

From policy to practice: education reform in Mozambique and Marrere Teachers' Training College

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The Mozambican government has introduced reforms of basic education, notably the introduction of interdisciplinarity, learner-centredness and new teaching pedagogies. This is a case study of how these curriculum reforms have been implemented at Marrere Teachers' Training College. We conducted interviews with lecturers, observed their teaching practices, and studied student results to assess teaching outcomes. The study is grounded in the literatures on educational change and globalization. The problems of policy and practice have focused attention on bottom-up and top-down research, and hybrid approaches. The study of globalization has highlighted the relationship between curriculum change and the world economy. There is a paucity of research on how these developments have affected underdeveloped countries. We found that practical issues influence implementation. Lecturers did not understand the meaning of interdisciplinarity. They could, however, articulate the meaning of learner-centredness. Lesson observations showed they did not implement it. Against the backdrop of these inter-related factors, final year students performed poorly in examinations. These analyses show the complexities of the moving from policy to practice, and the global to the local.

Keywords: globalisation; Mozambican education reform; policy and practice; teacher education

Introduction

In 2004 Mozambique introduced a new curriculum for basic education. The government acknowledged that a new generation of teachers would be required to implement these changes. We review how lecturers prepare teachers in their pre-service training. Have teacher training institutions developed the capacity to prepare teachers to meet the challenges envisaged by the state? In what contexts do teacher training colleges function? What do lecturers say about the new curriculum? How do they teach? What are the results? These issues are important in assessing the development of teachers' education in the country. The specific changes envisaged by the Mozambican government were to transform teacher-centred pedagogies to learner-centred teaching styles, the introduction of interdisciplinary approaches to teaching and learning, and changing teaching practices and pedagogies (Institute for Educational Development, 2003). Our main objective in this article is to analyse how each of these ideas translates into practice at Marrere Teachers' Training College and to determine the teaching outcomes.

There are 24 teacher training institutions in Mozambique. None of them has been studied against the backdrop of the implementation of the new policies. This is a qualitative case study of teaching at one of these colleges. Site visits were made totalling six months during 2006–2008. We chose to conduct

the research at Marrere Teachers' Training College because it had experimented with the reforms for several years prior to their formal introduction by the government through a foreign-funded initiative called the Osuwela Project. Marrere has therefore had the longest experience in experimenting with curriculum change. All the 26 lecturers at the College were interviewed at least once. We were able to study 24 lecturers' lessons. They were observed for a minimum of one day per lecturer. Documents related to student performance were studied as indicators of lecturers' teaching outcomes. Written permission to conduct the research was based on informed consent, and obtained from the Education Ministry, the College administration, and all the respondents.

Our study and research objectives have been informed by problems in the literature on the implementation of educational change and characteristics of the age of globalisation as they relate to education. Since the publication of the Pressman and Wildavsky (1973) study, an extensive literature on the problematic relationship of policy and practice (see, for example, Cuban, 1990; Malen & Knapp, 1997; Fullan, 1998; Sayed & Jansen, 2001; Ward, Bourne, Penny & Poston, 2003; Hariparsad, 2004) has developed. There is often a disjunction between macro goals and local realities. Two prominent traditions have emerged within this scholarship: top-down and bottom-up perspectives. According to the former, governments frame public policy through democratic institutions and processes. Decisions made at the top then have to be implemented by bureaucratic and public agencies and institutions at regional and local levels. Adequate resources are required. Implementation is seen as a linear, hierarchical, centrally-defined process. The alternative view sees implementation as the everyday actions and strategies of the "street-level bureaucrats" at the grassroots. Implementation is a continuous, negotiated, contested, unpredictable process with policy adaptations resulting in unexpected outcomes. Various hybrid theories that have examined the interrelatedness of policy and practice and have sought to synthesize them have been developed (Pulzl & Trieb, 2006). It is widely accepted that teachers are the chief change agents for implementing new curricula. Teacher professional development and education and the role of teacher training colleges are crucial in programmes of curricula innovation in basic education (O'Sullivan, 2002; Menlo & Poppleton, 1999; Lewin, Samuel & Sayed, 2003).

