9)
	2003	762	317	445	755	244	352	7	577	244	352	533 (89)	225 (38)	308 (52)	199 (27)	62 (12)	97 (18)
	2004	732	300	432	688	289	399	44	688	289	399	633 (82)	264 (38)	369 (53)	253 (37)	102 (16)	151 (24)
	2005	588	236	352	568	224	344	20	568	224	344	537 (95)	215 (38)	322 (56)	130 (23)	54 (10)	78 (14)
	2006	1132	469	663	1128	470	658	4	1128	470	658	1082 (96)	457 (40)	625 (55)	156 (23)	100 (9)	156 (14)
	2007	1014	482	532	1013	537	1013	1	1013	537	1013	942 (93)	476 (47)	486 (46)	351 (35)	168 (20)	163 (17)

Source: Annual maps of school results at Marrere CFPP

Male trainees tend to have better results (school achievement) than female ones, that is, they graduate more than female trainees. This is due to the fact that, although the number of female trainees is higher than that of males at the beginning, after examinations, the number of both male and female trainees becomes balanced or that of graduated male trainees increases. For example, in 2000 there were 363 trainees in year three. 166 were male trainees and 197 were female. Only 359 were enrolled until the end of the year, of which 162 were males and 197 were female trainees. Among the 359 who studied until the end of the school year, only 333 were in a positive situation. Of these, 145 were male and 188 were female trainees. After the examination a balanced number graduated: 51 men and 51 women. In spite of the positive discrimination at the beginning of the year, and the examination at the end of the year, more female trainees fail than male trainees. If it were not for positive discrimination, even fewer women would graduate as teachers. This situation of few female graduates is even more evident in 2000 and 2002. For the first time in 2000 the number of female trainees was higher than that of males.

The objective of the Osuwela Project of admitting more female students was definitely achieved. However, admitting more women does not automatically mean having more women graduating at the end of each year. There are many factors contributing to the decrease of female graduates: economic and social reasons, low perseverance level, death, poor school performance and others. The present scenario puts the ideal of the Ministry of Education and Culture to increase the number of female teachers at schools to promote gender balance far out of reach. For example, in 2007, at primary education level (EP1), there were a total number of 74 366 teachers, 25 494 of which were female teachers. This is only 34% of the total number of teachers. The desire to have many women teachers has to do with the belief that women are more patient and work with children more easily than men do and also because of their maternal instinct. Unfortunately, the number of female graduates is still far from what is desired.

The idea that a female teacher gets better results is reinforced by Linnakyla (1993:32) in her study about *Teaching reading around the world: IEA study of reading literacy*. She concluded that there are significant differences between female and male teachers in terms of results and that “in many countries students taught by females scored higher than students taught by male teachers, especially at lower grade levels.” In the same vein, Elley (1992:40) argues that “high average reading scores were obtained in education systems

with higher proportion of women teachers.” In spite of this conclusion, there is no explanation given by the authors about it.

Social Science and its methodology test

Social Science examinations face certain constraints. In the design of the tests, except for the examination, teachers sometimes face problems of a lack of paper (A4 paper). All the tests were written on the chalkboard which made it difficult for the inclusion of maps, images and other elements in accordance with the programme and methodology of the subject. This scenario is different from that of examinations, for which every necessary material is bought, such as A3 and A4 paper, ink, etc. This is the reason why tests such as ACS and ACP were not analysed. None of the tests that were written on the blackboard is available in the files.

How Social Science examinations and their methodology examinations are set

As has been mentioned in Chapter 5, Social Sciences content is separated into Geography content and History content. This separation is also reflected in the way tests and examinations are set. The data refer to Social Science tests and examinations written from 2002 to 2006. Ten first and second round Social science examinations were observed from 2002 to 2006. The logic was the same in most of the examinations, not to say in all examinations. In general, there were three groups of questions with sub-questions. In the first group there were History questions, then Geography ones and finally Social Science and Teaching Methodology questions. This example shows the faithful reproduction of what happens in the programmes of Social Science. Sometimes Geography questions come first, then History ones and the last group is those of the Methodology of Social Science.

This is a case of 2006 second round examinations in Social Science for year three students of the last course. It consists of two major groups, I and II. In the first group there are History and Geography questions. The first and second questions cover History content and the third deals with Geography content. The second group consists of Social Science Methodology content. There are three questions. According to the correction guide, History questions are worth 4.5 points while Geography questions are worth 3 points; the remaining questions on Social Science Methodology are worth 12.5 points. As can be seen, there is an unbalanced distribution of weight of the questions, with Methodology content

weighing the most. It can be said that this unbalanced distribution of 1/3 for Methodology contents is due to the fact that it is a teacher training institution.

Link between formative test and semi-automatic promotion

Reflection on semi automatic promotion

Teachers demand more autonomy in determining the automatic passing of first cycle primary students. They say that lack of autonomy prevents them from having a greater contribution to an even better performance of the students in the coming cycles. They also complain about lack of coherence and logic sequencing of the contents in the subjects and a poor relation between the teacher's book and the content, based on the teaching and learning programmes. This is an issue that the newspaper Domingo (2006:4) has written about; the question is how applicable is the new Basic Education curriculum.

Teachers working with the new curriculum of Basic Education demand more autonomy in determining the students who should automatically pass, especially in the first cycle of primary education, instead of the current system prescribed by the assessment regulation for this teaching level. According to them, the regulations prevent them from giving the necessary relevance to notes about students' daily performance which would allow them to avoid that the passing or failure of the students be determined exclusively by the regulations.

This normative assessment instrument, according to the newspaper Domingo (2006:4), determines that, in the first cycle of primary education, a student needs to get an average mark of only 7 points in each subject to move from Grade 2 to Grade 3, regardless of his average marks in Mathematics and Portuguese, subjects which were considered compulsory in the former teaching and learning curriculum.

Teacher trainers do not feel comfortable about the new assessment policy because they feel compelled to let students pass that clearly have not mastered the required knowledge and skills to teach.

According to the newspaper *Domingo* (2006:4), the new curriculum encourages laziness in students because they know even if they do not work hard they will be promoted to the next

grade. Even if a student gets 2 for Portuguese and 1 for Mathematics, for example, he can move to the next level, as long as he gets a mark in other subjects that allow him to have the minimum average mark of 7.

Although some parents, recognising that their sons are not well prepared, demand of the teacher trainer and the education directorate to retain their sons in the same grade, others insist that their children pass even when they do not make the grade. Domingo (2006:5) knows that in an attempt to change the situation, some parents ask the teacher trainers and the school headmasters to demote their children to a previous grade, which is not possible due to the fact that the academic achievement data have already been registered in the official documents at school level and with the district and provincial directorate. What teachers want is that their daily notes about student performance be taken into consideration and be relevant in determining whether a student passes or not in the first cycle.

Teachers are aware of the effort they will have to make because of the high teacher-learner ratio and the excessive working hours which make them assist a high number of students.

To summarise, no doubt most primary school teachers in Mozambique are not happy with semi-automatic promotion because it does not allow them to pass or fail a student. However, the main reason is a misinterpretation of or a lack of information on what semi-automatic promotion is and what its philosophy is.

In-Service Training and Initial Training

CRESCER has been offering in-service training to some teachers, providing them with tools to deal with formative assessment. This is the key element of semi-automatic promotion adopted at the basic level. One aspect to take into consideration is that every teacher trainer takes part in this training. In the beginning, teacher trainers find it difficult to get familiar with the practice. There are differences between what is done at in-service training and what is done at initial training concerning assessment. It is forgotten that prospective teachers will have to use that type of assessment, which is the basis of semi-automatic promotion. As a consequence, in-service training will be necessary for teachers when working in primary schools due to the fact that they do not have the necessary knowledge to deal with formative assessment.

8.4 CONCLUSION

The first conclusion is that there are two types of assessment that are frequently used at Marrere CFPP, namely formative (ACS and Pedagogical Practices) and summative assessment (ACP, ACF, Examinations, Teaching Practice and others). School achievement (school results or performance) in the three periods, namely before, during and after the Oswela Project, reflects a slight difference. In 2003, when the Oswela Project was operating, the best result was 97%. However, the average percentage of the graduated students at the end of each year shows no significant differences among the three periods. This means that trainees have most difficulties in the examinations.

The second conclusion is that throughout the years the number of trainees has increased considerably, thus changing the previous situation when the number of male trainees was larger than that of female ones. However, the total number of trainees decreases so markedly in the course of the year until the graduation that the number of male and female trainees is equal or that of female trainees is lower than that of males. Formal examinations remain the main reason for the failure of many students.

The third and last conclusion, taking into account the degree of selectivity of the final examinations, is that trainees graduating from Marrere CFPP seem to be not well qualified to carry on their future profession.

Finally, during the application of some tests, particularly ACS, some problems emerged, such as a lack paper to print ACS test on or machine broken, among others.

CHAPTER 9

CONCLUSION AND RECOMMENDATIONS

The aim of this chapter is to present the conclusions of the study drawn from major findings and the recommendations, taking into account three different perspectives in Section 9.1. The main problem, research questions, purposes and objective of the study are presented in Section 9.2. Conclusion drawn from the main findings emerging from the literature review and the main findings emerging from different chapters are presented in Section 9.3. Section 9.4 presents a reflection of the study. Finally, the chapter presents recommendation and implications (Section 9.5), recommendations for policy and practice and for further research (Section 9.5.2) and for further development work (Section 9.5.3).

9.1 INTRODUCTION

This chapter presents the summary of the main findings, conclusions, recommendations and their implications. The conclusions are based on the summary of the problem, research questions and the aim of the study, and its main findings are drawn from qualitative research instruments and from the literature review. The main findings emerging from the study are discussed in this section. The chapter ends with the researcher's recommendations.

9.2 THE MAIN PROBLEM, RESEARCH QUESTIONS, PURPOSES AND OBJECTIVE OF THE STUDY

As stated in Chapter 1, Mozambique embarked on Curricular Reform for Basic Education (1998) which culminated with its getting into effect in 2004. The reasons behind this curricular reform for basic education were political, socio-economical and cultural changes that occurred in the country. Apart from this, the introduction of the curricular for basic education is made in the poor resources context. It means that Mozambique faces many problems, namely facilities and resources, lack of didactic materials in schools, among other problems.

However, after the introduction of the new curriculum for Basic Education, it is still to be known how these changes, namely learner-centredness approach, interdisciplinary approach, new subjects areas (social science), new subjects for arts or crafts and bilingual education, have been implemented at Marrere CFPP.

This is a case study at a teaching training college against the background of the implementation of new policies.

This study intends to determine how the theories about curriculum change have been implemented and the reason why they have been implemented in that way. It also seeks to determine the relationship between curriculum change and practice at Marrere CFPP, the extent to which the teacher training curriculum and assessment match the Basic Education curriculum and how they do so, as well as their outcomes.

The purpose of the study is to explore the relationship between policy and practice in the classroom at Marrere CFPP. Its aims are to contribute to a reform of teacher education in Mozambique through an analysis of how the present form of teacher education relates to the needs of the new school curriculum. The challenge facing the education system in Mozambique is to train more teachers well in the context of massive increasing numbers of students and schools.

In answering the above questions, the study had to focus on what was going on with the implementation of the basic education curriculum in Mozambique, specifically at Marrere CFPP, to which end particular attention was focused on classroom practices, some school conditions, and the factors class size, resources, facilities, teacher trainer qualification and their influence the implementation of the curriculum.

The data needed to answer the research questions was obtained via interviews, classroom observations, documents and written notes. Triangulation validated the information already collected. The following conclusion reflects findings drawn from the investigation.

The literature reviewed revealed that the implementation of curriculum is not linear but a very complex system. This complexity can be found at the government level agencies involved and they are numerous at national, regional and local level. This complexity is

complemented by the structure existing at each level. Also, the power is top down. This means that decisions are taken centrally and move in only one direction. This scenario fits very well in the Mozambique context. For example, in Mozambique there are many government agencies which constitute the branch of Minister of Education and Culture, at national, regional and local levels. At each level, there are internal structures.

In this study, the Marrere CFPP is one of the government agencies which are located at local level. The relationship between these agencies of the Ministry of Education and the top level depends on the structure installed at the middle, e.g. Ministry of Education, Provincial Education directorate, district education directorate and finally the Marrere CFPP.

As stated before, the relationship established is top-down. I can give one example that illustrates how this type of power impairs the teaching and learning process at Marrere CFPP. Since 2007, INDE, through the Teacher Training Department, took responsibility to list the overall relevant reference books in order to send these to teacher training institutions as well as their prices. This work was done in a short period of time. This list or information was sent to the Minister of Education. What happened since 2006 until 2009 nothing was done, because of bureaucracy at top level. No books were bought and sent to **school (college)**. This example illustrates that the top-down power structure and excess of bureaucracy really affect the implementation of new curriculum for basic Education in Mozambique. In other words, if at the top level there is lethargy, then at other levels nothing will be done as well. Three years have gone by now and no book has been bought. Note that the budget to buy the books is available but bureaucratic problems impair their purchase.

It is important to remember that during OP at Marrere CFPP was structured according to the project action and the decisions were made collegially. After the departure of OP from Marrere CFPP, the power reverted to the previous approach (top-down). It means that Marrere CFPP was organized (Chapter 4) as follows: The Management of the Centre is constituted by a Management Council (*Conselho alargado da Direcção*) which comprises Marrere CFPP Director, Deputy Director, Boarding School Director, Head Office, Representative of School and Community Centre.