These discussions on the implementation of public policy have not taken into account the articulation of globalisation and educational change. Working with the concept of globalisation can enhance our understanding of developments in Mozambique. The meaning of the local can be interpreted to include not only the grassroots in industrialized countries, but poor countries as well. A great deal of the theorization and literature on implementation has focused on the conditions in industrialized countries. The implementation process in developing countries takes place in a context of poverty, poor capacity and human resources, and financial constraints. Not much attention has been paid to describing and analysing educational implementation policy in deve-

loping countries (Dyer, 1999). In most African countries and in Mozambique reforms in basic education have taken place under conditions of large numbers of unqualified, under-qualified and untrained teachers, high teacher-pupils ratios, few facilities and resources allocated to social services. This study of Marrere College seeks to make a contribution to the literature on policy and practice by focussing on a poor country such as Mozambique.

Matus and McCarthy (2003:73) define globalisation as "the intensification and rapidity of movement and migration of people, ideas and economic and cultural capital across national boundaries". The discourses about educational change, such as the promotion of learner-centredness, by the Mozambican government are remarkably similar to reforms introduced in industrialised countries. They have their origins in changes that have taken place in the restructuring of the global economy over the last three to four decades. The core idea is that education must be more closely tied to serving the needs of the new economy. Mozambique's developmental path emulates the contemporary model in rich countries and this is the motivation for the reforms in basic education (Institute for Educational Development, 2003). In the United States schools, according to Pinar (2004:25), have traditionally resembled the organisation of factories. He writes:

The consensus view is that the American economy is less and less industrial and more and more 'service orientated', strongly 'information based', increasingly organized around technological developments, including the Internet. It is said to be international and global in character. Rather than the assembly line of the early automobile factory, the major mode of economic production today is semiotic (i.e. production of signs, symbols, and other information) and it occurs not in factories but in committees and in front of computer screens in corporate offices.

Competitive production that adds value has replaced the production of primary products in international trade. Innovative thinking and problem-solving skills are constantly required. Re-organizing the workplace or the classroom in terms of teamwork, as opposed to hierarchical systems of organization, would better serve this restructuring. Additionally, the labour market now requires interdisciplinary knowledge, rather than subject specialisation and subject content competencies. Writing about the introduction of outcomes-based education (OBE) in South Africa, Skinner (1999:199) shows the ambiguity in interpreting some of the principal ideas: to "identify and solve problems ... using critical and creative thinking" may entail addressing and solving social issues or "competence in dealing with commercial concerns"; to "work effectively with others" may entail civic engagement or involvement in "flat management structures"; and "communication skills" can be used in furthering dialogues between students and teachers as they can during the course of management training.

We shall discuss the following at Marrere College: (a) the practical issues contextualizing policy implementation; (b) crucial features of curriculum change, i.e. the introduction of (1) subject interdisciplinarity, (2) learner-

centredness, and (3) new teaching practices, and finally, (c) students' academic results.

Problems in policy implementation

The success of implementing new curricular goals in Mozambique, according to lecturers, is determined by practical delivery problems. These relate to the extent and quality of lecturers' training and the availability of new teaching and learning materials. The Deputy Director of Marrere said:

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

During the fieldwork there was some confusion about this training with lecturers making various claims: some said they did not undergo any training, other lecturers stated that the training was too short and inadequate (because of the Ministry's financial constraints), and still others stated that they could not recall what had transpired at the training seminar. During the seminar three copies of the government's Curricular Plan for Basic Education were provided. It was expected that the institutions present would make copies for their staff. At Marrere lecturers appeared not to own copies of the Plan, a few copies were housed in the Director's office and not really used.

In addition, several lecturers pointed out practical problems related to the resources available to deliver the curriculum:

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 to contact the directorate 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 3s which is having teaching practice in the 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.

From the perspective of the College lecturers these practical issues, rather than the more grandiose goals of the reform, dominate their working lives, contextualize reform implementation, and determine what they can and/or cannot do with their students.