9.3 CONCLUSIONS DRAWN FROM THE MAIN FINDINGS OF THE INVESTIGATION

The relationship between basic education curriculum, teacher training curriculum and its implementation

In the light of the new curriculum for basic education in Mozambique, the teacher training curriculum has been adjusted in order to meet the needs of the new curriculum (Chapter 5). In this line there is convergence of both the study plan for Basic Education and the study plan for the teacher training college in terms of areas and the respective subjects. It can be concluded that, in general, there is convergence of both study plans in terms of subjects areas, except for some specific subjects, which we call professional subjects, only found at Marrere CFPP. However, the emphasis is on the gap between policy and practice. Social Sciences which are composed of History, Geography and Moral and Civil education, are supposed to be taught using an integrated approach, but this does not happen at Marrere CFPP.

Despite the relationship between the Basic Education curriculum and College curriculum, it is important to emphasise that there is a need to provide both trainers and prospective teachers with the necessary skills to be able to deal with the integrated approach outlined in the curricular plan for Basic Education, more particularly in Social Sciences. Organising and stating the intention of policies is not enough; it is also necessary to meet all requirements in order to achieve them. Intentions are located at the rhetorical level because the lack of practice is explained by lack of knowledge to implement such intentions.

On the one hand we must still say that the directorate of Marrere CFPP is in charge of providing the relevant books for the subjects, hidden in the “*baú pedagógico*” (Chapter 5), with the allegation that with no control they may disappear. Still on the same issue, the production of non-conventional didactic material in the craft subject for other subjects is a good initiative but it has its restrictions because it is restricted only to objects (Chapter 5) and in some cases to cartoons, maps, landscapes and others. It does not produce books and handouts that are usually the most used materials in the teaching and learning process at Marrere CFPP, to the detriment of illustrative material (Chapter 7) in the classroom.

The perception of teacher trainers regarding the new curriculum for basic education A learner-centred approach vs. participative methods

The new curriculum for basic education in Mozambique, among change, adopted **interdisciplinarity** and a **learner-centredness approach** as a teaching method to be used during the teaching and learning process in the classroom.

In general, teacher trainers that were interviewed provided different definitions of a learner-centred approach. Apart from this, they shared more viewpoints since they all highlighted the role of the teacher and that of the learner. They are aware of the changed role of both the teacher and the learner when there is shift from a teacher-centred approach to a learner-centred one. They use different terms to characterise the role of the teacher: *facilitator, director, mediator*, etc. Some teacher trainers highlighted the importance of learners' previous knowledge. One of them elaborated on the role of the learner, saying that learners must have the opportunity to speak, experience, think, touch, indicate, demonstrate, dramatize, illustrate, ask questions, answer questions, handle the material, do several exercises, etc.

It seems that most of the trainers have a notion of the concepts relevant to the new curriculum for Basic Education. However, putting them into practice is the problem.

Interdisciplinarity vs. an integrated approach

At least seven teacher trainers said that interdisciplinarity and an integrated approach were synonymous. Two of them said that there is interdisciplinarity in every lesson, regardless of the subject. There is a contradiction among some teacher trainers, evidence of a lack of clarity about the concepts being studied. Besides regarding interdisciplinarity and integrated approach as synonymous (Chapter 6), the examples show that the teacher trainers have a superficial knowledge of the concepts.

In summary, many teacher trainers do not have a basic notion of methodological principals which guide the teaching and learning process prescribed in the PCEB. This results in inconsequent application of the terms by teacher trainers.

The new curriculum for Basic Education curriculum has been designed in order to improve the quality of Basic Education in Mozambique. To achieve these goals, it is very interesting to focus on a learner-centred approach and semi-automatic promotion which is much related to the cycle of learning.

A study by Adler & Flihan (1997:7) shows that “interdisciplinarity and integrated approach are generally used as synonyms or interchangeably but in real terms they are different concepts.” “Interdisciplinarity literally refers to a study of *relationships among disciplines*, while integrated approach refers to a *cross-disciplinary approach* that is the result of sifting related idea out of subject matter content” (Adler & Flihan, 1997:64).

The results that were obtained concerning the concepts *learner-centred approach*, *interdisciplinarity* and *integrated approach* show that the trainers have different backgrounds and educational experience and that they lack access to the literature that supports the above concepts. Even the policy documents neither define nor explain the terms.

Classroom practice: teacher-centredness approach, work group and discussion

The pedagogy lesson observed was teacher-centred because the strategy used in class was question-and-answer, dictation and teacher exposition. This was complemented by writing and explanation on chalkboard. Towards the end of the lesson the teacher trainer used pair work for learners to solve the problems written on the chalkboard. The second lesson was teacher-centred as the teacher trainer relied heavily on question-and-answer which does not constitute discussion strategy. And finally, the third lesson was learner-centred and made use of group work; learners of each group presented content to the class; question-and-answer was also used as a form of direct instruction.

The lessons described have some common aspects:

The first observation is that the instructional material used facilitating the teaching and learning process was basically chalk and chalkboard. Teaching media were not incorporated. There is a need to use concrete material for the trainees to gain insight into abstract concepts. Taking into account that the trainees will teach primary school children who are still in their physical and cognitive developmental stage, it is imperative to realise

the impact of illustrating, concretising, touching and experimenting on the learner who often has to master difficult content. For example, when the topic is plants in a Social Sciences class, the teacher should bring the real plant instead of a drawing. The teacher may also ask learners to bring one to the classroom to better observe its characteristics in the classroom.

No medium teaches on its own (Van Rooyen & Van der Merwe, 2004:273). Teaching media complement the techniques used in classroom and require careful lesson preparation.

Teacher trainers tend to use the chalkboard and chalk as instructional material. Illustration is rarely used. It is necessary that teacher trainers illustrate what they are talking about. Handouts can be time-saving. For example, in the Psycho-pedagogy class, the teacher trainer took a long time dictating the content that could have been avoided if he had brought a handout with the material he wanted learners to have. He even used material from his exercise book he had used when he was a student. Learners should be given the handouts in advance to familiarise themselves with the topic for the class to be more productive. In short, the teaching and learning process requires a concretisation whenever possible for better understanding purposes.

The second finding is that incorrect answers were rarely used to develop the lesson. There was no praise for the trainees who answered correctly to stimulate them and others.

There is little evidence of some teaching strategies related to Basic Education concerns, namely learner-centred teaching and the use of discussion and group work.

The principle of a learner-centred approach is understood as a change of the role of teachers involved in the process of learning. This means that the teacher is seen as a facilitator or mediator and the learner as object of his learning. The learner is active in his/her learning. A learner is supposed to work in groups with instructional material.

Major constraints to the implementation of the new curriculum

It can be concluded that the implementation of the curriculum for Basic Education in the Mozambican context starts with a deficit at policy level; it is impossible to implement something that is not clear to those that have to implement change.

Respondents pointed out a lack of material such as a curricular plan for Basic Education and inadequate primary school programmes as major constraints to following and implementing the innovation stated in the new curriculum for Basic Education. One of the functions of the Director and Deputy Director is to guarantee the application of the approved curricula for Ministry of Education; this means creating all conditions, from dissemination to execution or implementation. The college must create the conditions, such as making copies in order to share documentation with trainers to improve the innovation.

The library at Marrere looks like an abandoned place; many books are kept in the big wooden boxes (*baú pedagógico*). The cleaner is the person who helps people in the library. There is no librarian in the library. This situation affects the teaching and learning process and, more particularly, the implementation of the new curriculum. The constant absence of the person who deals with photocopying affects the teaching and learning process as well.

Some trainers say that the curriculum for Basic Education does not have many innovations as they had experienced similar reforms in the OP. This point of view is based on their having been introduced to participative methodologies. However, they do not take into consideration the fact that there are many other innovations. For example, they forget concepts such as semi-automatic promotion, interdisciplinarity, etc.

Most of the trainers are aware of the problems that Basic Education is facing. The teacher-learner large class size for example, is one teacher per 100 students and they agree that this is very high. They also add that it is very difficult to work with such a high number of students because it is not possible for them to interact with every student in the classroom. They are of the opinion that the average number of students should be 35 to allow for better transmission of the pedagogy and the content to the prospective teachers. As an example, during the OP, classes had no more than 35 students. From there on, matters have changed. For example, in one of the years one class had 82 students. This situation should

be compared to a learner-centred approach as one of the main pedagogies referred to in the curriculum.

Once a curriculum has been designed, it needs to be implemented. As we know, teachers can act as key agents of change. However, the lack of teaching materials, especially books, affects the implementation of the curriculum.

Attitudes concerning the new curriculum differ in some cases because of the degree of knowledge that individual trainers have about the new curriculum for Basic Education. Some teacher trainers participated only in the seminar presented by INDE; others took part in the diffusion and seminars about the new curriculum for Basic Education at the ZIPs through actions organised by OP.

Didactics materials as key factor to implementing curriculum

The teacher trainers that were interviewed at Marrere CFPP admitted that they had the problem of material resources for the implementation of the basic education curriculum.

It is important to highlight that when teachers were asked to talk about the new curriculum for Basic Education, they emphasized the constraints, the lack of instructional material related to the new curriculum for Basic Education, the lack of books for Grades 1 to 5, the lack of teachers' book and the lack of books for the different learning areas (Chapter 6).

It shows how worried the teacher trainers are about the effective implementation of the curriculum due to the lack of some basic material, namely students' books, teachers' books, etc. It matches what the literature review says and our conceptual framework which talk about the material resources as one of the factors that affect the implementation of the curricular reform in course.

- The disappearance of some books from the ex -resource centre built by the OP.
- The existence of certain quantity of hidden books at the “*baú pedagógicos*”- these books are inaccessible to both the teacher trainers and the trainees.

In the presence of what has been stated, a problem concerning the sustainability of the OP arises after the departure of the Osuwela Project. The developments that were achieved

during the project were not being maintained, namely the subsidy for teacher trainers to maintain them at the college full time, the resource centre (it lost all its computers), the specialised people to deal with the resource centre, among other examples.

The four identified problems (low quality of education and curriculum, under-qualified, unqualified and untrained teachers, the teacher-learner ratio and lack of facilities and teaching resources) affect basic education as well as the process of policy implementation in Africa and in Mozambique in particular. The impact of the identified factors on education depends on the educational context of each country.

The problem of policy implementation is not new; early scholars have attempted to understand the problem of policy implementation through research. Research suggests that policy intentions seldom determine classroom practice. Once policy has been formalised, it must be put into practice in the classroom. The literature review shows that the gap between policy and practice is still a major concern. The main problem of policy and practice is policy implementation. The purpose of implementing new policies in education is often associated with a need to effect new changes. Therefore there is an assumed direct link between policy implementation and change. Change is non-linear and complex.

There are two dominating theoretical traditions of implementation in policy, namely a top-down and bottom-up perspective. Top-down underlines the linear relationship between policy and practice (policy process as hierarchical and linear) while a bottom-up perspective assumes that the demarcation between policy decision and implementation is unclear. The relationship between policy and practice is not a linear, rational and predictable process. On the contrary, research has demonstrated that relying exclusively on either a bottom-up or a top-down approach to change is ineffective; successful reform demands a combination of these approaches.

For developing countries, the failure of policy implementation is attributed to poverty, inequality and financial constraints, lack of resources and the inadequacy of teacher training (Malen & Knapp, 1997).

The OP curriculum contributes to the new curriculum for Basic Education by incorporating a learner-centred approach and grouped subject areas. These two elements

appear as elements of the new curriculum for Basic Education because they have been introduced in the OP before. It has been said above that the OP has emerged as an experimental model for teacher training in pre- and in-service training for primary school teachers.

The new curricular plan for Basic Education adopts participative methods in the teaching and learning process in the classroom. This marks a new era of classroom practice in Mozambican primary schools in which the learner is seen as an active participant and becomes involved in the different activities presented during the class. The learner is no longer a passive subject. I admit and believe that the learner brings some knowledge when he comes to school. Therefore, the role of teachers changes and they are seen as facilitators in the teaching and learning process. The new approach has been tested during the OP in both INSET and PRESET. Under the responsibility of the OP, trainers have been sent to primary schools to teach primary school teachers how to use the new approaches. Before that, the trainers applied the same techniques in the classes at Marrere CFPP. This has resulted in the production of the module used to train primary school teachers dealing with these techniques. The new approach has been incorporated as a law in the new plan for Basic Education. The curricular plan for teacher training (OP) serves as a basis for the rest of institutions in Mozambique devoted to training primary school teachers at the same level

Emphasis will be placed on Integrated Science (*Ciências Integradas*), which was the first proposed designation, and comprised two sub-areas, namely Social Science (History and Geography) and Natural Science (Chemistry, Physics and Biology). They are supposed to be two subject areas (Natural Sciences and Social Sciences) and later on one subject area, the so-called Integrated Sciences. For instance, the module produced by teacher trainers during the OP was designated within the scope of Integrated Science. That is, the Integrated Science module comprised Chemistry, Biology and Physics. Nevertheless, the prevailing subjects in Marrere CFPP and primary schools are Natural Sciences and Social Sciences.

In my opinion, an integrated approach implies a radical change for the education system. That is why decision makers have preferred to move slowly in only two subject areas. To summarise, the contribution of OP/Marrere CFPP is still valid because it has proposed two

areas of study, Integrated Science (Chemistry, Physics, Biology, History and Geography) and subject areas, namely Social Sciences (History and Geography) and Natural Sciences (Chemistry, Physics and Biology). The remaining and accepted proposal is the last one: Natural Sciences and Social Sciences. I would like to emphasise that one of the modules used in PRESET and INSET was called Integrated Science and was published in 2002. The same module was revised according to the last designation (Natural Sciences) and was published in 2005. This shows an attempt to adjust the designation currently in use at Marrere CFPP and primary schools. In spite of content such as energy, environment and living things, the Natural Science's module has added the denomination currently in vogue.

“The educational integration of those areas of knowledge seems to be an imperative for teachers’ professional training whose activities are based largely on the creation of learning situations that enforce the children’s actions in contact with the natural atmosphere and in their interactions with others, promoting balanced and global development” (CFPP de Murrupula/Marrere OP, 1998).

The upgrading of trainers of the Marrere CFPP was one of the most important actions of OP, because at the beginning of its pedagogical activities there were fewer qualified trainers. In order to allow trainers to improve their performance, the OP in collaboration with the Pedagogical University (UP) organised in-service bachelor degree courses, which are presented at Marrere CFPP. The courses take at least four years to complete. The advantage is that they deal with theory and practical changes.

One of the problems that emerge at Marrere CFPP is the moving of teacher trainers, not from the education system but from Marrere CFPP (from 2005 to the present, five trainers left Marrere CFPP). For example, some of them have been called up by the Provincial Directorate of Education in Nampula to take over positions as heads of department in the Provincial Directorate of Education, District Directorate of Education and Primary School Directors. As a consequence, Marrere CFPP had to appoint new teacher trainers, who needed some time to become familiar with the system. This problem is aggravated firstly because the new teachers have low qualifications compared to the ones who have left; secondly, they lack teaching experience at primary school level. For instance, a Craft trainer with high school level and no teaching experience is appointed as the subject head teacher in his second year of experience as trainer at Marrere CFPP.

All of the interviewed teachers have heard about the educational reform from different sources of information. Some have heard about the new curriculum by participating in training in primary schools, others by participating in seminars about the new curriculum for Basic Education organised by INDE.

In my point of view events of this kind are just beginning to disseminate the notions of the Basic Education curriculum. The knowledge acquired in this way can be consolidated by studying documents related to the issue. During my stay at the College I found that there were few copies of the curriculum for Basic Education. These could be found in the pedagogical director's office.

The pedagogical director stated that "for the implementation of this curriculum here at Marrere CFPP some seminars had been presented. We had a seminar lasting one week. All the teacher trainers were informed about the changed curriculum for Basic Education."

Assessment process or assessment test

There are two types of assessment that are frequently used at Marrere CFPP, namely formative (ACS and Pedagogical Practices) and summative assessment (ACP, ACF, Examinations, Teaching Practice and others). School achievement (school results or performance) in the three periods, namely before, during and after the Osuwela Project, reflects a slight difference. In 2003, when the Osuwela Project was operating, the best result was 97%. However, the average percentage of the graduated students at the end of each year shows no significant differences among the three periods. This means that trainees have most difficulties in the examinations. Throughout the years the number of trainees has increased considerably, thus changing the previous situation when the number of male trainees was larger than that of female ones. However, the total number of trainees decreases so markedly in the course of the year until the graduation that the number of male and female trainees is equal or that of female trainees is lower than that of males. Formal examinations remain the main reason for the failure of many students. Taking into account the degree of selectivity of the final examinations, trainees graduating from Marrere CFPP seem to be not well qualified to carry on their future profession. The high rate of failing students shows that the proposed objective cannot be achieved.

What is new in this PhD?

The study is about the relationship between policy and practice in African developing countries in general, and in Mozambique (Marrere CFPP) in particular, under poor conditions, namely unqualified, untrained and under-qualified teachers; high teacher-pupil ratio; lack of resources, etc. Such a study has not yet been done. The literature reviewed about policy and practice is more related to developed countries where conditions are the opposite. This constitutes the conceptual framework of this study.

The study tries to respond to such main questions as what lecturers say about the new curriculum for basic education, what they do and what the outcomes (assessment) are.

After several years of research, the study findings are that, on the one hand, while lecturers (teacher trainers) have a superficial understanding of interdisciplinary pedagogies, especially in the social sciences, only a few of them have applied these pedagogies in the classrooms. On the other hand, the reforms seem to have had a deeper impact in their advocacy for the use of learner-centred teaching strategies, although lecturers continue to use question-and-answer practices widely because they are convinced that question-and-answer is a part of the learner-centred approach. In other words, lecturers still do not understand the curriculum; they continue to teach in the former way (teacher-centred approach) and as a consequence learners do not do well.

The process of implementation of policy and practice differs from rich countries to poor countries. It must be understood and treated differently because the goals, policies, conditions and human resources are different.

Teacher qualification

The literature contends that the quality of teachers is linked to their qualifications. Teacher quality variables appear to be more strongly related to student achievement than class sizes. Among variables assessing teacher “quality”, the percentage of teachers with full certification and a major in the field is a more powerful predictor of student achievement than teachers’ education levels (e.g., master’s degrees) (Darling-Hammond, 2000:37). In this study I found that most teacher trainers (eighteen) have been upgraded through the modular course organized (INSET) by the Pedagogical University whereby they obtained the Bachelor degree. However, some teacher trainers were not submitted to upgrade, among them there were those with Honours’ degree (*licenciatura*) and others did not even

have a Bachelors' degree. Another aspect that deserves highlighting is that teacher trainers have not been trained to be trainers at colleges and some of them have no experience in teaching on Basic Education. In the literature, inexperienced teacher are those who have less than three years of experience (Darling-Hammond, 2000:7). It means that teachers with more than three years of teaching are considered experienced. In the developed countries we find that for one to be a teacher trainer, he or she must have at least a Masters' degree and must have recognized experience in the teaching area. Although effects of teacher experience on student's learning have found a relationship between teachers' effectiveness and their years of experience (Darling-Hammond, 2000:7, quoting Murnane & Philips, 1981, Klitgaard & Hall, 1974), this relationship is not always linear. Looking at Marrere CFPP, we observed that some teacher trainers have certain teaching experience and other have none.

Lack of resources

The lack of basic infrastructure (buildings and other resources) is a recurring issue in poor countries like Mozambique (Chapter 5). For instance; Marrere CFPP has some classes located outside their own premises due to the excessive number of learners and a lack of classrooms. In order to minimize the lack of classroom, CATEC (*the house of traditional crafts and community meeting*), which was mentioned in Chapter 5, originally intended for housing activities with the community, was used as a classroom. Another solution was that of dividing some existing classrooms into two. This scenario shows clearly that the situation of a lack of basic infrastructure is critical. Infrastructure constitutes one of the basic conditions for the teaching and learning process to take place, in particular, and school in general. This example of a lack of infrastructure in Mozambique can be extended to other African countries, more particularly, in Southern Africa, where the situation looks the same. Concerning didactic materials, in developing countries, every material such as books, pamphlets, rulers, etc. is based on conventional material. In such a context of poor conditions as is the case of developing countries (Mozambique), it is not possible to rely only on conventional material; there is a need to resort to non-conventional materials produced by learners (see Chapter 5) in Crafts subjects. I found that non-conventional material (Chapter 5) produced by learners in the crafts subject, using low cost and local material, can minimize the lack of material in the rural areas. Teachers and students' books for EP1 and EP2 were allocated to Marrere CFPP three years after the introduction of the new curriculum for Basic Education. This happened because of the excessive top-down

power, i.e., from the Ministry of Education to provincial level, then to the district level until school agency. Students and teachers books were available only in 2006 due to the top-down structure. In whatever level there is a problem, the solution must come from the top level and the consequence resulting from any delay will be felt at the bottom level. One example is that of a school sending a letter to the district claiming for books, from the district to the province and then from here to Ministry of Education. Consequently, books were sent two years later. Everything gets stacked up when it depends on the top. On the contrary, at Marrere CFPP, as I mentioned in Chapter 5, some books acquired during OP have been kept in the boxes with limited or no access at all by teachers or learners. When OP left, the school did not create conditions to maintain the books in the library.

Teacher pupil ratio

The literature refers to classroom reduction projects in developed countries where each class consists of 15 (fifteen) pupils. In my study I found that during the OP there were attempts to reduce the class size, and it was, to thirty or thirty-five (30 – 35) students per class in order for the classes to be manageable by teacher trainers during the teaching and learning process. Notwithstanding these efforts, the number of learners per class has increased after the OP left to Nampula City. In other words, teacher-learner ratio reverted to the prior situation. It can be explained by the introduction of learners after entry tests under the instructions of hierarchical superiors. This is even worse when the correlation between classroom dimension and class size is not observed. The smallest class contained a higher number of students. Classroom size differs in terms of length and width. Some classrooms are smaller and others are bigger. Paradoxically, the smaller classrooms accommodate more students than the bigger ones. For instance, in classroom number 5 there were only 47 students, while classroom number 1 had 60. There is no correlation between the classroom length and the number of students in each class.

In the poor context we need to graduate more teachers for basic Education but the conditions under which teachers are trained are not good. Could it be said that bad teachers training conditions are good for the prospective teachers if they are going to work under the same conditions? Does the OP project influence the large class size or not? How does it do so? Does OP have an influence on the improvement of resources condition? How? How about dividing the existing classroom into parts, instead of building new ones? The point

that I will try to make is that there is a need for correlation of students' number and dimension of classroom, although there is no standard measure for a normal classroom.

What is new? What have you discovered that adds value to the existing knowledge about policy and practice?

The process of policy implementation in developing countries and developed countries occurs in different contexts. Implementation of policy in poor countries takes place in poor conditions (unqualified, untrained and under-qualified teachers; high teacher-pupil ratio; lack of resources); while in rich countries it occurs in better conditions (more resources, money to support any constraint). So the problems arising in the two worlds are different. Taking into account this discrepancy, we concluded that the design of curriculum in developing countries such as Mozambique does not take into account the context of its implementation. Although there is no homogeneity across the country, the same curriculum is implemented across the country in the same way. Moreover, some of the aspects of curriculum (learner-centred approach) and its implementation are blindly imported from rich countries, which are in general homogeny.

Differently from developed countries where teachers have greater capacity, better training and adequate resources of teaching and learning process as well as money to support the needs, in developing countries such as Mozambique, teachers still lack the most basic resources as well as basic training in order to achieve the proposed goals and policy. Lecturers still teach in the old ways. It means that the teaching and learning process is teacher-centred and characterised by questions and answers. The level of integration (see Chapter 6) of subjects is very superficial. For instances, the findings on these issues show that most of the teachers have very superficial knowledge of interdisciplinarity and regard integrated approach as synonymous to interdisciplinary (see Chapter 6). They believe that interdisciplinarity is always present in any lesson. Even, in terms of outcomes, the results between industrialised countries and developing countries differ because of their natures. The latter ones got bad results which legitimised low student achievement.

The implementation process in developing countries is characterised by poverty, inequality and financial constraints, lack of resources, the inadequacy of teacher training, the weak design of implementation strategy and the problems of policy coherence which affect the

implementation process. Then, “in developing countries it has not received sufficient analytical attention; many aspects of the process involved are not yet well” (Dyer, 1999).

What can scholars overseas learn from it? How must we now think about policy and practice?

From this study, we can learn that there is a need for more research related to policy and practice in the poor conditions like developing countries where the implementation process is different compared to developed countries and has not been sufficiently researched yet. To do so, will allow a deeper understanding of the implementation process.

What can we learn from the study?

From this study we can learn that there is a need to do more research related to the policy and practice in the developing countries in order to get more insights about this issue, because it is made in poor conditions that differ from those in the rich countries.

The significance of the study in terms of literature concerns the contribution that is made in the literature. The study of policy and practice in Mozambique is new and the first in its field.

The study in a developing country such as Mozambique, tells about the literature developed in rich countries related to policy and practice and focus experience on classroom practice by analysing the process of curriculum implementation in the Southern African region due to the lack of field studies.

9.4 REFLECTION ON THE STUDY

9.4.1 Substantive Reflection

In the introduction I referred to the fact that Mozambique has never had an acceptable and durable primary teacher training course model which could be the basis for the design of subsequent curriculum models. The change from one model to another has not been preceded by any evaluation which would allow an identification of the weaknesses and strengths of the former model so that the strengths could enrich the new one and the weaknesses could be improved upon. In 2007 a new teachers’ training model, aiming at training as many teachers as possible in as little time as possible, was introduced for

current basic education. It aimed at keeping the teachers salary fund low. Mozambique, like other African countries, depends on international donor agencies to provide advisory support to the government of Mozambique, especially the Ministry of Education on the advantages of a cheap teachers' training model and the sustainability of paying salaries to low level teachers with low training costs. It is said that training a bachelor is expensive, and even more expensive to pay his salary after training him. One salary for a bachelor graduated is enough to pay five or six basic level teachers (with Grade 10). We should not forget that 50% of the Mozambican Estate budget is sponsored by donor agencies. The donors are more interested in saving the financial resources and do not care much about the quality of the training, teachers and education. They seek to solve the problem of a lack of teachers with psycho-pedagogic training at the expenses of education quality according to international compromise towards Education for All. The strategic plan of the Ministry of Education and Culture for teacher training for basic education suggests that a viable model for teacher training should be found. It should also train qualified teachers as a way to guarantee quality in basic education where the quality leaves much to be desired. In Chapter 1 I mentioned that the annual demand for teachers in Mozambican schools is estimated at 10 000. Since the number of graduate teachers in private schools is less than the demand, the solution has been in contracting teachers with no psycho-pedagogic training. The education strategic plan as a normative document and policy states that the quality of education must not be jeopardized by the millennium compromise (to achieve universal education for all). That is, the spreading of education must not be achieved at the expense of quality.