Curriculum change

In this section we discuss the most important ideas and discourses that frame and underpin curriculum change in Mozambique.

Integrating disciplines

Generally, the curricular plans at the College converge with those of the

Ministry's plans as outlined in the reform of basic education. However, the integration of the subjects comprising the Social Sciences is problematic because of the practices in terms of the organisation of the College curriculum and the views and (mis)understandings of the lecturers.

The Social Sciences deal with human behaviour, and social and cultural relations. One of the core innovations introduced by the Osuwela programme and the new curriculum was to advocate the integration school subjects in the Social Sciences. History, Geography and Moral and Civic Education were seen by the government as comprising the Social Sciences. The curricular plan for Basic education (Institute for Education Development, 2003:37-38) states:

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 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.

At Marrere College, however, the Social Sciences consist of two subjects only, History and Geography. In practice these two subjects are taught separately, contrary to the stated aims of the new curriculum that, furthermore, seeks to better serve the economic development of the country (Institute for Education Development, 2003). Prospective teachers who are going to teach in primary schools are therefore not adequately trained at the College. In South Africa, as in Mozambique, integrating subjects in classrooms is not only consistent with constructivism, but has also been tied to serving economic goals. Jacobs (2004:65) writes:

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 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.

Several lecturers at Marrere did not understand what was meant by the interdisciplinary approach. Some of the responses during the interviews to questions in this regard were: "*What?*" "*Sorry, I do not know what that is ...*" "*I do not know. I would need to read before I answer that, I will not answer that question*". For one lecturer interdisciplinary teaching amounted to mentioning during lectures different terms used in Geography, History and Science. He

used the terms “*interdisciplinary*” and “*integrated content approach*” synonymously:

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 ... terms that can be used for Geography or History, etc. In a Portuguese class we must not ... [only focus on] Linguistics, but must also take into consideration ... History, Science, Geography, Culture, Morality. They must be introduced whenever necessary.

The lecturer went on to explain that if students are asked to write the words, “*animal, man, plant, stone*”, he is “*integrating*” the study of the Portuguese language with the Natural Sciences. Using terms belonging to other knowledge areas by themselves do not constitute an interdisciplinary or integrated approach to subject content. Adler and Flihan (1997:64) write that “*Interdisciplinarity* literally refers to a study of **relationships among disciplines**, while *integrated approach* refers to a **cross-disciplinary approach** that is the result of shifting related ideas out of subject matter content”. Traditional divisions between theoretical and applied knowledge, and knowledge and skills should be broken down in favour of holistic, multi-disciplinary approaches. This essentially constructivist view of knowledge sees less emphasis on learning large amounts of information and subject content, and more emphasis on the mastering of cross-disciplinary concepts and frameworks. Rather than organizing knowledge in accordance with the structures of particular disciplines, it is organised around themes and socially relevant issues. A great deal of the curriculum would focus on problem-solving and the development of transdisciplinary, higher-order thinking skills. According to this view, new meanings and understandings are socially constructed by human beings, rather than through previously more typical objective, technical and mechanistic methods.

According to the following teacher trainer the idea of integration is not new at all:

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 ... 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, plants. This is all part of communication. It is all integrated ... Learners 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 ... 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 Maths class; Maths in Science classes ... So integration has always existed. Teachers were not aware of it. Sometimes teachers did not have the capacity to explore it to the utmost.

He added that any lesson is interdisciplinary, implying that one did not have

to plan such lessons, or focus on specific topics/themes and activities. Most lecturers who responded to this part of the interviews had a superficial understanding about the meaning of interdisciplinarity. References to other subjects — “*When I teach Maths I use Portuguese to teach it*” — or the use of common or related terms appeared to be the predominant perception.