According to Castiano (2005:21-22)

The compromise that was signed by the government of Mozambique in Dakar is, just like all African countries, to design a national plan and define strategies to provide education to all school age children by 2015. The most visible effort to achieve universal education has been concentrated in the increase of the number of schools and classrooms. In fact, in 2002 there were 7771 first degree primary schools, from grade 1 to grade 5 (EP1) while in 1999 there were 6605. In three years the schools in this level increased by 17.6 %. This increase of schools made the net school rate to increase from 43.6% (1999) to 62.6% (2002), which is equivalent to an annual increase mean of 0.7%. This rate means that that if in 1999, only 44 school age children (from six to ten years) out of 100 were at school, in 2002 the number of school children studying increased, in average, to 64 out of 100. The other 36 out of 100 are still out of school. In terms of number of students, in 2002 there were about 2644400 children in EP1, while in 1999 there were 2053000. At EP2 the number of schools increased to 823 in 2002, while there were 448 in 1999, which is equivalent to

a double increase. At the same time the number of students of EP1 increased from about 187000 to 277500 from 1999 to 2002.

As can be seen in the passage above, the increase in the number of schools and the consequent increase in the number of students in basic education testify to the efforts made by the government of Mozambique to provide education for all. However, the problem of a lack of quality and quantity in teacher training to meet the consequent increase in demand of teachers in basic education still persists.

According to Januário (2008:233),

“the few studies that have been conducted about the quality of system outputs, some address issues related to teacher training and curriculum implementation others look at student alternative conceptions and beliefs and others address the issues of school effectiveness, with particular emphasis on the assessment of student learning. Most of the studies focus on primary education.”

Few or any studies conducted in teacher training institutions have focused mostly on classroom activity having a learner-centred approach and the teaching and underlying learning strategies as the starting point. A modest contribution done by the present study is that it has some concrete suggestions to improve the teaching and learning process in the teacher training institutions in the context of Mozambique.

9.4.2 Scientific Reflection

As referred to earlier in Chapter 3 (Section 3.2), this study is a qualitative case study and therefore it has used qualitative data gathering methods to gather information (interviews, documents and classroom observation). This study explores the policy and implementation at Marrere CFPP.

Among the weakness are:

- Absence of teaching media;
- Teacher-centred approach;
- Non-use of wrong answers.

These findings are very important to disseminate among primary school teachers because they are the main points to be considered when dealing with a child.

Classroom observations by two people allowed for a discussion and consensus about the classes observed. It is advantageous to have two people observe a class because one person only could fail to capture some important aspects of the class. Observation with someone representing the institution is even more advantageous. Two people as two different units are likely to have different perceptions. In addition, an exchange of ideas between two people makes the job much more productive.

I conducted interviews alone and I used an aiding instrument such as a tape recorder to facilitate my work. If I had to take notes during interviews I would have had to shoulder significant problems. Experience shows that in interviews it is good to have at least two people - one can ask questions and the other one can concentrate on the recording.

Although the study has used statistical data about school achievement from 1993 to 2007 to show the number of trainees who passed or failed at Marrere CFPP, it is still a qualitative study. It shows how important statistical data sometimes are, as Creswell (1994) point out. Statistical data were used in Chapter 8, making it a mixed approach in data collecting.

9.5 RECOMMENDATIONS AND IMPLICATIONS

This sections ends by providing some recommendations, taking into account three perspectives, namely policy and practice, further research, and further development work. The recommendations are based on the findings of the study.

9.5.1 Recommendation for Policy and Practice

A relevant conclusion of the study is that the most predominant teaching style is lecturing, where teacher trainers still dominate the discourse in the classroom. The lessons are based on question-and-answer. Other teacher styles are, however, emerging. The implication is that these teacher trainers need support in designing and using appropriate instructional

media in order to facilitate the teaching and learning process. It is recommended that MEC provide the required instructional material at Marrere CFPP.

Another conclusion is that teacher trainers at the College use few illustrative materials such as figures, images, posters, handouts, etc.

The following Chinese proverb seems appropriate:

If I hear I forget

If I see I remember

If I do I learn.

For this to happen, the Ministry of Education and Culture must make the necessary instructional material available, taking into account the content that has to be taught. It should allocate funds for this purpose. In addition, teachers should have a good command of the use of instructional material since it is very dangerous to use it incorrectly.

The Ministry of Education and Culture, through INDE, should design a brochure explaining the key concepts that are included in the PCEB, including *learner-centred approach* and *interdisciplinary approach*. It should then be distributed to the different teacher training institutions in the country. Each institution should engage in an in-depth study of the document so as to have solid knowledge of the Basic Education curriculum and its underpinning philosophy.

Another conclusion that can be drawn is that teacher trainers have a very superficial knowledge of an interdisciplinary approach in teaching. Thus, further study at Marrere CFPP is recommended so that they may have a notion of the concept. For this to happen, MEC/INDE must produce complementary handout material clarifying some terms that are part of the Basic Education curriculum, to allow teacher trainers to have a common understanding of the concepts in PCEB. Lovat & Smith (2003: 212) state that “if the teacher is not clear about the nature of the change, the reasons behind it and how it is supposed to be implemented, and, more important, if the teacher is not committed to the change, then there is little chance that it will be implemented.” In the same vein “a persistent challenge facing education policy is the difficulty of ensuring local implementation of instructional reforms by teachers. Despite numerous instructional

reform initiatives, teacher practices have remained relatively constant over the past century” (Chau et al., 2006).

Although there is relative knowledge about learner-centred teaching at theoretical level, there are still serious problems at practical level. Experienced teachers from INDE or the Ministry of Education and Culture should organise demonstration lessons in which they use all the necessary teaching means concretising as much as possible the concepts to be conveyed. They could also demonstrate how to deal with negative (poor) and positive (rich) answers from students in the classroom. These lessons would serve as model lessons. Changing attitudes takes long; trainers should not be expected to revolutionise their teaching in a short period of time.

The entry admission of Grade 7 for teacher trainers should be upgraded to Grade 10 or its equivalent. This implies refining the admission criteria in order to get better students.

9.5.2 Recommendation for the future research

The purpose of this study, already stated in Chapter 1, was to explore the relationship between policy and practices taking into account that teacher trainers at Marrere CFPP are key agents for the implementation of the new Basic Education curriculum reform in Mozambique. As this was a case study, there is a need for other studies to be undertaken in other teacher colleges to identify the main teaching styles to generalise the results. This kind of research should be undertaken in existing primary schools to determine the perspective of practising teachers.

There is a need for doing large scale research in order to generalise the outcomes.

The quality of future teachers in terms of competence is questionable because it can only be certified in their working place. The researcher's judgement of the qualifications of the trainees is based on training, on the content taught, pedagogic practices and teaching practice. Teaching practice is the highest and decisive stage when trainees demonstrate what they have learnt during their training. Since the college does not have systematized information about teaching practice, the newly graduated trainees should be accompanied

in primary schools to determine their difficulties in the different environments such as rural, urban and peripheral areas.

9.5.3 Recommendation for further development work

When designing and planning group work activities during the lessons, special attention needs to be paid to the time required to form and organise groups; the number of learners and the size of the specific classroom, the time needed to complete those activities should be taken into consideration.

When planning the course of a lesson, special attention needs to be paid to the instructional material that will facilitate learner understanding. The new curriculum for Basic Education emphasises the use of instructional media as an integral part of the teaching and learning process. The effective teaching and learning process is based on using adequate teaching strategies. In the Mozambican context, where teachers work with inadequate resources, there is a need for instructional leadership.

There are many things that might prevent change in schools, including a lack of interest, a lack of resources, no leadership, a lack of support, a lack of time and conservation (Lovat & Smith, 2003).

Mozambique embarked on the new curriculum for Basic Education. Some innovations have been adopted and their implementation in Marrere CFPP was effected by teacher trainers. The study was guided by research questions which are supported by the literature review related to policy and practice. Data collection was through interviews, classroom observations, documents and written notes. Triangulation validated the information already collected. The study is located at the interpretive paradigm because knowledge is a construction process, which means that it is not constant and static. The relationships between the key factors (resources and facilities, large class size and teacher trainer's qualifications) which influence the implementation of curriculum are framed as a conceptual framework. This is a case study of Marrere CFPP which occurs in a natural setting. The background and school organization and conditions and facilities (Chapter 4) were described in order to provide the general view of the institution (Marrere CFPP) with particular reference to OP. The overall organizations of the curriculum for basic education

in Mozambique related to the subjects areas and new subjects and which of them occurred or did not, were identified. Why did they not occur? (Chapter 5). Teachers' trainers understanding (Chapter 6) of the new curriculum for basic education in Mozambique, namely learner-centred approach, interdisciplinarity and other factors which impair the implementation of the curriculum were noted. Once it was understood what teacher trainers understood about the curriculum, I tried to confront it with the practice in the classroom. I see if what the teacher trainers said is applied in the classroom at Marrere CFPP (Chapter 7). Practice at teacher training college is complemented by the types of assessment (Chapter 8) that took place. It means that once content is taught in the classroom, there is a need for it to be assessed as part of the implementation of the curriculum. This could be done during every lesson or at the end of a thematic unit. Doing so effectively, the policy can meet the practice at micro level without constraints. Unfortunately, it is not a case of Marrere CFPP.

In the light of the empirical findings, the relationship between policy and practice revealed that it is not effective at Marrere CFPP and it is located in the top-down power. Many constraints were encountered during the implementation process, such as poor resources (lack of materials and books), bad conditions and facilities, large class size and quality for the teacher trainers. In the classroom questions are most predominant and teacher trainers are convinced that answer and questions are definitively learner-centred approach. In the same line, policy – practice (school) and implementation (teachers) does not means that interpretation of the concepts such as learner-centred approach implies its implementation in practice in the classroom. However, they are close to implementing it as it is already internalized.

According to the findings of this empirical study concerning the relation between policy and practice, it can be said that although there are basic education curricular implementation problems, there is some identification with the curricular innovations related to the Osuwela Project, or else the trainer identified and identify themselves with the changes that were made relative to the curriculum during the Osuwela Project at Marrere CFPP (bottom-up). It does not mean that they are implemented. As we can see in Chapter 7, the learner-centred teaching is the result of this project (Marrere), teachers know what the concept means but in practice there are implementation problems (one angle of analyse); another angle of analyse is that the innovations were made in the basic

teaching. For example, the semi-automatic promotion is not understood as it should be as it is not explained at the centre related to the formative assessment.

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APPENDICES

APPENDIX A: INTERVIEW SCHEDULE FOR TRAINERS AND DEPUTY DIRECTOR

1. What is the characteristic of the new curriculum?
2. What are the principal innovations of the curriculum for basic education? Explain each innovation.
3. Interdisciplinarity is one of the innovations of the new curriculum. What does it imply?
4. What kind of a change was central in this year - administrative aspects, pedagogical or organisational?
5. How was the concept *learner-centred* introduced and what does it imply?
6. What materials relevant to the new curriculum have you read?
7. Which transformations were the results of the new basic education? Indicate whether these can be termed organizational or pedagogical issues (What is the nature of those changes)?
8. How were these aspects of integrated learning approached in the curriculum of the centre? How do you teach these?
9. What the main objectives of pedagogical practice?
10. How long does pedagogical practice take?
11. How is it organised? Who are involved in this process? What is the main task of each?
12. How is pedagogical practice assessed?
13. Where does the pedagogical practice take place? Why?
14. What are the main constraints? Why?
15. What kinds of materials are used in the teaching activities?
16. What kind of the report is produced? Mention the main components).

APPENDIX B: LESSON OBSERVATION SCHEDULE

1. Use learner-centred approach (teaching methods) – group work, pairs, individual tasks, etc.
2. Participative methods (what teaching strategies are used and how they are implemented during the learning activity) – discussion, question-and-answer, problem solving, project method, etc.
3. Didactic material available (use of textbooks and other teaching media).
4. How the classroom is organised (classroom environment – desks, chair, charts, equipment, posters).
5. Use of learners' previous knowledge and life experience.
6. Relationship between teacher and learners and among learners.
7. What the teacher says.
8. What activities the learners perform.
9. Large class constraints – implications and effects).



APPENDIX C: GLOBAL OBSERVATION CLASS FORM

**CENTRO DE FORMACAO DE PROFESSORES PRIMARIOS
(PRIMARY TEACHERS TRAINING CENTRE)**

Trainer _____

Grade: _____ Stream: _____ Date: _____

Class Subject: _____

1. Positive Aspects

2. Highlights

3. Aspects to be improved

4. Aspects to Think on

Assistant's signature

Trainee's signature



APPENDIX D: POST-CLASSROOM OBSERVATION INTERVIEW SCHEDULE

1. What was the class objective?
2. Did you achieve the class objectives?
3. What teaching media were used in the class?
4. What strategies had been planned for this class?
5. Were they implemented? If not, why?
6. Was your strategy learner-centred? Why?
7. Did you face any difficulty during the class? If yes, what difficulty did you face?



**APPENDIX E: LETTER FROM THE MINISTRY OF EDUCATION AND
CULTURE TO COLLEGE**



REPÚBLICA DE MOÇAMBIQUE

**MINISTÉRIO DA EDUCAÇÃO E CULTURA
SECRETÁRIA PERMANENTE**

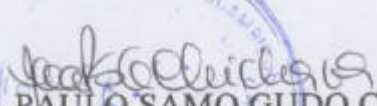
TO WHOM IT MY CONCERN

This is to confirm that **Mr. Manuel Zianja Guro**, has permission to do research in the Nampula Province at CFPP of Marrere.

Mr Guro is at present completing his Ph D with regard to:

"Basic Education in Mozambique: Between the Policy of Curriculum Change and the Practices of the Teacher Training College".

Maputo, 16 January 2006


ANA PAULO SAMO GUDO CHICHAVA
PERMANENT SECRETARY

**APPENDIX F: LETTER FROM THE NATIONAL INSTITUTE FOR
EDUCATION DEVELOPMENT TO THE OSUWELA PROJECT
COORDINATOR**



República de Moçambique
Ministério da Educação e Cultura
Instituto Nacional do Desenvolvimento da Educação

CREDENTIAL

In the extent of the course of Doctorate, in course in the University of Pretoria, RSA, Mr. **Manuel Zianja Guro**, employee of this institution, began his field work in CFPP of Marrere, where initially it was Projecto Osuwela to work.

Having the need to interview linked technicians to the project, to have access to documents related with the formation in exercise, to visit the centre of resources and other places, we saw for this half to accredit the pedagogic technician above suitable, so that close to Osuwela is rendered him/her the necessary support.

Atempadamente thanked V. Collaboration.

Maputo, May 06, 2005.

Director

Simão Mucavele
(Pedagogic Technical Instructor of N1)



APPENDIX G: LETTER OF CONSENT

INFORMED CONSENT

I, _____, agree to participate in the study about curriculum change at teacher training colleges conducted by **Manuel Zianja Guro**, under the supervision of the Faculty of Education at the University of Pretoria. Mr. Guro has explained in full the purposes of his research. I understand that confidentiality and anonymity are guaranteed. I grant Mr. Guro permission to use the information I shall give him in his dissertation and in subsequent publications, workshops, and conferences.

Participant's

Signature

Date

Researcher's

signature

Date



CONSENTIMENTO

Eu _____ ,
concordo em participar no estudo sobre a mudança curricular no Centros de Formação de Professores conduzido pelo **Manuel Zianja Guro** , sob a supervisão da Faculdade da Educação da Universidade de Pretória. O senhor Guro explicou de forma exaustiva o objectivo da sua pesquisa. Eu entendi que a confidencialidade e o anonimato estão garantidos. Eu autorizo que o Sr. Guro faça o uso da informação obtida para a sua dissertação e em publicações subsequentes, workshops e conferencias.

Assinatura do
participante

Data

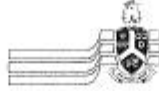
Assinatura do
participante

Data



APPENDIX H: ETHICAL CLEARANCE CERTIFICATE


ANNEXURE D



UNIVERSITY OF PRETORIA
FACULTY OF EDUCATION
RESEARCH ETHICS COMMITTEE

CLEARANCE CERTIFICATE	CLEARANCE NUMBER : CS10/08
<u>DEGREE AND PROJECT</u>	PhD Curriculum Studies Basic Education reform in Mozambique: The policy of curriculum change and the practices at Marrere Teachers College.
<u>INVESTIGATOR(S)</u>	Manuel Guro - 23273993
<u>DEPARTMENT</u>	Curriculum Studies
<u>DATE CONSIDERED</u>	28 April 2005
<u>DECISION OF THE COMMITTEE</u>	APPROVED <i>Reviewed on 28 January 2009.</i>

This ethical clearance is valid until 31 March 2009

CHAIRPERSON OF ETHICS COMMITTEE	Dr. S Human-Vogel  <hr/> 28 January 2009
CC	Dr E. Weber Mrs Jeannie Beukes <hr/>

This ethical clearance certificate is issued subject to the following conditions:

1. A signed personal declaration of responsibility
2. If the research question changes significantly so as to alter the nature of the study, a new application for ethical clearance must be submitted
3. It remains the students' responsibility to ensure that all the necessary forms for informed consent are kept for future queries.

Please quote the clearance number in all enquiries.



APPENDIX I CERTIFICATE OF LANGUAGE EDITING

Monica Botha
PO Box 32945
WAVERLEY
0135

Tel: (012) 332 5741
Fax: 0866 754 626
Cellular: 083 269 0757
Email: monicabo@lantic.net

9 November 2009

TO WHOM IT MAY CONCERN

This serves to confirm that I have edited the document entitled *Basic Education Reform in Mozambique*, prepared by Mr MZ Guro for a PH D degree, for language and technical layout.

A handwritten signature in black ink that reads "mbotha".

MONICA BOTHA



APPENDIX J: MARRERE CFPP TRAINERS PROFILE - 2005

Marrere CFPP Trainers Profile - 2005

Numbers	Gender	Age	Academic Level	Teacher qualification	Subjects taught	Years of experiences		
						Primary	Educational	CFPP
1	Male	46	11 grade	Bachelor	Psychology	3	25	15
2	Male	42	11 grade	Bachelor	Mathematic/Methodology		20	14
3	Male	48	11 grade	Bachelor	Psychology		29	14
4	Male	37	9 grade	Bachelor	Visual, Technology Education		16	14
5	Male	53	9 grade	Bachelor	Portuguese/Methodology	8	29	14
6	Female	43	9 grade	Bachelor	Social Science		20	8
7	Male	39	11 grade	Bachelor	Natural Science		16	14
8	Male	53	12 grade	-	Portuguese Methodology	3	30	6
9	Female	41	9 grade	-	Social Science	15	16	1
10	Male	38	9 grade	-	Physical Education		18	6
11	Male	40	9 grade	Bachelor	Mathematic/Methodology		16	14
12	Male	50	9 grade	Bachelor	School Management	2	28	17
13	Female	50	12 grade	Bachelor	Mathematic/Methodology	26	30	8
14	Female	34	12 grade	Licentiat	Portuguese		2	1
15	Female	60	8 grade	-	Arts & Craft		40	8
16	Male	49	12 grade	Bachelor	Portuguese		29	4
17	Male	41	10 grade	Bachelor	Psychology	15	20	3
18	Male	34	10 grade	Bachelor	Portuguese/Methodology	11	16	3
19	Male	30	10 grade	Bachelor	Mathematic/Methodology	1	6	3
20	Male	43	11 grade	Bachelor	Natural Science		22	10
21	Male	32	10 grade	Bachelor	Social Science	7	6	3
22	Male	37	10 grade	Bachelor	Musical Education/Portuguese		12	3
23	Male	38	10 grade	Bachelor	Natural Science	11	16	3
24	Male	35	10 grade		Musical Education		14	3
25	Female	37	10 grade		Musical Education		20	3
26	Male	23	10 grade		Arts		0	0

Source: Marrere CFPP

APPENDIX K: MARRERE CFPP TRAINERS PROFILE - 1998

Marrere CFPP trainers profile - 1998

N ^o	Gender	Age	Academic level	Teacher qualification	Subject (s) Taught	Years of experiences
1	Male	30	9 grade	9 ^a +2 CFQE	Art Education	9
2	Male	41	11 grade	9 ^a +1 CFQE	Pedagogy/Psychology	22
3	Male	47	9 grade	9 ^a +1	Methodology of Portuguese	21
4	Male	41	11 grade	Bachelor ²	Portuguese	20
5	Male	35	9 grade	9 ^a +2	Mathematics/Physics	18
6	Male	40	11 grade	Bachelor	Portuguese	20
7	Female	33	9 grade	9 ^a +3 IMP	Portuguese	15
8	Male	39	11 grade	Management	Psychology	20
9	Male	44	11 grade	Bachelor	Geography	27
10	Male	33	9 grade	9 ^a +2	Mathematic/Physics	9
11	Female	43	9 grade	9 ^a +3	Chemistry/Biology	24
12	Male	36	9 grade	9 ^a +3	Music Education	17
13	Male	34	9 grade	9 ^a +2	Mathematics/Physics	15
14	Female	36	9 grade	9 ^a +2	History/Geography	13
15	Male	31	9 grade	9 ^a +3 INEF	Physical Education	11
16	Male	32	9 grade	9 ^a +2	Chemistry/Biology	9
17	Male	43	9 grade	9 ^a +1 CFQE	Pedagogy/Psychology	21
18	Male	43	11 grade	9 ^a +3 IMP	History/Geography	21
19	Male	32	9 grade	9 ^a +2	History/Geography	12
20	Male	41	11 grade	Bachelor	Mathematics	20

Source: Guro, 2000

². Trained by Setúbal Higher Institute of Education. The course had two training periods. The first part took place in Mozambique and the other part in Portugal.



APPENDIX L: VERIFIED INTERVIEW TRANSCRIPT (E 6)

Question: What is the characteristic of the new curriculum?

Answer: I have already heard speak, but I would like to introduce myself a little bit. I am a teacher with 39 years of experience in Education. I have worked 19 years as a trainer at CFPP of Unango; in Niassa province. Afterwards I also worked in the teachers training centre of Balama in Cabo Delgado province. I also worked in the Teachers training center of Momole which was then transferred because of the war. It then was the teachers training centre of Murrupula, where I worked in the area of methodology of Portuguese.

The centre of Momola stopped existing and is now in Nampula. The centre of Murrupula joined the centre of Marrere. This here was a normal school of school post and belonged to a church. I like it because I spent 1969 here as a learner. I feel myself at home.

Q: Let's go back to the initial question. What is the characteristic of the new curriculum?

A: Well, I have already heard speak about this curriculum plan of basic Education. As far as I am concerned, in fact, there is an alteration which will happen in that curriculum. The proponent of that curriculum will need the great participation of the teachers themselves, form a planning. Besides, a child, I think, with that curriculum, will be able to become well trained, whatever the implementation of this curriculum is. We, here in the centrals, we have had some seminaries. According to with that seminary was oriented by an element, or anyway, elements came from INDE. However, all the formers integrated in this plan of curricular of Basic Education. All materials in all areas, programmes as well as contents which takes a part of curriculum, not only, but also, the proper structure. Eh, of thematic division of levels, 1st cycle, 2nd cycle and 3rd cycle. (pause) inside of this, also, its seen that, should have a structure in terms of introduction of some national Languages, of that which I know, about, how those languages will work, is in the 1st phase of National languages, will be able to serve us. Languages of teaching which posterior already can be able a discipline, if it should more elevated in this case. Eh, well, comparing to this curriculum of Basic Education, with what, we have come to do here, as the formation institutions of teachers, I see that ... it's good we are more or less embodied in relation to that vision of the new curriculum of basic Education. Our new curriculum of basic education here was being experimented. Have determined disciplines that we have come to give, also, are the same which are reflected in this new plan of curriculum for the central of formation of teachers which being forth of this curriculum of basic education.

Q: What are the principal innovations of the curriculum for basic education? Explain each innovation.

A: Well, now... (pause) first is the introduction of general (pause) eh! The subjects and the contents have been revised and were (pause) reformulated so there were new contents in grade seven that are integrated in grade 3 and 4. (Pause) eh (pause) it is the reformulation of the curriculums in one or other way it is the local curriculum. This curriculum has two parts after all. The first part is the national curriculum. The other part is the local curriculum that is something new, an innovation. Eh! Then (pause) eh what else can I say? Eh! Still in these innovations we can eh! See the introduction of new subjects. That is the case of English that started in grade 7 before, I mean in grade 8. Now it starts in grade 7. Eh, also the organization of the teaching in levels. So, in levels, cycles we (pause) now have levels, we have cycles. There are three cycles. The first cycle is grade 1 and 2; cycle 2 is from grade 3 to 5 and the third cycle is grade 6 and 7. We also have the organization. We have primary education first degree from grade 1 to grade 5; and primary education second degree from grade 6 to seven. These are some of the changes. We can see methodological aspects. There are also some differences. The teacher has some freedom. Before the changes, classes were planned beforehand and the teacher just took the manual and had to follow it. That happened frequently. When the subject was Portuguese in one school, every school had the same subject. The new curriculum is not like that. Timetables are now designed in the

schools. There is greater responsibility and autonomy of the teacher in the management of the teaching process. What else can I say?

Q: What else?

A: About learner centred teaching? It is a teaching whereby the learner is the centre. Contrary to what happened before in the traditional teaching when the teacher was the great orator. There is an attempt to change things so that the learner takes an attitude, for him to become active. He is not a passive element now, as it happened before in our school. Before the student just listened to the teacher, who was a greater orator, explain what he knows and the learner just listened and wrote. Nowadays, in the learner centred approach, the student is an active element, he doesn't just wait for knowledge; he looks for it. Teachers must facilitate, organize and give opportunity to the student to act because knowledge and learning must start from an activity. If the learner does nothing, he just listens how is he going to get the knowledge? The teacher organizes activities, reading activities, research activities, activities that make the student look for knowledge. He is being the owner of his own knowledge. So, it is true that there is some knowledge that is imparted by the teacher, but a great deal of it must arise from the student's research. That is what I understand by learner centred teaching.

Q: You as a teacher trainer, do you use the principal of learner centred approach?

A: yes, well, I would like to say that, as well as, I used, in fact, I treat a new change. It will not be easy, immediately; more we have founded to incorporate the learners in that which must be also the participant of the knowledge.