Learner-centredness

Drawing on the work of Piaget and Dewey, Vakalisa (2004:3-5) explains the conceptual building blocks of participative teaching. He writes that it is based on the idea that “knowledge is a construction of the individual learner, and that this construction impacts on his or her sensory organs” (2004:3). Perceptions depend on the individual’s cognition and on experience of the social and physical environment. Piaget stated that new learning is a process by the learner based on what he or she already knew, understood, or had experienced. It resulted in adaptations of the original conceptualizations and ideas. Dewey argued that reflective thought and learning involved doubt and scepticism. Active inquiring was required to resolve the prior doubt. Teachers must therefore create a classroom environment and organise activities in which students actively participate in their learning. Killen (2007:viii-ix, xi) lists some of the key characteristics of learner-centredness: learning is the most important feature of education, educational institutions exist primarily to serve learners, learning must be challenging for students, teachers and learning contexts influence learning, and learners must accept responsibility for their learning. He furthermore notes that learner-centred approaches are also often called discovery learning, inductive learning or inquiry learning. These terms indicate the important role of the learner in the learning process.

Below are two excerpts that illustrate lecturers’ understandings and beliefs in regard to learner-centredness:

Learner-centred approach is an approach wherein the learner is the centre. Differently from what used to be 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 is now the facilitator. He organises the work (teaching and learning); he gives learners an opportunity to carry out 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 students to search for knowledge. The learner must be the owner of his 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 the knowledge.

And:

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 ... 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.

These teacher trainers emphasize the role of the learner as the centre of the learning process. The role of the learner is no longer a passive one, as it was in the past when expository teaching strategies and direct instruction were commonly used. He or she no longer listens and writes down in an exercise book what he or she hears or is told by the teacher. Students carry out practical activities, expressing, thinking, touching, demonstrating, dramatising, illustrating, etc. The teacher is a facilitator and no longer uses the learners' knowledge, based on their experiences. The teacher organises group work and assigns activities such as reading and research. In other words, the extracts speak to the role of the teacher (facilitator, mediator and guide), the role of the learner (active participant), the use of a common teaching method and strategy (group work), the starting point of the teaching and learning process (learners' lived experiences) and the fact that the learner is the owner of his or her knowledge creation process.

The lecturers at Marrere understood the notion of learner-centredness far better than they did the concept of integrated disciplines. How did what they said in theory relate to what they did in practice? What did we observe them do during lessons?

Classroom practices

Despite the emphasis on participative learning in the new curriculum, teacher-centred pedagogies in which direct instruction and the lecture method and question-and-answer techniques were the predominant teaching styles used at the College. A typical example, both in terms of the content and subject matter that was taught and the method of teaching, was a lesson on "Fundamental Concepts used in Pedagogy".

The lesson started when the lecturer said, "Who remembers what the necessary conditions for learning to take place [are]?" Some of the replies were: "Good relations between learners and teacher"; "The psychological conditions are important"; "Maturity and repetition". The principal concepts to be learned were then written on the chalkboard. These were: "learning, teaching, instruction and education". The main strategy used by the lecturer was to ask the class many questions and to get the students to answer the questions. Key words were written on the chalkboard. The lecturer dictated notes to the class — this took up a great deal of time — as the definitions were clarified:

1. *Learning is holding knowledge, retaining something, acquiring knowledge and memorizing it.*
2. *Teaching means conveying something, knowledge, experience, skills, to others.*
3. *Instruction is a teaching process that is concerned with the practical aspects of education ... We characterise instruction in teaching as the joint work by the teacher and the learner, according to a ... plan ... where the teacher teaches, organises and directs the teaching.*
4. *Education is a social process aimed at preparing people for life and work ... Education is also a process of personality building for life and work in society.*

An alternative strategy might have been to have provided notes to the class in the form of a handout and to facilitate critical discussions about them. It seemed that the lecturer expected the teacher trainees to answer the questions he asked well, so that he might impress the researchers in the room with the answers students readily provided. On occasion he became impatient and irritated when the class could not answer the questions. He tended to interact with only some students and only those who knew and were sure of the answers tended to respond. He was aware of this but his appeals for others to participate did not change the situation. He did not create the concrete conditions inside the classroom that could have facilitated greater student participation. He nevertheless stated that they should express whatever doubts they had so that he could help them. The lecturer did most of the talking and dominated the lesson from beginning to end. The lesson ended with more questions for homework:

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 relationship between learning and teaching?*

The new curricula aim to promote the facilitation of high order thinking and skills. A noticeable feature of the lesson was that students were required to master, memorize and regurgitate content as defined by the teacher. In contrast, Vakalisa (2004:5-6) states that participative teaching and learning in the classroom involves:

Asking questions, especially of the 'how' and 'why' type

Answering teacher's questions which should be more inferential than content-based

Answering peers' questions to explain one's views on particular content

Trying out hypothetical solutions to content-related problems

Consulting texts or theory to get clarification on particular aspects in order to build one's capacity to participate

Seeking information from experts ...

Expressing one's point of view and supporting it with plausible arguments

Critiquing and evaluating learning content

Applying learning content in solving problems related to it

Discussing content with peers and soliciting feedback
Undertaking projects that reveal how content operates in real-life situations
Writing position papers for others to critique ...
Keeping reflective journals ...

In another lesson the lecturer attempted to generate a discussion and greater student participation. The topic, "*The Food Diet Chart*", would have been more appropriate for a primary school class than for students training to be teachers. Learners had to fill in a chart for three days stating what kinds of food ("*constructors, protectors and energisers*") ought to be eaten for breakfast, lunch and dinner in order to have a balanced diet. Groups of students had to present their work to the class and this was followed by question-and-answer sessions. One member of each group had to go to the chalkboard and write down the meals for each day. This writing activity took almost 25 minutes. The rest of the class was clearly bored and had nothing to do. They spoke to one another about matters unrelated to the lesson. After the presentation by the first group the teacher asked questions and came to dominate the lesson. On occasion students asked one another questions. Could there be dessert for breakfast on Monday? It depended on the type of breakfast. These discussions could not be described as intellectually challenging. There was some debate about whether cashew-nuts were protectors or constructors. The issue was unresolved as nobody, including the teacher, knew the correct answer. At the end of the lesson the teacher asked the students why diet was important. "*To keep our bodies healthy. To defend the organism against diseases. For the body to grow*". The purpose of the lesson had been to make students aware of the need for a balanced diet. Students' homework was to think of diseases that can be caused by lack of a balanced diet. The teacher had tried hard to promote learner participation. He had not succeeded largely because of the topic he had chosen. Question and answer sessions do not constitute discussions that provide new insight, knowledge and skills.

In a lesson based on groupwork the class was divided into 13 groups of four learners. Each group had to define the meanings of "*learning, teaching, instruction and education*". The groups formulated their responses in writing. As they worked the teacher walked around the room, visiting the different groups. A group spokesperson presented their work which was also written on the chalkboard. Other group members clarified specific points. The lecturer added comments. This lesson was largely learner-centred with the teacher facilitating the activities. Teachers in primary schools work with large classes. While the lecturer was able to supervise the 13 groups in this class, large class sizes make this kind of work difficult.

Students' academic results

The number of students that graduate at Marrere is important because a crucial aim of the reform is to produce teachers who will meet the demand following increases in primary school enrolment in recent years, and because it is an indicator of the teaching outcomes at the College. The interview dis-

cussions and the classroom observations suggested that student teachers do not perform well academically in terms of summative assessments and final examination results.

Table 1 College graduation: 1990–2007

	Year	Start	End	Drop out	Assessed	Graduated	%
Before OP	1990	256	231	24	231	49	21
	1991	344	288	56	288	113	39
	1992	229	202	27	202	105	52
	1993	224	200	24	200	30	15
	1994	162	152	10	152	41	27
	1995	157	147	10	147	55	37
	1996	284	269	15	269	44	16
	1997	295	279	16	279	53	19
OP	1998	325	320	5	320	100	31
	1999	348	346	2	346	105	30
	2000	363	359	4	359	102	28
	2001	395	391	4	391	114	28
After OP	2002	569	564	5	564	100	18
	2003	762	755	7	577	199	27
	2004	732	688	44	688	253	37
	2005	588	568	20	568	130	23
	2006	1 132	1 128	4	1 128	156	23
	2007	1 014	1 013	1	1 013	351	35
Average							28%
Median							27.5%
SD							9.85