Q: What strategies have you used for the major involvement of the students in the classroom?

A: I have used more strategy to expose, however, the theme in study and then to rise up, to make appear rising of the knowledge about the proposed theme. Then, the students integrate giving your ideas, at the end. I have to give them the value of those ideas leading to the proper reality of the contents.

The other strategy that I have applied is sometimes I have been in work. I divide them in groups and discuss the contents in study and then, there is a moment when each group presents of what they have done and from there we synthesise about the contents which we are treat. Eh, those are strategies I have used. More over, also, exists that ... traditions, always we have given values, became. It is not possible to involve all things the students. There are things, in fact, precise information, which alone, are not capable to reach that which pretends. Students can communicate among themselves, exchange ideas and help each other. Communication is almost in sense. There is the Teacher-learner communication and learner- learner communication.

There are also small activities of research, small experiences data collection; interviews etc. so there are small inquiries.

Q: You talked about small groups. How are they constituted? How many elements constitute them?

A: Well, (pause) here the groups depend a lot on (pause) class organizatio. I don't like the groups that are there. For example, I was working with the class that is divided in 7 groups. I made my own groups. I made groups of 4, and 5 is the maximum number of students in each group. Communication is not good when students are more that 5 in one group. That is why I don't like it. Material may be in the opposite side of the desk and very far from the student in the other further side. Sometimes there is only one handout and some students will not be able to see it. I sometimes leave the groups created in the classroom, by the class structure. Usually I make my own groups.

Q: What is the criterion for making groups?

A: It depends on how they are sitting. They are about 50 students and the classrooms are small. I vary them. Sometimes I vary them according to materials. For me it doesn't matter if the groups are



permanent or not. I just make my own groups. I see the number of students, the materials available, and according to arrangement of the class, how they are. I find a way to arrange them quickly.

May time's group are permanent but sometimes, we have moderating a change to permit an exchange of suppressions with other element who is not the same group. There is a moment, which we round, but normally the groups that have been permanents.

Q: What do you understand by learner centred teaching?

A: about learner centred teaching, It is a teaching whereby the learner is the centre. Contrary to what happened before in the traditional teaching when the teacher was the great orator. There is an attempt to change things so that the learner takes an attitude, for him to become active. He is not a passive element now, as it happened before in our school. Before the student just listened to the teacher, who was a greater orator, explain what he knows and the learner just listened and wrote. Nowadays, in the learner centred approach, the student an active element, he doesn't just wait for knowledge, he looks for it. They must facilitate organize and give opportunity to the student to act because knowledge and learning must start from an activity. If the learner dos nothing, he just listen how is he going to get the knowledge. The teacher organizes activities, reading activities, research activities, activities that make the student look for knowledge. He is being the owner of his own knowledge. So, it is true that there is some knowledge that is impaired by the teacher, but a great deal of it must arise from the student's research. That is what I understand by learner centred teaching.

Q: How was the concept learner-centred introduced and what does it imply?

A: concerning Learner-centred teaching we can say that the (pause) the learner is the object of study, he must have much time. We must take advantages of his experience. The learner is the fundamental element in the teaching learning process. The teacher helps to mediate the teching process, taking advantages of the learner's capacity. This didn't happen before; the teacher used to be the one who knows everything. The teacher used to dicide everything for the students. The learner-centered teaching allows students to have opportunities to experiment, to think about something, make several exercises and present them to the teacher for both of them to reach come to a conclusion. Everybody works with the aim of reaching the important conclusion. However, the student is the key of the lesson so he should have much of the talking time, touch things, indicate, demonstrate, dramatize, illustrate, make questions, answer them and handle.

Besides working as a teacher trainer I deal with organizing the Osuwela Project programmes and with designing some modules for Portuguese and School management. So, one of the aspects we have discussed and is related with these innovations is the initial orality, reading and writing with which the teacher gives priority to this learner-centred approach. We provide capacitation at the district, ZIP and do our best to change the previous scenario, in which the teacher did most of the speaking. We made have children do group work by themselves, experiment, do pair work and present doubts. Based on these modules, I use them for my trainees at the Primary Teachers Training Centre.

Most of the time I use material made by them and other made in the group where we are. I use material verty often, and I prefer to distribuite it in pairs, according to to the theme that is going to be discussed on. Each student ou pair of students will try to say what they think about it. Three or four questions about about the material I want. I get students work for sometime by themselves and present the result in front. Each pair or group presents its opinion sintetized in a peace of paper. I usually use a peace of caki paper. Thanks to the project, I can request some paper as work with them designing modules. I could see that there are advantages because there different and equal answers. All those answers have the same contents. Everybody in the classroom can take the advantage of everybody and it is better than just getting one solution.



Q: What materials relevant to the new curriculum have you read?

A: well, the curriculum of the basic education, we are working with a material of the National system of education. (Pause) from 1st class to 5th class. After that, there was, then, the introduction of the new curriculum for that reason, a change of working in all disciplines. For all, for our centre, I fix that, could be well come the curriculum all problems of material which we are here facing.

A question of the same material of new books which appears of the new curriculum, no, not we haven't them. And we, have got a request to our direction to see if can contact with the direction (pause) which have possibility for the distribution and until now, we haven't got a plausible answer. If we succeeded the material to utilize in school, principally for 3rd year here, that's going to start from a term of probation going to have difficulties when would be in the terrain. We are not going to trust in school. There is a school at this moment, it hasn't got material. They haven't received material yet. Then, in our province, I think that, I met of positive and that, there is a very good work faces by the teachers of primary education.

I think that, leave aside till a problem of numerous classes. (Pause) the teachers have a lot of problems with the numerous classes, they can't be able to teach (pause) because, how should, because our teacher, as they haven't habituated to work, with this work, with numerous classes, already, they are facing the difficulties. Our school has numerous classes, but it is not as, where are they going to work, when the course terminates. Therefore, they meet a difficulty, because here, classes, classes are little bit numerous, there are about 50 to 40, 40 to 50, in the class. Afterwards has a problem and this problem that at least I am noting along of this, because a presence of the project of Osuwela, we are working in the initial education which are those, our learners and a afterwards also, we had that, to work with the teacher in service training in schools, in school clusters. We had to utilize the same books which also correspond with the official programmes of the ministry, and in groups we were going to work with our teachers in service training in school clusters.

The level of the city, there are school clusters for example of Mutauanha we work with the teacher, then the centre started to wide n to the District of Nampula.

However, I worked in some schools, and the school clusters of the district of Nampula and then, the District of Nampula. Therefore, advanced to other District etc. Therefore, Nacala, Malema Angoche the Island of Mozambique, Murrupula. However, with the school cluster or may be district satellites, however these locals where I am referring are the District Headquarters. Many teachers of next Districts if they join for, then, to discuss the questions of primary (school) Education.

Q. Which transformations were the results of the new basic education? Indicate whether these can be termed organizational or pedagogical issues (What is the nature of those changes)?

A: Well, a great change that exists is exactly the disciplines, which do a part of formation, that, before, implement this curriculum here, assimilates as the curriculum of basic Education. We had in our Disciplines of plan, of the central of formation, the disciplines of physics, biology, history and geography. Therefore, when we experiment this curriculum that we were doing those discipline left them to exist.

Then, that was a great alteration we saw, in terms of mediation of contents, also, it's seen that, there was a change in the actuation form between trainers and learns. The change consists of exactly in the former who's already been conscialized that, teaching is not only based in the teacher, but, it is learner centred, also, in the proper forming to give the value the experiences which he has got. There, to create an environment more active, in terms of the presence of learners.

Q: Interdisciplinarity is one of the innovations of the new curriculum. What does it imply?

A: Eh! This integrated approach (pause) I think that was good. It is good because (pause) in fact it was like that. But we say it is innovating. In fact it was not innovation. It is not innovation properly said. We always talk about that, don't we? Although it was not written as an orientation, but we talked about it eh! Even in the previous curriculums. Because it was not possible, for someone, a teacher teaching Portuguese not to talk about science whether planned or not. He will always touch aspects of other areas in the process of communication for example Natural sciences namely parts of the human body, he will have to talk about it. He saying something (pause) in the process of communication he is obliged to sometimes touch it. When he is talking he is mentioning the parts of the body, about plants. It is all part of the communication process. It is all integrated. Eh! In general, I think that it is a good think, students do not learn in the form of drawers. This is the drawer of maths and closes it that is f that subject and close it etc. The student learns every thing at the same time. He learns maths at the same time that he learns Portuguese. He learns natural science at the same time that he learns Portuguese language. After all everything that is mentioned in natural science, the names are sad in Portuguese or any other language that is used snt it. He ends up learning Portuguese in maths, maths in science, in Portuguese. So integration as always existed. It has always existed. Eh! Teachers were not aware of that (pause) sometimes (pause) and, sometimes he is not capable of exploiting the maximum of, sometimes they are talking about leaves at Natural Science and they they should take the opportunity to talk about colours and esthetics for example, The beauty of the leaves and their shape; In terms of maths, the size (pause). They sometimes are able to explore that. But they are (pause) positive aspects. They are also necessary allow for an integrated learning because everything is related. After all there is repetition, the same thing that the student learns in maths, the Natural science may also talk about it. So this repetition helps to memorize. After still teacher say the same thing.

Q: What kind of a change was central in this year - administrative aspects, pedagogical or organisational?

A: all I know is that there were some seminars. People needed to understand what the new curriculum was. It can be said that here at school there are no changes. There are no books for basic education; I just know that there are programmes (syllabus). I was now working wit the basic education programme (syllabus), there are no books yet. The teacher trainer make effort to train based on the new programmes and new contents, although there are no books. I thing it didn't change much, some of the change are not good.

Q: What are they?

A: first the teaching staff is not the same. Many teacher trainers left. As always, the best are the ones who leave. The worst never leave. They are some coming from ADPP. We can see differences so I don't know each teacher interprets the curriculum in the classroom. I could see the way the classrooms are organized; it is different. There was always a tendency to organize the classroom in a traditional way. He would come to the classroom and find students sitting in a certain way and he did not need to organize them because they were already in groups. And they would move another classroom and find students in semi-circle he didn't need to arrange them. Nowadays you go to the classroom and find them unorganized. As i said there was the CRE with some material which stimulated the teachers as well as the student in the teaching and learning process. These resources no longer exist. .the audio resources were not brought and none use them nowadays, we shouldn't be so theoretical if we want to improve the teaching. When these resources exist and are not used then we are in the same routine; it is the classical teaching, isn't it? The resources that should stimulate changes no longer exist. Those which exist are not used. Resources such as overheard projector are simple kept in there. Where is the improvement, the change then? During that time all these resources were frequently used. In those times i remember seeing students go to the museum, but today lessons are only taught only in the classroom, rarely they go out but the new curriculum recommends that. There is still a lot to be done. Changes should start here in the teachers training. How will the prospective teacher use the learner centred teaching if he was not taught like that? There are issues that deserve reflection.



Q: Which is a similarity that exists between the basic Education and the formation of the teachers?

A: well, there is one (pause) similarity, in fact, because we are institution of formation of teachers, the curricular, well, how I have seen, the new curriculum which is going start this year as a first year, for our case is a continuity a similarity, which I have seen, in fact, in terms of the proper curricular plan of a study. May be there is no difference in terms of designation. However in speaking, we have got in our Discipline of social Science, eh, we have got a Discipline of Natural Science and its Methodology We have got a Discipline of Mathematic and its methodology we have got (pause) ... of physic Education, musical Education, Visual Education and Technologic (pause) we have got moral education and civic and crafts. However, are Disciplines which looking, also, for curricular plan of basic Education exists. Then, for me I met that similarity in terms of proper plan of the study. And well, pscopedagogy because and a Discipline already specificity for proper formation.

Q: Do you think that, your way of teaching constitutes a model for your students? Why?

A: Yes, always, I have appealed the forming that's necessary, in fact. Before exposing the contents, I find to know, if a child has some knowledge for the part of that contents, because, in fact, a child doesn't come empty from home. There is something can have, then explore first the ideals of the children and afterwards continue with the developed of the contents and involving more the children for the activities are in the knowledge.

Q: What relation does with the principal of learner centre approach, which is a base of curricular of basic Education?

A: well, I think it may be should have a relation if teaching centred in the student, if the teacher would applied could resolve a bit this situation, in according, that, the teachers had to choose the criterion of the work in small groups, In which a teacher has to dedicate more in the planning of various activities to give the groups the end of ... when the children are involved in the groups. Then, the teacher, now can do a plan per day of how many groups want to centralise more while other groups are doing other activities, from there, he can give an attention, gradually in each group to verify to end of the week, already succeed to work with all children and to know profoundly the difficulties of each group.

Q: What's the situation of the College in terms of teacher-pupil ratio?

A: Well. I think that, problem of teacher-pupil ratio on Basic Education is the same serious problem according in what happened in reality and the teacher in the classroom, form his/her proper ... That's to say, the teacher, in fact hasn't succeeded to involve the all children in terms of learning. Many times the teacher works in spite to have ... he has got another second shift ... there are children who are risking because of high number in the class. Then, that's a serious problem, in fact. Its solution will not be easy, because this will need in terms of more, we can say, classrooms, more teachers and to decrease the excess in the shift (large class size). But, this is not a thing which will be very easy, given that, searching is the major, but the capacity of relating to school is reduced. Eh a human capacity as well as of installation.