Table 1 shows the teacher graduation results at Marrere, based on the final examinations, between 1990 and 2007. The first column represents the three periods, before (1990–1997), during (1998–2001) and after (2002–2007) the introduction of the Osuwela Project. The second column refers to the years, 1990–2007. The third column represents the total number of student teachers during the third or last year of study. The fourth column represents the number who dropped out. The fifth column represents the number who wrote the final examinations; the seventh column, the number of graduates; and the final column the percentage of students who wrote the final examination in relation to those who graduated.

An average of 28% of students graduated between 1990 and 1997, meaning that an average of 72% failed to graduate. The median is 27.5, meaning that more than half the students did not pass the final examinations. The standard deviation of 9.9 indicates that there is an acceptable spread in the

performance of students, over the years between the highest and the lowest graduation rates.

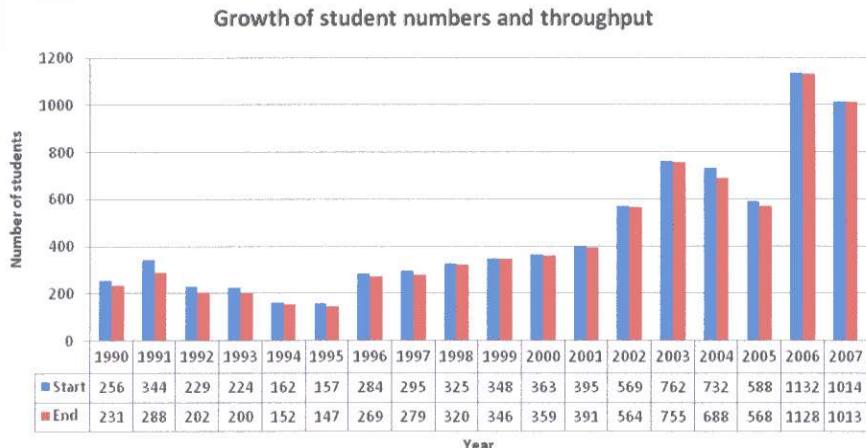


Figure 1 Growth and throughput
(Source: Marrere Teachers' Training College)

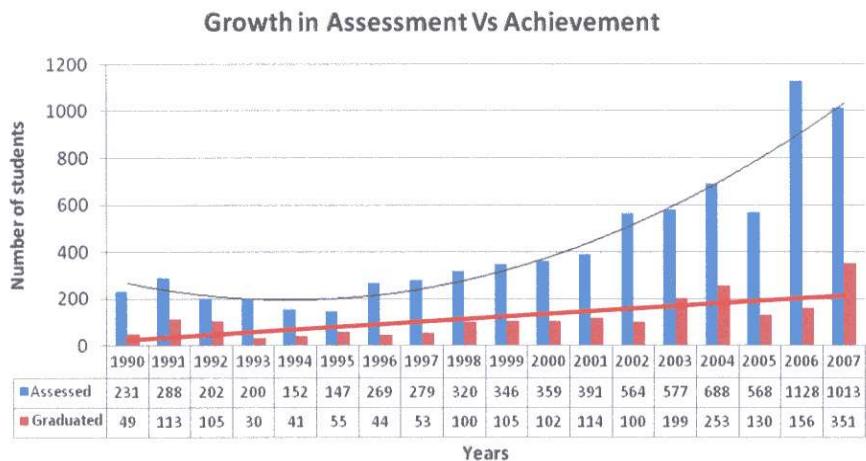


Figure 2 Assessment and Achievement for the period 1990–2007
(Source: Marrere Teachers' Training College)

The graph in Figure 1 shows the number of students who started and the number of students who completed their education in the final year, between 1990 and 2007. There has been a steady growth in the number of students, while the gap between these two groups who start and complete studies declines over time. In 2007 it is almost insignificant. This can be viewed as a positive achievement.

The graph in Figure 2 highlights poor student performance. While there has been a growth in the number of students who wrote the final examinations, this has not matched the number of students who have graduated.

The average pass percentage is shown on the graph in Figure 3 by the broken line at 28%. The trend over the entire period is shown by the red line. The period 1994–2005 shows that the percentage pass is below the average for the institution with the lowest being for the year 2000. Achievement for 2004 and 2007 is rising above the average for the period.

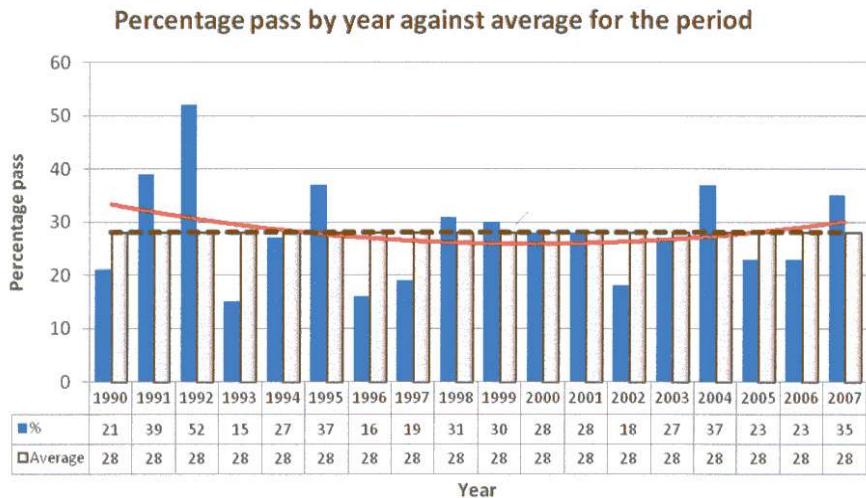


Figure 3 Percentage pass against average
(Source: Marrere Teachers' Training College)

Conclusion

This study has shown the importance of bottom-up analyses in illuminating the relationship between policy and practice. When one adopts this approach qualitative case studies are among the appropriate methods of research. In education reform teachers or college lecturers are crucial street bureaucrats. What they think and what they do are decisive in determining reform outcomes.

In Mozambique the meaning of the local, or the situation at the grass-roots, is very different from what occurs in industrialized countries. In rich

countries philosophical questions about the meaning of education might be commonly debated; in Mozambique in teacher education, lecturers worry about the availability of books for students, the fact that they must implement innovations for which they have not been adequately trained, and about the usefulness of teaching student teachers about group pedagogies when they will be teaching large classes with high pupil-teacher ratios after graduation. These issues contextualize reforms at the local level.

The notion of interdisciplinarity is integral to globalisation and contemporary economic development, and the stated aims of the Mozambican government in changing basic education. Teachers must prepare students at school for the new world of work and Mozambique must be ready to participate in the new economy. At Marrere College the global meets the national and the local, giving rise to contradictions and ambiguities. Formally the College follows state policy that talks about the integration of the Social Sciences. In practice the organisation of the curricula at Marrere maintains a separation between History and Geography. Furthermore, lecturers do not understand what is meant by integrating disciplines, a fundamental discursive constituent of the reform. Some of them confuse it with integrating subject content. However, they were eloquent in explaining the meaning of participative teaching and learner-centredness and in contrasting it with the direct instruction of the past where the teacher was the "*great orator*" and the pupils listened passively. But the observations of the lessons and teaching styles told a different story: talk-and-chalk, expository, questions-and-answer methods dominated. The intellectual content of what was presented was not very challenging for students at a tertiary institution. It did not hold their attention or appear to excite them. Against this background there is poor student achievement as the results of final-year students between 1990 and 1997 show. It is the outcome of the inter-related processes we discussed: the conditions under which lecturers work, including the training they received and the available resources; their understandings and misunderstandings about the reforms, and their classroom practices. The movement from policy to practice, from the global to the local, is complex and contradictory.

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