Eh!, Back to the College, this year we are almost with these problems of elevated numbers in classroom but in the other years, we obtained a number, which we think a bit reasonable. Eeh, from 40, but our class should be 30 and 35 but we have worked with 43, 46, then, here, in this year, we are working with a class more elevated number, a maximum of 55 then, we have met that difficulty, but, the formers have sent forces to see if can succeed to involve all the learners in the base of that methodology of participative work.

Q: Can you tell me about student's number per class during the OP?

A: Well, this question related, as I said that, searching is the major, eh, and many times, when we treat of a candidate, in fact, we have defined the limit, but, many times we have surpassed the limit, in terms of over fulfilment. The over fulfilment appear exactly because because of a great pressure which exists. For us in Nampula, may be because of the provincial; she's very big and not only and

is the unique college, with an idea of wanting to represent, this is to do a representative in each District in forming for other factors which interfere in the process. Many times are requested to come ... at the last hour, and we have to attend. These factors are which have taken to terms this situation of over fulfilment of our limits.

Q: As Deputy Director has supervision assistance of lessons of formers, so that, to verify the application of the principal, of learner centred approach in classroom?

A: Yes, the assistances have possessed between (pause) trainers of the same area, besides of the assistances of the direction, from time to time have done neither, but means in the proper groups of disciplines have done its plan of mutual assistance, that is, to support, however, if, there, will be difficulty.

Q: These assistances are more in an aspect of methodology or in an aspect of contents?

A: eeh, they have been more for an aspect of methodology aah, these assistances, on attention is more for questions, aspects of methodological.

Q: What's the perspective in the future?

A: Well, our future perspective to surpass this difficulties, we should do an investment in terms of construction more classroom, because, a capacity of this college is much reduced. There are 7 classrooms... But today, we are working with 11 classes. This is because a school annexed and given in, however, two classrooms beyond of rooms which work in the CATEC, which were destined to the tradition art. And there, we succeeded to 11 classrooms, but futurity, in fact, to surpass that problem, is, we have to build more classrooms.

Q: Now, exists a guarantee of financially or only is an idea only?

A: it is still yet, premeditated idea, a premeditated idea.

Q: Initially had two alterations and now has one alteration, please explain me?

A: A reason of couldn't have two alterations is that, we had difficulties of transport, the institution has one minibus, already, it is (laughter) a situation of decadency, we have seen that, it is not, it will not guarantee, in fact, the activities of the second shift. Because will need to leave at 7.50 pm (19.50) and the factor would, afterward distance with the problems of Mechanic of the proper a minibus will not guarantee us.

Q: The resource of materials

A: Yes, so that, also it is a question, that, must do a lot of work to improve the conditions which exist. Well, in terms of books as there is that programme of the distribution of schoolbooks, it may be that had to do, was to do the improvement service of the distribution of books, must reach very soon in the school, which hasn't been easy. Also, are problems, which still continue to exist in school. The reaching of the book very late is, many times people have started the schools year, and those are not preoccupied to investigate. In this way, they have got the major limitation, when they haven't got those materials. However, the conditions of physic, the work in the classrooms, the major part of our schools, in fact, have unfavourable conditions for the process of learning of the children. There are a lot of schools which have to do a lot of work, yes, yes, must do a lot of work, in fact, to potencies the school in school materials. In terms, of writing –desks and classroom of more spacious, well conserved can be of local materials but must be more or less organized. This needs the involvement of the Directions of schools. It may be with the support of the community to surpass some difficulties. Now, in terms of writing desks, in fact, also, needs that, the school must be together with the community, they can meet a good solution in spite to have a regular plan that the ministry has done for the distribution of writing desks.

The schools, also, must do some work. I was speaking; in fact, it is necessary that, schools should have the major work. In schools together with the community, they have to resolve gradually some problems in terms of conditions of classroom. Writing desks still leave in the plan of ministry of Education, which has been, for the distribution of writing –desk. And many times, what has

happened is that, the people stay stagnantly only to wait for the ministry to send (laughter) they haven't possessed, in fact, the initiative spirit in the major part of schools.

In relation to the college, well, in terms of writing desks, we haven't got problems its true that, the number tends to rise up. Many times, in the days to come, will have that problem, for a while, we haven't got that problem of writing desks. The unique problem, in fact, is the fewness of the classroom, which exists. However, to the materials at the moment we stand in need of programmes to that new curricular, which passes away. Well, we have got some programmes, which are those we were in experimentation. Now, we need of the definitive programmes for all areas.

Q: What about the books of new curriculum, what is the situation?

A: Yes, that is another problem which I had forgotten. We have got that problem of a shortage of books of the new curricular. Many times the directorate of the city as well as the the provincial directorate have forgotten (laughter) to supply the institutions of teacher training, but we have written a document about that this year to the directorate of the city, and they have promised to do something, they also said that they hadn't contemplated us in their plan to the institution. However, those books which will remain after the distribution are the ones which they will supply to us, and only to encourage us, a little bit, saying that, next year they are going to include us in the plan (budget). Also the Directorate of the city, they are going to give us some copies of all classes in all areas.

For resources centres (CRE), what we are thinking to the direction level and what have that to do an investment, to change, instead of fixed shelves on the walls, must be cupboard (chest), in cupboard which they will be locked, cupboard of glass but with a possibility to lock.

The books will be exposes, but with a security to avoid that if they maintain in the cupboard (closed) locked, none can see them but, of programme that the ministry ordered to rise up in the institution for the formation of teachers. To be able to speak, than, they need in terms of material and we verify that programme, we change. However, the resources centre including those cupboards. Already, we put this and sent to ministry of Education and culture. And we are waiting for some fund of investment to do this.

Q: You said that, an alteration starts in the Osuwela Project with participative methodology etc. What does it mean?

A: Eh! For me, I think, I can't see the big difference of the project here, to speak plainly, can have weakened some activities, before the engagement of preparation of didactic materials, this is, yes, has a reduction, but conditioned the shortage of some means that, the workshop of pedagogical was equipped, neither. Many times has taken a reduction of that dynamic which at that time the physic presence of the Project in the institution was doing in relation no w, but not, because, the trainers have not orientated the learners for, eh, using the local resources to elaborate the didactic materials, has recommended, but, haven't been that orientation as it was formerly in fact.

Q: Speak to me about the workshop of pedagogical at the time of Osuwela Project, what was an essential of the workshop of pedagogical?

A: An essential of workshop of pedagogical, exactly, was the trainers of each area should see what kind of didactic materials can be elaborated in the workshop of pedagogical for the use of the proper learners and when they get and, can take it.

Q: Perception have you got to this problem and which would the role of institution in solution, to minimize (decrease) that problem?

A: Well, that problem has come to stay, to tell that we are going to a definitive solution (laughter) it will not be possible but, it may be, what, we would minimize the problem, is that, there would have a programme of work with those teachers. In particular those who haven't got a formation, it may be to work in a attention to have more capacitating (training)



Q: In which moment?

A: In that moment, in fact, this could be a programmed thing? And, however, at that time of interruptions. Then, we would be involved in capacitation (training), that idea, I think which will have its implementation, may be not in totality but there is a thought which the proper (Ministry of Education and Culture) already is implementing, which is a programme of CRESCER, which exactly involves in particular teacher's trainers of the institution of the formation of teacher, some technic that, in each province can work with teachers not only who haven't formation as well as with formation a long time ago, they need to activate in terms of methodology, then, this programme, I think, that will be able to answer.

Q: The basic Education is the quality. Can you comment, please?

A: well, the question to improve a quality, for me, I think that, passes necessarily by the work of the teacher, if the teacher in fact, gain the conscience of his proper performance of the in the class. I have a lot of certainty that the quality will improve (pause) I speak this because, in fact, while the teacher doesn't bet and have that conscience, we can change the curricular plans various times (laughter) we will never reach at the quality, then, I bet more that, the major work must do with the teachers, so that, have the conscience of his proper work.

Q: Can you tell me of in service training fact by the Osuwela Project?

A: Well,, in service training consists exactly of (pause) speaking more in questions and aspects of quick methodological, a teacher, there, in the field, eh. The preparation have been in the periods of evening in which before of going there to the field in the formation that, and done in Saturdays. Then, all evenings, a week before of definite Saturdays for the formation of trainers will go and will prepare of the proper material which will use in service training. Then in terms, there is a possibility that, our trainers. In the evening period as involve in that activities expecting the days of, the days of Tuesdays and Fridays which we have got our internal work in which the teacher, they do not involve in evening period in that activity of preparation, because, here, internally, also we have got our meeting (pause) of proper organisation, here, inside, in terms of meeting for the study of analysis of our pedagogical work, not only, but also some capacitating of internals between us.

Q: When do the teacher's trainers dislocate in evening to Osuwela preparing that. What to do?

A: They prepare I terms of, to review again the modulus in terms of its applicability in terms of methodology again, as that, we are going to work with teachers, that exercises, permits that, in fact, we should more actualized, in terms of that, which we are going to do with the teachers.

Q: Which number has been comprised by the formation, which you do?

A: Each formation (pause) depends of each district there are Districts in which many times, we have worked with about 50 teachers (pause) because all are coordinators of school cluster who participate in formation. Teachers who are called Delegates and Technics of the districts (pause) who participate those formations.

Q: Give a formation, is there a simulation?

A: give the formation, give the simulation of those all methodological activities, do with the proper participants, who realize, when the have got difficulties. Are illustrated (explained) as to surpass those difficulties in order to go out when they are well prepared, in the form, then haven't got a lot of difficulties when, they were doing a transference to the teachers.

Q: The formation, pass way (percolate) more or less in which period?

A: the periods, starts a formation from 8am to 5pm (17 hours) however that's the period of the formation work.



Q: What is the motivation to participate in service training tend in account that, the formation passes away at the end of the week out of normal time of the work?

A: Clearly, I think that the motivation is more in terms of our mission with the teacher trainers that's an aspect, another, is, we understand that, in fact, without us (laughter) the teachers are not going to have a support (pause) clearly, there more a lot of problems about the time of Saturday about the time of Saturday, that the teachers trainer in occupied. Have claim (reivindicated) the salary in term of remuneration, it hadn't been, from the principal would be paid by that work of Saturday, but hadn't been, but, there is a problem which we have already spoken, always, in our meetings, and, we leave in the level of the Ministry of Education and Culture, to see, what modality must adopt for the acknowledgment of the work of the teachers trainer in Saturdays, and simply when he goes out, what does he take? Merely subsistence allowance, but he doesn't account of the work which is going to do.

Q: Can you tell me what the relation between the teachers training curriculum and the basic education curriculum is?

A: we had the opportunity to see that curriculum in a quick approach. We could that it was coherent because first it contained contents of science and methodologies which make the teacher become more technician. It consolidates the bases from grade 7. It makes a teacher more technicians than professionalizing in the sense that the most difficult contents such as the chemistry and physics subjects were removed and new subjects have been introduced that conform to the new curriculum. So i hope that the present and the future results will be better. Now, if a teacher finishes 7+2+1 i know he can go to IMAP and after that? Will he be able to go to UP? He may even go. But will he cope with the subjects? As far as I know UP is less pedagogical. I mean less technical. I have just done bachelors at Up and it is more science than pedagogy. So how is the he going to compare to a student coming from grade 11 at UP. We see people going to UP and do Management. Why don't they do Maths courses, Physics teaching courses or Portuguese teaching courses? They take management, psychology or pedagogy. Myself I wouldn't feel comfortable taking these courses. I want see my progression. I think that it is technically well designed, but let us wait for the future to see; maybe i will have a different opinion.

Q: Has the change of the basic education made any changes in the college, in pedagogical, organizational or administrative terms?

A: all I know is that there were some seminars. People needed to understand what the new curriculum was. It can be said that here at school there are no changes. There are no books for basic education; I just know that there are programmes (syllabus). I was now working with the basic education programme (syllabus), there are no books yet. Teacher trainers make efforts to train based on the new programmes and new contents, although there are no books. I thing it didn't change much, some of the change are not good.

Q: What are they?

A: First, the teaching staff is not the same. Many teacher trainers left. As always, the best are the ones who leave. The worst never leave. They are some coming from ADPP. We can see differences so I don't know how each teacher interprets the curriculum in the classroom. I could see the way the classrooms are organized; it is different. There was always a tendence to organize the classroom in a traditional way. Teachers would come to the classroom and find students sitting in a certain way and they did not need to organize them because they were already in groups. And they would move to another classroom and find students in semi-circle they didn't need to arrange them. Nowadays you go to the classroom and find them unorganized. As I said there was the CRESCER with some material which stimulated the teachers as well as the student in the teaching and learning process. These resources no longer exist. The audio resources were not brought and none use them nowadays, we shouldn't be so theoretical if we want to improve the teaching. When these resources exist and are not used then we are in the same routine; it is the classical teaching, isn't it? The resources that should stimulate changes no longer exist. Those which exist are not used. Resources such as overheard projector are simple kept in there. Where is the improvement, the change then? During that time all these resources were frequently used. In those times I remember seeing

students go to the museum, but today lessons are taught only in the classroom, teachers rarely take students out but the new curriculum recommends that. There is still a lot to be done. Changes should start here in the teachers training. How will the prospective teacher use the learner centred teaching if he was not taught like that? There are issues that deserve reflection.

Q: Can it be inferred that the classes are not learner centred?

A: I think yes... I have not had the opportunity to observe a colleague's lesson. I just teach my lesson and go away. The observation sessions are starting now, we have planned that. Each teacher plans lesson their own way. Some teachers have initiative others have little. Each teacher does things his own way and according to the available resources.

Q: Relate learner centred approach with ratio teacher-student?

A: It is a problem. I think it is the problem of underdevelopment. The good idea was to provide more teachers, classrooms and we would probably decrease the ratio. But I think this problem will persist for long time here at Marrere. But some measures may be taken at pedagogical level. Teachers should be taught how to manage large classes. I think that one strategy is to divide the class into groups. It can minimize the problem of lack of material as well. Also, activities should be diversified and some groups may work outside the classroom. This can help, I think. If I have 50 students and take some to another; classroom where my presence is not relevant I can stay with other group for some minute the one that needs much teacher supervision. Then I may exchange them. I think that is possible in 90 minutes. So using some techniques can help. But the state must train more teachers and build more schools.

Q: You talked about inside and outside. What is the ratio teacher-pupil situation?

A: we are now doing what we were doing before. We used to have 50 or 60, when the Osuwela project arrived it decreased the number to 30 or 35. We have now come back to 60. But I know that the demand was high either before and now.

Vacancies have always been limited. I do not know why we have gone back. I think it has to do with directorate objectives, but they say no. I think there is this problem also in the cities. I have visited some schools in the countryside and I didn't see this problem. They even look for students. I think it is the problem of the Ministry because sometimes they tell a teacher here in the city that there are no streams, but the classrooms with 90 students.

Q: What relation can you draw with the principle of learner centred teaching?

A: I should have explored better this issue. I don't know maybe you may help. But there are many factors involved. The teacher is the key of the change. If he does not feel the change himself...so I think we should bet on the teacher, or make him feel the need for change.

Q: What about the trainees?

A: They will feel that it is necessary to change. Maybe we should pay much attention in initial training. These old people will not change. They are too old to do that easily. We should change first, we teacher trainers. Trainees will just copy what we are doing, how we teach, how we interpret the curriculum.

Q: In your case, are you 100% sure of that?

A: Sure, I am aware of that. One is always optimistic. The teachers say always that the lesson was good. Well, don't say I do, but the most important thing is to expose.

Q: Do you do it with other partners from the same subject?

A: Yes, but when teachers study more they tend to be less cooperative, collaborative. Each teacher wants to do what he thinks their own way. They find it boring to meet and share our plans, but it is good. If we could maintain the routine of observing lessons and planning classes maybe there would be more exchange. Here we plan. It was the first think we did. We have the observation plan now but I don't know if we will follow it.



Q: Relating the resources and learning conditions at college?

A: There are no material resources. Everything is related. In some schools conditions are better. Some schools have some resources and don't have others. It varies. Schools in the countryside, for example, have good conditions for learning subjects such as natural sciences. Other subjects such as Portuguese have good conditions for their learning in the city. The learning of a language is not only in the classroom. So if the environment is not favourable people don't speak well the language. The lack of audio visual material in the countryside is also a problem.

Q: You talked about research how is it possible, the library does not have books?

A: The research always limited. It varies from teacher to teacher. There is such research as bibliographic one, to refer to books. However I think that research maybe done using other techniques or strategies.

Q: What does your investigation consist of?

A: Last year I carried on a research on some common diseases as a didactic approach. Just to show how a research can be made. They have just published gone out to publish it and make some interview. In this research some results were published. It was an aspect to illustrate, to see. We also made some visits. We had a talk with the director about those frequent diseases. There were also some statistics. So I did it with some colleagues. It was a coordinated work. In these last two years I started classes in the second semester from then on. I haven't made a great research. But based on some texts that I distribute I get students read and get the content to learn and understand how the teaching is oriented and at the end they also do the work in small groups and present it.

Q: What are the main objectives of pedagogical practice?

A: One of the objectives of the teaching practices is to put the methodological practices acquired in pedagogy and psychology in practice. It is to plan, teach, observe and reason about one's performance.

Q: How long do pedagogical practices take?

A: They usually take place all year long, according to the existing planning.

Q: How is it organised? Who is involved in this process? What is the main task of each?

A: The adjacent school (the one receiving the trainees) receives the information in advance that some trainees are going there for pedagogical practices. The directorates of both schools are involved in the arrangements, particularly the pedagogical directors. The pedagogical director of the training centre is in charge of deciding on the trainees going to pedagogical practices and the teacher trainers' accompanying them. The receiving pedagogical director decides on the shift, number and classes where to allocate the trainees in, in conformity with the number of the trainees and the capacity of the school.

Q: How is pedagogical practice assessed?

A: We try to follow the assessment regulations. The assessment regulation tells how pedagogical practices must be assessed. They first happen at the adjacent school and then at their own schools.

Q: Where does the pedagogical practice take place? Why?

A: They take place at the adjacent schools and at others belonging to the ZIP. Taking into account that trainees have just had simulation in the classroom during their classes, the adjacent school is a sort of a laboratory for Teachers Training Schools. By policy, the adjacent school is a part of the teacher's training school, where trainees get familiar with the pedagogical activities such as planning; observing classes, dealing with the summary book etc. Finally, trainees teach themselves in a number of three, depending on the size of the school.

Q: What are the main constraints? Why?

A: Firstly, the biggest difficult is the accompanying activity because the number of trainers is much reduced compared to that of the trainees. Secondly, because of the high number of trainees and the small size of the school, there is need to allocate more trainees in one class. The more the trainees the likely it is to disturb the students. Moreover, the classrooms are small.

Q: What kinds of materials are used in the teaching activities?

A: In pedagogical practices, trainees must have lesson plan, didactic material etc in accordance with the lesson he is going to teach.

Q: What kind of report is produced? Mention the main components.

A: At the end of the pedagogical practices trainees have to write a small report describing all they have done at school. It is handwritten and free. They are not provided any structure to follow.

Q: Relating to the teachers with no training. How do you perceive and what is the role of the college on it?

A: For these... we only have trainees with 7+3 and they need to be accompanied. In fact, what is lacking is just accompanying them. If we could do that it would be good. Maybe seminars could help, even if they were like those organized by the Programme Crescer. Maybe they could somehow help, although it is expensive. The Centre doesn't have financial capacity. However I think it's the crucial point of the problem. Trained or not, with good accompanying, constant and periodic visits it could help in concret programmes. For example, we go and leave activities and orientations and we go back later to check for the result and to provide more help. It could help. Even among those who have not undergone a training there are some with talent. I have seen teachers with no training with good capacity to lead. All they need is being accompanied.

Q: Can you tell me about the INSET training carried out by the Osuwela project, what is its essence?

A: Eh! There (pause) the difference is just the injection of new strategies that are more active. That will make the student more active. The strategies that are there are those that make of the student the owner of his own knowledge. He is an active element and not passive one. That is the philosophy of Crescer Programme and it was also designed from the evaluation of the model we saw; maybe it would help for teacher training.

Q: When does INSERT take place?

A: It has been at weekends during break time, it is sometimes difficult at the weekends because sometimes there is coincidence of programmes. The school directorate has also its programmes, the distrital directorate and the ministries also. Preparation has been in the afternoon. The teams prepare themselves in the afternoon. Since classes are in the morning, they go there in the afternoon and provide training at the distrital level.

Q: In those training was there production of didactic materials?

A: Yes, although teacher trainers are not much involved in the production of that material. The material is almost already designed. It just lacks production... they organize the production activity. Sometimes they just take photocopies and in other times they need to go to the swimming pool. We have a specialised technician for these things. But if they were also involved it would be good.

Q: About the quality of the basic education. What comments do you have?

A: There is a great problem. Many things are still to be done. If we look at the students that are graduated we can see that there is still a lot to be done. Technically, in all curricular areas there are gaps. They can't read, they have problems in maths. The quality is low in basic education. We have come to a situation where the student has too many difficulties that he cannot progress. The students that we receive have too many problems that even with the great effort they make they



don't cope with the tests. The students are not to blame. The quality is low, we have to do something.

Q: Have you got anything relevant to add?

A: Eh! I think that (pause) may be I should state difficulties I have, for example: the progression of trained teachers. I don't know how it was designed at the level of the ministry of education. If it is prescribed or not. If Chemistry and Physics were taken out any student would have advantages of changing the course if they felt like. But I don't know (laughings) but (pause) maybe that ... (pause).

By the way, of the aspects we have spoken about is there anything which I have forgotten? I have got, (laughter) but the important is that I have spoken, perhaps, I can increase, in fact, that, there is a necessity of having more attention to the training of the teachers, and that, many times, the Ministry of Education and culture when the alterations (or changes) are made or even by the INDE, they are made with no previous planning. That is what I wanted to observe. It can't be like this at the next times. It has to be included in the plan of the teachers training institutions. After all, there are those, who are preparing the teachers, what happens with the curricular plan we have seen the last time, perhaps, they would have a thought in the reformulation of the curricular plan of teacher training (laughter) before of the plan of curricular of basic Education.

Thank you, for your collaboration and patience.

APPENDIX M: MATHEMATICS LESSON DESCRIPTION

Maths Lesson

49 present's

6 rows

1a A

4 desk

Teacher: What are the conventional models?

Student: Rope

Teacher: What and how it is done with that rope? Can someone explain?

Student: It happened with my father. Example of stones. Sty. As an animal was moving out a stone is taken out.

Teacher: Did your father use to measure or to count the cows? What we want is measurement.

Student: Rope, farm.

Professor: You didn't have another measure?

Student: Steps.

Teacher: Come to the front to demonstrate how it is done. The classroom width. Two students.

Student: Preciosa = 9 steps to the exit door. = got $7\frac{1}{2}$ steps.

Teacher: Who has got more steps?

Student: Preciosa (**in chorus**)

Teacher: Are these steps equal?

Student: No. (**In chorus**)

Teacher: what is the other measure?

Student: palm.

Teacher: Measure the desk. How many palms?

Student: 5 5 $\frac{1}{5}$ 5 6 $\frac{1}{2}$

Teacher: what is the other non conventional measure?

Student: Jumps

Teacher: Come and show us the jumps.

Student: Adélia got $5\frac{1}{2}$.and the other student got 6

Teacher: Are there more? Can't you measure with the foot? Come and demonstrate.

Student: Janete got 39. He got 37

Teacher: Which conclusion can we draw?

Student: We can't draw any definite. (**In chorus**)

Teacher: Who wants to come e do measuring? (*Capulana*)

Teacher: How do you know it is one metre and sixty centimetres? These kinds of measurements are ...

Student: They are non conventional measurement.

Teacher: Why aren't they conventional?

Student: Because they don't have a fixed measure.

Teacher: After the research there was the need to standardise it for its use worldwide. What do you call this measure?

Student: length measure unit.

Teacher: so the topic today is...Length unit

You mentioned that the universal measure is the metre

Student: Metre

Teacher: metre has its sub multiples. Let us organize them.

Multiples	The main unit	Submultiples
Kilometre (Km)	Metre (m)	Decimetre (dm)
Hectometre (hm)	M	Centimetre (cm)
Decametre (dam)	M	Millimetre (mm)

Teacher: I don't know that multiple. I don't know them.

Student: There was a volunteer to the blackboard

Teacher: What is the symbol? Think on the symbol of decametre.

An hm can be used to measure cloth, a Capulana for y mother.

Student: No.

Teacher: When do we it?

Student: in the streets

Teacher: Long distances.

Have you ever been to the civil registration to have your ID? What is the unit they use?

Student: Metre

1km = 1000 m

Teacher: How do we know they are millimetres?

Who has another idea? You have been to the blackboard today. Someone else.

Student:

Teacher: When we move from kilometres to metres, do we move from left to right or from right to left?

Student: From left to right.

Teacher: $1 \text{ hm} = 100\text{m}$

Student: 100 m

Teacher: Who is going to do that? How do you know it is 100m?

Student: 1 hectometre o decametre o metro

Teacher: Write 1 decametre. How many metres are they?

Student: 1 dam = 10m 1 decametre o metro

Teacher: We want to know how many metres there are in 1 dm. Isn't it possible?

We move from...

Student: We move from the left to the right

Teacher: And in the submultiples, we start from...

Student: We start from the right to the left.

$1 \text{ dm} = 0.1 \text{ m}$

Teacher: As you can see 1 dm is one tenth of the metre.

Km, hm, dam, m, dm, cm, mm (joint work)

Isaura come and say how many metres are there in 1 cm.

Student: $1 \text{ cm} = 0.01 \text{ m}$

Teacher: How do you read? One cm is one hundredth of the metre.

Student: $1 \text{ mm} = 0.001 \text{ m}$

Teacher: How do you read?

Student: 1mm is one thousandth of the metre. **(In chorus)**

Teacher: any doubt, here? So, you can take the notes.

1st complete (9h 35 m) starting time

- a) $1 \text{ m} = 0,001 \text{ km}$
- b) $1 \text{ m} = 0,01 \text{ hm}$
- c) $1 \text{ m} = 0,1 \text{ dam}$
- d) $1 \text{ m} = 10 \text{ dm}$
- e) $1 \text{ m} = 100 \text{ cm}$
- f) $1 \text{ m} = 1000 \text{ mm}$

Teacher: You can discuss in pairs. Pair works activity. Can we correct?



Student: Yes.

Teacher: Who is going to do a)

How do you read?

1m is one thousandth of the km.

Teacher: Are there any doubts here?

Student: No.

Teacher: So, go to the library and read the other three Mathematics books, page 92, 93, 94, 95, 96, 97, 98, 99 (homework)